

Linux Standard Base Desktop Specification 4.1

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Linux Standard Base Desktop Specification 4.1

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Foreword

This is version 4.1 of the Linux Standard Base Desktop Specification. This specification is one of a series of volumes under the collective title *Linux Standard Base*:

- Core
- C++
- Desktop
- Languages
- Printing

Note that the Core, C++ and Desktop volumes consist of a generic volume augmented by an architecture-specific volume.

Status of this Document

This is a released specification. Other documents may supersede or augment this specification. A list of current Linux Standard Base (LSB) specifications is available at <http://refspecs.linuxfoundation.org>.

If you wish to make comments regarding this document in a manner that is tracked by the LSB project, please submit them using our public bug database at <http://bugs.linuxbase.org>. Please enter your feedback, carefully indicating the title of the section for which you are submitting feedback, and the volume and version of the specification where you found the problem, quoting the incorrect text if appropriate. If you are suggesting a new feature, please indicate what the problem you are trying to solve is. That is more important than the solution, in fact.

If you do not have or wish to create a bug database account then you can also e-mail feedback to [<lsb-discuss@lists.linuxfoundation.org>](mailto:lsb-discuss@lists.linuxfoundation.org) ([subscribe](#), [archives](#)), and arrangements will be made to transpose the comments to our public bug database.

Introduction

The LSB defines a binary interface for application programs that are compiled and packaged for LSB-conforming implementations on many different hardware architectures. A binary specification must include information specific to the computer processor architecture for which it is intended. To avoid the complexity of conditional descriptions, the specification has instead been divided into generic parts which are augmented by one of several architecture-specific parts, depending on the target processor architecture; the generic part will indicate when reference must be made to the architecture part, and vice versa.

This document should be used in conjunction with the documents it references. This document enumerates the system components it includes, but descriptions of those components may be included entirely or partly in this document, partly in other documents, or entirely in other reference documents. For example, the section that describes system service routines includes a list of the system routines supported in this interface, formal declarations of the data structures they use that are visible to applications, and a pointer to the underlying referenced specification for information about the syntax and semantics of each call. Only those routines not described in standards referenced by this document, or extensions to those standards, are described in the detail. Information referenced in this way is as much a part of this document as is the information explicitly included here.

The specification carries a version number of either the form $x.y$ or $x.y.z$. This version number carries the following meaning:

1. The first number (x) is the major version number. Versions sharing the same major version number shall be compatible in a backwards direction; that is, a newer version shall be compatible with an older version. Any deletion of a library results in a new major version number. Interfaces marked as deprecated may be removed from the specification at a major version change.
2. The second number (y) is the minor version number. Libraries and individual interfaces may be added, but not removed. Interfaces may be marked as deprecated at a minor version change. Other minor changes may be permitted at the discretion of the LSB workgroup.
3. The third number (z), if present, is the editorial level. Only editorial changes should be included in such versions.

Since this specification is a descriptive Application Binary Interface, and not a source level API specification, it is not possible to make a guarantee of 100% backward compatibility between major releases. However, it is the intent that those parts of the binary interface that are visible in the source level API will remain backward compatible from version to version, except where a feature marked as "Deprecated" in one release may be removed from a future release. Implementors are strongly encouraged to make use of symbol versioning to permit simultaneous support of applications conforming to different releases of this specification.

LSB is a trademark of the Linux Foundation. Developers of applications or implementations interested in using the trademark should see the Linux Foundation Certification Policy for details.

I. Introductory Elements

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Chapter 1. Scope

The LSB Desktop module defines components found on an LSB conforming system.

Chapter 2. References

2.1. Normative References

The specifications listed below are referenced in whole or in part by the LSB Desktop specification. Such references may be normative or informative; a reference to specification shall only be considered normative if it is explicitly cited as such. The LSB Desktop specification may make normative references to a portion of these specifications (that is, to define a specific function or group of functions); in such cases, only the explicitly referenced portion of the specification is to be considered normative.

Table 2-1. Normative References

Name	Title	URL
ATK 1.10.3 Reference Manual	ATK 1.10.3 Reference Manual	http://library.gnome.org/devel/atk/1.10/index.html
Double Buffer Extension Library	Double Buffer Extension Library - Protocol Version 1.0	http://refspecs.linux-foundation.org/X11/dbelib.pdf
Fontconfig Developers Reference	Fontconfig Developers Reference, Version 2.6.0	http://refspecs.linuxfoundation.org/fontconfig-2.6.0
Gdk 2.10.14 Reference Manual	Gdk 2.10.14 Reference Manual	http://library.gnome.org/devel/gdk/2.10/
Gdk-pixbuf 2.8.20 Reference Manual	Gtk-pixbuf 2.8.20 Reference Manual	http://library.gnome.org/devel/gdk-pixbuf/2.8/index.html
Glib 2.12.13 Reference Manual	Glib 2.12.13 Reference Manual	http://library.gnome.org/devel/glib/2.12/
Gobject 2.12.13 Reference Manual	Gobject 2.12.13 Reference Manual	http://library.gnome.org/devel/gobject/2.12/
Gtk+ 2.10.14 Reference Manual	Gtk+ 2.10.14 Reference Manual	http://library.gnome.org/devel/gtk/2.10/
ISO C (1999)	ISO/IEC 9899: 1999, Programming	

	Languages --C	
ISO/IEC 14882: 2003 C++ Language	ISO/IEC 14882: 2003 Programming languages --C++	
Itanium™ C++ ABI	Itanium™ C++ ABI (Revision 1.86)	http://refspecs.linuxfoundation.org/cxxabi-1.86.html
OpenGL	The OpenGL® Graphics System: A Specification (Version 1.2.1)	http://www.opengl.org/documentation/specs/version1.2/OpenGL_spec_1.2.1.pdf
OpenGL ABI	OpenGL® Application Binary Interface for Linux	http://www.opengl.org/registry/ABI/
OpenGL Extensions	OpenGL® Graphics with the X Window System® (Version 1.3)	http://opengl.org/documentation/specs/glx/glx1.3.pdf
OpenGL Utilities	The OpenGL Graphics System Utility Library (Version 1.3)	http://www.opengl.org/documentation/specs/glu/glu1_3.pdf
Pango 1.10.4 Reference Manual	Pango 1.10.4 Reference Manual	http://library.gnome.org/devel/pango/1.10/index.html
POSIX 1003.1-2001 (ISO/IEC 9945-2003)	ISO/IEC 9945-1:2003 Information technology -- Portable Operating System Interface (POSIX) -- Part 1: Base Definitions ISO/IEC 9945-2:2003 Information technology -- Portable Operating	http://www.unix.org/version3/

	System Interface (POSIX) -- Part 2: System Interfaces ISO/IEC 9945-3:2003 Information technology -- Portable Operating System Interface (POSIX) -- Part 3: Shell and Utilities ISO/IEC 9945-4:2003 Information technology -- Portable Operating System Interface (POSIX) -- Part 4: Rationale Including Technical Cor. 1: 2004	
Qt 3.3.6	Qt 3.3.6 Reference Manual	http://doc.trolltech.com/3.3/index.html
QtCore 4.2.0	Qt 4.2.0 Reference Manual	http://doc.trolltech.com/4.2/qtcore.html
QtGui 4.2.0	Qt 4.2.0 Reference Manual	http://doc.trolltech.com/4.2/qtgui.html
QtNetwork 4.2.0	Qt 4.2.0 Reference Manual	http://doc.trolltech.com/4.2/qtnetwork.html
QtOpenGL 4.2.0	Qt 4.2.0 Reference Manual	http://doc.trolltech.com/4.2/qtopengl.html
QtSql 4.2.0	Qt 4.2.0 Reference Manual	http://doc.trolltech.com/4.2/qtsql.html

QtSvg 4.2.0	Qt 4.2.0 Reference Manual	http://doc.trolltech.com/4.2/qtsvg.html
QtXml 4.2.0	Qt 4.2.0 Reference Manual	http://doc.trolltech.com/4.2/qtxml.html
Reference Manual for libxml2	Reference Manual for libxml2	http://xmlsoft.org/html/index.html
The MIT Shared Memory Extension	MIT-SHM - The MIT Shared Memory Extension - X version 11, Release 5	http://refspecs.linux-foundation.org/X11/mit-shm.pdf
X Display Power Management Signaling	X Display Power Management Signaling (DPMS) Extension - Library Specification - Version 1.0	http://refspecs.linux-foundation.org/X11/DPMSlib.pdf
X Extended Visual Interface Extension	Extended Visual Information Extension - Version 1.0	http://refspecs.linux-foundation.org/X11/evi.pdf
X Nonrectangular Window Shape Extension Library	X Nonrectangular Window Shape Extension Library - Version 1.0	http://refspecs.linux-foundation.org/X11/shapelib.pdf
X Record Extension Library	X Record Extension Library - Version 1.13	http://refspecs.linux-foundation.org/X11/recordlib.pdf
X Security Extension Specification	Security Extension Specification - Version 7.1	http://refspecs.linux-foundation.org/X11/security.pdf
X Synchronization Extension Library	X Synchronization Extension Library -	http://refspecs.linux-foundation.org/X11/synclib.pdf

	Version 3.0	
X11 C Library	Xlib - C Language X Interface - X Version 11 Release 6.4	http://refspecs.linux-foundation.org/X11/xlib.pdf
X11 Input Library	X Input Device Extension Library - X Version 11, Release 6.4	http://refspecs.linux-foundation.org/X11/Xinput.pdf
X11 Inter-Client Exchange	Inter-Client Exchange Library - Version 1.0	http://refspecs.linux-foundation.org/X11/ICElib.pdf
X11 Keyboard Extension	X Keyboard Extension Library Specification - X Version 11, Release 6.4	http://refspecs.linux-foundation.org/X11/XKBlib.pdf
X11 Session Management	X Session Management Library - Version 1.0	http://refspecs.linux-foundation.org/X11/SMlib.pdf
X11 Toolkit Intrinsics	X Toolkit Intrinsics - C Language Interface - X Version 11, Release 6.4	http://refspecs.linux-foundation.org/X11/intrinsics.pdf
Xft Placeholder	Xft Specification Placeholder	
Xrender Placeholder	Xrender Specification Placeholder	http://refspecs.linux-foundation.org/X11/XRenderProtocol.html
XTEST Extension Library	XTEST Extension Library - Version 2.2	http://refspecs.linux-foundation.org/X11/xtestlib.pdf

2.2. Informative References/Bibliography

In addition, the specifications listed below provide essential background information to implementors of this specification. These references are included for information only.

Table 2-2. Other References

Name	Title	URL
A description on how to use and modify libpng	A description on how to use and modify libpng	http://www.libpng.org/pub/png/libpng-1.2.5-manual.html
ALSA Library API Reference	ALSA Library API Reference	http://www.alsa-project.org/alsa-doc/alsa-lib/
Base Directory Spec	XDG Base Directory Specification Version 0.6	http://standards.freedesktop.org/basedir-spec/basedir-spec-0.6.html
Cairo API Reference	Cairo Vector Graphics API Specification for 1.2.0	http://cairographics.org/manual-1.2.0
Desktop Entry Spec	Desktop Entry Specification Version 1.0	http://standards.freedesktop.org/desktop-entry-spec/desktop-entry-spec-1.0.html
Desktop Menu Spec	Desktop Menu Specification Version 1.0	http://standards.freedesktop.org/menu-spec/menu-spec-1.0.html
FreeType 2.2 Reference	FreeType 2.2.1 API Reference	http://refspecs.linuxfoundation.org/freetype/freetype-doc-2.2.1/docs/reference/ft2-toc.htm
Icon Theme Spec	Icon Theme Specification Version 0.11	http://standards.freedesktop.org/icon-theme-spec/icon-theme-spec-0.11.html
Independent JPEG Group	Independent JPEG Group	http://www.iijg.org/
		http://portland.freedesktop.org/xdg-utils-1.0/

xdg-utils reference	Portland Project XDG Utilities Reference 1.0	

Chapter 3. Requirements

3.1. Relevant Libraries

The libraries listed in [Table 3-1](#) shall be available on a Linux Standard Base - Desktop system, with the specified runtime names. This list may be supplemented or amended by the architecture-specific specification.

Table 3-1. Standard Library Names

Library	Runtime Name
libX11	libX11.so.6
libXt	libXt.so.6
libGL	libGL.so.1
libXext	libXext.so.6
libICE	libICE.so.6
libSM	libSM.so.6
libXi	libXi.so.6
libGLU	libGLU.so.1
libXtst	libXtst.so.6
libglib-2.0	libglib-2.0.so.0
libgobject-2.0	libgobject-2.0.so.0
libgmodule-2.0	libgmodule-2.0.so.0
libgthread-2.0	libgthread-2.0.so.0
libatk-1.0	libatk-1.0.so.0
libpango-1.0	libpango-1.0.so.0
libpangoft2-1.0	libpangoft2-1.0.so.0
libpangocairo-1.0	libpangocairo-1.0.so.0
libgdk_pixbuf-2.0	libgdk_pixbuf-2.0.so.0
libgdk_pixbuf_xlib-2.0	libgdk_pixbuf_xlib-2.0.so.0
libgdk-x11-2.0	libgdk-x11-2.0.so.0
libgtk-x11-2.0	libgtk-x11-2.0.so.0
libpangocairo-1.0	libpangocairo-1.0.so.0
libQtCore	libQtCore.so.4
libQtGui	libQtGui.so.4

libQtNetwork	libQtNetwork.so.4
libQtXml	libQtXml.so.4
libQtOpenGL	libQtOpenGL.so.4
libQtSql	libQtSql.so.4
libQtSvg	libQtSvg.so.4
libfontconfig	libfontconfig.so.1
libpng12	libpng12.so.0
libjpeg	libjpeg.so.62
libXrender	libXrender.so.1
libfreetype	libfreetype.so.6
libXft	libXft.so.2
libcairo	libcairo.so.2
libxml2	libxml2.so.2
libqt-mt	libqt-mt.so.3
libasound	libasound.so.2

These libraries will be in an implementation-defined directory which the dynamic linker shall search by default.

Chapter 4. Terms and Definitions

For the purposes of this document, the terms given in *ISO/IEC Directives, Part 2, Annex H* and the following apply.

archLSB

Some LSB specification documents have both a generic, architecture-neutral part and an architecture-specific part. The latter describes elements whose definitions may be unique to a particular processor architecture. The term archLSB may be used in the generic part to refer to the corresponding section of the architecture-specific part.

Binary Standard, ABI

The total set of interfaces that are available to be used in the compiled binary code of a conforming application, including the run-time details such as calling conventions, binary format, C++ name mangling, etc.

Implementation-defined

Describes a value or behavior that is not defined by this document but is selected by an implementor. The value or behavior may vary among implementations that conform to this document. An application should not rely on the existence of the value or behavior. An application that relies on such a value or behavior cannot be assured to be portable across conforming implementations. The implementor shall document such a value or behavior so that it can be used correctly by an application.

Shell Script

A file that is read by an interpreter (e.g., awk). The first line of the shell script includes a reference to its interpreter binary.

Source Standard, API

The total set of interfaces that are available to be used in the source code of a conforming application. Due to translations, the Binary Standard and the Source Standard may contain some different interfaces.

Undefined

Describes the nature of a value or behavior not defined by this document which results from use of an invalid program construct or invalid data input. The value or behavior may vary among implementations that conform to this document. An application should not rely on the existence or validity of the value or behavior. An application that relies on any particular value or behavior cannot be assured to be portable across conforming implementations.

Unspecified

Describes the nature of a value or behavior not specified by this document which results from use of a valid program construct or valid data input. The value or behavior may vary among implementations that conform to this document. An application should not rely on the existence or validity of the value or behavior. An application that relies on any particular value or behavior cannot be assured to be portable across conforming implementations.

In addition, for the portions of this specification which build on IEEE Std 1003.1-2001, the definitions given in *IEEE Std 1003.1-2001, Base Definitions, Chapter 3* apply.

Chapter 5. Documentation Conventions

Throughout this document, the following typographic conventions are used:

<code>function()</code>	the name of a function
command	the name of a command or utility
<code>CONSTANT</code>	a constant value
<i>parameter</i>	a parameter
<code>variable</code>	a variable

Throughout this specification, several tables of interfaces are presented. Each entry in these tables has the following format:

<code>name</code>	the name of the interface
<code>(symver)</code>	An optional symbol version identifier, if required.
<code>[refno]</code>	A reference number indexing the table of referenced specifications that follows this table.

For example,

`forkpty(GLIBC_2.0) [SUSv3]`

refers to the interface named `forkpty()` with symbol version `GLIBC_2.0` that is defined in the `SUSv3` reference.

Note: For symbols with versions which differ between architectures, the symbol versions are defined in the architecture specific parts of ISO/IEC 23360 only.

II. Graphic Libraries

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Chapter 6. Libraries

The X Libraries should be built thread-safe.

6.1. Interfaces for libX11

[Table 6-1](#) defines the library name and shared object name for the libX11 library

Table 6-1. libX11 Definition

Library:	libX11
SONAME:	libX11.so.6

The behavior of the interfaces in this library is specified by the following specifications:

[LSB] [This Specification](#)

[XKBlib] [X11 Keyboard Extension](#)

[Xlib] [X11 C Library](#)

6.1.1. X Window System Interface

6.1.1.1. Interfaces for X Window System Interface

An LSB conforming implementation shall provide the generic functions for X Window System Interface specified in [Table 6-2](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-2. libX11 - X Window System Interface Function Interfaces

XActivateScreenSaver [Xlib]	XAddConnectionWatch [Xlib]	XAddExtension [Xlib]	XAddHost [Xlib]
XAddHosts [Xlib]	XAddPixel [Xlib]	XAddToExtensionList [Xlib]	XAddToSaveSet [Xlib]
XAllPlanes [Xlib]	XAllocClassHint [Xlib]	XAllocColor [Xlib]	XAllocColorCells [Xlib]
XAllocColorPlanes [Xlib]	XAllocIconSize [Xlib]	XAllocNamedColor [Xlib]	XAllocSizeHints [Xlib]
XAllocStandardColormap [Xlib]	XAllocWMHints [Xlib]	XAllowEvents [Xlib]	XAutoRepeatOn [Xlib]
XAutoRepeatOn [Xlib]	XBaseFontNameListOfFontSet [Xlib]	XBell [Xlib]	XBitmapBitOrder [Xlib]
XBitmapPad [Xlib]	XBitmapUnit [Xlib]	XBlackPixel [Xlib]	XBlackPixelOfScreen [Xlib]
XCellsOfScreen [Xlib]	XChangeActivePointerGrab [Xlib]	XChangeGC [Xlib]	XChangeKeyboardMapping [Xlib]
XChangeKeyboardMapping [Xlib]	XChangePointerControl [Xlib]	XChangeProperty [Xlib]	XChangeSaveSet [Xlib]

XChangeWindowAttributes [Xlib]	XCheckIfEvent [Xlib]	XCheckMaskEvent [Xlib]	XCheckType
XCheckTypedWindowEvent [Xlib]	XCheckWindowEvent [Xlib]	XCirculateSubwindows [Xlib]	XCirculateS [Xlib]
XCirculateSubwindowsUp [Xlib]	XClearArea [Xlib]	XClearWindow [Xlib]	XClipBox [Xlib]
XCloseDisplay [Xlib]	XCloseIM [Xlib]	XCloseOM [Xlib]	XConfigure
XConnectionNumber [Xlib]	XContextDependentDrawing [Xlib]	XContextualDrawing [Xlib]	XConvertCa
XConvertSelection [Xlib]	XCopyArea [Xlib]	XCopyColormapAndFree [Xlib]	XCopyGC [Xlib]
XCopyPlane [Xlib]	XCreateBitmapFromData [Xlib]	XCreateColormap [Xlib]	XCreateFon
XCreateFontSet [Xlib]	XCreateGC [Xlib]	XCreateGlyphCursor [Xlib]	XCreateIC [Xlib]
XCreateImage [Xlib]	XCreateOC [Xlib]	XCreatePixmap [Xlib]	XCreatePixr
XCreatePixmapFromBitmapData [Xlib]	XCreateRegion [Xlib]	XCreateSimpleWindow [Xlib]	XCreateWin
XDefaultColormap [Xlib]	XDefaultColormapOfScreen [Xlib]	XDefaultDepth [Xlib]	XDefaultDe
XDefaultGC [Xlib]	XDefaultGCOfScreen [Xlib]	XDefaultRootWindow [Xlib]	XDefaultScr
XDefaultScreenOfDisplay [Xlib]	XDefaultString [Xlib]	XDefaultVisual [Xlib]	XDefaultVis
XDefineCursor [Xlib]	XDeleteContext [Xlib]	XDeleteModifiermapEntry [Xlib]	XDeleteProp
XDestroyIC [Xlib]	XDestroyImage [Xlib]	XDestroyOC [Xlib]	XDestroyRe
XDestroySubwindows [Xlib]	XDestroyWindow [Xlib]	XDirectionalDependentDrawing [Xlib]	XDisableAc
XDisplayCells [Xlib]	XDisplayHeight [Xlib]	XDisplayHeightMM [Xlib]	XDisplayKe
XDisplayMotionBufferSize [Xlib]	XDisplayName [Xlib]	XDisplayOfIM [Xlib]	XDisplayOf
XDisplayOfScreen [Xlib]	XDisplayPlanes [Xlib]	XDisplayString [Xlib]	XDisplayWi
XDisplayWidthMM [Xlib]	XDoesBackingStore [Xlib]	XDoesSaveUnders [Xlib]	XDrawArc [Xlib]
XDrawArcs [Xlib]	XDrawImageString [Xlib]	XDrawImageString16 [Xlib]	XDrawLine
XDrawLines [Xlib]	XDrawPoint [Xlib]	XDrawPoints [Xlib]	XDrawRecta
XDrawRectangles [Xlib]	XDrawSegments [Xlib]	XDrawString [Xlib]	XDrawStrin
XDrawText [Xlib]	XDrawText16 [Xlib]	XEHeadOfExtensionList [Xlib]	XESetBefore
XESetCloseDisplay [Xlib]	XESetCopyGC [Xlib]	XESetCreateFont [Xlib]	XESetCreate
XESetError [Xlib]	XESetErrorString [Xlib]	XESetEventToWire [Xlib]	XESetFlush
XESetFreeFont [Xlib]	XESetFreeGC [Xlib]	XESetPrintErrorValues [Xlib]	XESetWireT
XESetWireToEvent [Xlib]	XEmptyRegion [Xlib]	XEnableAccessControl [Xlib]	XEqualRegi

XEventMaskOfScreen [Xlib]	XEventsQueued [Xlib]	XExtendedMaxRequestSize [Xlib]	XExtentsOfScreen [Xlib]
XFetchBuffer [Xlib]	XFetchBytes [Xlib]	XFetchName [Xlib]	XFillArc [Xlib]
XFillArcs [Xlib]	XFillPolygon [Xlib]	XFillRectangle [Xlib]	XFillRectangles [Xlib]
XFilterEvent [Xlib]	XFindContext [Xlib]	XFindOnExtensionList [Xlib]	XFlush [Xlib]
XFlushGC [Xlib]	XFontsOfFontSet [Xlib]	XForceScreenSaver [Xlib]	XFree [Xlib]
XFreeColormap [Xlib]	XFreeColors [Xlib]	XFreeCursor [Xlib]	XFreeExtensionList [Xlib]
XFreeFont [Xlib]	XFreeFontInfo [Xlib]	XFreeFontNames [Xlib]	XFreeFontPath [Xlib]
XFreeFontSet [Xlib]	XFreeGC [Xlib]	XFreeModifiermap [Xlib]	XFreePixmap [Xlib]
XFreeStringList [Xlib]	XGContextFromGC [Xlib]	XGeometry [Xlib]	XGetAtomName [Xlib]
XGetAtomNames [Xlib]	XGetClassHint [Xlib]	XGetCommand [Xlib]	XGetDefaultColormap [Xlib]
XGetErrorDatabaseText [Xlib]	XGetErrorText [Xlib]	XGetFontPath [Xlib]	XGetFontPathList [Xlib]
XGetGCValues [Xlib]	XGetGeometry [Xlib]	XGetICValues [Xlib]	XGetIMValues [Xlib]
XGetIconName [Xlib]	XGetIconSizes [Xlib]	XGetImage [Xlib]	XGetInputFocus [Xlib]
XGetKeyboardControl [Xlib]	XGetKeyboardMapping [Xlib]	XGetModifierMapping [Xlib]	XGetMotionEvents [Xlib]
XGetNormalHints [Xlib]	XGetOCValues [Xlib]	XGetOMValues [Xlib]	XGetPixel [Xlib]
XGetPointerControl [Xlib]	XGetPointerMapping [Xlib]	XGetRGBColormaps [Xlib]	XGetScreen [Xlib]
XGetSelectionOwner [Xlib]	XGetSizeHints [Xlib]	XGetStandardColormap [Xlib]	XGetSubImage [Xlib]
XGetTextProperty [Xlib]	XGetTransientForHint [Xlib]	XGetVisualInfo [Xlib]	XGetWMClientList [Xlib]
XGetWMColormapWindows [Xlib]	XGetWMHints [Xlib]	XGetWMIconName [Xlib]	XGetWMName [Xlib]
XGetWMNormalHints [Xlib]	XGetWMProtocols [Xlib]	XGetWMSizeHints [Xlib]	XGetWindowProperty [Xlib]
XGetWindowProperty [Xlib]	XGetZoomHints [Xlib]	XGrabButton [Xlib]	XGrabKey [Xlib]
XGrabKeyboard [Xlib]	XGrabPointer [Xlib]	XGrabServer [Xlib]	XHeightMM [Xlib]
XHeightOfScreen [Xlib]	XIMOfIC [Xlib]	XIconifyWindow [Xlib]	XIfEvent [Xlib]
XImageByteOrder [Xlib]	XInitExtension [Xlib]	XInitImage [Xlib]	XInitThreads [Xlib]
XInsertModifiermapEntry [Xlib]	XInstallColormap [Xlib]	XInternAtom [Xlib]	XInternAtomString [Xlib]
XInternalConnectionNumbers [Xlib]	XIntersectRegion [Xlib]	XKeycodeToKeysym [Xlib]	XKeysymToKeycode [Xlib]
XKeysymToString [Xlib]	XKillClient [Xlib]	XLastKnownRequestProcessed [Xlib]	XListDepths [Xlib]
XListExtensions [Xlib]	XListFonts [Xlib]	XListFontsWithInfo [Xlib]	XListHosts [Xlib]
XListInstalledColormaps [Xlib]	XListPixmapFormats [Xlib]	XListProperties [Xlib]	XLoadFont [Xlib]
XLoadQueryFont [Xlib]	XLlocaleOfFontSet [Xlib]	XLlocaleOfIM [Xlib]	XLlocaleOfFont [Xlib]

XLockDisplay [Xlib]	XLookupColor [Xlib]	XLookupKeysym [Xlib]	XLookupStr
XLowerWindow [Xlib]	XMapRaised [Xlib]	XMapSubwindows [Xlib]	XMapWind
XMaskEvent [Xlib]	XMatchVisualInfo [Xlib]	XMaxCmapsOfScreen [Xlib]	XMaxReque
XMinCmapsOfScreen [Xlib]	XMoveResizeWindow [Xlib]	XMoveWindow [Xlib]	XNewModif
XNextEvent [Xlib]	XNextRequest [Xlib]	XNoOp [Xlib]	XOMOfoC
XOffsetRegion [Xlib]	XOpenDisplay [Xlib]	XOpenIM [Xlib]	XOpenOM [
XParseColor [Xlib]	XParseGeometry [Xlib]	XPeekEvent [Xlib]	XPeekIfEve
XPending [Xlib]	XPlanesOfScreen [Xlib]	XPointInRegion [Xlib]	XPolygonRe
XProcessInternalConnection [Xlib]	XProtocolRevision [Xlib]	XProtocolVersion [Xlib]	XPutBackEv
XPutImage [Xlib]	XPutPixel [Xlib]	XQLength [Xlib]	XQueryBest
XQueryBestSize [Xlib]	XQueryBestStipple [Xlib]	XQueryBestTile [Xlib]	XQueryColo
XQueryColors [Xlib]	XQueryExtension [Xlib]	XQueryFont [Xlib]	XQueryKey
XQueryPointer [Xlib]	XQueryTextExtents [Xlib]	XQueryTextExtents16 [Xlib]	XQueryTree
XRaiseWindow [Xlib]	XReadBitmapFile [Xlib]	XReadBitmapFileData [Xlib]	XRebindKey
XRecolorCursor [Xlib]	XReconfigureWMWindow [Xlib]	XRectInRegion [Xlib]	XRefreshKe
XRegisterIMInstantiateCallback [Xlib]	XRemoveConnectionWatch [Xlib]	XRemoveFromSaveSet [Xlib]	XRemoveHo
XRemoveHosts [Xlib]	XReparentWindow [Xlib]	XResetScreenSaver [Xlib]	XResizeWin
XResourceManagerString [Xlib]	XRestackWindows [Xlib]	XRootWindow [Xlib]	XRootWind
XRotateBuffers [Xlib]	XRotateWindowProperties [Xlib]	XSaveContext [Xlib]	XScreenCou
XScreenNumberOfScreen [Xlib]	XScreenOfDisplay [Xlib]	XScreenResourceString [Xlib]	XSelectInpu
XSendEvent [Xlib]	XServerVendor [Xlib]	XSetAccessControl [Xlib]	XSetAfterFu
XSetArcMode [Xlib]	XSetAuthorization [Xlib]	XSetBackground [Xlib]	XSetClassH
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XSetIMValues [Xlib]	XSetIOErrorHandler [Xlib]	XSetIconName [Xlib]	XSetIconSiz
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XSetNormalHints [Xlib]	XSetOCValues [Xlib]	XSetOMValues [Xlib]	XSetPlaneM
XSetPointerMapping [Xlib]	XSetRGBColormaps [Xlib]	XSetRegion [Xlib]	XSetScreenS

XSetSelectionOwner [Xlib]	XSetSizeHints [Xlib]	XSetStandardColormap [Xlib]	XSetStandard
XSetState [Xlib]	XSetStipple [Xlib]	XSetSubwindowMode [Xlib]	XSetTSOrig
XSetTextProperty [Xlib]	XSetTile [Xlib]	XSetTransientForHint [Xlib]	XSetWMCL
XSetWMColormapWindows [Xlib]	XSetWMHints [Xlib]	XSetWMIconName [Xlib]	XSetWMNa
XSetWMNormalHints [Xlib]	XSetWMProperties [Xlib]	XSetWMProtocols [Xlib]	XSetWMSiz
XSetWindowBackground [Xlib]	XSetWindowBackgroundPixmap [Xlib]	XSetWindowBorder [Xlib]	XSetWindow
XSetWindowBorderWidth [Xlib]	XSetWindowColormap [Xlib]	XSetZoomHints [Xlib]	XShrinkReg
XStoreBuffer [Xlib]	XStoreBytes [Xlib]	XStoreColor [Xlib]	XStoreColor
XStoreName [Xlib]	XStoreNamedColor [Xlib]	XStringListToTextProperty [Xlib]	XStringToK
XSubImage [Xlib]	XSubtractRegion [Xlib]	XSupportsLocale [Xlib]	XSync [Xlib]
XSynchronize [Xlib]	XTextExtents [Xlib]	XTextExtents16 [Xlib]	XTextPrope
XTextWidth [Xlib]	XTextWidth16 [Xlib]	XTranslateCoordinates [Xlib]	XUndefineC
XUngrabButton [Xlib]	XUngrabKey [Xlib]	XUngrabKeyboard [Xlib]	XUngrabPoi
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XcmsAddFunctionSet [Xlib]	XcmsAllocColor [Xlib]	XcmsAllocNamedColor [Xlib]	XcmsCCCO
XcmsCIELabClipL [Xlib]	XcmsCIELabClipLab [Xlib]	XcmsCIELabClipab [Xlib]	XcmsCIELA
XcmsCIELabQueryMaxL [Xlib]	XcmsCIELabQueryMaxLC [Xlib]	XcmsCIELabQueryMinL [Xlib]	XcmsCIELA
XcmsCIELabWhiteShiftColors [Xlib]	XcmsCIELuvClipL [Xlib]	XcmsCIELuvClipLuv [Xlib]	XcmsCIELu
XcmsCIELuvQueryMaxC [Xlib]	XcmsCIELuvQueryMaxL [Xlib]	XcmsCIELuvQueryMaxLC [Xlib]	XcmsCIELu
XcmsCIELuvToCIEuvY [Xlib]	XcmsCIELuvWhiteShiftColors [Xlib]	XcmsCIEXYZToCIELab [Xlib]	XcmsCIEXY
XcmsCIEXYZToCIExyY [Xlib]	XcmsCIEXYZToRGBi [Xlib]	XcmsCIEuvYToCIELuv [Xlib]	XcmsCIEuv
XcmsCIEuvYToTekHVC [Xlib]	XcmsCIExyYToCIEXYZ [Xlib]		XcmsConve

		XcmsClientWhitePointOfCCC [Xlib]	
XcmsCreateCCC [Xlib]	XcmsDefaultCCC [Xlib]	XcmsDisplayOfCCC [Xlib]	XcmsFormat
XcmsFreeCCC [Xlib]	XcmsLookupColor [Xlib]	XcmsPrefixOfFormat [Xlib]	XcmsQuery
XcmsQueryBlue [Xlib]	XcmsQueryColor [Xlib]	XcmsQueryColors [Xlib]	XcmsQuery
XcmsQueryRed [Xlib]	XcmsQueryWhite [Xlib]	XcmsRGBToRGBi [Xlib]	XcmsRGBiTo
XcmsRGBiToRGB [Xlib]	XcmsScreenNumberOfCCC [Xlib]	XcmsScreenWhitePointOfCCC [Xlib]	XcmsSetCC
XcmsSetCompressionProc [Xlib]	XcmsSetWhiteAdjustProc [Xlib]	XcmsSetWhitePoint [Xlib]	XcmsStoreC
XcmsStoreColors [Xlib]	XcmsTekHVCClipC [Xlib]	XcmsTekHVCClipV [Xlib]	XcmsTekHV
XcmsTekHVCQueryMaxC [Xlib]	XcmsTekHVCQueryMaxV [Xlib]	XcmsTekHVCQueryMaxVC [Xlib]	XcmsTekHV [Xlib]
XcmsTekHVCQueryMinV [Xlib]	XcmsTekHVCToCIEuvY [Xlib]	XcmsTekHVCWhiteShiftColors [Xlib]	XcmsVisual
XkbAllocClientMap [XKBlib]	XkbAllocCompatMap [XKBlib]	XkbAllocControls [XKBlib]	XkbAllocGe
XkbAllocGeomDoodads [XKBlib]	XkbAllocGeomKeyAliases [XKBlib]	XkbAllocGeomKeys [XKBlib]	XkbAllocGe
XkbAllocGeomOverlayKeys [XKBlib]	XkbAllocGeomOverlayRows [XKBlib]	XkbAllocGeomOverlays [XKBlib]	XkbAllocGe
XkbAllocGeomProps [XKBlib]	XkbAllocGeomRows [XKBlib]	XkbAllocGeomSectionDoodads [XKBlib]	XkbAllocGe
XkbAllocGeomShapes [XKBlib]	XkbAllocGeometry [XKBlib]	XkbAllocIndicatorMaps [XKBlib]	XkbAllocKe
XkbAllocNames [XKBlib]	XkbAllocServerMap [XKBlib]	XkbApplyCompatMapToKey [XKBlib]	XkbBell [X
XkbBellEvent [XKBlib]	XkbChangeEnabledControls [XKBlib]	XkbChangeMap [XKBlib]	XkbChange
XkbChangeTypesOfKey [XKBlib]	XkbComputeEffectiveMap [XKBlib]	XkbComputeRowBounds [XKBlib]	XkbComput [XKBlib]
XkbComputeShapeBounds [XKBlib]	XkbComputeShapeTop [XKBlib]	XkbCopyKeyType [XKBlib]	XkbCopyKe
XkbFindOverlayForKey [XKBlib]	XkbForceBell [XKBlib]	XkbFreeClientMap [XKBlib]	XkbFreeCor
XkbFreeComponentList [XKBlib]	XkbFreeControls [XKBlib]	XkbFreeGeomColors [XKBlib]	XkbFreeGeo
XkbFreeGeomKeyAliases [XKBlib]	XkbFreeGeomKeys [XKBlib]	XkbFreeGeomOutlines [XKBlib]	XkbFreeGeo [XKBlib]
XkbFreeGeomOverlayRows [XKBlib]	XkbFreeGeomOverlays [XKBlib]	XkbFreeGeomPoints [XKBlib]	XkbFreeGeo

XkbFreeGeomRows [XKBlib]	XkbFreeGeomSections [XKBlib]	XkbFreeGeomShapes [XKBlib]	XkbFreeGeo
XkbFreeIndicatorMaps [XKBlib]	XkbFreeKeyboard [XKBlib]	XkbFreeNames [XKBlib]	XkbFreeSer
XkbGetAutoRepeatRate [XKBlib]	XkbGetCompatMap [XKBlib]	XkbGetControls [XKBlib]	XkbGetGeor
XkbGetIndicatorMap [XKBlib]	XkbGetIndicatorState [XKBlib]	XkbGetKeyActions [XKBlib]	XkbGetKey
XkbGetKeyExplicitComponents [XKBlib]	XkbGetKeyModifierMap [XKBlib]	XkbGetKeySyms [XKBlib]	XkbGetKey
XkbGetKeyboard [XKBlib]	XkbGetKeyboardByName [XKBlib]	XkbGetMap [XKBlib]	XkbGetMap
XkbGetNamedGeometry [XKBlib]	XkbGetNamedIndicator [XKBlib]	XkbGetNames [XKBlib]	XkbGetPerC [XKBlib]
XkbGetState [XKBlib]	XkbGetUpdatedMap [XKBlib]	XkbGetVirtualMods [XKBlib]	XkbGetXlib
XkbIgnoreExtension [XKBlib]	XkbInitCanonicalKeyTypes [XKBlib]	XkbKeyTypesForCoreSymbols [XKBlib]	XkbKeycode
XkbKeysymToModifiers [XKBlib]	XkbLatchGroup [XKBlib]	XkbLatchModifiers [XKBlib]	XkbLibrary
XkbListComponents [XKBlib]	XkbLockGroup [XKBlib]	XkbLockModifiers [XKBlib]	XkbLookupt
XkbLookupKeySym [XKBlib]	XkbNoteControlsChanges [XKBlib]	XkbNoteMapChanges [XKBlib]	XkbNoteNa
XkbOpenDisplay [XKBlib]	XkbQueryExtension [XKBlib]	XkbRefreshKeyboardMapping [XKBlib]	XkbResizeK
XkbResizeKeySyms [XKBlib]	XkbResizeKeyType [XKBlib]	XkbSelectEventDetails [XKBlib]	XkbSelectE
XkbSetAtomFuncs [XKBlib]	XkbSetAutoRepeatRate [XKBlib]	XkbSetAutoResetControls [XKBlib]	XkbSetCom
XkbSetControls [XKBlib]	XkbSetDebuggingFlags [XKBlib]	XkbSetDetectableAutoRepeat [XKBlib]	XkbSetGeor
XkbSetIgnoreLockMods [XKBlib]	XkbSetIndicatorMap [XKBlib]	XkbSetMap [XKBlib]	XkbSetName
XkbSetNames [XKBlib]	XkbSetPerClientControls [XKBlib]	XkbSetServerInternalMods [XKBlib]	XkbSetXlib
XkbToControl [XKBlib]	XkbTranslateKeyCode [XKBlib]	XkbTranslateKeySym [XKBlib]	XkbUpdateM [XKBlib]
XkbUseExtension [XKBlib]	XkbVirtualModsToReal [XKBlib]	XmbDrawImageString [Xlib]	XmbDrawSt
XmbDrawText [Xlib]	XmbLookupString [Xlib]	XmbResetIC [Xlib]	XmbSetWM
XmbTextEscapement [Xlib]	XmbTextExtents [Xlib]	XmbTextListToTextProperty [Xlib]	XmbTextPer

XmbTextPropertyToTextList [Xlib]	XrmCombineDatabase [Xlib]	XrmCombineFileDatabase [Xlib]	XrmDestroy
XrmEnumerateDatabase [Xlib]	XrmGetDatabase [Xlib]	XrmGetFileDatabase [Xlib]	XrmGetReso
XrmGetStringDatabase [Xlib]	XrmInitialize [Xlib]	XrmLocaleOfDatabase [Xlib]	XrmMergeD
XrmParseCommand [Xlib]	XrmPermStringToQuark [Xlib]	XrmPutFileDatabase [Xlib]	XrmPutLine
XrmPutResource [Xlib]	XrmPutStringResource [Xlib]	XrmQGetResource [Xlib]	XrmQGetSe
XrmQGetSearchResource [Xlib]	XrmQPutResource [Xlib]	XrmQPutStringResource [Xlib]	XrmQuarkT
XrmSetDatabase [Xlib]	XrmStringToBindingQuarkList [Xlib]	XrmStringToQuark [Xlib]	XrmStringT
XrmUniqueQuark [Xlib]	Xutf8TextListToTextProperty [LSB]	Xutf8TextPropertyToTextList [LSB]	XwcDrawIn
XwcDrawString [Xlib]	XwcDrawText [Xlib]	XwcFreeStringList [Xlib]	XwcLooku
XwcResetIC [Xlib]	XwcTextEscapement [Xlib]	XwcTextExtents [Xlib]	XwcTextLis
XwcTextPerCharExtents [Xlib]	XwcTextPropertyToTextList [Xlib]		

6.2. Data Definitions for libX11

This section defines global identifiers and their values that are associated with interfaces contained in libX11. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.2.1. X11/X.h

```
#define X_PROTOCOL_REVISION    0
#define X_PROTOCOL            11

typedef unsigned long int XID;
typedef unsigned long int Mask;
typedef unsigned long int Atom;
typedef unsigned long int VisualID;
typedef unsigned long int Time;
typedef XID Window;
typedef XID Font;
typedef XID Pixmap;
typedef unsigned char KeyCode;
```

```

typedef XID Drawable;
typedef XID Cursor;
typedef XID Colormap;
typedef XID GContext;
typedef XID KeySym;

#define AllTemporary      0L
#define AnyButton        0L
#define AnyKey           0L
#define AnyPropertyType  0L
#define CopyFromParent   0L
#define CurrentTime      0L
#define NoSymbol          0L
#define None             0L
#define PointerWindow     0L
#define InputFocus        1L
#define ParentRelative    1L
#define PointerRoot       1L

#define KeyPressMask      (1L<<0)
#define KeyReleaseMask    (1L<<1)
#define Button3MotionMask (1L<<10)
#define Button4MotionMask (1L<<11)
#define Button5MotionMask (1L<<12)
#define ButtonMotionMask  (1L<<13)
#define KeymapStateMask   (1L<<14)
#define ExposureMask      (1L<<15)
#define VisibilityChangeMask (1L<<16)
#define StructureNotifyMask (1L<<17)
#define ResizeRedirectMask (1L<<18)
#define SubstructureNotifyMask (1L<<19)
#define ButtonPressMask   (1L<<2)
#define SubstructureRedirectMask (1L<<20)
#define FocusChangeMask   (1L<<21)
#define PropertyChangeMask (1L<<22)
#define ColormapChangeMask (1L<<23)
#define OwnerGrabButtonMask (1L<<24)
#define ButtonReleaseMask (1L<<3)
#define EnterWindowMask   (1L<<4)
#define LeaveWindowMask   (1L<<5)
#define PointerMotionMask (1L<<6)
#define PointerMotionHintMask (1L<<7)
#define Button1MotionMask (1L<<8)
#define Button2MotionMask (1L<<9)

#define NoEventMask       0L
#define FocusOut           10
#define KeymapNotify       11
#define Expose             12
#define GraphicsExpose     13
#define NoExpose            14
#define VisibilityNotify   15
#define CreateNotify       16
#define DestroyNotify      17
#define UnmapNotify        18
#define MapNotify          19
#define KeyPress           2
#define MapRequest         20
#define ReparentNotify     21
#define ConfigureNotify    22
#define ConfigureRequest   23
#define GravityNotify      24

```

```

#define ResizeRequest      25
#define CirculateNotify    26
#define CirculateRequest   27
#define PropertyNotify     28
#define SelectionClear     29
#define KeyRelease         3
#define SelectionRequest    30
#define SelectionNotify    31
#define ColormapNotify     32
#define ClientMessage      33
#define MappingNotify      34
#define LASTEvent          35
#define ButtonPress        4
#define ButtonRelease      5
#define MotionNotify       6
#define EnterNotify        7
#define LeaveNotify        8
#define FocusIn            9

#define ShiftMask          (1<<0)
#define LockMask           (1<<1)
#define ControlMask        (1<<2)
#define Mod1Mask           (1<<3)
#define Mod2Mask           (1<<4)
#define Mod3Mask           (1<<5)
#define Mod4Mask           (1<<6)
#define Mod5Mask           (1<<7)

#define ShiftMapIndex      0
#define LockMapIndex       1
#define ControlMapIndex    2
#define Mod1MapIndex       3
#define Mod2MapIndex       4
#define Mod3MapIndex       5
#define Mod4MapIndex       6
#define Mod5MapIndex       7

#define Button3Mask        (1<<10)
#define Button4Mask        (1<<11)
#define Button5Mask        (1<<12)
#define AnyModifier        (1<<15)
#define Button1Mask        (1<<8)
#define Button2Mask        (1<<9)

#define Button1            1
#define Button2            2
#define Button3            3
#define Button4            4
#define Button5            5

#define NotifyNormal       0
#define NotifyGrab         1
#define NotifyHint         1
#define NotifyUngrab       2
#define NotifyWhileGrabbed 3

#define NotifyAncestor     0
#define NotifyVirtual       1
#define NotifyInferior     2
#define NotifyNonlinear     3
#define NotifyNonlinearVirtual 4
#define NotifyPointer       5

```

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```
#define NotifyPointerRoot      6
#define NotifyDetailNone      7

#define VisibilityUnobscured   0
#define VisibilityPartiallyObscured 1
#define VisibilityFullyObscured 2

#define PlaceOnTop            0
#define PlaceOnBottom        1

#define FamilyInternet        0
#define FamilyDECnet          1
#define FamilyChaos           2
#define FamilyServerInterpreted 5
#define FamilyInternet6 6      /* IPv6 */

#define PropModeReplace        0
#define PropertyNewValue       0
#define PropertyDelete         1

#define ColormapUninstalled    0
#define ColormapInstalled     1

#define GrabModeSync           0
#define GrabModeAsync         1

#define GrabSuccess            0
#define AlreadyGrabbed         1
#define GrabInvalidTime        2
#define GrabNotViewable        3
#define GrabFrozen             4

#define AsyncPointer           0
#define SyncPointer            1
#define ReplayPointer          2
#define AsyncKeyboard           3
#define SyncKeyboard           4
#define ReplayKeyboard          5
#define AsyncBoth              6
#define SyncBoth               7

#define RevertToNone           (int)None
#define RevertToPointerRoot    (int)PointerRoot
#define RevertToParent         2

#define Success                0
#define BadRequest             1
#define BadAccess              10
#define BadAlloc               11
#define BadColor               12
#define FirstExtensionError     128
#define BadGC                  13
#define BadIDChoice            14
#define BadName                15
#define BadLength              16
#define BadImplementation      17
#define BadValue               2
#define LastExtensionError      255
#define BadWindow              3
#define BadPixmap              4
#define BadAtom                5
#define BadCursor              6
```



```

#define BadFont 7
#define BadMatch 8
#define BadDrawable 9

#define CWX (1<<0)
#define InputOutput 1
#define InputOnly 2

#define CWBackPixmap (1L<<0)
#define CWBackPixel (1L<<1)
#define CWSaveUnder (1L<<10)
#define CWEventMask (1L<<11)
#define CWDontPropagate (1L<<12)
#define CWColormap (1L<<13)
#define CWCursor (1L<<14)
#define CWBorderPixmap (1L<<2)
#define CWBorderPixel (1L<<3)
#define CWBitGravity (1L<<4)
#define CWWinGravity (1L<<5)
#define CWBackingStore (1L<<6)
#define CWBackingPlanes (1L<<7)
#define CWBackingPixel (1L<<8)
#define CWOverrideRedirect (1L<<9)

#define CWY (1<<1)
#define CWWidth (1<<2)
#define CWHeight (1<<3)
#define CWBorderWidth (1<<4)
#define CWSibling (1<<5)
#define CWStackMode (1<<6)

#define ForgetGravity 0
#define UnmapGravity 0
#define NorthWestGravity 1
#define StaticGravity 10
#define NorthGravity 2
#define NorthEastGravity 3
#define WestGravity 4
#define CenterGravity 5
#define EastGravity 6
#define SouthWestGravity 7
#define SouthGravity 8
#define SouthEastGravity 9

#define NotUseful 0
#define WhenMapped 1
#define Always 2

#define IsUnmapped 0
#define IsUnviewable 1
#define IsViewable 2

#define SetModeInsert 0
#define SetModeDelete 1

#define DestroyAll 0
#define RetainPermanent 1
#define RetainTemporary 2

#define Above 0
#define Below 1
#define TopIf 2

```

```

#define BottomIf      3
#define Opposite      4

#define RaiseLowest   0
#define LowerHighest  1

#define PropModePrepend 1
#define PropModeAppend 2

#define GXclear 0x0
#define GXand 0x1
#define GXandReverse 0x2
#define GXcopy 0x3
#define GXandInverted 0x4
#define GXnoop 0x5
#define GXxor 0x6
#define GXor 0x7
#define GXnor 0x8
#define GXequiv 0x9
#define GXinvert 0xa
#define GXorReverse 0xb
#define GXcopyInverted 0xc
#define GXorInverted 0xd
#define GXnand 0xe
#define GXset 0xf

#define LineSolid 0
#define LineOnOffDash 1
#define LineDoubleDash 2

#define CapNotLast 0
#define CapButt 1
#define CapRound 2
#define CapProjecting 3

#define JoinMiter 0
#define JoinRound 1
#define JoinBevel 2

#define FillSolid 0
#define FillTiled 1
#define FillStippled 2
#define FillOpaqueStippled 3

#define EvenOddRule 0
#define WindingRule 1

#define ClipByChildren 0
#define IncludeInferiors 1

#define Unsorted 0
#define XYBitmap 0
#define YSorted 1
#define YXSorted 2
#define YXBanded 3

#define CoordModeOrigin 0
#define CoordModePrevious 1

#define Complex 0
#define Nonconvex 1
#define Convex 2

```

```

#define ArcChord      0
#define ArcPieSlice   1

#define GCFunction     (1L<<0)
#define GCPlaneMask   (1L<<1)
#define GCTile        (1L<<10)
#define GCStipple     (1L<<11)
#define GCTileStipXOrigin (1L<<12)
#define GCTileStipYOrigin (1L<<13)
#define GCFont        (1L<<14)
#define GCSubwindowMode (1L<<15)
#define GCGraphicsExposures (1L<<16)
#define GCClipXOrigin (1L<<17)
#define GCClipYOrigin (1L<<18)
#define GCClipMask    (1L<<19)
#define GCForeground  (1L<<2)
#define GCDashOffset  (1L<<20)
#define GCDashList    (1L<<21)
#define GCArcMode     (1L<<22)
#define GCBackground  (1L<<3)
#define GCLineWidth   (1L<<4)
#define GCLineStyle   (1L<<5)
#define GCCapStyle    (1L<<6)
#define GCJoinStyle   (1L<<7)
#define GCFillStyle   (1L<<8)
#define GCFillRule    (1L<<9)
#define GCLastBit     22
#define FontChange    255

#define FontLeftToRight 0
#define FontRightToLeft 1

#define XYPixmap      1
#define ZPixmap       2

#define AllocNone     0
#define AllocAll      1

#define DoRed         (1<<0)
#define DoGreen       (1<<1)
#define DoBlue        (1<<2)

#define CursorShape   0
#define TileShape     1
#define StippleShape  2

#define AutoRepeatModeOff 0
#define LedModeOff      0
#define AutoRepeatModeOn 1
#define LedModeOn       1
#define AutoRepeatModeDefault 2

#define KBKeyClickPercent (1L<<0)
#define KBBellPercent     (1L<<1)
#define KBBellPitch       (1L<<2)
#define KBBellDuration    (1L<<3)
#define KBLed             (1L<<4)
#define KBLedMode         (1L<<5)
#define KBKey             (1L<<6)
#define KBAutoRepeatMode  (1L<<7)
#define MappingModifier 0

```

```

#define MappingSuccess 0
#define MappingBusy 1
#define MappingKeyboard 1
#define MappingFailed 2
#define MappingPointer 2

#define DisableScreenInterval 0
#define DisableScreenSaver 0
#define DontAllowExposures 0
#define DontPreferBlanking 0
#define AllowExposures 1
#define PreferBlanking 1
#define DefaultBlanking 2
#define DefaultExposures 2

#define ScreenSaverReset 0
#define ScreenSaverActive 1

#define HostInsert 0
#define HostDelete 1

#define DisableAccess 0
#define EnableAccess 1

#define StaticGray 0
#define GrayScale 1
#define StaticColor 2
#define PseudoColor 3
#define TrueColor 4
#define DirectColor 5

#define LSBFirst 0
#define MSBFirst 1

```

6.2.2. X11/XKBLib.h

```

#define _XKBLIB_H_
#define XkbNoteIndicatorMapChanges(o,n,w) ((o)->map_changes|=((n)->map_changes&(w)))
#define XkbNoteIndicatorStateChanges(o,n,w) ((o)->state_changes|=((n)->state_changes&(w)))
#define XkbLC_AllComposeControls (0xc0000000)
#define XkbLC_AllControls (0xc000001f)
#define XkbLC_ForceLatin1Lookup (1<<0)
#define XkbLC_ConsumeLookupMods (1<<1)
#define XkbLC_AlwaysConsumeShiftAndLock (1<<2)
#define XkbLC_ConsumeKeysOnComposeFail (1<<29)
#define XkbLC_IgnoreNewKeyboards (1<<3)
#define XkbLC_ComposeLED (1<<30)
#define XkbLC_BeepOnComposeFail (1<<31)
#define XkbLC_ControlFallback (1<<4)
#define XkbGetIndicatorMapChanges(d,x,c) (XkbGetIndicatorMap((d),(c)->map_changes,x))
#define XkbChangeIndicatorMaps(d,x,c) (XkbSetIndicatorMap((d),(c)->map_changes,x))
#define XkbOD_Success 0
#define XkbOD_BadLibraryVersion 1
#define XkbOD_ConnectionRefused 2
#define XkbOD_NonXkbServer 3
#define XkbOD_BadServerVersion 4
#define XkbGetControlsChanges(d,x,c) XkbGetControls(d,(c)->changed_ctrls,x)
#define XkbChangeControls(d,x,c) XkbSetControls(d,(c)->changed_ctrls,x)

typedef struct _XkbAnyEvent {
    int type;

```

```

    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    unsigned int device;
} XkbAnyEvent;
typedef struct _XkbNewKeyboardNotify {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    int old_device;
    int min_key_code;
    int max_key_code;
    int old_min_key_code;
    int old_max_key_code;
    unsigned int changed;
    char req_major;
    char req_minor;
} XkbNewKeyboardNotifyEvent;
typedef struct _XkbMapNotifyEvent {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    unsigned int changed;
    unsigned int flags;
    int first_type;
    int num_types;
    KeyCode min_key_code;
    KeyCode max_key_code;
    KeyCode first_key_sym;
    KeyCode first_key_act;
    KeyCode first_key_behavior;
    KeyCode first_key_explicit;
    KeyCode first_modmap_key;
    KeyCode first_vmodmap_key;
    int num_key_syms;
    int num_key_acts;
    int num_key_behaviors;
    int num_key_explicit;
    int num_modmap_keys;
    int num_vmodmap_keys;
    unsigned int vmods;
} XkbMapNotifyEvent;
typedef struct _XkbStateNotifyEvent {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    unsigned int changed;
    int group;

```

```

int base_group;
int latched_group;
int locked_group;
unsigned int mods;
unsigned int base_mods;
unsigned int latched_mods;
unsigned int locked_mods;
int compat_state;
unsigned char grab_mods;
unsigned char compat_grab_mods;
unsigned char lookup_mods;
unsigned char compat_lookup_mods;
int ptr_buttons;
KeyCode keycode;
char event_type;
char req_major;
char req_minor;
} XkbStateNotifyEvent;
typedef struct _XkbControlsNotify {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    unsigned int changed_ctrls;
    unsigned int enabled_ctrls;
    unsigned int enabled_ctrl_changes;
    int num_groups;
    KeyCode keycode;
    char event_type;
    char req_major;
    char req_minor;
} XkbControlsNotifyEvent;
typedef struct _XkbIndicatorNotify {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    unsigned int changed;
    unsigned int state;
} XkbIndicatorNotifyEvent;
typedef struct _XkbNamesNotify {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    unsigned int changed;
    int first_type;
    int num_types;
    int first_lvl;
    int num_lvls;
    int num_aliases;
    int num_radio_groups;
    unsigned int changed_vmods;

```

```

    unsigned int changed_groups;
    unsigned int changed_indicators;
    int first_key;
    int num_keys;
} XkbNamesNotifyEvent;
typedef struct _XkbCompatMapNotify {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    unsigned int changed_groups;
    int first_si;
    int num_si;
    int num_total_si;
} XkbCompatMapNotifyEvent;
typedef struct _XkbBellNotify {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    int percent;
    int pitch;
    int duration;
    int bell_class;
    int bell_id;
    Atom name;
    Window window;
    int event_only;
} XkbBellNotifyEvent;
typedef struct _XkbActionMessage {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    KeyCode keycode;
    int press;
    int key_event_follows;
    int group;
    unsigned int mods;
    char message;
} XkbActionMessageEvent;
typedef struct _XkbAccessXNotify {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    int detail;
    int keycode;
    int sk_delay;
    int debounce_delay;

```

```

} XkbAccessXNotifyEvent;
typedef struct _XkbExtensionDeviceNotify {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Time time;
    int xkb_type;
    int device;
    unsigned int reason;
    unsigned int supported;
    unsigned int unsupported;
    int first_btn;
    int num_btns;
    unsigned int leds_defined;
    unsigned int led_state;
    int led_class;
    int led_id;
} XkbExtensionDeviceNotifyEvent;
union _XkbEvent {
    int type;
    XkbAnyEvent any;
    XkbNewKeyboardNotifyEvent new_kbd;
    XkbMapNotifyEvent map;
    XkbStateNotifyEvent state;
    XkbControlsNotifyEvent ctrls;
    XkbIndicatorNotifyEvent indicators;
    XkbNamesNotifyEvent names;
    XkbCompatMapNotifyEvent compat;
    XkbBellNotifyEvent bell;
    XkbActionMessageEvent message;
    XkbAccessXNotifyEvent accessx;
    XkbExtensionDeviceNotifyEvent device;
    XEvent core;
};
typedef union _XkbEvent {
    int type;
    XkbAnyEvent any;
    XkbNewKeyboardNotifyEvent new_kbd;
    XkbMapNotifyEvent map;
    XkbStateNotifyEvent state;
    XkbControlsNotifyEvent ctrls;
    XkbIndicatorNotifyEvent indicators;
    XkbNamesNotifyEvent names;
    XkbCompatMapNotifyEvent compat;
    XkbBellNotifyEvent bell;
    XkbActionMessageEvent message;
    XkbAccessXNotifyEvent accessx;
    XkbExtensionDeviceNotifyEvent device;
    XEvent core;
} XkbEvent;
typedef struct _XkbKbdDpyState XkbKbdDpyStateRec;
typedef struct _XkbKbdDpyState *XkbKbdDpyStatePtr;
typedef Atom(*XkbInternAtomFunc) (Display *, const char *, int);
typedef char *(*XkbGetAtomNameFunc) (Display *, Atom);
extern int XkbAllocClientMap(XkbDescPtr, unsigned int, unsigned int);
extern int XkbAllocCompatMap(XkbDescPtr, unsigned int, unsigned int);
extern int XkbAllocControls(XkbDescPtr, unsigned int);
extern int XkbAllocIndicatorMaps(XkbDescPtr);
extern XkbDescPtr XkbAllocKeyboard(void);
extern int XkbAllocNames(XkbDescPtr, unsigned int, int, int);
extern int XkbAllocServerMap(XkbDescPtr, unsigned int, unsigned int);

```


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```
extern int XkbApplyCompatMapToKey(XkbDescPtr, KeyCode, XkbChangesPtr);
extern int XkbBell(Display *, Window, int, Atom);
extern int XkbBellEvent(Display *, Window, int, Atom);
extern int XkbChangeEnabledControls(Display *, unsigned int, unsigned int,
                                     unsigned int);
extern int XkbChangeMap(Display *, XkbDescPtr, XkbMapChangesPtr);
extern int XkbChangeNames(Display *, XkbDescPtr, XkbNameChangesPtr);
extern int XkbChangeTypesOfKey(XkbDescPtr, int, int, unsigned int, int *,
                               XkbMapChangesPtr);
extern int XkbComputeEffectiveMap(XkbDescPtr, XkbKeyTypePtr,
                                  unsigned char *);
extern int XkbCopyKeyType(XkbKeyTypePtr, XkbKeyTypePtr);
extern int XkbCopyKeyTypes(XkbKeyTypePtr, XkbKeyTypePtr, int);
extern int XkbForceBell(Display *, int);
extern void XkbFreeClientMap(XkbDescPtr, unsigned int, int);
extern void XkbFreeCompatMap(XkbDescPtr, unsigned int, int);
extern void XkbFreeComponentList(XkbComponentListPtr);
extern void XkbFreeControls(XkbDescPtr, unsigned int, int);
extern void XkbFreeIndicatorMaps(XkbDescPtr);
extern void XkbFreeKeyboard(XkbDescPtr, unsigned int, int);
extern void XkbFreeNames(XkbDescPtr, unsigned int, int);
extern void XkbFreeServerMap(XkbDescPtr, unsigned int, int);
extern int XkbGetAutoRepeatRate(Display *, unsigned int, unsigned int *,
                                unsigned int *);
extern int XkbGetCompatMap(Display *, unsigned int, XkbDescPtr);
extern int XkbGetControls(Display *, unsigned long int, XkbDescPtr);
extern int XkbGetIndicatorMap(Display *, unsigned long int, XkbDescPtr);
extern int XkbGetIndicatorState(Display *, unsigned int, unsigned int *);
extern int XkbGetKeyActions(Display *, unsigned int, unsigned int,
                             XkbDescPtr);
extern int XkbGetKeyBehaviors(Display *, unsigned int, unsigned int,
                               XkbDescPtr);
extern int XkbGetKeyExplicitComponents(Display *, unsigned int,
                                       unsigned int, XkbDescPtr);
extern int XkbGetKeyModifierMap(Display *, unsigned int, unsigned int,
                                 XkbDescPtr);
extern int XkbGetKeySyms(Display *, unsigned int, unsigned int,
                          XkbDescPtr);
extern int XkbGetKeyTypes(Display *, unsigned int, unsigned int,
                           XkbDescPtr);
extern XkbDescPtr XkbGetKeyboard(Display *, unsigned int, unsigned int);
extern XkbDescPtr XkbGetKeyboardByName(Display *, unsigned int,
                                       XkbComponentNamesPtr, unsigned int,
                                       unsigned int, int);
extern XkbDescPtr XkbGetMap(Display *, unsigned int, unsigned int);
extern int XkbGetMapChanges(Display *, XkbDescPtr, XkbMapChangesPtr);
extern int XkbGetNamedIndicator(Display *, Atom, int *, int *,
                                XkbIndicatorMapPtr, int *);
extern int XkbGetNames(Display *, unsigned int, XkbDescPtr);
extern int XkbGetPerClientControls(Display *, unsigned int *);
extern int XkbGetState(Display *, unsigned int, XkbStatePtr);
extern int XkbGetUpdatedMap(Display *, unsigned int, XkbDescPtr);
extern int XkbGetVirtualMods(Display *, unsigned int, XkbDescPtr);
extern unsigned int XkbGetXlibControls(Display *);
extern int XkbIgnoreExtension(int);
extern int XkbInitCanonicalKeyTypes(XkbDescPtr, unsigned int, int);
extern int XkbKeyTypesForCoreSymbols(XkbDescPtr, int, KeySym *,
                                     unsigned int, int *, KeySym *);
extern KeySym XkbKeycodeToKeysym(Display *, unsigned int, int, int);
extern unsigned int XkbKeysymToModifiers(Display *, KeySym);
extern int XkbLatchGroup(Display *, unsigned int, unsigned int);
extern int XkbLatchModifiers(Display *, unsigned int, unsigned int,
```

```

        unsigned int);
extern int XkbLibraryVersion(int *, int *);
extern XkbComponentListPtr XkbListComponents(Display *, unsigned int,
                                             XkbComponentNamesPtr, int *);
extern int XkbLockGroup(Display *, unsigned int, unsigned int);
extern int XkbLockModifiers(Display *, unsigned int, unsigned int,
                           unsigned int);
extern int XkbLookupKeyBinding(Display *, KeySym, unsigned int, char *,
                              int, int *);
extern int XkbLookupKeySym(Display *, KeyCode, unsigned int,
                          unsigned int *, KeySym *);
extern void XkbNoteControlsChanges(XkbControlsChangesPtr,
                                   XkbControlsNotifyEvent *, unsigned int);
extern void XkbNoteMapChanges(XkbMapChangesPtr, XkbMapNotifyEvent *,
                             unsigned int);
extern void XkbNoteNameChanges(XkbNameChangesPtr, XkbNamesNotifyEvent *,
                              unsigned int);
extern Display *XkbOpenDisplay(char *, int *, int *, int *, int *, int *);
extern int XkbQueryExtension(Display *, int *, int *, int *, int *, int *);
extern int XkbRefreshKeyboardMapping(XkbMapNotifyEvent *);
extern XkbAction *XkbResizeKeyActions(XkbDescPtr, int, int);
extern KeySym *XkbResizeKeySyms(XkbDescPtr, int, int);
extern int XkbResizeKeyType(XkbDescPtr, int, int, int, int);
extern int XkbSelectEventDetails(Display *, unsigned int, unsigned int,
                                 unsigned long int, unsigned long int);
extern int XkbSelectEvents(Display *, unsigned int, unsigned int,
                          unsigned int);
extern void XkbSetAtomFuncs(XkbInternAtomFunc, XkbGetAtomNameFunc);
extern int XkbSetAutoRepeatRate(Display *, unsigned int, unsigned int,
                                unsigned int);
extern int XkbSetAutoResetControls(Display *, unsigned int, unsigned int *,
                                   unsigned int *);
extern int XkbSetCompatMap(Display *, unsigned int, XkbDescPtr, int);
extern int XkbSetControls(Display *, unsigned long int, XkbDescPtr);
extern int XkbSetDebuggingFlags(Display *, unsigned int, unsigned int,
                                char *, unsigned int, unsigned int,
                                unsigned int *, unsigned int *);
extern int XkbSetDetectableAutoRepeat(Display *, int, int *);
extern int XkbSetIgnoreLockMods(Display *, unsigned int, unsigned int,
                                unsigned int, unsigned int, unsigned int);
extern int XkbSetIndicatorMap(Display *, unsigned long int, XkbDescPtr);
extern int XkbSetMap(Display *, unsigned int, XkbDescPtr);
extern int XkbSetNamedIndicator(Display *, Atom, int, int, int,
                               XkbIndicatorMapPtr);
extern int XkbSetNames(Display *, unsigned int, unsigned int, unsigned int,
                      XkbDescPtr);
extern int XkbSetPerClientControls(Display *, unsigned int,
                                   unsigned int *);
extern int XkbSetServerInternalMods(Display *, unsigned int, unsigned int,
                                    unsigned int, unsigned int,
                                    unsigned int);
extern unsigned int XkbSetXlibControls(Display *, unsigned int,
                                       unsigned int);
extern char XkbToControl(char);
extern int XkbTranslateKeyCode(XkbDescPtr, KeyCode, unsigned int,
                             unsigned int *, KeySym *);
extern int XkbTranslateKeySym(Display *, KeySym *, unsigned int, char *,
                             int, int *);
extern int XkbUpdateMapFromCore(XkbDescPtr, KeyCode, int, int, KeySym *,
                               XkbChangesPtr);
extern int XkbUseExtension(Display *, int *, int *);
extern int XkbVirtualModsToReal(XkbDescPtr, unsigned int, unsigned int *);

```

6.2.3. X11/Xatom.h

```
#define XA_PRIMARY          ((Atom) 1)
#define XA_CUT_BUFFER1     ((Atom) 10)
#define XA_CUT_BUFFER2     ((Atom) 11)
#define XA_CUT_BUFFER3     ((Atom) 12)
#define XA_CUT_BUFFER4     ((Atom) 13)
#define XA_CUT_BUFFER5     ((Atom) 14)
#define XA_CUT_BUFFER6     ((Atom) 15)
#define XA_CUT_BUFFER7     ((Atom) 16)
#define XA_DRAWABLE        ((Atom) 17)
#define XA_FONT            ((Atom) 18)
#define XA_INTEGER         ((Atom) 19)
#define XA_SECONDARY       ((Atom) 2)
#define XA_PIXMAP          ((Atom) 20)
#define XA_POINT           ((Atom) 21)
#define XA_RECTANGLE       ((Atom) 22)
#define XA_RESOURCE_MANAGER ((Atom) 23)
#define XA_RGB_COLOR_MAP   ((Atom) 24)
#define XA_RGB_BEST_MAP    ((Atom) 25)
#define XA_RGB_BLUE_MAP   ((Atom) 26)
#define XA_RGB_DEFAULT_MAP ((Atom) 27)
#define XA_RGB_GRAY_MAP   ((Atom) 28)
#define XA_RGB_GREEN_MAP   ((Atom) 29)
#define XA_ARC             ((Atom) 3)
#define XA_RGB_RED_MAP     ((Atom) 30)
#define XA_STRING          ((Atom) 31)
#define XA_VISUALID        ((Atom) 32)
#define XA_WINDOW          ((Atom) 33)
#define XA_WM_COMMAND       ((Atom) 34)
#define XA_WM_HINTS        ((Atom) 35)
#define XA_WM_CLIENT_MACHINE ((Atom) 36)
#define XA_WM_ICON_NAME    ((Atom) 37)
#define XA_WM_ICON_SIZE    ((Atom) 38)
#define XA_WM_NAME          ((Atom) 39)
#define XA_ATOM            ((Atom) 4)
#define XA_WM_NORMAL_HINTS ((Atom) 40)
#define XA_WM_SIZE_HINTS   ((Atom) 41)
#define XA_WM_ZOOM_HINTS   ((Atom) 42)
#define XA_MIN_SPACE       ((Atom) 43)
#define XA_NORM_SPACE      ((Atom) 44)
#define XA_MAX_SPACE       ((Atom) 45)
#define XA_END_SPACE       ((Atom) 46)
#define XA_SUPERSCRIPT_X   ((Atom) 47)
#define XA_SUPERSCRIPT_Y   ((Atom) 48)
#define XA_SUBSCRIPT_X     ((Atom) 49)
#define XA_BITMAP          ((Atom) 5)
#define XA_SUBSCRIPT_Y     ((Atom) 50)
#define XA_UNDERLINE_POSITION ((Atom) 51)
#define XA_UNDERLINE_THICKNESS ((Atom) 52)
#define XA_STRIKEOUT_ASCENT ((Atom) 53)
#define XA_STRIKEOUT_DESCENT ((Atom) 54)
#define XA_ITALIC_ANGLE    ((Atom) 55)
#define XA_X_HEIGHT        ((Atom) 56)
#define XA_QUAD_WIDTH      ((Atom) 57)
#define XA_WEIGHT          ((Atom) 58)
#define XA_POINT_SIZE      ((Atom) 59)
#define XA_CARDINAL        ((Atom) 6)
#define XA_RESOLUTION      ((Atom) 60)
#define XA_COPYRIGHT       ((Atom) 61)
```

```
#define XA_NOTICE      ((Atom) 62)
#define XA_FONT_NAME   ((Atom) 63)
#define XA_FAMILY_NAME ((Atom) 64)
#define XA_FULL_NAME   ((Atom) 65)
#define XA_CAP_HEIGHT  ((Atom) 66)
#define XA_WM_CLASS     ((Atom) 67)
#define XA_LAST_PREDEFINED ((Atom) 68)
#define XA_WM_TRANSIENT_FOR ((Atom) 68)
#define XA_COLORMAP     ((Atom) 7)
#define XA_CURSOR       ((Atom) 8)
#define XA_CUT_BUFFER0   ((Atom) 9)
#define XATOM_H 1
```

6.2.4. X11/Xauth.h

```
#define FamilyLocalHost (252)
#define FamilyKrb5Principal (253)
#define FamilyNetname (254)
#define FamilyLocal (256)
#define FamilyWild (65535)
#define LOCK_SUCCESS 0
#define LOCK_ERROR 1
#define _Xauth_h 1
#define LOCK_TIMEOUT 2

typedef struct xauth {
    unsigned short family;
    unsigned short address_length;
    char *address;
    unsigned short number_length;
    char *number;
    unsigned short name_length;
    char *name;
    unsigned short data_length;
    char *data;
} Xauth;

extern void XauDisposeAuth(Xauth *);
extern char *XauFileName(void);
extern Xauth *XauGetBestAuthByAddr(unsigned int, unsigned int,
                                   const char *, unsigned int,
                                   const char *, int, char **,
                                   const int *);
extern Xauth *XauReadAuth(FILE *);
```

6.2.5. X11/Xcms.h

```
#define ClientWhitePointOfCCC(ccc) (&(ccc)->clientWhitePt)
#define ScreenWhitePointOfCCC(ccc) (&(ccc)->pPerScrnInfo->screenWhitePt)
#define DisplayOfCCC(ccc) ((ccc)->dpy)
#define FunctionSetOfCCC(ccc) ((ccc)->pPerScrnInfo->functionSet)
#define ScreenNumberOfCCC(ccc) ((ccc)->screenNumber)
#define VisualOfCCC(ccc) ((ccc)->visual)
#define XcmsUndefinedFormat (XcmsColorFormat)0x00000000
#define XcmsCIEXYZFormat (XcmsColorFormat)0x00000001
#define XcmsCIEuvYFormat (XcmsColorFormat)0x00000002
#define XcmsCIExyYFormat (XcmsColorFormat)0x00000003
#define XcmsCIELabFormat (XcmsColorFormat)0x00000004
#define XcmsCIEluvFormat (XcmsColorFormat)0x00000005
#define XcmsTekHVCFormat (XcmsColorFormat)0x00000006
```

```

#define XcmsRGBFormat      (XcmsColorFormat) 0x80000000
#define XcmsRGBiFormat     (XcmsColorFormat) 0x80000001
#define XcmsFailure        0
#define XcmsInitNone       0x00
#define XcmsInitSuccess    0x01
#define XcmsInitFailure    0xff
#define XcmsSuccess         1
#define XcmsSuccessWithCompression 2

typedef unsigned long int XcmsColorFormat;
typedef double XcmsFloat;
typedef struct {
    unsigned short red;
    unsigned short green;
    unsigned short blue;
} XcmsRGB;
typedef struct {
    XcmsFloat red;
    XcmsFloat green;
    XcmsFloat blue;
} XcmsRGBi;
typedef struct {
    XcmsFloat X;
    XcmsFloat Y;
    XcmsFloat Z;
} XcmsCIEXYZ;
typedef struct {
    XcmsFloat u_prime;
    XcmsFloat v_prime;
    XcmsFloat Y;
} XcmsCIEuvY;
typedef struct {
    XcmsFloat x;
    XcmsFloat y;
    XcmsFloat Y;
} XcmsCIExyY;
typedef struct {
    XcmsFloat L_star;
    XcmsFloat a_star;
    XcmsFloat b_star;
} XcmsCIELab;
typedef struct {
    XcmsFloat L_star;
    XcmsFloat u_star;
    XcmsFloat v_star;
} XcmsCIELuv;
typedef struct {
    XcmsFloat H;
    XcmsFloat V;
    XcmsFloat C;
} XcmsTekHVC;
typedef struct {
    XcmsFloat pad0;
    XcmsFloat pad1;
    XcmsFloat pad2;
    XcmsFloat pad3;
} XcmsPad;
typedef struct {
    union {
        XcmsRGB RGB;
        XcmsRGBi RGBi;
        XcmsCIEXYZ CIEXYZ;
    };

```

```

        XcmsCIEuvY CIEuvY;
        XcmsCIExyY CIExyY;
        XcmsCIELab CIELab;
        XcmsCIELuv CIELuv;
        XcmsTekHVC TekHVC;
        XcmsPad Pad;
    } spec;
    unsigned long int pixel;
    XcmsColorFormat format;
} XcmsColor;
typedef struct _XcmsPerScrnInfo {
    XcmsColor screenWhitePt;
    XPointer functionSet;
    XPointer screenData;
    unsigned char state;
    char pad[3];
} XcmsPerScrnInfo;
typedef struct _XcmsCCC {
    Display *dpy;
    int screenNumber;
    Visual *visual;
    XcmsColor clientWhitePt;
    XcmsCompressionProc gamutCompProc;
    XPointer gamutCompClientData;
    XcmsWhiteAdjustProc whitePtAdjProc;
    XPointer whitePtAdjClientData;
    XcmsPerScrnInfo *pPerScrnInfo;
} XcmsCCCRec;
typedef struct _XcmsColorSpace {
    char *prefix;
    XcmsColorFormat id;
    XcmsParseStringProc parseString;
    XcmsFuncListPtr to_CIEXYZ;
    XcmsFuncListPtr from_CIEXYZ;
    int inverse_flag;
} XcmsColorSpace;
typedef struct _XcmsFunctionSet {
    XcmsColorSpace **DDColorSpaces;
    XcmsScreenInitProc screenInitProc;
    XcmsScreenFreeProc screenFreeProc;
} XcmsFunctionSet;
typedef struct _XcmsCCC *XcmsCCC;
typedef int (*XcmsCompressionProc) (XcmsCCC, XcmsColor *, unsigned int,
                                     unsigned int, int *);
typedef int (*XcmsWhiteAdjustProc) (XcmsCCC, XcmsColor *, XcmsColor *,
                                     XcmsColorFormat, XcmsColor *,
                                     unsigned int, int *);
typedef int (*XcmsScreenInitProc) (Display *, int, XcmsPerScrnInfo *);
typedef void (*XcmsScreenFreeProc) (XPointer);
typedef int (*XcmsDIConversionProc) (XcmsCCC, XcmsColor *, XcmsColor *,
                                     unsigned int);
typedef XcmsDIConversionProc XcmsConversionProc;
typedef int (*XcmsParseStringProc) (char *, XcmsColor *);
typedef XcmsConversionProc *XcmsFuncListPtr;
typedef int (*XcmsDDConversionProc) (XcmsCCC, XcmsColor *, unsigned int,
                                     int *);

extern int XcmsAddColorSpace(XcmsColorSpace *);
extern int XcmsAddFunctionSet(XcmsFunctionSet *);
extern int XcmsAllocColor(Display *, Colormap, XcmsColor *,
                          XcmsColorFormat);
extern int XcmsAllocNamedColor(Display *, Colormap, const char *,

```

```

XcmsColor *, XcmsColor *, XcmsColorFormat);
extern XcmsCCC XcmsCCCOFColormap(Display *, Colormap);
extern int XcmsCIELabClipL(XcmsCCC, XcmsColor *, unsigned int,
                           unsigned int, int *);
extern int XcmsCIELabClipLab(XcmsCCC, XcmsColor *, unsigned int,
                             unsigned int, int *);
extern int XcmsCIELabClipab(XcmsCCC, XcmsColor *, unsigned int,
                            unsigned int, int *);
extern int XcmsCIELabQueryMaxC(XcmsCCC, XcmsFloat, XcmsFloat, XcmsColor *);
extern int XcmsCIELabQueryMaxL(XcmsCCC, XcmsFloat, XcmsFloat, XcmsColor *);
extern int XcmsCIELabQueryMaxLC(XcmsCCC, XcmsFloat, XcmsColor *);
extern int XcmsCIELabQueryMinL(XcmsCCC, XcmsFloat, XcmsFloat, XcmsColor *);
extern int XcmsCIELabToCIEXYZ(XcmsCCC, XcmsColor *, XcmsColor *,
                              unsigned int);
extern int XcmsCIELabWhiteShiftColors(XcmsCCC, XcmsColor *, XcmsColor *,
                                       XcmsColorFormat, XcmsColor *,
                                       unsigned int, int *);
extern int XcmsCIELuvClipL(XcmsCCC, XcmsColor *, unsigned int,
                           unsigned int, int *);
extern int XcmsCIELuvClipLuv(XcmsCCC, XcmsColor *, unsigned int,
                              unsigned int, int *);
extern int XcmsCIELuvClipuv(XcmsCCC, XcmsColor *, unsigned int,
                             unsigned int, int *);
extern int XcmsCIELuvQueryMaxC(XcmsCCC, XcmsFloat, XcmsFloat, XcmsColor *);
extern int XcmsCIELuvQueryMaxL(XcmsCCC, XcmsFloat, XcmsFloat, XcmsColor *);
extern int XcmsCIELuvQueryMaxLC(XcmsCCC, XcmsFloat, XcmsColor *);
extern int XcmsCIELuvQueryMinL(XcmsCCC, XcmsFloat, XcmsFloat, XcmsColor *);
extern int XcmsCIELuvToCIeuvY(XcmsCCC, XcmsColor *, XcmsColor *,
                              unsigned int);
extern int XcmsCIELuvWhiteShiftColors(XcmsCCC, XcmsColor *, XcmsColor *,
                                       XcmsColorFormat, XcmsColor *,
                                       unsigned int, int *);
extern int XcmsCIEXYZToCIELab(XcmsCCC, XcmsColor *, XcmsColor *,
                              unsigned int);
extern int XcmsCIEXYZToCIeuvY(XcmsCCC, XcmsColor *, XcmsColor *,
                              unsigned int);
extern int XcmsCIEXYZToCIExyY(XcmsCCC, XcmsColor *, XcmsColor *,
                              unsigned int);
extern int XcmsCIEXYZToRGBi(XcmsCCC, XcmsColor *, unsigned int, int *);
extern int XcmsCIeuvYToCIELuv(XcmsCCC, XcmsColor *, XcmsColor *,
                              unsigned int);
extern int XcmsCIeuvYToCIEXYZ(XcmsCCC, XcmsColor *, XcmsColor *,
                              unsigned int);
extern int XcmsCIeuvYToTekHVC(XcmsCCC, XcmsColor *, XcmsColor *,
                              unsigned int);
extern int XcmsCIExyYToCIEXYZ(XcmsCCC, XcmsColor *, XcmsColor *,
                              unsigned int);
extern XcmsColor *XcmsClientWhitePointOfCCC(XcmsCCC);
extern int XcmsConvertColors(XcmsCCC, XcmsColor *, unsigned int,
                             XcmsColorFormat, int *);
extern XcmsCCC XcmsCreateCCC(Display *, int, Visual *, XcmsColor *,
                             XcmsCompressionProc, XPointer,
                             XcmsWhiteAdjustProc, XPointer);
extern XcmsCCC XcmsDefaultCCC(Display *, int);
extern Display *XcmsDisplayOfCCC(XcmsCCC);
extern XcmsColorFormat XcmsFormatOfPrefix(char *);
extern void XcmsFreeCCC(XcmsCCC);
extern int XcmsLookupColor(Display *, Colormap, const char *, XcmsColor *,
                           XcmsColor *, XcmsColorFormat);
extern char *XcmsPrefixOfFormat(XcmsColorFormat);
extern int XcmsQueryBlack(XcmsCCC, XcmsColorFormat, XcmsColor *);
extern int XcmsQueryBlue(XcmsCCC, XcmsColorFormat, XcmsColor *);

```

```

extern int XcmsQueryColor(Display *, Colormap, XcmsColor *,
                        XcmsColorFormat);
extern int XcmsQueryColors(Display *, Colormap, XcmsColor *, unsigned int,
                        XcmsColorFormat);
extern int XcmsQueryGreen(XcmsCCC, XcmsColorFormat, XcmsColor *);
extern int XcmsQueryRed(XcmsCCC, XcmsColorFormat, XcmsColor *);
extern int XcmsQueryWhite(XcmsCCC, XcmsColorFormat, XcmsColor *);
extern int XcmsRGBToRGBi(XcmsCCC, XcmsColor *, unsigned int, int *);
extern int XcmsRGBiToCIEXYZ(XcmsCCC, XcmsColor *, unsigned int, int *);
extern int XcmsRGBiToRGB(XcmsCCC, XcmsColor *, unsigned int, int *);
extern int XcmsScreenNumberOfCCC(XcmsCCC);
extern XcmsColor *XcmsScreenWhitePointOfCCC(XcmsCCC);
extern XcmsCCC XcmsSetCCCOfColormap(Display *, Colormap, XcmsCCC);
extern XcmsCompressionProc XcmsSetCompressionProc(XcmsCCC,
                                                XcmsCompressionProc,
                                                XPointer);
extern XcmsWhiteAdjustProc XcmsSetWhiteAdjustProc(XcmsCCC,
                                                XcmsWhiteAdjustProc,
                                                XPointer);
extern int XcmsSetWhitePoint(XcmsCCC, XcmsColor *);
extern int XcmsStoreColor(Display *, Colormap, XcmsColor *);
extern int XcmsStoreColors(Display *, Colormap, XcmsColor *, unsigned int,
                        int *);
extern int XcmsTekHVCClipC(XcmsCCC, XcmsColor *, unsigned int,
                        unsigned int, int *);
extern int XcmsTekHVCClipV(XcmsCCC, XcmsColor *, unsigned int,
                        unsigned int, int *);
extern int XcmsTekHVCClipVC(XcmsCCC, XcmsColor *, unsigned int,
                        unsigned int, int *);
extern int XcmsTekHVCQueryMaxC(XcmsCCC, XcmsFloat, XcmsFloat, XcmsColor *);
extern int XcmsTekHVCQueryMaxV(XcmsCCC, XcmsFloat, XcmsFloat, XcmsColor *);
extern int XcmsTekHVCQueryMaxVC(XcmsCCC, XcmsFloat, XcmsColor *);
extern int XcmsTekHVCQueryMaxVSamples(XcmsCCC, XcmsFloat, XcmsColor *,
                        unsigned int);
extern int XcmsTekHVCQueryMinV(XcmsCCC, XcmsFloat, XcmsFloat, XcmsColor *);
extern int XcmsTekHVCToCIEuvY(XcmsCCC, XcmsColor *, XcmsColor *,
                        unsigned int);
extern int XcmsTekHVCWhiteShiftColors(XcmsCCC, XcmsColor *, XcmsColor *,
                        XcmsColorFormat, XcmsColor *,
                        unsigned int, int *);
extern Visual *XcmsVisualOfCCC(XcmsCCC);

```

6.2.6. X11/Xfuncproto.h

```

#define NARROWPROTO
#ifdef __cplusplus
#define _XFUNCPROTOBEGIN extern "C" {
#else
#define _XFUNCPROTOBEGIN
#endif
#ifdef __cplusplus
#define _XFUNCPROTOEND }
#else
#define _XFUNCPROTOEND
#endif
#define NeedFunctionPrototypes 1
#define NeedNestedPrototypes 1
#define NeedVarargsPrototypes 1
#define NeedWidePrototypes 1
#define FUNCPROTO 15
#define _Xconst const

```



```

#define _X_INLINE inline
#define _X_SENTINEL(x) __attribute__((__sentinel__(x)))
#define _X_DEPRECATED __attribute__((deprecated))
#define _X_EXPORT __attribute__((visibility("default")))
#define _X_HIDDEN __attribute__((visibility("hidden")))
#define _X_INTERNAL __attribute__((visibility("internal")))
#define _X_ATTRIBUTE_PRINTF(x,y) __attribute__((__format__(__printf__,x,y)))
#define _X_UNLIKELY(x) __builtin_expect(!!(x), 0)
#define _X_LIKELY(x) __builtin_expect(!!(x), 1)

```

6.2.7. X11/Xlib.h

```

struct _XDisplay;

typedef char *XPointer;
typedef struct {
    unsigned long int pixel;
    unsigned short red;
    unsigned short green;
    unsigned short blue;
    char flags;
    char pad;
} XColor;
typedef struct _XDisplay Display;
typedef struct {
    int type;
    Display *display;
    XID resourceid;
    unsigned long int serial;
    unsigned char error_code;
    unsigned char request_code;
    unsigned char minor_code;
} XErrorEvent;
typedef struct _XIM *XIM;
typedef struct _XIC *XIC;
typedef void *XVaNestedList;
typedef unsigned long int XIMFeedback;
typedef struct _XIMText {
    unsigned short length;
    XIMFeedback *feedback;
    int encoding_is_wchar;
    union {
        char *multi_byte;
        wchar_t *wide_char;
    } string;
} XIMText;
typedef unsigned long int XIMPreeditState;
typedef struct _XIMPreeditStateNotifyCallbackStruct {
    XIMPreeditState state;
} XIMPreeditStateNotifyCallbackStruct;
typedef unsigned long int XIMResetState;
typedef unsigned long int XIMStringConversionFeedback;
typedef struct _XIMStringConversionText {
    unsigned short length;
    XIMStringConversionFeedback *feedback;
    int encoding_is_wchar;
    union {
        char *mbs;
        wchar_t *wcs;
    } string;
} XIMStringConversionText;

```

```

typedef unsigned short XIMStringConversionPosition;
typedef unsigned short XIMStringConversionType;
typedef unsigned short XIMStringConversionOperation;
typedef struct _XIMStringConversionCallbackStruct {
    XIMStringConversionPosition position;
    XIMCaretDirection direction;
    XIMStringConversionOperation operation;
    unsigned short factor;
    XIMStringConversionText *text;
} XIMStringConversionCallbackStruct;
typedef struct _XIMPreeditDrawCallbackStruct {
    int caret;
    int chg_first;
    int chg_length;
    XIMText *text;
} XIMPreeditDrawCallbackStruct;
typedef struct _XIMPreeditCaretCallbackStruct {
    int position;
    XIMCaretDirection direction;
    XIMCaretStyle style;
} XIMPreeditCaretCallbackStruct;
typedef struct _XIMStatusDrawCallbackStruct {
    XIMStatusDataType type;
    union {
        XIMText *text;
        Pixmap bitmap;
    } data;
} XIMStatusDrawCallbackStruct;
typedef struct _XIMHotKeyTrigger {
    KeySym keysym;
    int modifier;
    int modifier_mask;
} XIMHotKeyTrigger;
typedef struct _XIMHotKeyTriggers {
    int num_hot_key;
    XIMHotKeyTrigger *key;
} XIMHotKeyTriggers;
typedef unsigned long int XIMHotKeyState;
typedef struct {
    unsigned short count_values;
    char **supported_values;
} XIMValuesList;
typedef void (*XIMProc) (XIM, XPointer, XPointer);
typedef int (*XICProc) (XIC, XPointer, XPointer);
typedef enum {
    XIMForwardChar = 0,
    XIMBackwardChar = 1,
    XIMForwardWord = 2,
    XIMBackwardWord = 3,
    XIMCaretUp = 4,
    XIMCaretDown = 5,
    XIMNextLine = 6,
    XIMPreviousLine = 7,
    XIMLineStart = 8,
    XIMLineEnd = 9,
    XIMAbsolutePosition = 10,
    XIMDontChange = 11
} XIMCaretDirection;
typedef enum {
    XIMIsInvisible = 0,
    XIMIsPrimary = 1,
    XIMIsSecondary = 2

```

```

} XIMCaretStyle;
typedef enum {
    XIMTextType = 0,
    XIMBitmapType = 1
} XIMStatusDataType;
typedef int (*XErrorHandler) (Display *, XErrorEvent *);
typedef int (*XIOErrorHandler) (Display *);
typedef void (*XConnectionWatchProc) (Display *, XPointer, int, int,
                                      XPointer *);

#define XNArea "area"
#define XNAreaNeeded "areaNeeded"
#define XNBackground "background"
#define XNBackgroundPixmap "backgroundPixmap"
#define XNBaseFontName "baseFontName"
#define XNClientWindow "clientWindow"
#define XNColormap "colorMap"
#define XNContextualDrawing "contextualDrawing"
#define XNCursor "cursor"
#define XNDefaultString "defaultString"
#define XNDestroyCallback "destroyCallback"
#define XNDirectionalDependentDrawing "directionalDependentDrawing"
#define XNFilterEvents "filterEvents"
#define XNFocusWindow "focusWindow"
#define XNFontInfo "fontInfo"
#define XNFontSet "fontSet"
#define XNForeground "foreground"
#define XNGeometryCallback "geometryCallback"
#define XNHotKey "hotKey"
#define XNHotKeyState "hotKeyState"
#define XNInputStyle "inputStyle"
#define XNLineSpace "lineSpace"
#define XNMissingCharSet "missingCharSet"
#define XNOMAutomatic "omAutomatic"
#define XNOrientation "orientation"
#define XNPreeditAttributes "preeditAttributes"
#define XNPreeditCaretCallback "preeditCaretCallback"
#define XNPreeditDoneCallback "preeditDoneCallback"
#define XNPreeditDrawCallback "preeditDrawCallback"
#define XNPreeditStartCallback "preeditStartCallback"
#define XNPreeditState "preeditState"
#define XNPreeditStateNotifyCallback "preeditStateNotifyCallback"
#define XNQueryICValuesList "queryICValuesList"
#define XNQueryIMValuesList "queryIMValuesList"
#define XNQueryInputStyle "queryInputStyle"
#define XNQueryOrientation "queryOrientation"
#define XNR6PreeditCallback "r6PreeditCallback"
#define XNRequiredCharSet "requiredCharSet"
#define XNResetState "resetState"
#define XNResourceClass "resourceClass"
#define XNResourceName "resourceName"
#define XNSeparatorofNestedList "separatorofNestedList"
#define XNSpotLocation "spotLocation"
#define XNStatusAttributes "statusAttributes"
#define XNStatusDoneCallback "statusDoneCallback"
#define XNStatusDrawCallback "statusDrawCallback"
#define XNStatusStartCallback "statusStartCallback"
#define XNStdColormap "stdColorMap"
#define XNStringConversion "stringConversion"
#define XNStringConversionCallback "stringConversionCallback"
#define XNVisiblePosition "visiblePosition"
#define XNVaNestedList "XNVaNestedList"

```

Linux Standard Base Desktop Specification 4.1

```
#define ScreenOfDisplay(dpy,scr)      (&((_XPrivDisplay)dpy)->screens[scr])
#define BitmapBitOrder(dpy)          (((_XPrivDisplay)dpy)->bitmap_bit_order)
#define BitmapPad(dpy)               (((_XPrivDisplay)dpy)->bitmap_pad)
#define BitmapUnit(dpy)              (((_XPrivDisplay)dpy)->bitmap_unit)
#define ImageByteOrder(dpy)          (((_XPrivDisplay)dpy)->byte_order)
#define DefaultScreen(dpy)           (((_XPrivDisplay)dpy)->default_screen)
#define DisplayString(dpy)           (((_XPrivDisplay)dpy)->display_name)
#define ConnectionNumber(dpy)        (((_XPrivDisplay)dpy)->fd)
#define LastKnownRequestProcessed(dpy) (((_XPrivDisplay)dpy)->last_request_read)
#define ScreenCount(dpy)             (((_XPrivDisplay)dpy)->nsscreens)
#define ProtocolVersion(dpy)         (((_XPrivDisplay)dpy)->proto_major_version)
#define ProtocolRevision(dpy)        (((_XPrivDisplay)dpy)->proto_minor_version)
#define QLength(dpy)                 (((_XPrivDisplay)dpy)->qlen)
#define VendorRelease(dpy)           (((_XPrivDisplay)dpy)->release)
#define NextRequest(dpy)             (((_XPrivDisplay)dpy)->request+1)
#define ServerVendor(dpy)            (((_XPrivDisplay)dpy)->vendor)
#define XAllocID(dpy)                ((*((_XPrivDisplay)dpy)->resource_alloc)((dpy)))
#define DoesBackingStore(s)          ((s)->backing_store)
#define BlackPixelOfScreen(s)        ((s)->black_pixel)
#define DefaultColormapOfScreen(s)    ((s)->cmap)
#define DefaultGCOfScreen(s)         ((s)->default_gc)
#define DisplayOfScreen(s)           ((s)->display)
#define HeightOfScreen(s)            ((s)->height)
#define MaxCmapsOfScreen(s)          ((s)->max_maps)
#define HeightMMOfScreen(s)          ((s)->mheight)
#define MinCmapsOfScreen(s)          ((s)->min_maps)
#define WidthMMOfScreen(s)           ((s)->mwidth)
#define RootWindowOfScreen(s)        ((s)->root)
#define DefaultDepthOfScreen(s)      ((s)->root_depth)
#define PlanesOfScreen(s)            ((s)->root_depth)
#define EventMaskOfScreen(s)         ((s)->root_input_mask)
#define DefaultVisualOfScreen(s)      ((s)->root_visual)
#define DoesSaveUnders(s)            ((s)->save_unders)
#define WhitePixelOfScreen(s)        ((s)->white_pixel)
#define WidthOfScreen(s)             ((s)->width)
#define AllPlanes                    ((unsigned long)~0L)
#define XIMStringConversionLeftEdge  (0x00000001)
#define XIMStringConversionRightEdge (0x00000002)
#define XIMStringConversionTopEdge   (0x00000004)
#define XIMStringConversionBottomEdge (0x00000008)
#define XIMStringConversionConcealed (0x00000010)
#define XIMStringConversionWrapped   (0x00000020)
#define XIMStringConversionBuffer    (0x0001)
#define XIMStringConversionSubstitution (0x0001)
#define XIMHotKeyStateON              (0x0001L)
#define XIMStringConversionLine      (0x0002)
#define XIMStringConversionRetrieval  (0x0002)
#define XIMHotKeyStateOFF             (0x0002L)
#define XIMStringConversionWord       (0x0003)
#define XIMStringConversionChar       (0x0004)
#define XIMPreeditDisable             (1L<<1)
#define XIMPreserveState              (1L<<1)
#define XIMUnderline                  (1L<<1)
#define XIMVisibleToCenter            (1L<<10)
#define XIMHighlight                  (1L<<2)
#define XIMPrimary                    (1L<<5)
#define XIMSecondary                  (1L<<6)
#define XIMTertiary                   (1L<<7)
#define XIMVisibleToForward           (1L<<8)
#define XIMVisibleToBackward          (1L<<9)
#define DisplayCells(dpy,scr)         (DefaultVisual(dpy,scr)->map_entries)
#define CellsOfScreen(s)              (DefaultVisualOfScreen((s))->map_entries)
```

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```
#define DefaultRootWindow(dpy) (ScreenOfDisplay(dpy, DefaultScreen(dpy)) -> root)
#define BlackPixel(dpy, scr) (ScreenOfDisplay(dpy, scr) -> black_pixel)
#define DefaultColormap(dpy, scr) (ScreenOfDisplay(dpy, scr) -> cmap)
#define DefaultGC(dpy, scr) (ScreenOfDisplay(dpy, scr) -> default_gc)
#define DisplayHeight(dpy, scr) (ScreenOfDisplay(dpy, scr) -> height)
#define DisplayHeightMM(dpy, scr) (ScreenOfDisplay(dpy, scr) -> mheight)
#define DisplayWidthMM(dpy, scr) (ScreenOfDisplay(dpy, scr) -> mwidth)
#define RootWindow(dpy, scr) (ScreenOfDisplay(dpy, scr) -> root)
#define DefaultDepth(dpy, scr) (ScreenOfDisplay(dpy, scr) -> root_depth)
#define DisplayPlanes(dpy, scr) (ScreenOfDisplay(dpy, scr) -> root_depth)
#define DefaultVisual(dpy, scr) (ScreenOfDisplay(dpy, scr) -> root_visual)
#define WhitePixel(dpy, scr) (ScreenOfDisplay(dpy, scr) -> white_pixel)
#define DisplayWidth(dpy, scr) (ScreenOfDisplay(dpy, scr) -> width)
#define XBufferOverflow -1
#define False 0
#define QueuedAlready 0
#define XIMPreeditUnknown 0L
#define XIMPreeditArea 0x0001L
#define XIMPreeditCallbacks 0x0002L
#define XIMPreeditPosition 0x0004L
#define XIMPreeditNothing 0x0008L
#define XIMPreeditNone 0x0010L
#define XIMStatusArea 0x0100L
#define XIMStatusCallbacks 0x0200L
#define XIMStatusNothing 0x0400L
#define XIMStatusNone 0x0800L
#define QueuedAfterReading 1
#define True 1
#define XLookupNone 1
#define _XLIB_H_ 1
#define XIMInitialState 1L
#define XIMPreeditEnable 1L
#define XIMReverse 1L
#define QueuedAfterFlush 2
#define XLookupChars 2
#define XLookupKeySym 3
#define XLookupBoth 4
#define XlibSpecificationRelease 6
#define Bool int
#define Status int
#define DefaultScreenOfDisplay(dpy) ScreenOfDisplay(dpy, DefaultScreen(dpy))

typedef struct _XExtData {
    int number;
    struct _XExtData *next;
    int (*free_private) (struct _XExtData * extension);
    XPointer private_data;
} XExtData;

typedef struct {
    int extension;
    int major_opcode;
    int first_event;
    int first_error;
} XExtCodes;

typedef struct {
    int depth;
    int bits_per_pixel;
    int scanline_pad;
} XPixmapFormatValues;

typedef struct {
```

```

    int function;
    unsigned long int plane_mask;
    unsigned long int foreground;
    unsigned long int background;
    int line_width;
    int line_style;
    int cap_style;
    int join_style;
    int fill_style;
    int fill_rule;
    int arc_mode;
    Pixmap tile;
    Pixmap stipple;
    int ts_x_origin;
    int ts_y_origin;
    Font font;
    int subwindow_mode;
    int graphics_exposures;
    int clip_x_origin;
    int clip_y_origin;
    Pixmap clip_mask;
    int dash_offset;
    char dashes;
} XGCValues;

struct _XGC;
typedef struct _XGC *GC;

typedef struct {
    XExtData *ext_data;
    VisualID visualid;
#if defined(__cplusplus) || defined(c_plusplus)
    int c_class;
#else
    int class;
#endif
} Visual;

typedef struct {
    int depth;
    int nvisuals;
    Visual *visuals;
} Depth;

typedef struct {
    XExtData *ext_data;
    struct _XDisplay *display;
    Window root;
    int width;
    int height;
    int mwidth;
    int mheight;
    int ndepths;
    Depth *depths;
    int root_depth;
    Visual *root_visual;
    GC default_gc;

```

```

    Colormap cmap;
    unsigned long int white_pixel;
    unsigned long int black_pixel;
    int max_maps;
    int min_maps;
    int backing_store;
    int save_unders;
    long int root_input_mask;
} Screen;

typedef struct {
    XExtData *ext_data;
    int depth;
    int bits_per_pixel;
    int scanline_pad;
} ScreenFormat;

typedef struct {
    Pixmap background_pixmap;
    unsigned long int background_pixel;
    Pixmap border_pixmap;
    unsigned long int border_pixel;
    int bit_gravity;
    int win_gravity;
    int backing_store;
    unsigned long int backing_planes;
    unsigned long int backing_pixel;
    int save_under;
    long int event_mask;
    long int do_not_propagate_mask;
    int override_redirect;
    Colormap colormap;
    Cursor cursor;
} XSetWindowAttributes;

typedef struct {
    int x;
    int y;
    int width;
    int height;
    int border_width;
    int depth;
    Visual *visual;
    Window root;
#if defined(__cplusplus) || defined(c_plusplus)
    int c_class;
#else
    int class;
#endif
    int bit_gravity;
    int win_gravity;
    int backing_store;
    unsigned long int backing_planes;
    unsigned long int backing_pixel;
    int save_under;
    Colormap colormap;
    int map_installed;
    int map_state;
    long int all_event_masks;
    long int your_event_mask;
    long int do_not_propagate_mask;
    int override_redirect;
    Screen *screen;

```

```

} XWindowAttributes;

typedef struct {
    int family;
    int length;
    char *address;
} XHostAddress;

struct funcs {
    struct _XImage *(*create_image) (void);
    int (*destroy_image) (void);
    unsigned long int (*get_pixel) (void);
    int (*put_pixel) (void);
    struct _XImage *(*sub_image) (void);
    int (*add_pixel) (void);
};

typedef struct _XImage {
    int width;
    int height;
    int xoffset;
    int format;
    char *data;
    int byte_order;
    int bitmap_unit;
    int bitmap_bit_order;
    int bitmap_pad;
    int depth;
    int bytes_per_line;
    int bits_per_pixel;
    unsigned long int red_mask;
    unsigned long int green_mask;
    unsigned long int blue_mask;
    XPointer obdata;
    struct funcs f;
} XImage;

typedef struct {
    int x;
    int y;
    int width;
    int height;
    int border_width;
    Window sibling;
    int stack_mode;
} XWindowChanges;

typedef struct {
    short x1;
    short y1;
    short x2;
    short y2;
} XSegment;

typedef struct {
    short x;
    short y;
} XPoint;

typedef struct {
    short x;
    short y;
    unsigned short width;
    unsigned short height;
} XRectangle;

```



```

typedef struct {
    short x;
    short y;
    unsigned short width;
    unsigned short height;
    short angle1;
    short angle2;
} XArc;

typedef struct {
    int key_click_percent;
    int bell_percent;
    int bell_pitch;
    int bell_duration;
    int led;
    int led_mode;
    int key;
    int auto_repeat_mode;
} XKeyboardControl;

typedef struct {
    int key_click_percent;
    int bell_percent;
    unsigned int bell_pitch;
    unsigned int bell_duration;
    unsigned long int led_mask;
    int global_auto_repeat;
    char auto_repeats[32];
} XKeyboardState;

typedef struct {
    Time time;
    short x;
    short y;
} XTimeCoord;

typedef struct {
    int max_keypermod;
    KeyCode *modifiermap;
} XModifierKeymap;

typedef struct {
    XExtData *ext_data;
    struct _XPrivate *private1;
    int fd;
    int private2;
    int proto_major_version;
    int proto_minor_version;
    char *vendor;
    XID private3;
    XID private4;
    XID private5;
    int private6;
    XID(*resource_alloc) (struct _XDisplay *);
    int byte_order;
    int bitmap_unit;
    int bitmap_pad;
    int bitmap_bit_order;
    int nformats;
    ScreenFormat *pixmap_format;
    int private8;
    int release;

```

```

struct _XPrivate *private9;
struct _XPrivate *private10;
int qlen;
unsigned long int last_request_read;
unsigned long int request;
XPointer private11;
XPointer private12;
XPointer private13;
XPointer private14;
unsigned int max_request_size;
struct _XrmHashBucketRec *db;
int (*private15) (struct _XDisplay *);
char *display_name;
int default_screen;
int nscreens;
Screen *screens;
unsigned long int motion_buffer;
unsigned long int private16;
int min_keycode;
int max_keycode;
XPointer private17;
XPointer private18;
int private19;
char *xdefaults;
} *_XPrivDisplay;

typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    Window root;
    Window subwindow;
    Time time;
    int x;
    int y;
    int x_root;
    int y_root;
    unsigned int state;
    unsigned int keycode;
    int same_screen;
} XKeyEvent;
typedef XKeyEvent XKeyPressedEvent;
typedef XKeyEvent XKeyReleasedEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    Window root;
    Window subwindow;
    Time time;
    int x;
    int y;
    int x_root;
    int y_root;
    unsigned int state;
    unsigned int button;
    int same_screen;
} XButtonEvent;

```

```

typedef XButtonEvent XButtonPressedEvent;
typedef XButtonEvent XButtonReleasedEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    Window root;
    Window subwindow;
    Time time;
    int x;
    int y;
    int x_root;
    int y_root;
    unsigned int state;
    char is_hint;
    int same_screen;
} XMotionEvent;
typedef XMotionEvent XPointerMovedEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    Window root;
    Window subwindow;
    Time time;
    int x;
    int y;
    int x_root;
    int y_root;
    int mode;
    int detail;
    int same_screen;
    int focus;
    unsigned int state;
} XCrossingEvent;
typedef XCrossingEvent XEnterWindowEvent;
typedef XCrossingEvent XLeaveWindowEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    int mode;
    int detail;
} XFocusChangeEvent;
typedef XFocusChangeEvent XFocusInEvent;
typedef XFocusChangeEvent XFocusOutEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    char key_vector[32];
} XKeymapEvent;
typedef struct {
    int type;

```

```

    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    int x;
    int y;
    int width;
    int height;
    int count;
} XExposeEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Drawable drawable;
    int x;
    int y;
    int width;
    int height;
    int count;
    int major_code;
    int minor_code;
} XGraphicsExposeEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Drawable drawable;
    int major_code;
    int minor_code;
} XNoExposeEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    int state;
} XVisibilityEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window parent;
    Window window;
    int x;
    int y;
    int width;
    int height;
    int border_width;
    int override_redirect;
} XCreateWindowEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window event;
    Window window;

```

```

} XDestroyWindowEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window event;
    Window window;
    int from_configure;
} XUnmapEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window event;
    Window window;
    int override_redirect;
} XMapEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window parent;
    Window window;
} XMapRequestEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window event;
    Window window;
    Window parent;
    int x;
    int y;
    int override_redirect;
} XReparentEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window event;
    Window window;
    int x;
    int y;
    int width;
    int height;
    int border_width;
    Window above;
    int override_redirect;
} XConfigureEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window event;
    Window window;
    int x;

```

```

    int y;
} XGravityEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    int width;
    int height;
} XResizeRequestEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window parent;
    Window window;
    int x;
    int y;
    int width;
    int height;
    int border_width;
    Window above;
    int detail;
    unsigned long int value_mask;
} XConfigureRequestEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window event;
    Window window;
    int place;
} XCirculateEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window parent;
    Window window;
    int place;
} XCirculateRequestEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    Atom atom;
    Time time;
    int state;
} XPropertyEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    Atom selection;

```

```

    Time time;
} XSelectionClearEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window owner;
    Window requestor;
    Atom selection;
    Atom target;
    Atom property;
    Time time;
} XSelectionRequestEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window requestor;
    Atom selection;
    Atom target;
    Atom property;
    Time time;
} XSelectionEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    Colormap colormap;
#if defined(__cplusplus) || defined(c_plusplus)
    int c_new;
#else
    int new;
#endif
    int state;
} XColormapEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    Atom message_type;
    int format;
    union {
        char b[20];
        short s[10];
        long int l[5];
    } data;
} XClientMessageEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    int request;
    int first_keycode;
    int count;

```

```

} XMappingEvent;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
} XAnyEvent;

union _XEvent {
    int type;
    XAnyEvent xany;
    XKeyEvent xkey;
    XButtonEvent xbutton;
    XMotionEvent xmotion;
    XCrossingEvent xcrossing;
    XFocusChangeEvent xfocus;
    XExposeEvent xexpose;
    XGraphicsExposeEvent xgraphicsexpose;
    XNoExposeEvent xnoexpose;
    XVisibilityEvent xvisibility;
    XCreateWindowEvent xcreatewindow;
    XDestroyWindowEvent xdestroywindow;
    XUnmapEvent xunmap;
    XMapEvent xmap;
    XMapRequestEvent xmaprequest;
    XReparentEvent xreparent;
    XConfigureEvent xconfigure;
    XGravityEvent xgravity;
    XResizeRequestEvent xresizerequest;
    XConfigureRequestEvent xconfigurerequest;
    XCirculateEvent xcirculate;
    XCirculateRequestEvent xcirculaterequest;
    XPropertyEvent xproperty;
    XSelectionClearEvent xselectionclear;
    XSelectionRequestEvent xselectionrequest;
    XSelectionEvent xselection;
    XColormapEvent xcolormap;
    XClientMessageEvent xclient;
    XMappingEvent xmapping;
    XErrorEvent xerror;
    XKeymapEvent xkeymap;
    long int pad[24];
};
typedef union _XEvent {
    int type;
    XAnyEvent xany;
    XKeyEvent xkey;
    XButtonEvent xbutton;
    XMotionEvent xmotion;
    XCrossingEvent xcrossing;
    XFocusChangeEvent xfocus;
    XExposeEvent xexpose;
    XGraphicsExposeEvent xgraphicsexpose;
    XNoExposeEvent xnoexpose;
    XVisibilityEvent xvisibility;
    XCreateWindowEvent xcreatewindow;
    XDestroyWindowEvent xdestroywindow;
    XUnmapEvent xunmap;
    XMapEvent xmap;
    XMapRequestEvent xmaprequest;
    XReparentEvent xreparent;

```



```

XConfigureEvent xconfigure;
XGravityEvent xgravity;
XResizeRequestEvent xresizerequest;
XConfigureRequestEvent xconfigurerequest;
XCirculateEvent xcirculate;
XCirculateRequestEvent xcirculaterequest;
XPropertyEvent xproperty;
XSelectionClearEvent xselectionclear;
XSelectionRequestEvent xselectionrequest;
XSelectionEvent xselection;
XColormapEvent xcolormap;
XClientMessageEvent xclient;
XMappingEvent xmapping;
XErrorEvent xerror;
XKeymapEvent xkeymap;
    long int pad[24];
} XEvent;

typedef struct {
    short lbearing;
    short rbearing;
    short width;
    short ascent;
    short descent;
    unsigned short attributes;
} XCharStruct;

typedef struct {
    Atom name;
    unsigned long int card32;
} XFontProp;
typedef struct {
    XExtData *ext_data;
    Font fid;
    unsigned int direction;
    unsigned int min_char_or_byte2;
    unsigned int max_char_or_byte2;
    unsigned int min_bytel;
    unsigned int max_bytel;
    int all_chars_exist;
    unsigned int default_char;
    int n_properties;
    XFontProp *properties;
    XCharStruct min_bounds;
    XCharStruct max_bounds;
    XCharStruct *per_char;
    int ascent;
    int descent;
} XFontStruct;
typedef struct {
    XRectangle max_ink_extent;
    XRectangle max_logical_extent;
} XFontSetExtents;

typedef struct {
    char *chars;
    int nchars;
    int delta;
    Font font;
} XTextItem;
typedef struct {
    unsigned char bytel;

```

```

    unsigned char byte2;
} XChar2b;
typedef struct {
    XChar2b *chars;
    int nchars;
    int delta;
    Font font;
} XTextItem16;

typedef union {
    Display *display;
    GC gc;
    Visual *visual;
    Screen *screen;
    ScreenFormat *pixmap_format;
    XFontStruct *font;
} XEObject;

typedef struct _XOM *XOM;
typedef struct _XOC *XOC;
typedef struct _XOC *XFontSet;

typedef struct {
    char *chars;
    int nchars;
    int delta;
    XFontSet font_set;
} XmbTextItem;
typedef struct {
    wchar_t *chars;
    int nchars;
    int delta;
    XFontSet font_set;
} XwcTextItem;

typedef struct {
    int charset_count;
    char **charset_list;
} XOMCharSetList;
typedef enum {
    XOMOrientation_LTR_TTB = 0,
    XOMOrientation_RTL_TTB = 1,
    XOMOrientation_TTB_LTR = 2,
    XOMOrientation_TTB_RTL = 3,
    XOMOrientation_Context = 4
} XOrient;
typedef struct {
    int num_font;
    XFontStruct **font_struct_list;
    char **font_name_list;
} XOMFontInfo;
typedef struct {
    int num_orientation;
    XOrient *orientation;
} XOMOrientation;

typedef unsigned long int XIMStyle;
typedef struct {
    unsigned short count_styles;
    XIMStyle *supported_styles;
} XIMStyles;
typedef struct {

```

```

    XPointer client_data;
    XIMProc callback;
} XIMCallback;
typedef struct {
    XPointer client_data;
    XICProc callback;
} XICCallback;
typedef void (*XIDProc) (Display *, XPointer, XPointer);
extern int XActivateScreenSaver(Display *);
extern int XAddConnectionWatch(Display *, XConnectionWatchProc, XPointer);
extern XExtCodes *XAddExtension(Display *);
extern int XAddHost(Display *, XHostAddress *);
extern int XAddHosts(Display *, XHostAddress *, int);
extern int XAddToExtensionList(struct _XExtData **, XExtData *);
extern int XAddToSaveSet(Display *, Window);
extern unsigned long int XAllPlanes(void);
extern int XAllocColor(Display *, Colormap, XColor *);
extern int XAllocColorCells(Display *, Colormap, int, unsigned long int *,
                           unsigned int, unsigned long int *,
                           unsigned int);
extern int XAllocColorPlanes(Display *, Colormap, int, unsigned long int *,
                             int, int, int, int, unsigned long int *,
                             unsigned long int *, unsigned long int *);
extern int XAllocNamedColor(Display *, Colormap, const char *, XColor *,
                           XColor *);
extern int XAllowEvents(Display *, int, Time);
extern int XAutoRepeatOff(Display *);
extern int XAutoRepeatOn(Display *);
extern char *XBaseFontNameListOfFontSet(XFontSet);
extern int XBell(Display *, int);
extern int XBitmapBitOrder(Display *);
extern int XBitmapPad(Display *);
extern int XBitmapUnit(Display *);
extern unsigned long int XBlackPixel(Display *, int);
extern unsigned long int XBlackPixelOfScreen(Screen *);
extern int XCellsOfScreen(Screen *);
extern int XChangeActivePointerGrab(Display *, unsigned int, Cursor, Time);
extern int XChangeGC(Display *, GC, unsigned long int, XGCValues *);
extern int XChangeKeyboardControl(Display *, unsigned long int,
                                  XKeyboardControl *);
extern int XChangeKeyboardMapping(Display *, int, int, KeySym *, int);
extern int XChangePointerControl(Display *, int, int, int, int, int);
extern int XChangeProperty(Display *, Window, Atom, Atom, int, int,
                           const unsigned char *, int);
extern int XChangeSaveSet(Display *, Window, int);
extern int XChangeWindowAttributes(Display *, Window, unsigned long int,
                                   XSetWindowAttributes *);
extern int XCheckIfEvent(Display *, XEvent *,
                        int (*)(Display *, XEvent *, XPointer), XPointer);
extern int XCheckMaskEvent(Display *, long int, XEvent *);
extern int XCheckTypedEvent(Display *, int, XEvent *);
extern int XCheckTypedWindowEvent(Display *, Window, int, XEvent *);
extern int XCheckWindowEvent(Display *, Window, long int, XEvent *);
extern int XCirculateSubwindows(Display *, Window, int);
extern int XCirculateSubwindowsDown(Display *, Window);
extern int XCirculateSubwindowsUp(Display *, Window);
extern int XClearArea(Display *, Window, int, int, unsigned int,
                     unsigned int, int);
extern int XClearWindow(Display *, Window);
extern int XCloseDisplay(Display *);
extern int XCloseIM(XIM);
extern int XCloseOM(XOM);

```

```

extern int XConfigureWindow(Display *, Window, unsigned int,
                           XWindowChanges *);
extern int XConnectionNumber(Display *);
extern int XContextDependentDrawing(XFontSet);
extern int XContextualDrawing(XFontSet);
extern int XConvertSelection(Display *, Atom, Atom, Atom, Window, Time);
extern int XCopyArea(Display *, Drawable, Drawable, GC, int, int,
                    unsigned int, unsigned int, int, int);
extern Colormap XCopyColormapAndFree(Display *, Colormap);
extern int XCopyGC(Display *, GC, unsigned long int, GC);
extern int XCopyPlane(Display *, Drawable, Drawable, GC, int, int,
                    unsigned int, unsigned int, int, int,
                    unsigned long int);
extern Pixmap XCreateBitmapFromData(Display *, Drawable, const char *,
                                    unsigned int, unsigned int);
extern Colormap XCreateColormap(Display *, Window, Visual *, int);
extern Cursor XCreateFontCursor(Display *, unsigned int);
extern XFontSet XCreateFontSet(Display *, const char *, char ***, int *,
                              char **);
extern GC XCreateGC(Display *, Drawable, unsigned long int, XGCValues *);
extern Cursor XCreateGlyphCursor(Display *, Font, Font, unsigned int,
                                unsigned int, const XColor *,
                                const XColor *);

extern XIC XCreateIC(XIM, ...);
extern XImage *XCreateImage(Display *, Visual *, unsigned int, int, int,
                           char *, unsigned int, unsigned int, int, int);
extern XOC XCreateOC(XOM, ...);
extern Pixmap XCreatePixmap(Display *, Drawable, unsigned int,
                           unsigned int, unsigned int);
extern Cursor XCreatePixmapCursor(Display *, Pixmap, Pixmap, XColor *,
                                XColor *, unsigned int, unsigned int);
extern Pixmap XCreatePixmapFromBitmapData(Display *, Drawable, char *,
                                         unsigned int, unsigned int,
                                         unsigned long int,
                                         unsigned long int, unsigned int);
extern Window XCreateSimpleWindow(Display *, Window, int, int,
                                unsigned int, unsigned int, unsigned int,
                                unsigned long int, unsigned long int);
extern Window XCreateWindow(Display *, Window, int, int, unsigned int,
                           unsigned int, unsigned int, int, unsigned int,
                           Visual *, unsigned long int,
                           XSetWindowAttributes *);
extern Colormap XDefaultColormap(Display *, int);
extern Colormap XDefaultColormapOfScreen(Screen *);
extern int XDefaultDepth(Display *, int);
extern int XDefaultDepthOfScreen(Screen *);
extern GC XDefaultGC(Display *, int);
extern GC XDefaultGCOfScreen(Screen *);
extern Window XDefaultRootWindow(Display *);
extern int XDefaultScreen(Display *);
extern Screen *XDefaultScreenOfDisplay(Display *);
extern Visual *XDefaultVisual(Display *, int);
extern Visual *XDefaultVisualOfScreen(Screen *);
extern int XDefineCursor(Display *, Window, Cursor);
extern XModifierKeymap *XDeleteModifiermapEntry(XModifierKeymap *,
                                                unsigned int, int);
extern int XDeleteProperty(Display *, Window, Atom);
extern void XDestroyIC(XIC);
extern void XDestroyOC(XOC);
extern int XDestroySubwindows(Display *, Window);
extern int XDestroyWindow(Display *, Window);
extern int XDirectionalDependentDrawing(XFontSet);

```

```

extern int XDisableAccessControl(Display *);
extern int XDisplayCells(Display *, int);
extern int XDisplayHeight(Display *, int);
extern int XDisplayHeightMM(Display *, int);
extern int XDisplayKeycodes(Display *, int *, int *);
extern unsigned long int XDisplayMotionBufferSize(Display *);
extern char *XDisplayName(const char *);
extern Display *XDisplayOfIM(XIM);
extern Display *XDisplayOfOM(XOM);
extern Display *XDisplayOfScreen(Screen *);
extern int XDisplayPlanes(Display *, int);
extern char *XDisplayString(Display *);
extern int XDisplayWidth(Display *, int);
extern int XDisplayWidthMM(Display *, int);
extern int XDoesBackingStore(Screen *);
extern int XDoesSaveUnders(Screen *);
extern int XDrawArc(Display *, Drawable, GC, int, int, unsigned int,
                    unsigned int, int, int);
extern int XDrawArcs(Display *, Drawable, GC, XArc *, int);
extern int XDrawImageString(Display *, Drawable, GC, int, int,
                            const char *, int);
extern int XDrawImageString16(Display *, Drawable, GC, int, int,
                              const XChar2b *, int);
extern int XDrawLine(Display *, Drawable, GC, int, int, int, int);
extern int XDrawLines(Display *, Drawable, GC, XPoint *, int, int);
extern int XDrawPoint(Display *, Drawable, GC, int, int);
extern int XDrawPoints(Display *, Drawable, GC, XPoint *, int, int);
extern int XDrawRectangle(Display *, Drawable, GC, int, int, unsigned int,
                          unsigned int);
extern int XDrawRectangles(Display *, Drawable, GC, XRectangle *, int);
extern int XDrawSegments(Display *, Drawable, GC, XSegment *, int);
extern int XDrawString(Display *, Drawable, GC, int, int, const char *,
                      int);
extern int XDrawString16(Display *, Drawable, GC, int, int,
                        const XChar2b *, int);
extern int XDrawText(Display *, Drawable, GC, int, int, XTextItem *, int);
extern int XDrawText16(Display *, Drawable, GC, int, int, XTextItem16 *,
                      int);
extern XEventData **XEHeadOfExtensionList(XEventDataObject);
extern
    void (*XESetBeforeFlush
          (Display *, int,
           void (*)(Display *, XExtCodes *, const char *,
                    long int))) (Display *, XExtCodes *, const char *,
                                long int);
extern
    int (*XESetCloseDisplay
         (Display *, int, int (*)(Display *, XExtCodes *))) (Display *,
                                                             XExtCodes *);
extern
    int (*XESetCopyGC(Display *, int, int (*)(Display *, GC, XExtCodes *)))
        (Display *, GC, XExtCodes *);
extern
    int (*XESetCreateFont
         (Display *, int,
          int (*)(Display *, XFontStruct *, XExtCodes *))) (Display *,
                                                            XFontStruct *,
                                                            XExtCodes *);
extern
    int (*XESetCreateGC
         (Display *, int, int (*)(Display *, GC, XExtCodes *))) (Display *,
                                                                GC,

```

```

XExtCodes
*);

extern
int (*XSetError
    (Display *, int,
     int (*)(Display *, xError *, XExtCodes *, int *))) (Display *,
                                                         xError *,
                                                         XExtCodes *,
                                                         int *);

extern char
*(*XSetErrorString
    (Display *, int,
     char (*)(Display *, int, XExtCodes *, char *, int))) (Display *,
                                                         int,
                                                         XExtCodes *,
                                                         char *, int);

extern
int (*XSetEventToWire
    (Display *, int,
     int (*)(Display *, XEvent *, xEvent *))) (Display *, XEvent *,
                                                         xEvent *);

extern
int (*XSetFlushGC
    (Display *, int, int (*)(Display *, GC, XExtCodes *))) (Display *,
                                                         GC,
                                                         XExtCodes
                                                         *);

extern
int (*XSetFreeFont
    (Display *, int,
     int (*)(Display *, XFontStruct *, XExtCodes *))) (Display *,
                                                         XFontStruct *,
                                                         XExtCodes *);

extern
int (*XSetFreeGC(Display *, int, int (*)(Display *, GC, XExtCodes *)))
(Display *, GC, XExtCodes *);

extern
void (*XSetPrintErrorValues
    (Display *, int,
     void (*)(Display *, XErrorEvent *, void *))) (Display *,
                                                         XErrorEvent *,
                                                         void *);

extern
int (*XSetWireToError
    (Display *, int,
     int (*)(Display *, XErrorEvent *, xError *))) (Display *,
                                                         XErrorEvent *,
                                                         xError *);

extern
int (*XSetWireToEvent
    (Display *, int,
     int (*)(Display *, XEvent *, xEvent *))) (Display *, XEvent *,
                                                         xEvent *);

extern int XEnableAccessControl(Display *);
extern long int XEventMaskOfScreen(Screen *);
extern int XEventsQueued(Display *, int);
extern long int XExtendedMaxRequestSize(Display *);
extern XFontSetExtents *XExtentsOfFontSet(XFontSet);
extern char *XFetchBuffer(Display *, int *, int);
extern char *XFetchBytes(Display *, int *);
extern int XFetchName(Display *, Window, char **);
extern int XFillArc(Display *, Drawable, GC, int, int, unsigned int,

```

```

        unsigned int, int, int);
extern int XFillArcs(Display *, Drawable, GC, XArc *, int);
extern int XFillPolygon(Display *, Drawable, GC, XPoint *, int, int, int);
extern int XFillRectangle(Display *, Drawable, GC, int, int, unsigned int,
        unsigned int);
extern int XFillRectangles(Display *, Drawable, GC, XRectangle *, int);
extern int XFilterEvent(XEvent *, Window);
extern XExtData *XFindOnExtensionList(XExtData * *, int);
extern int XFlush(Display *);
extern void XFlushGC(Display *, GC);
extern int XFontsOfFontSet(XFontSet, XFontStruct * **, char **);
extern int XForceScreenSaver(Display *, int);
extern int XFree(void *);
extern int XFreeColormap(Display *, Colormap);
extern int XFreeColors(Display *, Colormap, unsigned long int *, int,
        unsigned long int);
extern int XFreeCursor(Display *, Cursor);
extern int XFreeExtensionList(char **);
extern int XFreeFont(Display *, XFontStruct *);
extern int XFreeFontInfo(char **, XFontStruct *, int);
extern int XFreeFontNames(char **);
extern int XFreeFontPath(char **);
extern void XFreeFontSet(Display *, XFontSet);
extern int XFreeGC(Display *, GC);
extern int XFreeModifiermap(XModifierKeymap *);
extern int XFreePixmap(Display *, Pixmap);
extern void XFreeStringList(char **);
extern GCContext XGCContextFromGC(GC);
extern int XGeometry(Display *, int, const char *, const char *,
        unsigned int, unsigned int, unsigned int, int, int,
        int *, int *, int *, int *);
extern char *XGetAtomName(Display *, Atom);
extern int XGetAtomNames(Display *, Atom *, int, char **);
extern int XGetCommand(Display *, Window, char ***, int *);
extern char *XGetDefault(Display *, const char *, const char *);
extern int XGetErrorDatabaseText(Display *, const char *, const char *,
        const char *, char *, int);
extern int XGetErrorText(Display *, int, char *, int);
extern char **XGetFontPath(Display *, int *);
extern int XGetFontProperty(XFontStruct *, Atom, unsigned long int *);
extern int XGetGCValues(Display *, GC, unsigned long int, XGCValues *);
extern int XGetGeometry(Display *, Drawable, Window *, int *, int *,
        unsigned int *, unsigned int *, unsigned int *,
        unsigned int *);
extern char *XGetICValues(XIC, ...);
extern char *XGetIMValues(XIM, ...);
extern int XGetIconName(Display *, Window, char **);
extern XImage *XGetImage(Display *, Drawable, int, int, unsigned int,
        unsigned int, unsigned long int, int);
extern int XGetInputFocus(Display *, Window *, int *);
extern int XGetKeyboardControl(Display *, XKeyboardState *);
extern KeySym *XGetKeyboardMapping(Display *, unsigned int, int, int *);
extern XModifierKeymap *XGetModifierMapping(Display *);
extern XTimeCoord *XGetMotionEvents(Display *, Window, Time, Time, int *);
extern char *XGetOCValues(XOC, ...);
extern char *XGetOMValues(XOM, ...);
extern int XGetPointerControl(Display *, int *, int *, int *);
extern int XGetPointerMapping(Display *, unsigned char *, int);
extern int XGetScreenSaver(Display *, int *, int *, int *, int *);
extern Window XGetSelectionOwner(Display *, Atom);
extern XImage *XGetSubImage(Display *, Drawable, int, int, unsigned int,
        unsigned int, unsigned long int, int, XImage *,

```

```

        int, int);
extern int XGetTransientForHint(Display *, Window, Window *);
extern int XGetWMColormapWindows(Display *, Window, Window **, int *);
extern int XGetWMProtocols(Display *, Window, Atom **, int *);
extern int XGetWindowAttributes(Display *, Window, XWindowAttributes *);
extern int XGetWindowProperty(Display *, Window, Atom, long int, long int,
                               int, Atom, Atom *, int *,
                               unsigned long int *, unsigned long int *,
                               unsigned char **);
extern int XGrabButton(Display *, unsigned int, unsigned int, Window, int,
                       unsigned int, int, int, Window, Cursor);
extern int XGrabKey(Display *, int, unsigned int, Window, int, int, int);
extern int XGrabKeyboard(Display *, Window, int, int, int, Time);
extern int XGrabPointer(Display *, Window, int, unsigned int, int, int,
                        Window, Cursor, Time);
extern int XGrabServer(Display *);
extern int XHeightMMOfScreen(Screen *);
extern int XHeightOfScreen(Screen *);
extern XIM XIMOfIC(XIC);
extern int XIconifyWindow(Display *, Window, int);
extern int XIfEvent(Display *, XEvent *,
                    int (*)(Display *, XEvent *, XPointer), XPointer);
extern int XImageByteOrder(Display *);
extern XExtCodes *XInitExtension(Display *, const char *);
extern int XInitImage(XImage *);
extern int XInitThreads(void);
extern XModifierKeymap *XInsertModifiermapEntry(XModifierKeymap *,
                                                unsigned int, int);
extern int XInstallColormap(Display *, Colormap);
extern Atom XInternAtom(Display *, const char *, int);
extern int XInternAtoms(Display *, char **, int, int, Atom *);
extern int XInternalConnectionNumbers(Display *, int **, int *);
extern KeySym XKeycodeToKeysym(Display *, unsigned int, int);
extern KeyCode XKeysymToKeycode(Display *, KeySym);
extern char *XKeysymToString(KeySym);
extern int XKillClient(Display *, XID);
extern unsigned long int XLastKnownRequestProcessed(Display *);
extern int *XListDepths(Display *, int, int *);
extern char **XListExtensions(Display *, int *);
extern char **XListFonts(Display *, const char *, int, int *);
extern char **XListFontsWithInfo(Display *, const char *, int, int *,
                                  XFontStruct **);
extern XHostAddress *XListHosts(Display *, int *, int *);
extern Colormap *XListInstalledColormaps(Display *, Window, int *);
extern XPixmapFormatValues *XListPixmapFormats(Display *, int *);
extern Atom *XListProperties(Display *, Window, int *);
extern Font XLoadFont(Display *, const char *);
extern XFontStruct *XLoadQueryFont(Display *, const char *);
extern char *XLocaleOfFontSet(XFontSet);
extern char *XLocaleOfIM(XIM);
extern char *XLocaleOfOM(XOM);
extern void XLockDisplay(Display *);
extern int XLookupColor(Display *, Colormap, const char *, XColor *,
                        XColor *);
extern KeySym XLookupKeysym(XKeyEvent *, int);
extern int XLowerWindow(Display *, Window);
extern int XMapRaised(Display *, Window);
extern int XMapSubwindows(Display *, Window);
extern int XMapWindow(Display *, Window);
extern int XMaskEvent(Display *, long int, XEvent *);
extern int XMaxCmapsOfScreen(Screen *);
extern long int XMaxRequestSize(Display *);

```



```

extern int XMinCmapsOfScreen(Screen *);
extern int XMoveResizeWindow(Display *, Window, int, int, unsigned int,
                             unsigned int);
extern int XMoveWindow(Display *, Window, int, int);
extern XModifierKeymap *XNewModifiermap(int);
extern int XNextEvent(Display *, XEvent *);
extern unsigned long int XNextRequest(Display *);
extern int XNoOp(Display *);
extern XOM XOMOfOC(XOC);
extern Display *XOpenDisplay(const char *);
extern XIM XOpenIM(Display *, struct _XrmHashBucketRec *, char *, char *);
extern XOM XOpenOM(Display *, struct _XrmHashBucketRec *, const char *,
                  const char *);
extern int XParseColor(Display *, Colormap, const char *, XColor *);
extern int XParseGeometry(const char *, int *, int *, unsigned int *,
                          unsigned int *);
extern int XPeekEvent(Display *, XEvent *);
extern int XPeekIfEvent(Display *, XEvent *,
                       int (*)(Display *, XEvent *, XPointer), XPointer);
extern int XPending(Display *);
extern int XPlanesOfScreen(Screen *);
extern void XProcessInternalConnection(Display *, int);
extern int XProtocolRevision(Display *);
extern int XProtocolVersion(Display *);
extern int XPutBackEvent(Display *, XEvent *);
extern int XPutImage(Display *, Drawable, GC, XImage *, int, int, int, int,
                    unsigned int, unsigned int);
extern int XQLength(Display *);
extern int XQueryBestCursor(Display *, Drawable, unsigned int,
                           unsigned int, unsigned int *, unsigned int *);
extern int XQueryBestSize(Display *, int, Drawable, unsigned int,
                          unsigned int, unsigned int *, unsigned int *);
extern int XQueryBestStipple(Display *, Drawable, unsigned int,
                             unsigned int, unsigned int *, unsigned int *);
extern int XQueryBestTile(Display *, Drawable, unsigned int, unsigned int,
                          unsigned int *, unsigned int *);
extern int XQueryColor(Display *, Colormap, XColor *);
extern int XQueryColors(Display *, Colormap, XColor *, int);
extern int XQueryExtension(Display *, const char *, int *, int *, int *);
extern XFontStruct *XQueryFont(Display *, XID);
extern int XQueryKeymap(Display *, char[32]);
extern int XQueryPointer(Display *, Window, Window *, Window *, int *,
                        int *, int *, int *, unsigned int *);
extern int XQueryTextExtents(Display *, XID, const char *, int, int *,
                             int *, int *, XCharStruct *);
extern int XQueryTextExtents16(Display *, XID, const XChar2b *, int, int *,
                               int *, int *, XCharStruct *);
extern int XQueryTree(Display *, Window, Window *, Window *, Window * *,
                     unsigned int *);
extern int XRaiseWindow(Display *, Window);
extern int XReadBitmapFile(Display *, Drawable, const char *,
                          unsigned int *, unsigned int *, Pixmap *, int *,
                          int *);
extern int XReadBitmapFileData(const char *, unsigned int *,
                              unsigned int *, unsigned char **, int *,
                              int *);
extern int XRebindKeysym(Display *, KeySym, KeySym *, int,
                       const unsigned char *, int);
extern int XRecolorCursor(Display *, Cursor, XColor *, XColor *);
extern int XReconfigureWMWindow(Display *, Window, int, unsigned int,
                                XWindowChanges *);
extern int XRefreshKeyboardMapping(XMappingEvent *);

```

```

extern int XRegisterIMInstantiateCallback(Display *,
                                         struct _XrmHashBucketRec *,
                                         char *, char *, XIDProc,
                                         XPointer);
extern void XRemoveConnectionWatch(Display *, XConnectionWatchProc,
                                   XPointer);
extern int XRemoveFromSaveSet(Display *, Window);
extern int XRemoveHost(Display *, XHostAddress *);
extern int XRemoveHosts(Display *, XHostAddress *, int);
extern int XReparentWindow(Display *, Window, Window, int, int);
extern int XResetScreenSaver(Display *);
extern int XResizeWindow(Display *, Window, unsigned int, unsigned int);
extern char *XResourceManagerString(Display *);
extern int XRestackWindows(Display *, Window *, int);
extern Window XRootWindow(Display *, int);
extern Window XRootWindowOfScreen(Screen *);
extern int XRotateBuffers(Display *, int);
extern int XRotateWindowProperties(Display *, Window, Atom *, int, int);
extern int XScreenCount(Display *);
extern int XScreenNumberOfScreen(Screen *);
extern Screen *XScreenOfDisplay(Display *, int);
extern char *XScreenResourceString(Screen *);
extern int XSelectInput(Display *, Window, long int);
extern int XSendEvent(Display *, Window, int, long int, XEvent *);
extern char *XServerVendor(Display *);
extern int XSetAccessControl(Display *, int);
extern int (*XSetAfterFunction(Display *, int (*)(Display *))) (Display *);
extern int XSetArcMode(Display *, GC, int);
extern void XSetAuthorization(char *, int, char *, int);
extern int XSetBackground(Display *, GC, unsigned long int);
extern int XSetClipMask(Display *, GC, Pixmap);
extern int XSetClipOrigin(Display *, GC, int, int);
extern int XSetClipRectangles(Display *, GC, int, int, XRectangle *, int,
                              int);
extern int XSetCloseDownMode(Display *, int);
extern int XSetCommand(Display *, Window, char **, int);
extern int XSetDashes(Display *, GC, int, const char *, int);
extern XErrorHandler XSetErrorHandler(XErrorHandler);
extern int XSetFillRule(Display *, GC, int);
extern int XSetFillStyle(Display *, GC, int);
extern int XSetFont(Display *, GC, Font);
extern int XSetFontPath(Display *, char **, int);
extern int XSetForeground(Display *, GC, unsigned long int);
extern int XSetFunction(Display *, GC, int);
extern int XSetGraphicsExposures(Display *, GC, int);
extern void XSetICFocus(XIC);
extern char *XSetICValues(XIC, ...);
extern char *XSetIMValues(XIM, ...);
extern XIOErrorHandler XSetIOErrorHandler(XIOErrorHandler);
extern int XSetIconName(Display *, Window, const char *);
extern int XSetInputFocus(Display *, Window, int, Time);
extern int XSetLineAttributes(Display *, GC, unsigned int, int, int, int);
extern char *XSetLocaleModifiers(const char *);
extern int XSetModifierMapping(Display *, XModifierKeymap *);
extern char *XSetOCValues(XOC, ...);
extern char *XSetOMValues(XOM, ...);
extern int XSetPlaneMask(Display *, GC, unsigned long int);
extern int XSetPointerMapping(Display *, const unsigned char *, int);
extern int XSetScreenSaver(Display *, int, int, int, int);
extern int XSetSelectionOwner(Display *, Atom, Window, Time);
extern int XSetState(Display *, GC, unsigned long int, unsigned long int,
                    int, unsigned long int);

```

```

extern int XSetStipple(Display *, GC, Pixmap);
extern int XSetSubwindowMode(Display *, GC, int);
extern int XSetTSOrigin(Display *, GC, int, int);
extern int XSetTitle(Display *, GC, Pixmap);
extern int XSetTransientForHint(Display *, Window, Window);
extern int XSetWMColormapWindows(Display *, Window, Window *, int);
extern int XSetWMPprotocols(Display *, Window, Atom *, int);
extern int XSetWindowBackground(Display *, Window, unsigned long int);
extern int XSetWindowBackgroundPixmap(Display *, Window, Pixmap);
extern int XSetWindowBorder(Display *, Window, unsigned long int);
extern int XSetWindowBorderPixmap(Display *, Window, Pixmap);
extern int XSetWindowBorderWidth(Display *, Window, unsigned int);
extern int XSetWindowColormap(Display *, Window, Colormap);
extern int XStoreBuffer(Display *, const char *, int, int);
extern int XStoreBytes(Display *, const char *, int);
extern int XStoreColor(Display *, Colormap, XColor *);
extern int XStoreColors(Display *, Colormap, XColor *, int);
extern int XStoreName(Display *, Window, const char *);
extern int XStoreNamedColor(Display *, Colormap, const char *,
                             unsigned long int, int);
extern KeySym XStringToKeysym(const char *);
extern int XSupportsLocale(void);
extern int XSync(Display *, int);
extern int (*XSynchronize(Display *, int)) (Display *);
extern int XTextExtents(XFontStruct *, const char *, int, int *, int *,
                        int *, XCharStruct *);
extern int XTextExtents16(XFontStruct *, const XChar2b *, int, int *,
                          int *, int *, XCharStruct *);
extern int XTextWidth(XFontStruct *, const char *, int);
extern int XTextWidth16(XFontStruct *, const XChar2b *, int);
extern int XTranslateCoordinates(Display *, Window, Window, int, int,
                                int *, int *, Window *);
extern int XUndefineCursor(Display *, Window);
extern int XUngrabButton(Display *, unsigned int, unsigned int, Window);
extern int XUngrabKey(Display *, int, unsigned int, Window);
extern int XUngrabKeyboard(Display *, Time);
extern int XUngrabPointer(Display *, Time);
extern int XUngrabServer(Display *);
extern int XUninstallColormap(Display *, Colormap);
extern int XUnloadFont(Display *, Font);
extern void XUnlockDisplay(Display *);
extern int XUnmapSubwindows(Display *, Window);
extern int XUnmapWindow(Display *, Window);
extern int XUnregisterIMInstantiateCallback(Display *,
                                           struct _XrmHashBucketRec *,
                                           char *, char *, XIDProc,
                                           XPointer);
extern void XUnsetICFocus(XIC);
extern XVaNestedList XVaCreateNestedList(int, ...);
extern int XVendorRelease(Display *);
extern VisualID XVisualIDFromVisual(Visual *);
extern int XWarpPointer(Display *, Window, Window, int, int, unsigned int,
                        unsigned int, int, int);
extern unsigned long int XWhitePixel(Display *, int);
extern unsigned long int XWhitePixelOfScreen(Screen *);
extern int XWidthMMOfScreen(Screen *);
extern int XWidthOfScreen(Screen *);
extern int XWindowEvent(Display *, Window, long int, XEvent *);
extern int XWithdrawWindow(Display *, Window, int);
extern int XWriteBitmapFile(Display *, const char *, Pixmap, unsigned int,
                             unsigned int, int, int);
extern void XmbDrawImageString(Display *, Drawable, XFontSet, GC, int, int,

```

```

                                const char *, int);
extern void XmbDrawString(Display *, Drawable, XFontSet, GC, int, int,
                                const char *, int);
extern void XmbDrawText(Display *, Drawable, GC, int, int, XmbTextItem *,
                                int);
extern int XmbLookupString(XIC, XKeyPressedEvent *, char *, int, KeySym *,
                                int *);
extern char *XmbResetIC(XIC);
extern int XmbTextEscapement(XFontSet, const char *, int);
extern int XmbTextExtents(XFontSet, const char *, int, XRectangle *,
                                XRectangle *);
extern int XmbTextPerCharExtents(XFontSet, const char *, int, XRectangle *,
                                XRectangle *, int, int *, XRectangle *,
                                XRectangle *);
extern void XrmInitialize(void);
extern void XwcDrawImageString(Display *, Drawable, XFontSet, GC, int, int,
                                const wchar_t *, int);
extern void XwcDrawString(Display *, Drawable, XFontSet, GC, int, int,
                                const wchar_t *, int);
extern void XwcDrawText(Display *, Drawable, GC, int, int, XwcTextItem *,
                                int);
extern int XwcLookupString(XIC, XKeyPressedEvent *, wchar_t *, int,
                                KeySym *, int *);
extern wchar_t *XwcResetIC(XIC);
extern int XwcTextEscapement(XFontSet, const wchar_t *, int);
extern int XwcTextExtents(XFontSet, const wchar_t *, int, XRectangle *,
                                XRectangle *);
extern int XwcTextPerCharExtents(XFontSet, const wchar_t *, int,
                                XRectangle *, XRectangle *, int, int *,
                                XRectangle *, XRectangle *);

```

6.2.8. X11/Xlibint.h

```

#define NEED_EVENTS
#define NEED_REPLIES
#define WORD64ALIGN
#define min(a,b)      (((a) < (b)) ? (a) : (b))
#define max(a,b)      (((a) > (b)) ? (a) : (b))
#define CI_NONEXISTCHAR(cs)  (((cs)->width == 0) && (((cs)->rbearing|(cs)->lbearing| (cs)->asc
#define XAllocIDs(dpy,ids,n)  (*(dpy)->idlist_alloc)(dpy,ids,n)
#define XlibDisplayIOError    (1L << 0)
#define XlibDisplayClosing    (1L << 1)
#define XlibDisplayNoXkb      (1L << 2)
#define XlibDisplayPrivSync    (1L << 3)
#define XlibDisplayProcConni   (1L << 4)
#define XlibDisplayReadEvents  (1L << 5)
#define XlibDisplayReply       (1L << 5)
#define XlibDisplayWriting     (1L << 6)
#define XlibDisplayDfltRMDB    (1L << 7)
#define UNLOCKED              0
#define LOCKED                1
#define WRCTSPERBATCH         10
#define PTSPERBATCH           1024
#define ZLNSPERBATCH           1024
#define BUFSIZE                2048
#define FARCTSPERBATCH         256
#define FRCTSPERBATCH          256
#define XCONN_CHECK_FREQ       256
#define ZRCTSPERBATCH          256
#define WLNSPERBATCH           50
#define Xcalloc(nelem,elsize)  calloc((nelem), (elsize))

```

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```
#define CI_GET_DEFAULT_INFO_1D(fs,cs)    CI_GET_CHAR_INFO_1D (fs, fs->default_char, NULL, cs)
#define CURSORFONT                      "cursor"
#define Data16(dpy,data,len)           Data((dpy), (char *) (data), (len))
#define PackData16(dpy,data,len)        Data16 (dpy, data, len)
#define PackData32(dpy,data,len)        Data32 (dpy, data, len)
#define _XOpenFile(path,mode)           fopen(path,mode)
#define Xfree(ptr)                     free((ptr))
#define LockDisplay(d)                  if ((d)->lock_fns) (*d)->lock_fns->lock_display(d)
#define UnlockDisplay(d)                if ((d)->lock_fns) (*d)->lock_fns->unlock_display(d)
#define FlushGC(dpy,gc)                 if ((gc)->dirty) _XFlushGCCache((dpy), (gc))
#define SetReqLen(req,n,badlen)          if ((req->length + n) > (unsigned)65535) { if (dpy->bigreq_size)
#define BufAlloc(type,ptr,n)             if (dpy->bufptr + (n) > dpy->bufmax) _XFlush (dpy); ptr = (type)
#define SyncHandle()                    if (dpy->synchronizer) (*dpy->synchronizer)(dpy)
#define _XCreateMutex(lock)              if (_XCreateMutex_fn) (*_XCreateMutex_fn)(lock);
#define _XFreeMutex(lock)                if (_XFreeMutex_fn) (*_XFreeMutex_fn)(lock);
#define _XLockMutex(lock)                if (_XLockMutex_fn) (*_XLockMutex_fn)(lock)
#define _XUnlockMutex(lock)              if (_XUnlockMutex_fn) (*_XUnlockMutex_fn)(lock)
#define Xmalloc(size)                   malloc((size))
#define _XOpenFile(path,flags)           open(path,flags)
#define _XOpenFileMode(path,flags,mode)  open(path,flags,mode)
#define PackData(dpy,data,len)          PackData16 (dpy, data, len)
#define Xrealloc(ptr,size)              realloc((ptr), (size))
#define GetReqExtra(name,n,req)          WORD64ALIGN if ((dpy->bufptr + SIZEOF(x ##name ##Req) + n) > dpy->bufmax)
#define GetReq(name,req)                 WORD64ALIGN if ((dpy->bufptr + SIZEOF(x ##name ##Req)) > dpy->bufmax)
#define GetEmptyReq(name,req)            WORD64ALIGN if ((dpy->bufptr + SIZEOF(xReq)) > dpy->bufmax) _XFlush
#define GetResReq(name,rid,req)          WORD64ALIGN if ((dpy->bufptr + SIZEOF(xResourceReq)) > dpy->bufmax)
#define _XBCOPYFUNC                      _Xbcopy
#define Data32(dpy,data,len)             _XData32(dpy, (long *)data, len)
#define _XRead16(dpy,data,len)           _XRead((dpy), (char *) (data), (len))
#define _XRead16Pad(dpy,data,len)        _XReadPad((dpy), (char *) (data), (len))
#define OneDataCard32(dpy,dstaddr,srcvar) { *(CARD32 *) (dstaddr) = (srcvar); }
#define CI_GET_CHAR_INFO_1D(fs,col,def,cs) { cs = def; if (col >= fs->min_char_or_byte2 && col <= fs->max_char_or_byte2)
#define CI_GET_CHAR_INFO_2D(fs,row,col,def,cs) { cs = def; if (row >= fs->min_bytel && row <= fs->max_bytel)
#define DeqAsyncHandler(dpy,handler)     { if (dpy->async_handlers == (handler)) dpy->async_handlers = NULL;
#define Data(dpy,data,len)               { if (dpy->bufptr + (len) <= dpy->bufmax) { memcpy(dpy->bufptr, data, len);
#define CI_GET_DEFAULT_INFO_2D(fs,cs)     { unsigned int r = (fs->default_char >> 8); unsigned int r2 = (fs->default_char && 0xFF);

typedef struct _XSQEvent {
    struct _XSQEvent *next;
    XEvent event;
    unsigned long int qserial_num;
} _XSQEvent;

typedef struct _LockInfoRec *LockInfoPtr;

typedef struct _XInternalAsync {
    struct _XInternalAsync *next;
    int (*handler) (Display *, xReply *, char *, int, XPointer);
    XPointer data;
} _XAsyncHandler;

typedef struct _XAsyncEState {
    unsigned long int min_sequence_number;
    unsigned long int max_sequence_number;
    unsigned char error_code;
    unsigned char major_opcode;
    unsigned short minor_opcode;
    unsigned char last_error_received;
    int error_count;
} _XAsyncErrorState;

typedef void (*FreeFuncType) (Display *);
typedef int (*FreeModmapType) (XModifierKeymap *);
typedef struct _XFreeFuncs {
    FreeFuncType atoms;
    FreeModmapType modifiermap;
}
```

```

    FreeFuncType key_bindings;
    FreeFuncType context_db;
    FreeFuncType defaultCCCs;
    FreeFuncType clientCmaps;
    FreeFuncType intensityMaps;
    FreeFuncType im_filters;
    FreeFuncType xkb;
} _XFreeFuncRec;
typedef int (*CreateGCType) (Display *, GC, XExtCodes *);
typedef int (*CopyGCType) (Display *, GC, XExtCodes *);
typedef int (*FlushGCType) (Display *, GC, XExtCodes *);
typedef int (*FreeGCType) (Display *, GC, XExtCodes *);
typedef int (*CreateFontType) (Display *, XFontStruct *, XExtCodes *);
typedef int (*FreeFontType) (Display *, XFontStruct *, XExtCodes *);
typedef int (*CloseDisplayType) (Display *, XExtCodes *);
typedef int (*ErrorType) (Display *, xError *, XExtCodes *, int *);
typedef char *(*ErrorStringType) (Display *, int, XExtCodes *, char *,
                                   int);
typedef void (*PrintErrorType) (Display *, XErrorEvent *, void *);
typedef void (*BeforeFlushType) (Display *, XExtCodes *, const char *,
                                  long int);

typedef struct _XExten {
    struct _XExten *next;
    XExtCodes codes;
    CreateGCType create_GC;
    CopyGCType copy_GC;
    FlushGCType flush_GC;
    FreeGCType free_GC;
    CreateFontType create_Font;
    FreeFontType free_Font;
    CloseDisplayType close_display;
    ErrorType error;
    ErrorStringType error_string;
    char *name;
    PrintErrorType error_values;
    BeforeFlushType before_flush;
    struct _XExten *next_flush;
} _XExtension;
typedef void (*_XInternalConnectionProc) (Display *, int, XPointer);
struct _XDisplay {
    XExtData *ext_data;
    struct _XFreeFuncs *free_funcs;
    int fd;
    int conn_checker;
    int proto_major_version;
    int proto_minor_version;
    char *vendor;
    XID resource_base;
    XID resource_mask;
    XID resource_id;
    int resource_shift;
    XID(*resource_alloc) (struct _XDisplay *);
    int byte_order;
    int bitmap_unit;
    int bitmap_pad;
    int bitmap_bit_order;
    int nformats;
    ScreenFormat *pixmap_format;
    int vnumber;
    int release;
    struct _XSQEvent *head;
    struct _XSQEvent *tail;

```

```

int qlen;
unsigned long int last_request_read;
unsigned long int request;
char *last_req;
char *buffer;
char *bufptr;
char *bufmax;
unsigned int max_request_size;
struct _XrmHashBucketRec *db;
int (*synchandler) (struct _XDisplay *);
char *display_name;
int default_screen;
int nscreens;
Screen *screens;
unsigned long int motion_buffer;
unsigned long int flags;
int min_keycode;
int max_keycode;
KeySym *keysyms;
XModifierKeymap *modifiermap;
int keysyms_per_keycode;
char *xdefaults;
char *scratch_buffer;
unsigned long int scratch_length;
int ext_number;
struct _XExten *ext_procs;
int (*event_vec[128]) (Display *, XEvent *, xEvent *);
int (*wire_vec[128]) (Display *, XEvent *, xEvent *);
KeySym lock_meaning;
struct _XLockInfo *lock;
struct _XInternalAsync *async_handlers;
unsigned long int bigreq_size;
struct _XLockPtrs *lock_fns;
void (*idlist_alloc) (Display *, XID *, int);
struct _XKeytrans *key_bindings;
Font cursor_font;
struct _XDisplayAtoms *atoms;
unsigned int mode_switch;
unsigned int num_lock;
struct _XContextDB *context_db;
int (**error_vec) (Display *, XErrorEvent *, xError *);
struct {
    XPointer defaultCCCs;
    XPointer clientCmaps;
    XPointer perVisualIntensityMaps;
} cms;
struct _XIMFilter *im_filters;
struct _XSQEvent *qfree;
unsigned long int next_event_serial_num;
struct _XExten *flushes;
struct _XConnectionInfo *im_fd_info;
int im_fd_length;
struct _XConnWatchInfo *conn_watchers;
int watcher_count;
XPointer filedescs;
int (*savedsynchandler) (Display *);
XID resource_max;
int xcmisc_opcode;
struct _XkbInfoRec *xkb_info;
struct _XtransConnInfo *trans_conn;
};
struct _XGC {

```

```

XExtData *ext_data;
GContext gid;
int rects;
int dashes;
unsigned long int dirty;
XGCValues values;
};

```

6.2.9. X11/Xmd.h

```

#define B16
#define B32
#define NEXTPTR(p,t)      (((t *) (p)) + 1)
#define cvtINT16toInt(val)      (val)
#define cvtINT16toLong(val)     (val)
#define cvtINT16toShort(val)    (val)
#define cvtINT32toInt(val)      (val)
#define cvtINT32toLong(val)     (val)
#define cvtINT32toShort(val)    (val)
#define cvtINT8toInt(val)       (val)
#define cvtINT8toLong(val)      (val)
#define cvtINT8toShort(val)     (val)
#define _SIZEOF(x)      sz_ ##x
#define SIZEOF(x)       _SIZEOF(x)

typedef unsigned short CARD16;
typedef unsigned char CARD8;
typedef CARD8 BOOL;
typedef unsigned char BYTE;
typedef CARD32 BITS32;
typedef CARD16 BITS16;
typedef int INT32;
typedef short int INT16;
typedef signed char INT8;

```

6.2.10. X11/Xosdefs.h

```

#ifndef MAXPATHLEN
#define MAXPATHLEN      4096
#endif
#ifndef PATH_MAX
#define PATH_MAX        4096
#endif

```

6.2.11. X11/Xproto.h

```

#define ELFlagFocus      (1<<0)
#define ELFlagSameScreen (1<<1)
#define XEventSize      (sizeof(xEvent))
#define X_Error 0
#define xFalse 0
#define X_CreateWindow 1
#define X_Reply 1
#define xTrue 1
#define X_UnmapWindow 10
#define X_ChangeKeyboardMapping 100
#define X_GetKeyboardMapping 101
#define X_ChangeKeyboardControl 102

```



```

#define X_GetKeyboardControl 103
#define X_Bell 104
#define X_ChangePointerControl 105
#define X_GetPointerControl 106
#define X_SetScreenSaver 107
#define X_GetScreenSaver 108
#define X_ChangeHosts 109
#define X_UnmapSubwindows 11
#define X_ListHosts 110
#define X_SetAccessControl 111
#define X_SetCloseDownMode 112
#define X_KillClient 113
#define X_RotateProperties 114
#define X_ForceScreenSaver 115
#define X_SetPointerMapping 116
#define X_GetPointerMapping 117
#define X_SetModifierMapping 118
#define X_GetModifierMapping 119
#define X_ConfigureWindow 12
#define sz_xAllocColorCellsReq 12
#define sz_xAllocNamedColorReq 12
#define sz_xArc 12
#define sz_xChangeGCReq 12
#define sz_xChangePointerControlReq 12
#define sz_xChangeWindowAttributesReq 12
#define sz_xCharInfo 12
#define sz_xColorItem 12
#define sz_xConfigureWindowReq 12
#define sz_xConnClientPrefix 12
#define sz_xCopyColormapAndFreeReq 12
#define sz_xDeletePropertyReq 12
#define sz_xFreeColorsReq 12
#define sz_xLookupColorReq 12
#define sz_xOpenFontReq 12
#define sz_xPolyArcReq 12
#define sz_xPolyFillArcReq 12
#define sz_xPolyFillRectangleReq 12
#define sz_xPolyLineReq 12
#define sz_xPolyPointReq 12
#define sz_xPolyRectangleReq 12
#define sz_xPolySegmentReq 12
#define sz_xQueryBestSizeReq 12
#define sz_xRotatePropertiesReq 12
#define sz_xSetClipRectanglesReq 12
#define sz_xSetDashesReq 12
#define sz_xSetInputFocusReq 12
#define sz_xSetScreenSaverReq 12
#define sz_xUngrabButtonReq 12
#define sz_xUngrabKeyReq 12
#define X_NoOperation 127
#define X_CirculateWindow 13
#define X_GetGeometry 14
#define X_QueryTree 15
#define X_InternAtom 16
#define sz_xAllocColorPlanesReq 16
#define sz_xAllocColorReq 16
#define sz_xChangeActivePointerGrabReq 16
#define sz_xClearAreaReq 16
#define sz_xCopyGCReq 16
#define sz_xCreateColormapReq 16
#define sz_xCreateGCReq 16
#define sz_xCreatePixmapReq 16

```

```

#define sz_xFillPolyReq 16
#define sz_xGetMotionEventsReq 16
#define sz_xGrabKeyReq 16
#define sz_xGrabKeyboardReq 16
#define sz_xImageText16Req 16
#define sz_xImageText8Req 16
#define sz_xImageTextReq 16
#define sz_xPolyText16Req 16
#define sz_xPolyText8Req 16
#define sz_xPolyTextReq 16
#define sz_xReparentWindowReq 16
#define sz_xSetSelectionOwnerReq 16
#define sz_xStoreNamedColorReq 16
#define sz_xTranslateCoordsReq 16
#define X_GetAtomName 17
#define X_ChangeProperty 18
#define X_DeleteProperty 19
#define X_ChangeWindowAttributes 2
#define sz_xTextElt 2
#define X_GetProperty 20
#define sz_xGetImageReq 20
#define sz_xRecolorCursorReq 20
#define X_ListProperties 21
#define X_SetSelectionOwner 22
#define X_GetSelectionOwner 23
#define X_ConvertSelection 24
#define sz_xChangePropertyReq 24
#define sz_xConvertSelectionReq 24
#define sz_xGetPropertyReq 24
#define sz_xGrabButtonReq 24
#define sz_xGrabPointerReq 24
#define sz_xPropIconSize 24
#define sz_xPutImageReq 24
#define sz_xVisualType 24
#define sz_xWarpPointerReq 24
#define X_SendEvent 25
#define X_GrabPointer 26
#define X_UngrabPointer 27
#define X_GrabButton 28
#define sz_xCopyAreaReq 28
#define X_UngrabButton 29
#define X_GetWindowAttributes 3
#define X_ChangeActivePointerGrab 30
#define X_GrabKeyboard 31
#define X_UngrabKeyboard 32
#define sz_xAllocColorCellsReply 32
#define sz_xAllocColorPlanesReply 32
#define sz_xAllocColorReply 32
#define sz_xAllocNamedColorReply 32
#define sz_xConnSetup 32
#define sz_xCopyPlaneReq 32
#define sz_xCreateCursorReq 32
#define sz_xCreateGlyphCursorReq 32
#define sz_xCreateWindowReq 32
#define sz_xError 32
#define sz_xEvent 32
#define sz_xGenericReply 32
#define sz_xGetAtomNameReply 32
#define sz_xGetFontPathReply 32
#define sz_xGetGeometryReply 32
#define sz_xGetImageReply 32
#define sz_xGetInputFocusReply 32

```

```

#define sz_xGetKeyboardMappingReply 32
#define sz_xGetModifierMappingReply 32
#define sz_xGetMotionEventsReply 32
#define sz_xGetPointerControlReply 32
#define sz_xGetPointerMappingReply 32
#define sz_xGetPropertyReply 32
#define sz_xGetScreenSaverReply 32
#define sz_xGetSelectionOwnerReply 32
#define sz_xGrabKeyboardReply 32
#define sz_xGrabPointerReply 32
#define sz_xInternAtomReply 32
#define sz_xKeymapEvent 32
#define sz_xListExtensionsReply 32
#define sz_xListFontsReply 32
#define sz_xListHostsReply 32
#define sz_xListInstalledColormapsReply 32
#define sz_xListPropertiesReply 32
#define sz_xLookupColorReply 32
#define sz_xQueryBestSizeReply 32
#define sz_xQueryColorsReply 32
#define sz_xQueryExtensionReply 32
#define sz_xQueryPointerReply 32
#define sz_xQueryTextExtentsReply 32
#define sz_xQueryTreeReply 32
#define sz_xReply 32
#define sz_xSetMappingReply 32
#define sz_xSetModifierMappingReply 32
#define sz_xSetPointerMappingReply 32
#define sz_xTranslateCoordsReply 32
#define X_GrabKey 33
#define X_UngrabKey 34
#define X_AllowEvents 35
#define X_GrabServer 36
#define X_UngrabServer 37
#define X_QueryPointer 38
#define X_GetMotionEvents 39
#define X_DestroyWindow 4
#define sz_xBellReq 4
#define sz_xChangeModeReq 4
#define sz_xForceScreenSaverReq 4
#define sz_xHostEntry 4
#define sz_xListHostsReq 4
#define sz_xPoint 4
#define sz_xReq 4
#define sz_xSetAccessControlReq 4
#define sz_xSetCloseDownModeReq 4
#define sz_xSetModifierMappingReq 4
#define sz_xSetPointerMappingReq 4
#define X_TranslateCoords 40
#define sz_xQueryKeymapReply 40
#define sz_xWindowRoot 40
#define X_WarpPointer 41
#define X_SetInputFocus 42
#define X_GetInputFocus 43
#define X_QueryKeymap 44
#define sz_xGetWindowAttributesReply 44
#define sz_xSendEventReq 44
#define X_OpenFont 45
#define X_CloseFont 46
#define X_QueryFont 47
#define X_QueryTextExtents 48
#define X_ListFonts 49

```

```

#define X_DestroySubwindows      5
#define X_ListFontsWithInfo      50
#define X_SetFontPath            51
#define X_GetFontPath            52
#define sz_xGetKeyboardControlReply 52
#define X_CreatePixmap           53
#define X_FreePixmap             54
#define X_CreateGC               55
#define X_ChangeGC               56
#define X_CopyGC                 57
#define X_SetDashes              58
#define X_SetClipRectangles      59
#define X_ChangeSaveSet          6
#define X_FreeGC                 60
#define sz_xListFontsWithInfoReply 60
#define sz_xQueryFontReply       60
#define X_TCP_PORT               6000
#define X_ClearArea              61
#define X_CopyArea               62
#define X_CopyPlane              63
#define X_PolyPoint              64
#define X_PolyLine               65
#define X_PolySegment            66
#define X_PolyRectangle          67
#define X_PolyArc                68
#define X_FillPoly               69
#define X_ReparentWindow         7
#define X_PolyFillRectangle      70
#define X_PolyFillArc            71
#define X_PutImage               72
#define X_GetImage               73
#define X_PolyText8              74
#define X_PolyText16             75
#define X_ImageText8             76
#define X_ImageText16           77
#define X_CreateColormap         78
#define X_FreeColormap           79
#define X_MapWindow              8
#define sz_xAllowEventsReq       8
#define sz_xChangeHostsReq       8
#define sz_xChangeKeyboardControlReq 8
#define sz_xChangeKeyboardMappingReq 8
#define sz_xChangeSaveSetReq     8
#define sz_xCirculateWindowReq   8
#define sz_xConnSetupPrefix      8
#define sz_xDepth                8
#define sz_xFontProp             8
#define sz_xGetKeyboardMappingReq 8
#define sz_xInternAtomReq        8
#define sz_xListFontsReq         8
#define sz_xListFontsWithInfoReq 8
#define sz_xPixmapFormat         8
#define sz_xQueryColorsReq       8
#define sz_xQueryExtensionReq    8
#define sz_xQueryTextExtentsReq 8
#define sz_xRectangle            8
#define sz_xResourceReq          8
#define sz_xSegment              8
#define sz_xSetFontPathReq       8
#define sz_xStoreColorsReq       8
#define sz_xTimecoord            8
#define sz_xrgb                  8

```

```

#define X_CopyColormapAndFree      80
#define X_InstallColormap          81
#define X_UninstallColormap        82
#define X_ListInstalledColormaps    83
#define X_AllocColor               84
#define X_AllocNamedColor          85
#define X_AllocColorCells          86
#define X_AllocColorPlanes        87
#define X_FreeColors               88
#define X_StoreColors              89
#define X_MapSubwindows            9
#define X_StoreNamedColor          90
#define X_QueryColors              91
#define X_LookupColor              92
#define X_CreateCursor             93
#define X_CreateGlyphCursor        94
#define X_FreeCursor               95
#define X_RecolorCursor            96
#define X_QueryBestSize            97
#define X_QueryExtension           98
#define X_ListExtensions           99

```

```

typedef struct _xEvent {
    union {
        struct {
            BYTE type;
            BYTE detail;
            CARD16 sequenceNumber;
        } u;
        struct {
            CARD32 pad00;
            CARD32 time;
            CARD32 root;
            CARD32 event;
            CARD32 child;
            INT16 rootX;
            INT16 rootY;
            INT16 eventX;
            INT16 eventY;
            KeyButMask state;
            BOOL sameScreen;
            BYTE pad1;
        } keyButtonPointer;
        struct {
            CARD32 pad00;
            CARD32 time;
            CARD32 root;
            CARD32 event;
            CARD32 child;
            INT16 rootX;
            INT16 rootY;
            INT16 eventX;
            INT16 eventY;
            KeyButMask state;
            BYTE mode;
            BYTE flags;
        } enterLeave;
        struct {
            CARD32 pad00;
            CARD32 window;
            BYTE mode;
            BYTE pad1;
        }
    }

```

```

        BYTE pad2;
        BYTE pad3;
    } focus;
    struct {
        CARD32 pad00;
        CARD32 window;
        CARD16 x;
        CARD16 y;
        CARD16 width;
        CARD16 height;
        CARD16 count;
        CARD16 pad2;
    } expose;
    struct {
        CARD32 pad00;
        CARD32 drawable;
        CARD16 x;
        CARD16 y;
        CARD16 width;
        CARD16 height;
        CARD16 minorEvent;
        CARD16 count;
        BYTE majorEvent;
        BYTE pad1;
        BYTE pad2;
        BYTE pad3;
    } graphicsExposure;
    struct {
        CARD32 pad00;
        CARD32 drawable;
        CARD16 minorEvent;
        BYTE majorEvent;
        BYTE bpad;
    } noExposure;
    struct {
        CARD32 pad00;
        CARD32 window;
        CARD8 state;
        BYTE pad1;
        BYTE pad2;
        BYTE pad3;
    } visibility;
    struct {
        CARD32 pad00;
        CARD32 parent;
        CARD32 window;
        INT16 x;
        INT16 y;
        CARD16 width;
        CARD16 height;
        CARD16 borderWidth;
        BOOL override;
        BYTE bpad;
    } createNotify;
    struct {
        CARD32 pad00;
        CARD32 event;
        CARD32 window;
    } destroyNotify;
    struct {
        CARD32 pad00;
        CARD32 event;

```

```

        CARD32 window;
        BOOL fromConfigure;
        BYTE pad1;
        BYTE pad2;
        BYTE pad3;
    } unmapNotify;
    struct {
        CARD32 pad00;
        CARD32 event;
        CARD32 window;
        BOOL override;
        BYTE pad1;
        BYTE pad2;
        BYTE pad3;
    } mapNotify;
    struct {
        CARD32 pad00;
        CARD32 parent;
        CARD32 window;
    } mapRequest;
    struct {
        CARD32 pad00;
        CARD32 event;
        CARD32 window;
        CARD32 parent;
        INT16 x;
        INT16 y;
        BOOL override;
        BYTE pad1;
        BYTE pad2;
        BYTE pad3;
    } reparent;
    struct {
        CARD32 pad00;
        CARD32 event;
        CARD32 window;
        CARD32 aboveSibling;
        INT16 x;
        INT16 y;
        CARD16 width;
        CARD16 height;
        CARD16 borderWidth;
        BOOL override;
        BYTE bpad;
    } configureNotify;
    struct {
        CARD32 pad00;
        CARD32 parent;
        CARD32 window;
        CARD32 sibling;
        INT16 x;
        INT16 y;
        CARD16 width;
        CARD16 height;
        CARD16 borderWidth;
        CARD16 valueMask;
        CARD32 pad1;
    } configureRequest;
    struct {
        CARD32 pad00;
        CARD32 event;
        CARD32 window;

```

```

        INT16 x;
        INT16 y;
        CARD32 pad1;
        CARD32 pad2;
        CARD32 pad3;
        CARD32 pad4;
    } gravity;
    struct {
        CARD32 pad00;
        CARD32 window;
        CARD16 width;
        CARD16 height;
    } resizeRequest;
    struct {
        CARD32 pad00;
        CARD32 event;
        CARD32 window;
        CARD32 parent;
        BYTE place;
        BYTE pad1;
        BYTE pad2;
        BYTE pad3;
    } circulate;
    struct {
        CARD32 pad00;
        CARD32 window;
        CARD32 atom;
        CARD32 time;
        BYTE state;
        BYTE pad1;
        CARD16 pad2;
    } property;
    struct {
        CARD32 pad00;
        CARD32 time;
        CARD32 window;
        CARD32 atom;
    } selectionClear;
    struct {
        CARD32 pad00;
        CARD32 time;
        CARD32 owner;
        CARD32 requestor;
        CARD32 selection;
        CARD32 target;
        CARD32 property;
    } selectionRequest;
    struct {
        CARD32 pad00;
        CARD32 time;
        CARD32 requestor;
        CARD32 selection;
        CARD32 target;
        CARD32 property;
    } selectionNotify;
    struct {
        CARD32 pad00;
        CARD32 window;
        CARD32 colormap;
    }
#endif
#ifdef __cplusplus || defined(c_plusplus)
    BOOL c_new;
#else

```



```

        BOOL new;
#endif

        BYTE state;
        BYTE pad1;
        BYTE pad2;
    } colormap;
    struct {
        CARD32 pad00;
        CARD8 request;
        CARD8 firstKeyCode;
        CARD8 count;
        BYTE pad1;
    } mappingNotify;
    struct {
        CARD32 pad00;
        CARD32 window;
        union {
            struct {
                CARD32 type;
                INT32 longs0;
                INT32 longs1;
                INT32 longs2;
                INT32 longs3;
                INT32 longs4;
            } l;
            struct {
                CARD32 type;
                INT16 shorts0;
                INT16 shorts1;
                INT16 shorts2;
                INT16 shorts3;
                INT16 shorts4;
                INT16 shorts5;
                INT16 shorts6;
                INT16 shorts7;
                INT16 shorts8;
                INT16 shorts9;
            } s;
            struct {
                CARD32 type;
                INT8 bytes[20];
            } b;
        } u;
    } clientMessage;
} u;
} xEvent;
typedef struct {
    BYTE type;
    BYTE errorCode;
    CARD16 sequenceNumber;
    CARD32 resourceID;
    CARD16 minorCode;
    CARD8 majorCode;
    BYTE pad1;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xError;
typedef CARD16 KeyButMask;
typedef struct {

```

```

    CARD8 byteOrder;
    BYTE pad;
    CARD16 majorVersion;
    CARD16 minorVersion;
    CARD16 nbytesAuthProto;
    CARD16 nbytesAuthString;
    CARD16 pad2;
} xConnClientPrefix;
typedef struct {
    CARD8 success;
    BYTE lengthReason;
    CARD16 majorVersion;
    CARD16 minorVersion;
    CARD16 length;
} xConnSetupPrefix;
typedef struct {
    CARD32 release;
    CARD32 ridBase;
    CARD32 ridMask;
    CARD32 motionBufferSize;
    CARD16 nbytesVendor;
    CARD16 maxRequestSize;
    CARD8 numRoots;
    CARD8 numFormats;
    CARD8 imageByteOrder;
    CARD8 bitmapBitOrder;
    CARD8 bitmapScanlineUnit;
    CARD8 bitmapScanlinePad;
    CARD8 minKeyCode;
    CARD8 maxKeyCode;
    CARD32 pad2;
} xConnSetup;
typedef struct {
    CARD8 depth;
    CARD8 bitsPerPixel;
    CARD8 scanLinePad;
    CARD8 pad1;
    CARD32 pad2;
} xPixmapFormat;
typedef struct {
    CARD8 depth;
    CARD8 pad1;
    CARD16 nVisuals;
    CARD32 pad2;
} xDepth;
typedef struct {
    CARD32 visualID;
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 bitsPerRGB;
    CARD16 colormapEntries;
    CARD32 redMask;
    CARD32 greenMask;
    CARD32 blueMask;
    CARD32 pad;
} xVisualType;
typedef struct {
    CARD32 windowId;
    CARD32 defaultColormap;

```

```

CARD32 whitePixel;
CARD32 blackPixel;
CARD32 currentInputMask;
CARD16 pixWidth;
CARD16 pixHeight;
CARD16 mmWidth;
CARD16 mmHeight;
CARD16 minInstalledMaps;
CARD16 maxInstalledMaps;
CARD32 rootVisualID;
CARD8 backingStore;
BOOL saveUnders;
CARD8 rootDepth;
CARD8 nDepths;
} xWindowRoot;
typedef struct {
    CARD32 time;
    INT16 x;
    INT16 y;
} xTimecoord;
typedef struct {
    CARD8 family;
    BYTE pad;
    CARD16 length;
} xHostEntry;
typedef struct {
    INT16 leftSideBearing;
    INT16 rightSideBearing;
    INT16 characterWidth;
    INT16 ascent;
    INT16 descent;
    CARD16 attributes;
} xCharInfo;
typedef struct {
    CARD32 name;
    CARD32 value;
} xFontProp;
typedef struct {
    CARD8 len;
    INT8 delta;
} xTextElt;
typedef struct {
    CARD32 pixel;
    CARD16 red;
    CARD16 green;
    CARD16 blue;
    CARD8 flags;
    CARD8 pad;
} xColorItem;
typedef struct {
    CARD16 red;
    CARD16 green;
    CARD16 blue;
    CARD16 pad;
} xrgb;
typedef unsigned char KEYCODE;
typedef struct {
    BYTE type;
    BYTE data1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 data00;

```

```

    CARD32 data01;
    CARD32 data02;
    CARD32 data03;
    CARD32 data04;
    CARD32 data05;
} xGenericReply;
typedef struct {
    BYTE type;
    CARD8 backingStore;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 visualID;
#if defined(__cplusplus) || defined(c_plusplus)
    CARD16 c_class;
#else
    CARD16 class;
#endif
    CARD8 bitGravity;
    CARD8 winGravity;
    CARD32 backingBitPlanes;
    CARD32 backingPixel;
    BOOL saveUnder;
    BOOL mapInstalled;
    CARD8 mapState;
    BOOL override;
    CARD32 colormap;
    CARD32 allEventMasks;
    CARD32 yourEventMask;
    CARD16 doNotPropagateMask;
    CARD16 pad;
} xGetWindowAttributesReply;
typedef struct {
    BYTE type;
    CARD8 depth;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 root;
    INT16 x;
    INT16 y;
    CARD16 width;
    CARD16 height;
    CARD16 borderWidth;
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
} xGetGeometryReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 root;
    CARD32 parent;
    CARD16 nChildren;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xQueryTreeReply;
typedef struct {
    BYTE type;
    BYTE pad1;

```

```

    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 atom;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xInternAtomReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nameLength;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xGetAtomNameReply;
typedef struct {
    BYTE type;
    CARD8 format;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 propertyType;
    CARD32 bytesAfter;
    CARD32 nItems;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
} xGetPropertyReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nProperties;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xListPropertiesReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 owner;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xGetSelectionOwnerReply;
typedef struct {
    BYTE type;
    BYTE status;

```

```

    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xGrabPointerReply;
typedef xGrabPointerReply xGrabKeyboardReply;
typedef struct {
    BYTE type;
    BOOL sameScreen;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 root;
    CARD32 child;
    INT16 rootX;
    INT16 rootY;
    INT16 winX;
    INT16 winY;
    CARD16 mask;
    CARD16 pad1;
    CARD32 pad;
} xQueryPointerReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 nEvents;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xGetMotionEventsReply;
typedef struct {
    BYTE type;
    BOOL sameScreen;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 child;
    INT16 dstX;
    INT16 dstY;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xTranslateCoordsReply;
typedef struct {
    BYTE type;
    CARD8 revertTo;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 focus;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xGetInputFocusReply;

```

```

typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    BYTE map[32];
} xQueryKeymapReply;
typedef struct _xQueryFontReply {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    xCharInfo minBounds;
    CARD32 walign1;
    xCharInfo maxBounds;
    CARD32 walign2;
    CARD16 minCharOrByte2;
    CARD16 maxCharOrByte2;
    CARD16 defaultChar;
    CARD16 nFontProps;
    CARD8 drawDirection;
    CARD8 minBytel;
    CARD8 maxBytel;
    BOOL allCharsExist;
    INT16 fontAscent;
    INT16 fontDescent;
    CARD32 nCharInfos;
} xQueryFontReply;
typedef struct {
    BYTE type;
    CARD8 drawDirection;
    CARD16 sequenceNumber;
    CARD32 length;
    INT16 fontAscent;
    INT16 fontDescent;
    INT16 overallAscent;
    INT16 overallDescent;
    INT32 overallWidth;
    INT32 overallLeft;
    INT32 overallRight;
    CARD32 pad;
} xQueryTextExtentsReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nFonts;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xListFontsReply;
typedef struct {
    BYTE type;
    CARD8 nameLength;
    CARD16 sequenceNumber;
    CARD32 length;
    xCharInfo minBounds;
    CARD32 walign1;

```

```

    xCharInfo maxBounds;
    CARD32 walign2;
    CARD16 minCharOrByte2;
    CARD16 maxCharOrByte2;
    CARD16 defaultChar;
    CARD16 nFontProps;
    CARD8 drawDirection;
    CARD8 minBytel;
    CARD8 maxBytel;
    BOOL allCharsExist;
    INT16 fontAscent;
    INT16 fontDescent;
    CARD32 nReplies;
} xListFontsWithInfoReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nPaths;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xGetFontPathReply;
typedef struct {
    BYTE type;
    CARD8 depth;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 visual;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xGetImageReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nColormaps;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xListInstalledColormapsReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 red;
    CARD16 green;
    CARD16 blue;
    CARD16 pad2;
    CARD32 pixel;

```



```

    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xAllocColorReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 pixel;
    CARD16 exactRed;
    CARD16 exactGreen;
    CARD16 exactBlue;
    CARD16 screenRed;
    CARD16 screenGreen;
    CARD16 screenBlue;
    CARD32 pad2;
    CARD32 pad3;
} xAllocNamedColorReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nPixels;
    CARD16 nMasks;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xAllocColorCellsReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nPixels;
    CARD16 pad2;
    CARD32 redMask;
    CARD32 greenMask;
    CARD32 blueMask;
    CARD32 pad3;
    CARD32 pad4;
} xAllocColorPlanesReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nColors;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xQueryColorsReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;

```

```

CARD32 length;
CARD16 exactRed;
CARD16 exactGreen;
CARD16 exactBlue;
CARD16 screenRed;
CARD16 screenGreen;
CARD16 screenBlue;
CARD32 pad3;
CARD32 pad4;
CARD32 pad5;
} xLookupColorReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 width;
    CARD16 height;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xQueryBestSizeReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    BOOL present;
    CARD8 major_opcode;
    CARD8 first_event;
    CARD8 first_error;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xQueryExtensionReply;
typedef struct {
    BYTE type;
    CARD8 nExtensions;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xListExtensionsReply;
typedef struct {
    BYTE type;
    CARD8 success;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;

```

```

} xSetMappingReply;
typedef xSetMappingReply xSetPointerMappingReply;
typedef xSetMappingReply xSetModifierMappingReply;
typedef struct {
    BYTE type;
    CARD8 nElts;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xGetPointerMappingReply;
typedef struct {
    BYTE type;
    CARD8 keySymsPerKeyCode;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xGetKeyboardMappingReply;
typedef struct {
    BYTE type;
    CARD8 numKeyPerModifier;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xGetModifierMappingReply;
typedef struct {
    BYTE type;
    BOOL globalAutoRepeat;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 ledMask;
    CARD8 keyClickPercent;
    CARD8 bellPercent;
    CARD16 bellPitch;
    CARD16 bellDuration;
    CARD16 pad;
    BYTE map[32];
} xGetKeyboardControlReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 accelNumerator;
    CARD16 accelDenominator;
    CARD16 threshold;
    CARD16 pad2;
    CARD32 pad3;

```

```

    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xGetPointerControlReply;
typedef struct {
    BYTE type;
    BYTE pad1;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 timeout;
    CARD16 interval;
    BOOL preferBlanking;
    BOOL allowExposures;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xGetScreenSaverReply;
typedef struct {
    BYTE type;
    BOOL enabled;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nHosts;
    CARD16 pad1;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xListHostsReply;
typedef struct {
    BYTE type;
    BYTE map[31];
} xKeymapEvent;
typedef struct __xReq {
    CARD8 reqType;
    CARD8 data;
    CARD16 length;
} xReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 id;
} xResourceReq;
typedef struct {
    CARD8 reqType;
    CARD8 depth;
    CARD16 length;
    CARD32 wid;
    CARD32 parent;
    INT16 x;
    INT16 y;
    CARD16 width;
    CARD16 height;
    CARD16 borderWidth;
#if defined(__cplusplus) || defined(c_plusplus)
    CARD16 c_class;
#else
    CARD16 class;

```

```

#endif
    CARD32 visual;
    CARD32 mask;
} xCreateWindowReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 window;
    CARD32 valueMask;
} xChangeWindowAttributesReq;
typedef struct {
    CARD8 reqType;
    BYTE mode;
    CARD16 length;
    CARD32 window;
} xChangeSaveSetReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 window;
    CARD32 parent;
    INT16 x;
    INT16 y;
} xReparentWindowReq;
typedef struct {
    CARD8 reqType;
    CARD8 pad;
    CARD16 length;
    CARD32 window;
    CARD16 mask;
    CARD16 pad2;
} xConfigureWindowReq;
typedef struct {
    CARD8 reqType;
    CARD8 direction;
    CARD16 length;
    CARD32 window;
} xCirculateWindowReq;
typedef struct {
    CARD8 reqType;
    BOOL onlyIfExists;
    CARD16 length;
    CARD16 nbytes;
    CARD16 pad;
} xInternAtomReq;
typedef struct {
    CARD8 reqType;
    CARD8 mode;
    CARD16 length;
    CARD32 window;
    CARD32 property;
    CARD32 type;
    CARD8 format;
    BYTE pad[3];
    CARD32 nUnits;
} xChangePropertyReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;

```

```

        CARD32 window;
        CARD32 property;
    } xDeletePropertyReq;
typedef struct {
    CARD8 reqType;
#ifdef __cplusplus || defined(cplusplus)
    BOOL c_delete;
#else
    BOOL delete;
#endif
    CARD16 length;
    CARD32 window;
    CARD32 property;
    CARD32 type;
    CARD32 longOffset;
    CARD32 longLength;
} xGetPropertyReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 window;
    CARD32 selection;
    CARD32 time;
} xSetSelectionOwnerReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 requestor;
    CARD32 selection;
    CARD32 target;
    CARD32 property;
    CARD32 time;
} xConvertSelectionReq;
typedef struct {
    CARD8 reqType;
    BOOL ownerEvents;
    CARD16 length;
    CARD32 grabWindow;
    CARD16 eventMask;
    BYTE pointerMode;
    BYTE keyboardMode;
    CARD32 confineTo;
    CARD32 cursor;
    CARD32 time;
} xGrabPointerReq;
typedef struct {
    CARD8 reqType;
    BOOL ownerEvents;
    CARD16 length;
    CARD32 grabWindow;
    CARD16 eventMask;
    BYTE pointerMode;
    BYTE keyboardMode;
    CARD32 confineTo;
    CARD32 cursor;
    CARD8 button;
    BYTE pad;
    CARD16 modifiers;
} xGrabButtonReq;
typedef struct {

```

```

    CARD8 reqType;
    CARD8 button;
    CARD16 length;
    CARD32 grabWindow;
    CARD16 modifiers;
    CARD16 pad;
} xUngrabButtonReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cursor;
    CARD32 time;
    CARD16 eventMask;
    CARD16 pad2;
} xChangeActivePointerGrabReq;
typedef struct {
    CARD8 reqType;
    BOOL ownerEvents;
    CARD16 length;
    CARD32 grabWindow;
    CARD32 time;
    BYTE pointerMode;
    BYTE keyboardMode;
    CARD16 pad;
} xGrabKeyboardReq;
typedef struct {
    CARD8 reqType;
    BOOL ownerEvents;
    CARD16 length;
    CARD32 grabWindow;
    CARD16 modifiers;
    CARD8 key;
    BYTE pointerMode;
    BYTE keyboardMode;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xGrabKeyReq;
typedef struct {
    CARD8 reqType;
    CARD8 key;
    CARD16 length;
    CARD32 grabWindow;
    CARD16 modifiers;
    CARD16 pad;
} xUngrabKeyReq;
typedef struct {
    CARD8 reqType;
    CARD8 mode;
    CARD16 length;
    CARD32 time;
} xAllowEventsReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 window;
    CARD32 start;
    CARD32 stop;
} xGetMotionEventsReq;
typedef struct {

```

```

    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 srcWid;
    CARD32 dstWid;
    INT16 srcX;
    INT16 srcY;
} xTranslateCoordsReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 srcWid;
    CARD32 dstWid;
    INT16 srcX;
    INT16 srcY;
    CARD16 srcWidth;
    CARD16 srcHeight;
    INT16 dstX;
    INT16 dstY;
} xWarpPointerReq;
typedef struct {
    CARD8 reqType;
    CARD8 revertTo;
    CARD16 length;
    CARD32 focus;
    CARD32 time;
} xSetInputFocusReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 fid;
    CARD16 nbytes;
    BYTE pad1;
    BYTE pad2;
} xOpenFontReq;
typedef struct {
    CARD8 reqType;
    BOOL oddLength;
    CARD16 length;
    CARD32 fid;
} xQueryTextExtentsReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD16 maxNames;
    CARD16 nbytes;
} xListFontsReq;
typedef xListFontsReq xListFontsWithInfoReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD16 nFonts;
    BYTE pad1;
    BYTE pad2;
} xSetFontPathReq;
typedef struct {
    CARD8 reqType;
    CARD8 depth;

```



```

    CARD16 length;
    CARD32 pid;
    CARD32 drawable;
    CARD16 width;
    CARD16 height;
} xCreatePixmapReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 gc;
    CARD32 drawable;
    CARD32 mask;
} xCreateGCReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 gc;
    CARD32 mask;
} xChangeGCReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 srcGC;
    CARD32 dstGC;
    CARD32 mask;
} xCopyGCReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 gc;
    CARD16 dashOffset;
    CARD16 nDashes;
} xSetDashesReq;
typedef struct {
    CARD8 reqType;
    BYTE ordering;
    CARD16 length;
    CARD32 gc;
    INT16 xOrigin;
    INT16 yOrigin;
} xSetClipRectanglesReq;
typedef struct {
    CARD8 reqType;
    BOOL exposures;
    CARD16 length;
    CARD32 window;
    INT16 x;
    INT16 y;
    CARD16 width;
    CARD16 height;
} xClearAreaReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 srcDrawable;
    CARD32 dstDrawable;
    CARD32 gc;

```

```

    INT16 srcX;
    INT16 srcY;
    INT16 dstX;
    INT16 dstY;
    CARD16 width;
    CARD16 height;
} xCopyAreaReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 srcDrawable;
    CARD32 dstDrawable;
    CARD32 gc;
    INT16 srcX;
    INT16 srcY;
    INT16 dstX;
    INT16 dstY;
    CARD16 width;
    CARD16 height;
    CARD32 bitPlane;
} xCopyPlaneReq;
typedef struct {
    CARD8 reqType;
    BYTE coordMode;
    CARD16 length;
    CARD32 drawable;
    CARD32 gc;
} xPolyPointReq;
typedef xPolyPointReq xPolyLineReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 drawable;
    CARD32 gc;
} xPolySegmentReq;
typedef xPolySegmentReq xPolyArcReq;
typedef xPolySegmentReq xPolyRectangleReq;
typedef xPolySegmentReq xPolyFillRectangleReq;
typedef xPolySegmentReq xPolyFillArcReq;
typedef struct _FillPolyReq {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 drawable;
    CARD32 gc;
    BYTE shape;
    BYTE coordMode;
    CARD16 pad1;
} xFillPolyReq;
typedef struct _PutImageReq {
    CARD8 reqType;
    CARD8 format;
    CARD16 length;
    CARD32 drawable;
    CARD32 gc;
    CARD16 width;
    CARD16 height;
    INT16 dstX;
    INT16 dstY;
    CARD8 leftPad;

```

```

    CARD8 depth;
    CARD16 pad;
} xPutImageReq;
typedef struct {
    CARD8 reqType;
    CARD8 format;
    CARD16 length;
    CARD32 drawable;
    INT16 x;
    INT16 y;
    CARD16 width;
    CARD16 height;
    CARD32 planeMask;
} xGetImageReq;
typedef struct {
    CARD8 reqType;
    CARD8 pad;
    CARD16 length;
    CARD32 drawable;
    CARD32 gc;
    INT16 x;
    INT16 y;
} xPolyTextReq;
typedef xPolyTextReq xPolyText8Req;
typedef xPolyTextReq xPolyText16Req;
typedef struct {
    CARD8 reqType;
    BYTE nChars;
    CARD16 length;
    CARD32 drawable;
    CARD32 gc;
    INT16 x;
    INT16 y;
} xImageTextReq;
typedef xImageTextReq xImageText8Req;
typedef xImageTextReq xImageText16Req;
typedef struct {
    CARD8 reqType;
    BYTE alloc;
    CARD16 length;
    CARD32 mid;
    CARD32 window;
    CARD32 visual;
} xCreateColormapReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 mid;
    CARD32 srcCmap;
} xCopyColormapAndFreeReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cmap;
    CARD16 red;
    CARD16 green;
    CARD16 blue;
    CARD16 pad2;
} xAllocColorReq;
typedef struct {

```

```

    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cmap;
    CARD16 nbytes;
    BYTE pad1;
    BYTE pad2;
} xAllocNamedColorReq;
typedef struct {
    CARD8 reqType;
    BOOL contiguous;
    CARD16 length;
    CARD32 cmap;
    CARD16 colors;
    CARD16 planes;
} xAllocColorCellsReq;
typedef struct {
    CARD8 reqType;
    BOOL contiguous;
    CARD16 length;
    CARD32 cmap;
    CARD16 colors;
    CARD16 red;
    CARD16 green;
    CARD16 blue;
} xAllocColorPlanesReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cmap;
    CARD32 planeMask;
} xFreeColorsReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cmap;
} xStoreColorsReq;
typedef struct {
    CARD8 reqType;
    CARD8 flags;
    CARD16 length;
    CARD32 cmap;
    CARD32 pixel;
    CARD16 nbytes;
    BYTE pad1;
    BYTE pad2;
} xStoreNamedColorReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cmap;
} xQueryColorsReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cmap;
    CARD16 nbytes;
    BYTE pad1;

```

```

    BYTE pad2;
} xLookupColorReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cid;
    CARD32 source;
    CARD32 mask;
    CARD16 foreRed;
    CARD16 foreGreen;
    CARD16 foreBlue;
    CARD16 backRed;
    CARD16 backGreen;
    CARD16 backBlue;
    CARD16 x;
    CARD16 y;
} xCreateCursorReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cid;
    CARD32 source;
    CARD32 mask;
    CARD16 sourceChar;
    CARD16 maskChar;
    CARD16 foreRed;
    CARD16 foreGreen;
    CARD16 foreBlue;
    CARD16 backRed;
    CARD16 backGreen;
    CARD16 backBlue;
} xCreateGlyphCursorReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 cursor;
    CARD16 foreRed;
    CARD16 foreGreen;
    CARD16 foreBlue;
    CARD16 backRed;
    CARD16 backGreen;
    CARD16 backBlue;
} xRecolorCursorReq;
typedef struct {
    CARD8 reqType;
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD16 length;
    CARD32 drawable;
    CARD16 width;
    CARD16 height;
} xQueryBestSizeReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;

```

```

    CARD16 nbytes;
    BYTE pad1;
    BYTE pad2;
} xQueryExtensionReq;
typedef struct {
    CARD8 reqType;
    CARD8 numKeyPerModifier;
    CARD16 length;
} xSetModifierMappingReq;
typedef struct {
    CARD8 reqType;
    CARD8 nElts;
    CARD16 length;
} xSetPointerMappingReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD8 firstKeyCode;
    CARD8 count;
    CARD16 pad1;
} xGetKeyboardMappingReq;
typedef struct {
    CARD8 reqType;
    CARD8 keyCodes;
    CARD16 length;
    CARD8 firstKeyCode;
    CARD8 keySymsPerKeyCode;
    CARD16 pad1;
} xChangeKeyboardMappingReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 mask;
} xChangeKeyboardControlReq;
typedef struct {
    CARD8 reqType;
    INT8 percent;
    CARD16 length;
} xBellReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    INT16 accelNum;
    INT16 accelDenum;
    INT16 threshold;
    BOOL doAccel;
    BOOL doThresh;
} xChangePointerControlReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    INT16 timeout;
    INT16 interval;
    BYTE preferBlank;
    BYTE allowExpose;
    CARD16 pad2;
} xSetScreenSaverReq;
typedef struct {

```

```

    CARD8 reqType;
    BYTE mode;
    CARD16 length;
    CARD8 hostFamily;
    BYTE pad;
    CARD16 hostLength;
} xChangeHostsReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
} xListHostsReq;
typedef struct {
    CARD8 reqType;
    BYTE mode;
    CARD16 length;
} xChangeModeReq;
typedef xChangeModeReq xSetAccessControlReq;
typedef xChangeModeReq xSetCloseDownModeReq;
typedef xChangeModeReq xForceScreenSaverReq;
typedef struct {
    CARD8 reqType;
    BYTE pad;
    CARD16 length;
    CARD32 window;
    CARD16 nAtoms;
    INT16 nPositions;
} xRotatePropertiesReq;

typedef union {
    xGenericReply generic;
    xGetGeometryReply geom;
    xQueryTreeReply tree;
    xInternAtomReply atom;
    xGetAtomNameReply atomName;
    xGetPropertyReply property;
    xListPropertiesReply listProperties;
    xGetSelectionOwnerReply selection;
    xGrabPointerReply grabPointer;
    xGrabKeyboardReply grabKeyboard;
    xQueryPointerReply pointer;
    xGetMotionEventsReply motionEvents;
    xTranslateCoordsReply coords;
    xGetInputFocusReply inputFocus;
    xQueryTextExtentsReply textExtents;
    xListFontsReply fonts;
    xGetFontPathReply fontPath;
    xGetImageReply image;
    xListInstalledColormapsReply colormaps;
    xAllocColorReply allocColor;
    xAllocNamedColorReply allocNamedColor;
    xAllocColorCellsReply colorCells;
    xAllocColorPlanesReply colorPlanes;
    xQueryColorsReply colors;
    xLookupColorReply lookupColor;
    xQueryBestSizeReply bestSize;
    xQueryExtensionReply extension;
    xListExtensionsReply extensions;
    xSetModifierMappingReply setModifierMapping;
    xGetModifierMappingReply getModifierMapping;
    xSetPointerMappingReply setPointerMapping;
    xGetKeyboardMappingReply getKeyboardMapping;

```

```

xGetPointerMappingReply getPointerMapping;
xGetPointerControlReply pointerControl;
xGetScreenSaverReply screenSaver;
xListHostsReply hosts;
xError error;
xEvent event;
} xReply;
typedef struct {
    CARD8 reqType;
    BOOL propagate;
    CARD16 length;
    CARD32 destination;
    CARD32 eventMask;
    xEvent event;
} xSendEventReq;

```

6.2.12. X11/Xprotostr.h

```

typedef struct __xSegment {
    INT16 x1;
    INT16 y1;
    INT16 x2;
    INT16 y2;
} xSegment;
typedef struct __xPoint {
    INT16 x;
    INT16 y;
} xPoint;
typedef struct __xRectangle {
    INT16 x;
    INT16 y;
    CARD16 width;
    CARD16 height;
} xRectangle;
typedef struct __xArc {
    INT16 x;
    INT16 y;
    CARD16 width;
    CARD16 height;
    INT16 angle1;
    INT16 angle2;
} xArc;

```

6.2.13. X11/Xresource.h

```

#define NULLQUARK ((XrmQuark) 0)

typedef int XrmQuark;
typedef int *XrmQuarkList;
typedef char *XrmString;
typedef enum {
    XrmBindTightly,
    XrmBindLoosely
} XrmBinding, *XrmBindingList;
typedef XrmQuark XrmName;
typedef XrmQuarkList XrmNameList;
typedef XrmQuark XrmClass;
typedef XrmQuarkList XrmClassList;
typedef XrmQuark XrmRepresentation;

```



```

typedef struct {
    unsigned int size;
    XPointer addr;
} XrmValue, *XrmValuePtr;
typedef struct _XrmHashBucketRec *XrmHashBucket;
typedef XrmHashBucket *XrmHashTable;
typedef XrmHashTable XrmSearchList[];
typedef struct _XrmHashBucketRec *XrmDatabase;
typedef enum {
    XrmoptionNoArg,
    XrmoptionIsArg,
    XrmoptionStickyArg,
    XrmoptionSepArg,
    XrmoptionResArg,
    XrmoptionSkipArg,
    XrmoptionSkipLine,
    XrmoptionSkipNArgs
} XrmOptionKind;
typedef struct {
    char *option;
    char *specifier;
    XrmOptionKind argKind;
    XPointer value;
} XrmOptionDescRec, *XrmOptionDescList;
extern void XrmCombineDatabase(XrmDatabase, XrmDatabase *, int);
extern int XrmCombineFileDatabase(const char *, XrmDatabase *, int);
extern void XrmDestroyDatabase(XrmDatabase);
extern int XrmEnumerateDatabase(XrmDatabase, XrmNameList, XrmClassList,
                                int, int (*)(XrmDatabase *, XrmBindingList,
                                                XrmQuarkList,
                                                XrmRepresentation *,
                                                XrmValue *, XPointer),
                                XPointer);
extern XrmDatabase XrmGetDatabase(Display *);
extern XrmDatabase XrmGetFileDatabase(const char *);
extern int XrmGetResource(XrmDatabase, const char *, const char *, char **,
                          XrmValue *);
extern XrmDatabase XrmGetStringDatabase(const char *);
extern const char *XrmLocaleOfDatabase(XrmDatabase);
extern void XrmMergeDatabases(XrmDatabase, XrmDatabase *);
extern void XrmParseCommand(XrmDatabase *, XrmOptionDescList, int,
                             const char *, int *, char **);
extern XrmQuark XrmPermStringToQuark(const char *);
extern void XrmPutFileDatabase(XrmDatabase, const char *);
extern void XrmPutLineResource(XrmDatabase *, const char *);
extern void XrmPutResource(XrmDatabase *, const char *, const char *,
                           XrmValue *);
extern void XrmPutStringResource(XrmDatabase *, const char *,
                                 const char *);
extern int XrmQGetResource(XrmDatabase, XrmNameList, XrmClassList,
                           XrmRepresentation *, XrmValue *);
extern int XrmQGetSearchList(XrmDatabase, XrmNameList, XrmClassList,
                              XrmSearchList, int);
extern int XrmQGetSearchResource(XrmSearchList, XrmName, XrmClass,
                                 XrmRepresentation *, XrmValue *);
extern void XrmQPutResource(XrmDatabase *, XrmBindingList, XrmQuarkList,
                            XrmRepresentation, XrmValue *);
extern void XrmQPutStringResource(XrmDatabase *, XrmBindingList,
                                  XrmQuarkList, const char *);
extern XrmString XrmQuarkToString(XrmQuark);
extern void XrmSetDatabase(Display *, XrmDatabase);
extern void XrmStringToBindingQuarkList(const char *, XrmBindingList,

```

```

                                XrmQuarkList);
extern XrmQuark XrmStringToQuark(const char *);
extern void XrmStringToQuarkList(const char *, XrmQuarkList);
extern XrmQuark XrmUniqueQuark(void);

```

6.2.14. X11/Xutil.h

```

#define IsModifierKey(keysym)      (((KeySym)(keysym) >= XK_Shift_L) && ((KeySym)(keysym) <= XK_Hyph
#define IsPrivateKeypadKey(keysym) (((KeySym)(keysym) >= 0x11000000) && ((KeySym)(keysym) <=
#define IsKeypadKey(keysym)        (((KeySym)(keysym) >= XK_KP_Space) && ((KeySym)(keysym) <= XK_KP_
#define IsMiscFunctionKey(keysym)  (((KeySym)(keysym) >= XK_Select) && ((KeySym)(keysym) <=
#define IsFunctionKey(keysym)      (((KeySym)(keysym) >= XK_F1) && ((KeySym)(keysym) <= XK_F35))
#define IsCursorKey(keysym)        (((KeySym)(keysym) >= XK_Home) && ((KeySym)(keysym) < XK_Select))
#define IsPFKey(keysym)            (((KeySym)(keysym) >= XK_KP_F1) && ((KeySym)(keysym) <= XK_KP_F4))
#define XStringToContext(string)    ((XContext)XrmStringToQuark(string))
#define XUniqueContext()            ((XContext)XrmUniqueQuark())
#define ReleaseByFreeingColormap    ((XID)1L)
#define InputHint                   (1L<<0)
#define USPosition                  (1L<<0)
#define StateHint                   (1L<<1)
#define USSize                      (1L<<1)
#define IconPixmapHint              (1L<<2)
#define PPosition                   (1L<<2)
#define IconWindowHint              (1L<<3)
#define PSize                       (1L<<3)
#define IconPositionHint            (1L<<4)
#define PMinSize                    (1L<<4)
#define IconMaskHint                (1L<<5)
#define PMaxSize                    (1L<<5)
#define PResizeInc                  (1L<<6)
#define WindowGroupHint             (1L<<6)
#define PAspect                    (1L<<7)
#define PBaseSize                   (1L<<8)
#define XUrgencyHint                (1L<<8)
#define PWinGravity                 (1L<<9)
#define AllHints                    (InputHint|StateHint|IconPixmapHint|IconWindowHint|IconPositionHint|IconM
#define PAllHints                   (PPosition|PSize|PMinSize|PMaxSize|PResizeInc|PAspect)
#define XNoMemory                   -1
#define XLocaleNotSupported          -2
#define XConverterNotFound           -3
#define BitmapSuccess                0
#define DontCareState               0
#define RectangleOut                 0
#define WithdrawnState              0
#define XCSUCCESS                   0
#define VisualNoMask                 0x0
#define NoValue                      0x0000
#define XValue                       0x0001
#define YValue                       0x0002
#define WidthValue                   0x0004
#define HeightValue                  0x0008
#define AllValues                    0x000F
#define XNegative                    0x0010
#define YNegative                    0x0020
#define VisualIDMask                 0x1
#define VisualRedMaskMask            0x10
#define VisualBitsPerRGBMask         0x100
#define VisualAllMask                0x1FF
#define VisualScreenMask             0x2
#define VisualGreenMaskMask          0x20
#define VisualDepthMask              0x4

```

```

#define VisualBlueMaskMask      0x40
#define VisualClassMask 0x8
#define VisualColormapSizeMask  0x80
#define BitmapOpenFailed        1
#define NormalState              1
#define RectangleIn              1
#define XCNOMEM 1
#define BitmapFileInvalid        2
#define RectanglePart            2
#define XCNOENT 2
#define ZoomState                2
#define BitmapNoMemory           3
#define IconicState              3
#define InactiveState            4

```

```

typedef struct {
    long int flags;
    int x;
    int y;
    int width;
    int height;
    int min_width;
    int min_height;
    int max_width;
    int max_height;
    int width_inc;
    int height_inc;
    struct {
        int x;
        int y;
    } min_aspect;
    struct {
        int x;
        int y;
    } max_aspect;
    int base_width;
    int base_height;
    int win_gravity;
} XSizeHints;
typedef struct {
    long int flags;
    int input;
    int initial_state;
    Pixmap icon_pixmap;
    Window icon_window;
    int icon_x;
    int icon_y;
    Pixmap icon_mask;
    XID window_group;
} XWMHints;
typedef struct {
    unsigned char *value;
    Atom encoding;
    int format;
    unsigned long int nitems;
} XTextProperty;
typedef struct {
    int min_width;
    int min_height;
    int max_width;
    int max_height;
    int width_inc;

```

```

    int height_inc;
} XIconSize;
typedef struct {
    char *res_name;
    char *res_class;
} XClassHint;
typedef struct _XComposeStatus {
    XPointer compose_ptr;
    int chars_matched;
} XComposeStatus;
typedef struct _XRegion *Region;
typedef struct {
    Visual *visual;
    VisualID visualid;
    int screen;
    int depth;
#if defined(__cplusplus) || defined(c_plusplus)
    int c_class;
#else
    int class;
#endif
    unsigned long int red_mask;
    unsigned long int green_mask;
    unsigned long int blue_mask;
    int colormap_size;
    int bits_per_rgb;
} XVisualInfo;
typedef struct {
    Colormap colormap;
    unsigned long int red_max;
    unsigned long int red_mult;
    unsigned long int green_max;
    unsigned long int green_mult;
    unsigned long int blue_max;
    unsigned long int blue_mult;
    unsigned long int base_pixel;
    VisualID visualid;
    XID killid;
} XStandardColormap;
typedef int XContext;
typedef enum {
    XStringStyle = 0,
    XCompoundTextStyle = 1,
    XTextStyle = 2,
    XStdICCTextStyle = 3,
    XUTF8StringStyle = 4
} XICCEncodingStyle;
extern int XAddPixel(XImage *, long int);
extern XClassHint *XAllocClassHint(void);
extern XIconSize *XAllocIconSize(void);
extern XSizeHints *XAllocSizeHints(void);
extern XStandardColormap *XAllocStandardColormap(void);
extern XWMHints *XAllocWMHints(void);
extern int XClipBox(Region, XRectangle *);
extern void XConvertCase(KeySym, KeySym *, KeySym *);
extern Region XCreateRegion(void);
extern const char *XDefaultString(void);
extern int XDeleteContext(Display *, XID, XContext);
extern int XDestroyImage(XImage *);
extern int XDestroyRegion(Region);
extern int XEmptyRegion(Region);
extern int XEqualRegion(Region, Region);

```

```

extern int XFindContext(Display *, XID, XContext, XPointer *);
extern int XGetClassHint(Display *, Window, XClassHint *);
extern int XGetIconSizes(Display *, Window, XIconSize * *, int *);
extern int XGetNormalHints(Display *, Window, XSizeHints *);
extern unsigned long int XGetPixel(XImage *, int, int);
extern int XGetRGBColormaps(Display *, Window, XStandardColormap * *,
                             int *, Atom);
extern int XGetSizeHints(Display *, Window, XSizeHints *, Atom);
extern int XGetStandardColormap(Display *, Window, XStandardColormap *,
                                Atom);
extern int XGetTextProperty(Display *, Window, XTextProperty *, Atom);
extern XVisualInfo *XGetVisualInfo(Display *, long int, XVisualInfo *,
                                    int *);
extern int XGetWMClientMachine(Display *, Window, XTextProperty *);
extern XWMHints *XGetWMHints(Display *, Window);
extern int XGetWMIconName(Display *, Window, XTextProperty *);
extern int XGetWMName(Display *, Window, XTextProperty *);
extern int XGetWMNormalHints(Display *, Window, XSizeHints *, long int *);
extern int XGetWMSizeHints(Display *, Window, XSizeHints *, long int *,
                            Atom);
extern int XGetZoomHints(Display *, Window, XSizeHints *);
extern int XIntersectRegion(Region, Region, Region);
extern int XLookupString(XKeyEvent *, char *, int, KeySym *,
                        XComposeStatus *);
extern int XMatchVisualInfo(Display *, int, int, int, XVisualInfo *);
extern int XOffsetRegion(Region, int, int);
extern int XPointInRegion(Region, int, int);
extern Region XPolygonRegion(XPoint *, int, int);
extern int XPutPixel(XImage *, int, int, unsigned long int);
extern int XRectInRegion(Region, int, int, unsigned int, unsigned int);
extern int XSaveContext(Display *, XID, XContext, const char *);
extern int XSetClassHint(Display *, Window, XClassHint *);
extern int XSetIconSizes(Display *, Window, XIconSize *, int);
extern int XSetNormalHints(Display *, Window, XSizeHints *);
extern void XSetRGBColormaps(Display *, Window, XStandardColormap *, int,
                              Atom);
extern int XSetRegion(Display *, GC, Region);
extern int XSetSizeHints(Display *, Window, XSizeHints *, Atom);
extern void XSetStandardColormap(Display *, Window, XStandardColormap *,
                                  Atom);
extern int XSetStandardProperties(Display *, Window, const char *,
                                  const char *, Pixmap, char **, int,
                                  XSizeHints *);
extern void XSetTextProperty(Display *, Window, XTextProperty *, Atom);
extern void XSetWMClientMachine(Display *, Window, XTextProperty *);
extern int XSetWMHints(Display *, Window, XWMHints *);
extern void XSetWMIconName(Display *, Window, XTextProperty *);
extern void XSetWMName(Display *, Window, XTextProperty *);
extern void XSetWMNormalHints(Display *, Window, XSizeHints *);
extern void XSetWMProperties(Display *, Window, XTextProperty *,
                              XTextProperty *, char **, int, XSizeHints *,
                              XWMHints *, XClassHint *);
extern void XSetWMSizeHints(Display *, Window, XSizeHints *, Atom);
extern int XSetZoomHints(Display *, Window, XSizeHints *);
extern int XShrinkRegion(Region, int, int);
extern int XStringListToTextProperty(char **, int, XTextProperty *);
extern XImage *XSubImage(XImage *, int, int, unsigned int, unsigned int);
extern int XSubtractRegion(Region, Region, Region);
extern int XTextPropertyToStringList(XTextProperty *, char ***, int *);
extern int XUnionRectWithRegion(XRectangle *, Region, Region);
extern int XUnionRegion(Region, Region, Region);
extern int XWMGeometry(Display *, int, const char *, const char *,

```

```

        unsigned int, XSizeHints *, int *, int *, int *,
        int *, int *);
extern int XXorRegion(Region, Region, Region);
extern void XmbSetWMProperties(Display *, Window, const char *,
        const char *, char **, int, XSizeHints *,
        XWMHints *, XClassHint *);
extern int XmbTextListToTextProperty(Display * display, char **list,
        int count, XICCEncodingStyle style,
        XTextProperty * text_prop_return);
extern int XmbTextPropertyToTextList(Display * display,
        const XTextProperty * text_prop,
        char ***list_return,
        int *count_return);
extern int Xutf8TextListToTextProperty(Display * display, char **list,
        int count, XICCEncodingStyle style,
        XTextProperty * text_prop_return);
extern int Xutf8TextPropertyToTextList(Display * display,
        const XTextProperty * text_prop,
        char ***list_return,
        int *count_return);
extern void XwcFreeStringList(wchar_t * *list);
extern int XwcTextListToTextProperty(Display * display, wchar_t * *list,
        int count, XICCEncodingStyle style,
        XTextProperty * text_prop_return);
extern int XwcTextPropertyToTextList(Display * display,
        const XTextProperty * text_prop,
        wchar_t * **list_return,
        int *count_return);

```

6.2.15. X11/cursorfont.h

```

#define _cursorfont_h_
#define XC_X_cursor      0
#define XC_arrow         2
#define XC_based_arrow_down      4
#define XC_based_arrow_up       6
#define XC_boat          8
#define XC_bogosity      10
#define XC_bottom_left_corner    12
#define XC_bottom_right_corner   14
#define XC_bottom_side   16
#define XC_bottom_tee     18
#define XC_box_spiral     20
#define XC_center_ptr     22
#define XC_circle         24
#define XC_clock          26
#define XC_coffee_mug     28
#define XC_cross          30
#define XC_cross_reverse  32
#define XC_crosshair      34
#define XC_diamond_cross  36
#define XC_dot            38
#define XC_dotbox         40
#define XC_double_arrow   42
#define XC_draft_large    44
#define XC_draft_small    46
#define XC_draped_box     48
#define XC_exchange       50
#define XC_fleur          52
#define XC_gobbler        54
#define XC_gumby          56

```

```

#define XC_hand1      58
#define XC_hand2      60
#define XC_heart      62
#define XC_icon 64
#define XC_iron_cross 66
#define XC_left_ptr    68
#define XC_left_side   70
#define XC_left_tee    72
#define XC_leftbutton  74
#define XC_ll_angle    76
#define XC_lr_angle    78
#define XC_man 80
#define XC_middlebutton 82
#define XC_mouse       84
#define XC_pencil      86
#define XC_pirate       88
#define XC_plus 90
#define XC_question_arrow 92
#define XC_right_ptr    94
#define XC_right_side   96
#define XC_right_tee    98
#define XC_rightbutton 100
#define XC_rtl_logo    102
#define XC_sailboat    104
#define XC_sb_down_arrow 106
#define XC_sb_h_double_arrow 108
#define XC_sb_left_arrow 110
#define XC_sb_right_arrow 112
#define XC_sb_up_arrow 114
#define XC_sb_v_double_arrow 116
#define XC_shuttle     118
#define XC_sizing       120
#define XC_spider       122
#define XC_spraycan     124
#define XC_star 126
#define XC_target       128
#define XC_tcross       130
#define XC_top_left_arrow 132
#define XC_top_left_corner 134
#define XC_top_right_corner 136
#define XC_top_side     138
#define XC_top_tee      140
#define XC_trek 142
#define XC_ul_angle     144
#define XC_umbrella     146
#define XC_ur_angle     148
#define XC_watch        150
#define XC_xterm        152
#define XC_num_glyphs   154

```

6.2.16. X11/extensions/XKB.h

```

#define XkbSingleXIClass(c) (((c) & (~0xff)) == 0) || ((c) == XkbDfltXIClass)
#define XkbSingleXIId(c) (((c) & (~0xff)) == 0) || ((c) == XkbDfltXIId)
#define XkbBuildCoreState(m,g) (((g) & 0x3) << 13) | ((m) & 0xff)
#define XkbIsPtrAction(a) ((a)->type == XkbSA_MovePtr) && ((a)->type <= XkbSA_SetPtrDflt)
#define XkbIsGroupAction(a) ((a)->type == XkbSA_SetGroup) && ((a)->type <= XkbSA_LockGroup)
#define XkbIsModAction(a) ((a)->type == Xkb_SASetMods) && ((a)->type <= XkbSA_LockMods)
#define XkbExplicitXIClass(c) ((c) & (~0xff)) == 0
#define XkbExplicitXIDevice(c) ((c) & (~0xff)) == 0
#define XkbExplicitXIId(c) ((c) & (~0xff)) == 0

```

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```
#define XkbLegalXIBellClass(c) ((c)==KbdFeedbackClass) || ((c)==BellFeedbackClass) || ((c)==XkbDFL
#define XkbLegalXILedClass(c) ((c)==KbdFeedbackClass) || ((c)==LedFeedbackClass) || ((c)==XkbDFL
#define XkbIsLegalGroup(g) ((g)>=0) && ((g)<XkbNumKbdGroups)
#define XkbGroupForCoreState(s) ((s)>>13)&0x3
#define XkbSA_BreakLatch (1<<XkbSA_NoAction) | (1<<XkbSA_PtrBtn) | (1<<XkbSA_LockPtrBtn) | (1<
#define XkbSA_ValOp(a) ((a)&XkbSA_ValOpMask)
#define XkbSA_ValScale(a) ((a)&XkbSA_ValScaleMask)
#define XkbIsLegalKeycode(k) ((k)>=XkbMinLegalKeyCode)
#define XkbShiftLevel(n) ((n)-1)
#define XkbPerKeyBitArraySize ((XkbMaxLegalKeyCode+1)/8)
#define XkbSI_NoneOf (0)
#define XkbSA_IgnoreVal (0x00)
#define XkbWrapIntoRange (0x00)
#define XkbAllBooleanCtrlsMask (0x00001FFF)
#define XkbXI_IndicatorsMask (0x001c)
#define XkbXI_AllDeviceFeaturesMask (0x001e)
#define XkbXI_AllFeaturesMask (0x001f)
#define XkbSA_ValScaleMask (0x07)
#define XkbAX_SKOptionsMask (0x0C0)
#define XkbExplicitKeyTypesMask (0x0f)
#define XkbSA_SetValMin (0x10)
#define XkbPCF_AllFlagsMask (0x1F)
#define XkbSA_SetValCenter (0x20)
#define XkbAllCompatMask (0x3)
#define XkbSA_SetValMax (0x30)
#define XkbComponentNamesMask (0x3f)
#define XkbAllNamesMask (0x3fff)
#define XkbAllStateComponentsMask (0x3fff)
#define XkbClampIntoRange (0x40)
#define XkbSA_SetValRelative (0x40)
#define XkbSA_SetValAbsolute (0x50)
#define XkbAllNewKeyboardEventsMask (0x7)
#define XkbSA_ValOpMask (0x70)
#define XkbSA_ISOAffectedMask (0x78)
#define XkbAllComponentsMask (0x7f)
#define XkbSI_OpMask (0x7f)
#define XkbRedirectIntoRange (0x80)
#define XkbSI_LevelOneOnly (0x80)
#define XkbAllExtensionDeviceEventsMask (0x801f)
#define XkbAllAccessXEventsMask (0xf)
#define XkbAllGroupsMask (0xf)
#define XkbAllRequiredTypes (0xf)
#define XkbAX_FBOptionsMask (0xF3F)
#define XkbAllControlsMask (0xF8001FFF)
#define XkbAllExplicitMask (0xff)
#define XkbGBN_AllComponentsMask (0xff)
#define XkbAX_AllOptionsMask (0xFFF)
#define XkbAllEventsMask (0xFFF)
#define XkbAllIndicatorsMask (0xffffffff)
#define XkbAllRadioGroupsMask (0xffffffff)
#define XkbSI_AnyOfOrNone (1)
#define XkbShiftLevelMask(n) (1<<((n)-1))
#define XkbDF_DisableLocks (1<<0)
#define XkbExplicitKeyType1Mask (1<<0)
#define XkbGroup1Mask (1<<0)
#define XkbKeyTypesMask (1<<0)
#define XkbKeycodesNameMask (1<<0)
#define XkbOneLevelMask (1<<0)
#define XkbSI_AutoRepeat (1<<0)
#define XkbSymInterpMask (1<<0)
#define XkbExplicitKeyType2Mask (1<<1)
#define XkbGeometryNameMask (1<<1)
```



```

#define XkbGroup2Mask      (1<<1)
#define XkbGroupCompatMask (1<<1)
#define XkbKeySymsMask     (1<<1)
#define XkbSI_LockingKey   (1<<1)
#define XkbTwoLevelMask    (1<<1)
#define XkbKeyAliasesMask  (1<<10)
#define XkbVirtualModNamesMask (1<<11)
#define XkbGroupNamesMask  (1<<12)
#define XkbRGNamesMask     (1<<13)
#define XkbAlphabeticMask  (1<<2)
#define XkbExplicitKeyType3Mask (1<<2)
#define XkbGroup3Mask      (1<<2)
#define XkbModifierMapMask (1<<2)
#define XkbSymbolsNameMask (1<<2)
#define XkbExplicitComponentsMask (1<<3)
#define XkbExplicitKeyType4Mask (1<<3)
#define XkbGroup4Mask      (1<<3)
#define XkbKeypadMask      (1<<3)
#define XkbPhysSymbolsNameMask (1<<3)
#define XkbExplicitInterpretMask (1<<4)
#define XkbKeyActionsMask  (1<<4)
#define XkbTypesNameMask   (1<<4)
#define XkbCompatNameMask  (1<<5)
#define XkbExplicitAutoRepeatMask (1<<5)
#define XkbKeyBehaviorsMask (1<<5)
#define XkbExplicitBehaviorMask (1<<6)
#define XkbKeyTypeNamesMask (1<<6)
#define XkbVirtualModsMask (1<<6)
#define XkbAnyGroupMask    (1<<7)
#define XkbExplicitVModMapMask (1<<7)
#define XkbKTLLevelNamesMask (1<<7)
#define XkbVirtualModMapMask (1<<7)
#define XkbIndicatorNamesMask (1<<8)
#define XkbKeyNamesMask    (1<<9)
#define XkbAXN_SKPressMask (1L << 0)
#define XkbAX_SKPressFBMask (1L << 0)
#define XkbAllActionMessagesMask (1L << 0)
#define XkbAllBellEventsMask (1L << 0)
#define XkbClientMapMask   (1L << 0)
#define XkbGBN_TypesMask   (1L << 0)
#define XkbIM_UseBase      (1L << 0)
#define XkbLC_Hidden       (1L << 0)
#define XkbModifierStateMask (1L << 0)
#define XkbNKN_KeycodesMask (1L << 0)
#define XkbNewKeyboardNotifyMask (1L << 0)
#define XkbPCF_DetectableAutoRepeatMask (1L << 0)
#define XkbRepeatKeysMask  (1L << 0)
#define XkbSA_ClearLocks   (1L << 0)
#define XkbSA_LockNoLock   (1L << 0)
#define XkbSA_MessageOnPress (1L << 0)
#define XkbSA_NoAcceleration (1L << 0)
#define XkbSA_SwitchApplication (1L << 0)
#define XkbXI_KeyboardsMask (1L << 0)
#define XkbAXN_SKAcceptMask (1L << 1)
#define XkbAX_SKAcceptFBMask (1L << 1)
#define XkbGBN_CompatMapMask (1L << 1)
#define XkbIM_UseLatched   (1L << 1)
#define XkbLC_Default      (1L << 1)
#define XkbMapNotifyMask   (1L << 1)
#define XkbModifierBaseMask (1L << 1)
#define XkbNKN_GeometryMask (1L << 1)
#define XkbPCF_GrabsUseXKBStateMask (1L << 1)

```

```

#define XkbSA_LatchToLock      (1L << 1)
#define XkbSA_LockNoUnlock     (1L << 1)
#define XkbSA_MessageOnRelease (1L << 1)
#define XkbSA_MoveAbsoluteX    (1L << 1)
#define XkbServerMapMask      (1L << 1)
#define XkbSlowKeysMask (1L << 1)
#define XkbXI_ButtonActionsMask (1L << 1)
#define XkbAX_BKRejectFBMask  (1L << 10)
#define XkbAccessXNotifyMask   (1L << 10)
#define XkbCompatGrabModsMask  (1L << 10)
#define XkbLC_KeypadKeys       (1L << 10)
#define XkbOverlay1Mask (1L << 10)
#define XkbAX_DumbBellFBMask   (1L << 11)
#define XkbExtensionDeviceNotifyMask (1L << 11)
#define XkbLC_FunctionKeys     (1L << 11)
#define XkbLookupModsMask      (1L << 11)
#define XkbOverlay2Mask (1L << 11)
#define XkbCompatLookupModsMask (1L << 12)
#define XkbIgnoreGroupLockMask (1L << 12)
#define XkbLC_AlternateGroup    (1L << 12)
#define XkbPointerButtonMask    (1L << 13)
#define XkbXI_UnsupportedFeatureMask (1L << 15)
#define XkbAXN_SKRejectMask     (1L << 2)
#define XkbAX_FeatureFBMask     (1L << 2)
#define XkbBounceKeysMask       (1L << 2)
#define XkbCompatMapMask        (1L << 2)
#define XkbGBN_ClientSymbolsMask (1L << 2)
#define XkbIM_UseLocked (1L << 2)
#define XkbLC_Partial (1L << 2)
#define XkbModifierLatchMask    (1L << 2)
#define XkbNKN_DeviceIDMask     (1L << 2)
#define XkbPCF_AutoResetControlsMask (1L << 2)
#define XkbSA_DfltBtnAbsolute    (1L << 2)
#define XkbSA_GroupAbsolute      (1L << 2)
#define XkbSA_MessageGenKeyEvent (1L << 2)
#define XkbSA_MoveAbsoluteY      (1L << 2)
#define XkbSA_SwitchAbsolute     (1L << 2)
#define XkbSA_UseModMapMods      (1L << 2)
#define XkbStateNotifyMask       (1L << 2)
#define XkbXI_IndicatorNamesMask (1L << 2)
#define XkbGroupsWrapMask        (1L << 27)
#define XkbInternalModsMask      (1L << 28)
#define XkbIgnoreLockModsMask    (1L << 29)
#define XkbAXN_SKReleaseMask     (1L << 3)
#define XkbAX_SlowWarnFBMask     (1L << 3)
#define XkbControlsNotifyMask    (1L << 3)
#define XkbGBN_ServerSymbolsMask (1L << 3)
#define XkbIM_UseEffective (1L << 3)
#define XkbIndicatorMapMask      (1L << 3)
#define XkbModifierLockMask      (1L << 3)
#define XkbPCF_LookupStateWhenGrabbed (1L << 3)
#define XkbSA_ISONoAffectCtrls (1L << 3)
#define XkbStickyKeysMask        (1L << 3)
#define XkbXI_IndicatorMapsMask  (1L << 3)
#define XkbPerKeyRepeatMask      (1L << 30)
#define XkbControlsEnabledMask   (1L << 31)
#define XkbAXN_BKAcceptMask      (1L << 4)
#define XkbAX_IndicatorFBMask    (1L << 4)
#define XkbGBN_IndicatorMapMask  (1L << 4)
#define XkbGroupStateMask        (1L << 4)
#define XkbIM_UseCompat (1L << 4)
#define XkbIndicatorStateNotifyMask (1L << 4)

```

```

#define XkbMouseKeysMask      (1L << 4)
#define XkbNamesMask          (1L << 4)
#define XkbPCF_SendEventUsesXKBState (1L << 4)
#define XkbSA_ISONoAffectPtr   (1L << 4)
#define XkbXI_IndicatorStateMask (1L << 4)
#define XkbAXN_BKRejectMask    (1L << 5)
#define XkbAX_StickyKeysFBMask (1L << 5)
#define XkbGBN_KeyNamesMask    (1L << 5)
#define XkbGeometryMask (1L << 5)
#define XkbGroupBaseMask       (1L << 5)
#define XkbIM_LEDDrivesKB       (1L << 5)
#define XkbIndicatorMapNotifyMask (1L << 5)
#define XkbMouseKeysAccelMask  (1L << 5)
#define XkbSA_ISONoAffectGroup (1L << 5)
#define XkbAXN_AXKWarningMask  (1L << 6)
#define XkbAX_TwoKeysMask      (1L << 6)
#define XkbAccessXKeysMask     (1L << 6)
#define XkbControlsMask (1L << 6)
#define XkbGBN_GeometryMask     (1L << 6)
#define XkbGroupLatchMask      (1L << 6)
#define XkbIM_NoAutomatic       (1L << 6)
#define XkbNamesNotifyMask      (1L << 6)
#define XkbSA_ISONoAffectMods   (1L << 6)
#define XkbAX_LatchToLockMask   (1L << 7)
#define XkbAccessXTimeoutMask   (1L << 7)
#define XkbCompatMapNotifyMask  (1L << 7)
#define XkbGBN_OtherNamesMask   (1L << 7)
#define XkbGroupLockMask       (1L << 7)
#define XkbIM_NoExplicit        (1L << 7)
#define XkbSA_ISODfltIsGroup     (1L << 7)
#define XkbAX_SKReleaseFBMask   (1L << 8)
#define XkbAccessXFeedbackMask  (1L << 8)
#define XkbBellNotifyMask       (1L << 8)
#define XkbCompatStateMask      (1L << 8)
#define XkbLC_AlphanumericKeys  (1L << 8)
#define XkbAX_SKRejectFBMask    (1L << 9)
#define XkbActionMessageMask    (1L << 9)
#define XkbAudibleBellMask      (1L << 9)
#define XkbGrabModsMask (1L << 9)
#define XkbLC_ModifierKeys      (1L << 9)
#define XkbSI_AnyOf             (2)
#define XkbSI_Allof             (3)
#define XkbSI_Exactly           (4)
#define XkbAllMapComponentsMask (XkbAllClientInfoMask|XkbAllServerInfoMask)
#define XkbNumberEvents (XkbEventCode+1)
#define XkbAllServerInfoMask    (XkbExplicitComponentsMask|XkbKeyActionsMask|XkbKeyBehaviorsMask)
#define XkbGBN_SymbolsMask      (XkbGBN_ClientSymbolsMask|XkbGBN_ServerSymbolsMask)
#define XkbIM_UseAnyMods        (XkbIM_UseAnyGroup|XkbIM_UseCompat)
#define XkbIM_UseAnyGroup       (XkbIM_UseBase|XkbIM_UseLatched|XkbIM_UseLocked |XkbIM_UseEffecti
#define XkbAllClientInfoMask    (XkbKeyTypesMask|XkbKeySymsMask|XkbModifierMapMask)
#define XkbNumRequiredTypes     (XkbLastRequiredType+1)
#define XkbMaxKeyCount (XkbMaxLegalKeyCode-XkbMinLegalKeyCode+1)
#define XkbMaxSymsPerKey        (XkbMaxShiftLevel*XkbNumKbdGroups)
#define XkbMaxKbdGroup (XkbNumKbdGroups-1)
#define XkbSA_NumActions        (XkbSA_LastAction+1)
#define XkbAccessXOptionsMask   (XkbStickyKeysMask|XkbAccessXFeedbackMask)
#define X_kbUseExtension        0
#define XkbAXN_SKPress 0
#define XkbEventCode 0
#define XkbGroup1Index 0
#define XkbIM_UseNone 0
#define XkbKeyboard 0

```

```

#define XkbMinorVersion 0
#define XkbNewKeyboardNotify 0
#define XkbNoModifierMask 0
#define XkbOneLevelIndex 0
#define XkbSA_UseDfltButton 0
#define XkbKB_Default 0x00
#define XkbSA_NoAction 0x00
#define XkbKB_Lock 0x01
#define XkbSA_SetMods 0x01
#define XkbUseCoreKbd 0x0100
#define XkbKB_RadioGroup 0x02
#define XkbSA_LatchMods 0x02
#define XkbUseCorePtr 0x0200
#define XkbKB_Overlay1 0x03
#define XkbSA_LockMods 0x03
#define XkbDfltXIClass 0x0300
#define XkbKB_Overlay2 0x04
#define XkbSA_SetGroup 0x04
#define XkbDfltXIId 0x0400
#define XkbSA_LatchGroup 0x05
#define XkbAllXIClasses 0x0500
#define XkbSA_LockGroup 0x06
#define XkbAllXIIds 0x0600
#define XkbSA_MovePtr 0x07
#define XkbSA_PtrBtn 0x08
#define XkbSA_LockPtrBtn 0x09
#define XkbSA_SetPtrDflt 0x0a
#define XkbSA_ISOLock 0x0b
#define XkbSA_Terminate 0x0c
#define XkbSA_SwitchScreen 0x0d
#define XkbSA_SetControls 0x0e
#define XkbSA_LockControls 0x0f
#define XkbSA_ActionMessage 0x10
#define XkbSA_RedirectKey 0x11
#define XkbSA_DeviceBtn 0x12
#define XkbSA_LockDeviceBtn 0x13
#define XkbSA_DeviceValuator 0x14
#define XkbKB_OpMask 0x7f
#define XkbKB_Permanent 0x80
#define XkbKB_RGAllowNone 0x80
#define XkbSA_XFree86Private 0x86
#define XkbErr_BadId 0xfd
#define XkbErr_BadClass 0xfe
#define XkbAllModifiersMask 0xff
#define XkbErr_BadDevice 0xff
#define XkbNoIndicator 0xff
#define XkbNoModifier 0xff
#define XkbNoShape 0xff
#define XkbNoShiftLevel 0xff
#define XkbXINone 0xff00
#define XkbAllVirtualModsMask 0xffff
#define X_kbSelectEvents 1
#define XkbAXN_SKAccept 1
#define XkbGroup2Index 1
#define XkbMajorVersion 1
#define XkbMapNotify 1
#define XkbNumberErrors 1
#define XkbSA_AffectDfltBtn 1
#define XkbTwoLevelIndex 1
#define X_kbGetCompatMap 10
#define XkbAccessXNotify 10
#define XkbGeomPtsPerMM 10

```

```

#define X_kbSetDebuggingFlags 101
#define X_kbSetCompatMap 11
#define XkbExtensionDeviceNotify 11
#define X_kbGetIndicatorState 12
#define XkbRGMaxMembers 12
#define X_kbGetIndicatorMap 13
#define X_kbSetIndicatorMap 14
#define X_kbGetNamedIndicator 15
#define X_kbSetNamedIndicator 16
#define XkbNumVirtualMods 16
#define X_kbGetNames 17
#define X_kbSetNames 18
#define X_kbGetGeometry 19
#define XkbAXN_SKReject 2
#define XkbAlphabeticIndex 2
#define XkbGroup3Index 2
#define XkbStateNotify 2
#define X_kbSetGeometry 20
#define X_kbPerClientFlags 21
#define X_kbListComponents 22
#define X_kbGetKbdByName 23
#define X_kbGetDeviceInfo 24
#define X_kbSetDeviceInfo 25
#define XkbAnyGroup 254
#define XkbAllGroups 255
#define XkbGeomMaxPriority 255
#define XkbMaxKeyTypes 255
#define XkbMaxLegalKeyCode 255
#define X_kbBell 3
#define XkbAXN_SKRelease 3
#define XkbControlsNotify 3
#define XkbGeomMaxLabelColors 3
#define XkbGroup4Index 3
#define XkbKeypadIndex 3
#define XkbGeomMaxColors 32
#define XkbMaxRadioGroups 32
#define XkbNumIndicators 32
#define X_kbGetState 4
#define XkbAXN_BKAccept 4
#define XkbIndicatorStateNotify 4
#define XkbKeyNameLength 4
#define XkbMaxMouseKeysBtn 4
#define XkbNumKbdGroups 4
#define X_kbLatchLockState 5
#define XkbAXN_BKReject 5
#define XkbIndicatorMapNotify 5
#define X_kbGetControls 6
#define XkbAXN_AXKWarning 6
#define XkbActionMessageLength 6
#define XkbNamesNotify 6
#define XkbMaxShiftLevel 63
#define X_kbSetControls 7
#define XkbCompatMapNotify 7
#define X_kbGetMap 8
#define XkbBellNotify 8
#define XkbMaxRedirectCount 8
#define XkbMinLegalKeyCode 8
#define XkbNumModifiers 8
#define X_kbSetMap 9
#define XkbActionMessage 9
#define XkbAllCompatMapEventsMask XkbAllCompatMask
#define XkbAllControlEventsMask XkbAllControlsMask

```

```
#define XkbAllIndicatorEventsMask      XkbAllIndicatorsMask
#define XkbAllMapEventsMask           XkbAllMapComponentsMask
#define XkbAllNameEventsMask          XkbAllNamesMask
#define XkbAllStateEventsMask          XkbAllStateComponentsMask
#define XkbLastRequiredType            XkbKeypadIndex
#define XkbSA_LastAction                XkbSA_DeviceValuator
#define XkbName "XKEYBOARD"
```

6.2.17. X11/extensions/XKBgeom.h

```
#define _XKBGEOM_H_
#define XkbLogoDoodadColor(g,d) (&(g)->colors[(d)->color_ndx])
#define XkbShapeDoodadColor(g,d) (&(g)->colors[(d)->color_ndx])
#define XkbTextDoodadColor(g,d) (&(g)->colors[(d)->color_ndx])
#define XkbIndicatorDoodadOffColor(g,d) (&(g)->colors[(d)->off_color_ndx])
#define XkbIndicatorDoodadOnColor(g,d) (&(g)->colors[(d)->on_color_ndx])
#define XkbKeyColor(g,k) (&(g)->colors[(k)->color_ndx])
#define XkbIndicatorDoodadShape(g,d) (&(g)->shapes[(d)->shape_ndx])
#define XkbLogoDoodadShape(g,d) (&(g)->shapes[(d)->shape_ndx])
#define XkbShapeDoodadShape(g,d) (&(g)->shapes[(d)->shape_ndx])
#define XkbKeyShape(g,k) (&(g)->shapes[(k)->shape_ndx])
#define XkbBoundsHeight(b) ((b)->y2)-((b)->y1)
#define XkbSetLogoDoodadColor(g,d,c) ((d)->color_ndx= (c)-&(g)->colors[0])
#define XkbSetShapeDoodadColor(g,d,c) ((d)->color_ndx= (c)-&(g)->colors[0])
#define XkbSetTextDoodadColor(g,d,c) ((d)->color_ndx= (c)-&(g)->colors[0])
#define XkbSetIndicatorDoodadOffColor(g,d,c) ((d)->off_color_ndx= (c)-&(g)->colors[0])
#define XkbSetIndicatorDoodadOnColor(g,d,c) ((d)->on_color_ndx= (c)-&(g)->colors[0])
#define XkbSetIndicatorDoodadShape(g,d,s) ((d)->shape_ndx= (s)-&(g)->shapes[0])
#define XkbSetLogoDoodadShape(g,d,s) ((d)->shape_ndx= (s)-&(g)->shapes[0])
#define XkbSetShapeDoodadShape(g,d,s) ((d)->shape_ndx= (s)-&(g)->shapes[0])
#define XkbGeomColorIndex(g,c) ((int)((c)-&(g)->colors[0]))
#define XkbOutlineIndex(s,o) ((int)((o)-&(s)->outlines[0]))
#define XkbSetKeyColor(g,k,c) ((k)->color_ndx= (c)-&(g)->colors[0])
#define XkbSetKeyShape(g,k,s) ((k)->shape_ndx= (s)-&(g)->shapes[0])
#define XkbGeomAllMask (0x3f)
#define XkbGeomPropertiesMask (1<<0)
#define XkbGeomColorsMask (1<<1)
#define XkbGeomShapesMask (1<<2)
#define XkbGeomSectionsMask (1<<3)
#define XkbGeomDoodadsMask (1<<4)
#define XkbGeomKeyAliasesMask (1<<5)
#define XkbUnknownDoodad 0
#define XkbOutlineDoodad 1
#define XkbSolidDoodad 2
#define XkbTextDoodad 3
#define XkbIndicatorDoodad 4
#define XkbLogoDoodad 5

typedef struct _XkbProperty {
    char *name;
    char *value;
} XkbPropertyRec;
typedef struct _XkbProperty *XkbPropertyPtr;
typedef struct _XkbColor {
    unsigned int pixel;
    char *spec;
} XkbColorRec;
typedef struct _XkbColor *XkbColorPtr;
typedef struct _XkbPoint {
    short x;
    short y;
```

```

} XkbPointRec;
typedef struct _XkbPoint *XkbPointPtr;
typedef struct _XkbBounds {
    short x1;
    short y1;
    short x2;
    short y2;
} XkbBoundsRec;
typedef struct _XkbBounds *XkbBoundsPtr;
typedef struct _XkbOutline {
    unsigned short num_points;
    unsigned short sz_points;
    unsigned short corner_radius;
    XkbPointPtr points;
} XkbOutlineRec;
typedef struct _XkbOutline *XkbOutlinePtr;
typedef struct _XkbShape {
    Atom name;
    unsigned short num_outlines;
    unsigned short sz_outlines;
    XkbOutlinePtr outlines;
    XkbOutlinePtr approx;
    XkbOutlinePtr primary;
    XkbBoundsRec bounds;
} XkbShapeRec;
typedef struct _XkbShape *XkbShapePtr;
typedef struct _XkbShapeDoodad {
    Atom name;
    unsigned char type;
    unsigned char priority;
    short top;
    short left;
    short angle;
    unsigned short color_ndx;
    unsigned short shape_ndx;
} XkbShapeDoodadRec;
typedef struct _XkbShapeDoodad *XkbShapeDoodadPtr;
typedef struct _XkbTextDoodad {
    Atom name;
    unsigned char type;
    unsigned char priority;
    short top;
    short left;
    short angle;
    short width;
    short height;
    unsigned short color_ndx;
    char *text;
    char *font;
} XkbTextDoodadRec;
typedef struct _XkbTextDoodad *XkbTextDoodadPtr;
typedef struct _XkbIndicatorDoodad {
    Atom name;
    unsigned char type;
    unsigned char priority;
    short top;
    short left;
    short angle;
    unsigned short shape_ndx;
    unsigned short on_color_ndx;
    unsigned short off_color_ndx;
} XkbIndicatorDoodadRec;

```

```

typedef struct _XkbIndicatorDoodad *XkbIndicatorDoodadPtr;
typedef struct _XkbLogoDoodad {
    Atom name;
    unsigned char type;
    unsigned char priority;
    short top;
    short left;
    short angle;
    unsigned short color_ndx;
    unsigned short shape_ndx;
    char *logo_name;
} XkbLogoDoodadRec;
typedef struct _XkbLogoDoodad *XkbLogoDoodadPtr;
typedef struct _XkbAnyDoodad {
    Atom name;
    unsigned char type;
    unsigned char priority;
    short top;
    short left;
    short angle;
} XkbAnyDoodadRec;
typedef struct _XkbAnyDoodad *XkbAnyDoodadPtr;
union _XkbDoodad {
    XkbAnyDoodadRec any;
    XkbShapeDoodadRec shape;
    XkbTextDoodadRec text;
    XkbIndicatorDoodadRec indicator;
    XkbLogoDoodadRec logo;
};
typedef union _XkbDoodad {
    XkbAnyDoodadRec any;
    XkbShapeDoodadRec shape;
    XkbTextDoodadRec text;
    XkbIndicatorDoodadRec indicator;
    XkbLogoDoodadRec logo;
} XkbDoodadRec;
typedef union _XkbDoodad *XkbDoodadPtr;
typedef struct _XkbKey {
    XkbKeyNameRec name;
    short gap;
    unsigned char shape_ndx;
    unsigned char color_ndx;
} XkbKeyRec;
typedef struct _XkbKey *XkbKeyPtr;
typedef struct _XkbRow {
    short top;
    short left;
    unsigned short num_keys;
    unsigned short sz_keys;
    int vertical;
    XkbKeyPtr keys;
    XkbBoundsRec bounds;
} XkbRowRec;
typedef struct _XkbRow *XkbRowPtr;
typedef struct _XkbSection {
    Atom name;
    unsigned char priority;
    short top;
    short left;
    unsigned short width;
    unsigned short height;
    short angle;

```



```

    unsigned short num_rows;
    unsigned short num_doodads;
    unsigned short num_overlays;
    unsigned short sz_rows;
    unsigned short sz_doodads;
    unsigned short sz_overlays;
    XkbRowPtr rows;
    XkbDoodadPtr doodads;
    XkbBoundsRec bounds;
    struct _XkbOverlay *overlays;
} XkbSectionRec;
typedef struct _XkbSection *XkbSectionPtr;
typedef struct _XkbOverlayKey {
    XkbKeyNameRec over;
    XkbKeyNameRec under;
} XkbOverlayKeyRec;
typedef struct _XkbOverlayKey *XkbOverlayKeyPtr;
typedef struct _XkbOverlayRow {
    unsigned short row_under;
    unsigned short num_keys;
    unsigned short sz_keys;
    XkbOverlayKeyPtr keys;
} XkbOverlayRowRec;
typedef struct _XkbOverlayRow *XkbOverlayRowPtr;
typedef struct _XkbOverlay {
    Atom name;
    XkbSectionPtr section_under;
    unsigned short num_rows;
    unsigned short sz_rows;
    XkbOverlayRowPtr rows;
    XkbBoundsPtr bounds;
} XkbOverlayRec;
typedef struct _XkbOverlay *XkbOverlayPtr;
typedef struct _XkbGeometry {
    Atom name;
    unsigned short width_mm;
    unsigned short height_mm;
    char *label_font;
    XkbColorPtr label_color;
    XkbColorPtr base_color;
    unsigned short sz_properties;
    unsigned short sz_colors;
    unsigned short sz_shapes;
    unsigned short sz_sections;
    unsigned short sz_doodads;
    unsigned short sz_key_aliases;
    unsigned short num_properties;
    unsigned short num_colors;
    unsigned short num_shapes;
    unsigned short num_sections;
    unsigned short num_doodads;
    unsigned short num_key_aliases;
    XkbPropertyPtr properties;
    XkbColorPtr colors;
    XkbShapePtr shapes;
    XkbSectionPtr sections;
    XkbDoodadPtr doodads;
    XkbKeyAliasPtr key_aliases;
} XkbGeometryRec;
typedef struct _XkbGeometrySizes {
    unsigned int which;
    unsigned short num_properties;

```

```

    unsigned short num_colors;
    unsigned short num_shapes;
    unsigned short num_sections;
    unsigned short num_doodads;
    unsigned short num_key_aliases;
} XkbGeometrySizesRec;
typedef struct _XkbGeometrySizes *XkbGeometrySizesPtr;
extern int XkbAllocGeomColors(XkbGeometryPtr, int);
extern int XkbAllocGeomDoodads(XkbGeometryPtr, int);
extern int XkbAllocGeomKeyAliases(XkbGeometryPtr, int);
extern int XkbAllocGeomKeys(XkbRowPtr, int);
extern int XkbAllocGeomOutlines(XkbShapePtr, int);
extern int XkbAllocGeomOverlayKeys(XkbOverlayRowPtr, int);
extern int XkbAllocGeomOverlayRows(XkbOverlayPtr, int);
extern int XkbAllocGeomOverlays(XkbSectionPtr, int);
extern int XkbAllocGeomPoints(XkbOutlinePtr, int);
extern int XkbAllocGeomProps(XkbGeometryPtr, int);
extern int XkbAllocGeomRows(XkbSectionPtr, int);
extern int XkbAllocGeomSectionDoodads(XkbSectionPtr, int);
extern int XkbAllocGeomSections(XkbGeometryPtr, int);
extern int XkbAllocGeomShapes(XkbGeometryPtr, int);
extern int XkbAllocGeometry(XkbDescPtr, XkbGeometrySizesPtr);
extern int XkbComputeRowBounds(XkbGeometryPtr, XkbSectionPtr, XkbRowPtr);
extern int XkbComputeSectionBounds(XkbGeometryPtr, XkbSectionPtr);
extern int XkbComputeShapeBounds(XkbShapePtr);
extern int XkbComputeShapeTop(XkbShapePtr, XkbBoundsPtr);
extern char *XkbFindOverlayForKey(XkbGeometryPtr, XkbSectionPtr, char *);
extern void XkbFreeGeomColors(XkbGeometryPtr, int, int);
extern void XkbFreeGeomDoodads(XkbDoodadPtr, int, int);
extern void XkbFreeGeomKeyAliases(XkbGeometryPtr, int, int, int);
extern void XkbFreeGeomKeys(XkbRowPtr, int, int, int);
extern void XkbFreeGeomOutlines(XkbShapePtr, int, int, int);
extern void XkbFreeGeomOverlayKeys(XkbOverlayRowPtr, int, int, int);
extern void XkbFreeGeomOverlayRows(XkbOverlayPtr, int, int, int);
extern void XkbFreeGeomOverlays(XkbSectionPtr, int, int, int);
extern void XkbFreeGeomPoints(XkbOutlinePtr, int, int, int);
extern void XkbFreeGeomProperties(XkbGeometryPtr, int, int, int);
extern void XkbFreeGeomRows(XkbSectionPtr, int, int, int);
extern void XkbFreeGeomSections(XkbGeometryPtr, int, int, int);
extern void XkbFreeGeomShapes(XkbGeometryPtr, int, int, int);
extern void XkbFreeGeometry(XkbGeometryPtr, unsigned int, int);
extern int XkbGetGeometry(Display *, XkbDescPtr);
extern int XkbGetNamedGeometry(Display *, XkbDescPtr, Atom);
extern int XkbSetGeometry(Display *, unsigned int, XkbGeometryPtr);

```

6.2.18. X11/extensions/XKBproto.h

```

#define XkbPaddedSize(n)      (((unsigned int)(n)+3) >> 2) << 2)
#define XkbSetMapAllFlags     (0x3)
#define XkbSetMapResizeTypes  (1L<<0)
#define XkbSetMapRecomputeActions (1L<<1)
#define sz_xkbSetControlsReq   100
#define sz_xkbGetCompatMapReq  12
#define sz_xkbGetGeometryReq   12
#define sz_xkbGetIndicatorMapReq 12
#define sz_xkbGetKbdByNameReq  12
#define sz_xkbGetNamesReq      12
#define sz_xkbIndicatorMapWireDesc 12
#define sz_xkbSetDeviceInfoReq 12
#define sz_xkbSetIndicatorMapReq 12
#define sz_xkbGetDeviceInfoReq 16

```

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```
#define sz_xkbGetNamedIndicatorReq      16
#define sz_xkbLatchLockStateReq 16
#define sz_xkbSelectEventsReq 16
#define sz_xkbSetCompatMapReq 16
#define sz_xkbSymInterpretWireDesc      16
#define sz_xkbAnyDoodadWireDesc 20
#define sz_xkbDeviceLedsWireDesc 20
#define sz_xkbDoodadWireDesc 20
#define sz_xkbIndicatorDoodadWireDesc 20
#define sz_xkbLogoDoodadWireDesc 20
#define sz_xkbSectionWireDesc 20
#define sz_xkbShapeDoodadWireDesc 20
#define sz_xkbTextDoodadWireDesc 20
#define sz_xkbSetDebuggingFlagsReq 24
#define sz_xkbBellReq 28
#define sz_xkbGetMapReq 28
#define sz_xkbPerClientFlagsReq 28
#define sz_xkbSetGeometryReq 28
#define sz_xkbSetNamesReq 28
#define sz_xkbAccessXNotify 32
#define sz_xkbActionMessage 32
#define sz_xkbAnyEvent 32
#define sz_xkbBellNotify 32
#define sz_xkbCompatMapNotify 32
#define sz_xkbControlsNotify 32
#define sz_xkbEvent 32
#define sz_xkbExtensionDeviceNotify 32
#define sz_xkbGetCompatMapReply 32
#define sz_xkbGetDeviceInfoReply 32
#define sz_xkbGetGeometryReply 32
#define sz_xkbGetIndicatorMapReply 32
#define sz_xkbGetIndicatorStateReply 32
#define sz_xkbGetKbdByNameReply 32
#define sz_xkbGetNamedIndicatorReply 32
#define sz_xkbGetNamesReply 32
#define sz_xkbGetStateReply 32
#define sz_xkbIndicatorNotify 32
#define sz_xkbListComponentsReply 32
#define sz_xkbMapNotify 32
#define sz_xkbNamesNotify 32
#define sz_xkbNewKeyboardNotify 32
#define sz_xkbPerClientFlagsReply 32
#define sz_xkbSetDebuggingFlagsReply 32
#define sz_xkbSetNamedIndicatorReq 32
#define sz_xkbStateNotify 32
#define sz_xkbUseExtensionReply 32
#define sz_xkbSetMapReq 36
#define sz_xkbBehaviorWireDesc 4
#define sz_xkbKTSetMapEntryWireDesc 4
#define sz_xkbModsWireDesc 4
#define sz_xkbOutlineWireDesc 4
#define sz_xkbOverlayRowWireDesc 4
#define sz_xkbPointWireDesc 4
#define sz_xkbVModMapWireDesc 4
#define sz_xkbGetMapReply 40
#define sz_xkbActionWireDesc 8
#define sz_xkbGetControlsReq 8
#define sz_xkbGetIndicatorStateReq 8
#define sz_xkbGetStateReq 8
#define sz_xkbKMapEntryWireDesc 8
#define sz_xkbKeyTypeWireDesc 8
#define sz_xkbKeyWireDesc 8
```

```

#define sz_xkbListComponentsReq 8
#define sz_xkbOverlayKeyWireDesc      8
#define sz_xkbOverlayWireDesc      8
#define sz_xkbRowWireDesc      8
#define sz_xkbShapeWireDesc      8
#define sz_xkbSymMapWireDesc      8
#define sz_xkbUseExtensionReq      8
#define sz_xkbGetControlsReply      92

typedef struct _xkbUseExtension {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 wantedMajor;
    CARD16 wantedMinor;
} xkbUseExtensionReq;
typedef struct _xkbUseExtensionReply {
    BYTE type;
    BOOL supported;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 serverMajor;
    CARD16 serverMinor;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xkbUseExtensionReply;
typedef struct _xkbSelectEvents {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 affectWhich;
    CARD16 clear;
    CARD16 selectAll;
    CARD16 affectMap;
    CARD16 map;
} xkbSelectEventsReq;
typedef struct _xkbBell {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 bellClass;
    CARD16 bellID;
    INT8 percent;
    BOOL forceSound;
    BOOL eventOnly;
    CARD8 pad1;
    INT16 pitch;
    INT16 duration;
    CARD16 pad2;
    CARD32 name;
    CARD32 window;
} xkbBellReq;
typedef struct _xkbGetState {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;

```

```

    CARD16 pad;
} xkbGetStateReq;
typedef struct _xkbGetStateReply {
    BYTE type;
    BYTE deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 mods;
    CARD8 baseMods;
    CARD8 latchedMods;
    CARD8 lockedMods;
    CARD8 group;
    CARD8 lockedGroup;
    INT16 baseGroup;
    INT16 latchedGroup;
    CARD8 compatState;
    CARD8 grabMods;
    CARD8 compatGrabMods;
    CARD8 lookupMods;
    CARD8 compatLookupMods;
    CARD8 pad1;
    CARD16 ptrBtnState;
    CARD16 pad2;
    CARD32 pad3;
} xkbGetStateReply;
typedef struct _xkbLatchLockState {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD8 affectModLocks;
    CARD8 modLocks;
    BOOL lockGroup;
    CARD8 groupLock;
    CARD8 affectModLatches;
    CARD8 modLatches;
    CARD8 pad;
    BOOL latchGroup;
    INT16 groupLatch;
} xkbLatchLockStateReq;
typedef struct _xkbGetControls {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 pad;
} xkbGetControlsReq;
typedef struct _xkbGetControlsReply {
    BYTE type;
    CARD8 deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 mkDfltBtn;
    CARD8 numGroups;
    CARD8 groupsWrap;
    CARD8 internalMods;
    CARD8 ignoreLockMods;
    CARD8 internalRealMods;
    CARD8 ignoreLockRealMods;
    CARD8 pad1;
    CARD16 internalVMods;
    CARD16 ignoreLockVMods;

```

```

CARD16 repeatDelay;
CARD16 repeatInterval;
CARD16 slowKeysDelay;
CARD16 debounceDelay;
CARD16 mkDelay;
CARD16 mkInterval;
CARD16 mkTimeToMax;
CARD16 mkMaxSpeed;
INT16 mkCurve;
CARD16 axOptions;
CARD16 axTimeout;
CARD16 axOptsMask;
CARD16 axOptsValues;
CARD16 pad2;
CARD32 axCtrlsMask;
CARD32 axCtrlsValues;
CARD32 enabledCtrls;
BYTE perKeyRepeat[32];
} xkbGetControlsReply;
typedef struct _xkbSetControls {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD8 affectInternalMods;
    CARD8 internalMods;
    CARD8 affectIgnoreLockMods;
    CARD8 ignoreLockMods;
    CARD16 affectInternalVMods;
    CARD16 internalVMods;
    CARD16 affectIgnoreLockVMods;
    CARD16 ignoreLockVMods;
    CARD8 mkDfltBtn;
    CARD8 groupsWrap;
    CARD16 axOptions;
    CARD16 pad1;
    CARD32 affectEnabledCtrls;
    CARD32 enabledCtrls;
    CARD32 changeCtrls;
    CARD16 repeatDelay;
    CARD16 repeatInterval;
    CARD16 slowKeysDelay;
    CARD16 debounceDelay;
    CARD16 mkDelay;
    CARD16 mkInterval;
    CARD16 mkTimeToMax;
    CARD16 mkMaxSpeed;
    INT16 mkCurve;
    CARD16 axTimeout;
    CARD32 axCtrlsMask;
    CARD32 axCtrlsValues;
    CARD16 axOptsMask;
    CARD16 axOptsValues;
    BYTE perKeyRepeat[32];
} xkbSetControlsReq;
typedef struct _xkbKtMapEntryWireDesc {
    BOOL active;
    CARD8 mask;
    CARD8 level;
    CARD8 realMods;
    CARD16 virtualMods;
    CARD16 pad;

```

```

} xkbKtMapEntryWireDesc;
typedef struct __xkbKTSetMapEntryWireDesc {
    CARD8 level;
    CARD8 realMods;
    CARD16 virtualMods;
} xkbKTSetMapEntryWireDesc;
typedef struct __xkbModsWireDesc {
    CARD8 mask;
    CARD8 realMods;
    CARD16 virtualMods;
} xkbModsWireDesc;
typedef struct __xkbKeyTypeWireDesc {
    CARD8 mask;
    CARD8 realMods;
    CARD16 virtualMods;
    CARD8 numLevels;
    CARD8 nMapEntries;
    BOOL preserve;
    CARD8 pad;
} xkbKeyTypeWireDesc;
typedef struct __xkbSymMapWireDesc {
    CARD8 ktIndex[4];
    CARD8 groupInfo;
    CARD8 width;
    CARD16 nSyms;
} xkbSymMapWireDesc;
typedef struct __xkbVModMapWireDesc {
    CARD8 key;
    CARD8 pad;
    CARD16 vmods;
} xkbVModMapWireDesc;
typedef struct __xkbBehaviorWireDesc {
    CARD8 key;
    CARD8 type;
    CARD8 data;
    CARD8 pad;
} xkbBehaviorWireDesc;
typedef struct __xkbActionWireDesc {
    CARD8 type;
    CARD8 data[7];
} xkbActionWireDesc;
typedef struct __xkbGetMap {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 full;
    CARD16 partial;
    CARD8 firstType;
    CARD8 nTypes;
    CARD8 firstKeySym;
    CARD8 nKeySyms;
    CARD8 firstKeyAct;
    CARD8 nKeyActs;
    CARD8 firstKeyBehavior;
    CARD8 nKeyBehaviors;
    CARD16 virtualMods;
    CARD8 firstKeyExplicit;
    CARD8 nKeyExplicit;
    CARD8 firstModMapKey;
    CARD8 nModMapKeys;
    CARD8 firstVModMapKey;

```

```

    CARD8 nVModMapKeys;
    CARD16 pad1;
} xkbGetMapReq;
typedef struct _xkbGetMapReply {
    CARD8 type;
    CARD8 deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 pad1;
    CARD8 minKeyCode;
    CARD8 maxKeyCode;
    CARD16 present;
    CARD8 firstType;
    CARD8 nTypes;
    CARD8 totalTypes;
    CARD8 firstKeySym;
    CARD16 totalSyms;
    CARD8 nKeySyms;
    CARD8 firstKeyAct;
    CARD16 totalActs;
    CARD8 nKeyActs;
    CARD8 firstKeyBehavior;
    CARD8 nKeyBehaviors;
    CARD8 totalKeyBehaviors;
    CARD8 firstKeyExplicit;
    CARD8 nKeyExplicit;
    CARD8 totalKeyExplicit;
    CARD8 firstModMapKey;
    CARD8 nModMapKeys;
    CARD8 totalModMapKeys;
    CARD8 firstVModMapKey;
    CARD8 nVModMapKeys;
    CARD8 totalVModMapKeys;
    CARD8 pad2;
    CARD16 virtualMods;
} xkbGetMapReply;
typedef struct _xkbSetMap {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 present;
    CARD16 flags;
    CARD8 minKeyCode;
    CARD8 maxKeyCode;
    CARD8 firstType;
    CARD8 nTypes;
    CARD8 firstKeySym;
    CARD8 nKeySyms;
    CARD16 totalSyms;
    CARD8 firstKeyAct;
    CARD8 nKeyActs;
    CARD16 totalActs;
    CARD8 firstKeyBehavior;
    CARD8 nKeyBehaviors;
    CARD8 totalKeyBehaviors;
    CARD8 firstKeyExplicit;
    CARD8 nKeyExplicit;
    CARD8 totalKeyExplicit;
    CARD8 firstModMapKey;
    CARD8 nModMapKeys;
    CARD8 totalModMapKeys;

```



```

    CARD8 firstVModMapKey;
    CARD8 nVModMapKeys;
    CARD8 totalVModMapKeys;
    CARD16 virtualMods;
} xkbSetMapReq;
typedef struct _xkbSymInterpretWireDesc {
    CARD32 sym;
    CARD8 mods;
    CARD8 match;
    CARD8 virtualMod;
    CARD8 flags;
    xkbActionWireDesc act;
} xkbSymInterpretWireDesc;
typedef struct _xkbGetCompatMap {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD8 groups;
    BOOL getAllSI;
    CARD16 firstSI;
    CARD16 nSI;
} xkbGetCompatMapReq;
typedef struct _xkbGetCompatMapReply {
    CARD8 type;
    CARD8 deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 groups;
    CARD8 pad1;
    CARD16 firstSI;
    CARD16 nSI;
    CARD16 nTotalSI;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xkbGetCompatMapReply;
typedef struct _xkbSetCompatMap {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD8 pad1;
    BOOL recomputeActions;
    BOOL truncateSI;
    CARD8 groups;
    CARD16 firstSI;
    CARD16 nSI;
    CARD16 pad2;
} xkbSetCompatMapReq;
typedef struct _xkbGetIndicatorState {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 pad1;
} xkbGetIndicatorStateReq;
typedef struct _xkbGetIndicatorStateReply {
    CARD8 type;
    CARD8 deviceID;
    CARD16 sequenceNumber;

```

```

    CARD32 length;
    CARD32 state;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xkbGetIndicatorStateReply;
typedef struct _xkbGetIndicatorMap {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 pad;
    CARD32 which;
} xkbGetIndicatorMapReq;
typedef struct _xkbGetIndicatorMapReply {
    CARD8 type;
    CARD8 deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 which;
    CARD32 realIndicators;
    CARD8 nIndicators;
    CARD8 pad1;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xkbGetIndicatorMapReply;
typedef struct _xkbIndicatorMapWireDesc {
    CARD8 flags;
    CARD8 whichGroups;
    CARD8 groups;
    CARD8 whichMods;
    CARD8 mods;
    CARD8 realMods;
    CARD16 virtualMods;
    CARD32 ctrls;
} xkbIndicatorMapWireDesc;
typedef struct _xkbSetIndicatorMap {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 pad1;
    CARD32 which;
} xkbSetIndicatorMapReq;
typedef struct _xkbGetNamedIndicator {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 ledClass;
    CARD16 ledID;
    CARD16 pad1;
    CARD32 indicator;
} xkbGetNamedIndicatorReq;
typedef struct _xkbGetNamedIndicatorReply {
    BYTE type;
    BYTE deviceID;
    CARD16 sequenceNumber;

```

```

CARD32 length;
CARD32 indicator;
BOOL found;
BOOL on;
BOOL realIndicator;
CARD8 ndx;
CARD8 flags;
CARD8 whichGroups;
CARD8 groups;
CARD8 whichMods;
CARD8 mods;
CARD8 realMods;
CARD16 virtualMods;
CARD32 ctrls;
BOOL supported;
CARD8 pad1;
CARD16 pad2;
} xkbGetNamedIndicatorReply;
typedef struct _xkbSetNamedIndicator {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 ledClass;
    CARD16 ledID;
    CARD16 pad1;
    CARD32 indicator;
    BOOL setState;
    BOOL on;
    BOOL setMap;
    BOOL createMap;
    CARD8 pad2;
    CARD8 flags;
    CARD8 whichGroups;
    CARD8 groups;
    CARD8 whichMods;
    CARD8 realMods;
    CARD16 virtualMods;
    CARD32 ctrls;
} xkbSetNamedIndicatorReq;
typedef struct _xkbGetNames {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 pad;
    CARD32 which;
} xkbGetNamesReq;
typedef struct _xkbGetNamesReply {
    BYTE type;
    BYTE deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 which;
    CARD8 minKeyCode;
    CARD8 maxKeyCode;
    CARD8 nTypes;
    CARD8 groupNames;
    CARD16 virtualMods;
    CARD8 firstKey;
    CARD8 nKeys;
    CARD32 indicators;

```

```

    CARD8 nRadioGroups;
    CARD8 nKeyAliases;
    CARD16 nKTLevels;
    CARD32 pad3;
} xkbGetNamesReply;
typedef struct _xkbSetNames {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 virtualMods;
    CARD32 which;
    CARD8 firstType;
    CARD8 nTypes;
    CARD8 firstKTLevel;
    CARD8 nKTLevels;
    CARD32 indicators;
    CARD8 groupNames;
    CARD8 nRadioGroups;
    CARD8 firstKey;
    CARD8 nKeys;
    CARD8 nKeyAliases;
    CARD8 pad1;
    CARD16 totalKTLevelNames;
} xkbSetNamesReq;
typedef struct _xkbPointWireDesc {
    INT16 x;
    INT16 y;
} xkbPointWireDesc;
typedef struct _xkbOutlineWireDesc {
    CARD8 nPoints;
    CARD8 cornerRadius;
    CARD16 pad;
} xkbOutlineWireDesc;
typedef struct _xkbShapeWireDesc {
    CARD32 name;
    CARD8 nOutlines;
    CARD8 primaryNdx;
    CARD8 approxNdx;
    CARD8 pad;
} xkbShapeWireDesc;
typedef struct _xkbSectionWireDesc {
    CARD32 name;
    INT16 top;
    INT16 left;
    CARD16 width;
    CARD16 height;
    INT16 angle;
    CARD8 priority;
    CARD8 nRows;
    CARD8 nDoodads;
    CARD8 nOverlays;
    CARD16 pad;
} xkbSectionWireDesc;
typedef struct _xkbRowWireDesc {
    INT16 top;
    INT16 left;
    CARD8 nKeys;
    BOOL vertical;
    CARD16 pad;
} xkbRowWireDesc;
typedef struct _xkbKeyWireDesc {

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```

    CARD8 name[4];
    INT16 gap;
    CARD8 shapeNdx;
    CARD8 colorNdx;
} xkbKeyWireDesc;
typedef struct _xkbOverlayWireDesc {
    CARD32 name;
    CARD8 nRows;
    CARD8 pad1;
    CARD16 pad2;
} xkbOverlayWireDesc;
typedef struct _xkbOverlayRowWireDesc {
    CARD8 rowUnder;
    CARD8 nKeys;
    CARD16 pad1;
} xkbOverlayRowWireDesc;
typedef struct _xkbOverlayKeyWireDesc {
    CARD8 over[4];
    CARD8 under[4];
} xkbOverlayKeyWireDesc;
typedef struct _xkbShapeDoodadWireDesc {
    CARD32 name;
    CARD8 type;
    CARD8 priority;
    INT16 top;
    INT16 left;
    INT16 angle;
    CARD8 colorNdx;
    CARD8 shapeNdx;
    CARD16 pad1;
    CARD32 pad2;
} xkbShapeDoodadWireDesc;
typedef struct _xkbTextDoodadWireDesc {
    CARD32 name;
    CARD8 type;
    CARD8 priority;
    INT16 top;
    INT16 left;
    INT16 angle;
    CARD16 width;
    CARD16 height;
    CARD8 colorNdx;
    CARD8 pad1;
    CARD16 pad2;
} xkbTextDoodadWireDesc;
typedef struct _xkbIndicatorDoodadWireDesc {
    CARD32 name;
    CARD8 type;
    CARD8 priority;
    INT16 top;
    INT16 left;
    INT16 angle;
    CARD8 shapeNdx;
    CARD8 onColorNdx;
    CARD8 offColorNdx;
    CARD8 pad1;
    CARD32 pad2;
} xkbIndicatorDoodadWireDesc;
typedef struct _xkbLogoDoodadWireDesc {
    CARD32 name;
    CARD8 type;
    CARD8 priority;

```

```

    INT16 top;
    INT16 left;
    INT16 angle;
    CARD8 colorNdx;
    CARD8 shapeNdx;
    CARD16 pad1;
    CARD32 pad2;
} xkbLogoDoodadWireDesc;
typedef struct _xkbAnyDoodadWireDesc {
    CARD32 name;
    CARD8 type;
    CARD8 priority;
    INT16 top;
    INT16 left;
    INT16 angle;
    CARD32 pad2;
    CARD32 pad3;
} xkbAnyDoodadWireDesc;
union _xkbDoodadWireDesc {
    xkbAnyDoodadWireDesc any;
    xkbShapeDoodadWireDesc shape;
    xkbTextDoodadWireDesc text;
    xkbIndicatorDoodadWireDesc indicator;
    xkbLogoDoodadWireDesc logo;
};
typedef union _xkbDoodadWireDesc {
    xkbAnyDoodadWireDesc any;
    xkbShapeDoodadWireDesc shape;
    xkbTextDoodadWireDesc text;
    xkbIndicatorDoodadWireDesc indicator;
    xkbLogoDoodadWireDesc logo;
} xkbDoodadWireDesc;
typedef struct _xkbGetGeometry {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 pad;
    CARD32 name;
} xkbGetGeometryReq;
typedef struct _xkbGetGeometryReply {
    CARD8 type;
    CARD8 deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 name;
    BOOL found;
    CARD8 pad;
    CARD16 widthMM;
    CARD16 heightMM;
    CARD16 nProperties;
    CARD16 nColors;
    CARD16 nShapes;
    CARD16 nSections;
    CARD16 nDoodads;
    CARD16 nKeyAliases;
    CARD8 baseColorNdx;
    CARD8 labelColorNdx;
} xkbGetGeometryReply;
typedef struct _xkbSetGeometry {
    CARD8 reqType;
    CARD8 xkbReqType;

```

```

CARD16 length;
CARD16 deviceSpec;
CARD8 nShapes;
CARD8 nSections;
CARD32 name;
CARD16 widthMM;
CARD16 heightMM;
CARD16 nProperties;
CARD16 nColors;
CARD16 nDoodads;
CARD16 nKeyAliases;
CARD8 baseColorNdx;
CARD8 labelColorNdx;
CARD16 pad;
} xkbSetGeometryReq;
typedef struct _xkbPerClientFlags {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 pad1;
    CARD32 change;
    CARD32 value;
    CARD32 ctrlsToChange;
    CARD32 autoCtrls;
    CARD32 autoCtrlValues;
} xkbPerClientFlagsReq;
typedef struct _xkbPerClientFlagsReply {
    CARD8 type;
    CARD8 deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 supported;
    CARD32 value;
    CARD32 autoCtrls;
    CARD32 autoCtrlValues;
    CARD32 pad1;
    CARD32 pad2;
} xkbPerClientFlagsReply;
typedef struct _xkbListComponents {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 maxNames;
} xkbListComponentsReq;
typedef struct _xkbListComponentsReply {
    CARD8 type;
    CARD8 deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 nKeymaps;
    CARD16 nKeycodes;
    CARD16 nTypes;
    CARD16 nCompatMaps;
    CARD16 nSymbols;
    CARD16 nGeometries;
    CARD16 extra;
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
} xkbListComponentsReply;

```

```

typedef struct _xkbGetKbdByName {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 need;
    CARD16 want;
    BOOL load;
    CARD8 pad;
} xkbGetKbdByNameReq;
typedef struct _xkbGetKbdByNameReply {
    CARD8 type;
    CARD8 deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 minKeyCode;
    CARD8 maxKeyCode;
    BOOL loaded;
    BOOL newKeyboard;
    CARD16 found;
    CARD16 reported;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
} xkbGetKbdByNameReply;
typedef struct _xkbDeviceLedsWireDesc {
    CARD16 ledClass;
    CARD16 ledID;
    CARD32 namesPresent;
    CARD32 mapsPresent;
    CARD32 physIndicators;
    CARD32 state;
} xkbDeviceLedsWireDesc;
typedef struct _xkbGetDeviceInfo {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD16 wanted;
    BOOL allBtns;
    CARD8 firstBtn;
    CARD8 nBtns;
    CARD8 pad;
    CARD16 ledClass;
    CARD16 ledID;
} xkbGetDeviceInfoReq;
typedef struct _xkbGetDeviceInfoReply {
    CARD8 type;
    CARD8 deviceID;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 present;
    CARD16 supported;
    CARD16 unsupported;
    CARD16 nDeviceLedFBs;
    CARD8 firstBtnWanted;
    CARD8 nBtnsWanted;
    CARD8 firstBtnRtrn;
    CARD8 nBtnsRtrn;
    CARD8 totalBtns;
    BOOL hasOwnState;
}

```



```

    CARD16 dfltKbdFB;
    CARD16 dfltLedFB;
    CARD16 pad;
    CARD32 devType;
} xkbGetDeviceInfoReply;
typedef struct _xkbSetDeviceInfo {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 deviceSpec;
    CARD8 firstBtn;
    CARD8 nBtns;
    CARD16 change;
    CARD16 nDeviceLedFBs;
} xkbSetDeviceInfoReq;
typedef struct _xkbSetDebuggingFlags {
    CARD8 reqType;
    CARD8 xkbReqType;
    CARD16 length;
    CARD16 msgLength;
    CARD16 pad;
    CARD32 affectFlags;
    CARD32 flags;
    CARD32 affectCtrls;
    CARD32 ctrls;
} xkbSetDebuggingFlagsReq;
typedef struct _xkbSetDebuggingFlagsReply {
    BYTE type;
    CARD8 pad0;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 currentFlags;
    CARD32 currentCtrls;
    CARD32 supportedFlags;
    CARD32 supportedCtrls;
    CARD32 pad1;
    CARD32 pad2;
} xkbSetDebuggingFlagsReply;
typedef struct _xkbAnyEvent {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 pad1;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xkbAnyEvent;
typedef struct _xkbNewKeyboardNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 oldDeviceID;
    CARD8 minKeyCode;
    CARD8 maxKeyCode;
    CARD8 oldMinKeyCode;

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```

CARD8 oldMaxKeyCode;
CARD8 requestMajor;
CARD8 requestMinor;
CARD16 changed;
CARD8 detail;
CARD8 pad1;
CARD32 pad2;
CARD32 pad3;
CARD32 pad4;
} xkbNewKeyboardNotify;
typedef struct _xkbMapNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 ptrBtnActions;
    CARD16 changed;
    CARD8 minKeyCode;
    CARD8 maxKeyCode;
    CARD8 firstType;
    CARD8 nTypes;
    CARD8 firstKeySym;
    CARD8 nKeySyms;
    CARD8 firstKeyAct;
    CARD8 nKeyActs;
    CARD8 firstKeyBehavior;
    CARD8 nKeyBehaviors;
    CARD8 firstKeyExplicit;
    CARD8 nKeyExplicit;
    CARD8 firstModMapKey;
    CARD8 nModMapKeys;
    CARD8 firstVModMapKey;
    CARD8 nVModMapKeys;
    CARD16 virtualMods;
    CARD16 pad1;
} xkbMapNotify;
typedef struct _xkbStateNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 mods;
    CARD8 baseMods;
    CARD8 latchedMods;
    CARD8 lockedMods;
    CARD8 group;
    INT16 baseGroup;
    INT16 latchedGroup;
    CARD8 lockedGroup;
    CARD8 compatState;
    CARD8 grabMods;
    CARD8 compatGrabMods;
    CARD8 lookupMods;
    CARD8 compatLookupMods;
    CARD16 ptrBtnState;
    CARD16 changed;
    CARD8 keycode;
    CARD8 eventType;
    CARD8 requestMajor;
    CARD8 requestMinor;

```

```

} xkbStateNotify;
typedef struct _xkbControlsNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 numGroups;
    CARD16 pad1;
    CARD32 changedControls;
    CARD32 enabledControls;
    CARD32 enabledControlChanges;
    CARD8 keycode;
    CARD8 eventType;
    CARD8 requestMajor;
    CARD8 requestMinor;
    CARD32 pad2;
} xkbControlsNotify;
typedef struct _xkbIndicatorNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 pad1;
    CARD16 pad2;
    CARD32 state;
    CARD32 changed;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xkbIndicatorNotify;
typedef struct _xkbNamesNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 pad1;
    CARD16 changed;
    CARD8 firstType;
    CARD8 nTypes;
    CARD8 firstLevelName;
    CARD8 nLevelNames;
    CARD8 pad2;
    CARD8 nRadioGroups;
    CARD8 nAliases;
    CARD8 changedGroupNames;
    CARD16 changedVirtualMods;
    CARD8 firstKey;
    CARD8 nKeys;
    CARD32 changedIndicators;
    CARD32 pad3;
} xkbNamesNotify;
typedef struct _xkbCompatMapNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 changedGroups;
    CARD16 firstSI;

```

```

CARD16 nSI;
CARD16 nTotalSI;
CARD32 pad1;
CARD32 pad2;
CARD32 pad3;
CARD32 pad4;
} xkbCompatMapNotify;
typedef struct _xkbBellNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 bellClass;
    CARD8 bellID;
    CARD8 percent;
    CARD16 pitch;
    CARD16 duration;
    CARD32 name;
    CARD32 window;
    BOOL eventOnly;
    CARD8 pad1;
    CARD16 pad2;
    CARD32 pad3;
} xkbBellNotify;
typedef struct _xkbActionMessage {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 keycode;
    BOOL press;
    BOOL keyEventFollows;
    CARD8 mods;
    CARD8 group;
    CARD8 message[8];
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
} xkbActionMessage;
typedef struct _xkbAccessXNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;
    CARD8 keycode;
    CARD16 detail;
    CARD16 slowKeysDelay;
    CARD16 debounceDelay;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
} xkbAccessXNotify;
typedef struct _xkbExtensionDeviceNotify {
    BYTE type;
    BYTE xkbType;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 deviceID;

```

```

CARD8 pad1;
CARD16 reason;
CARD16 ledClass;
CARD16 ledID;
CARD32 ledsDefined;
CARD32 ledState;
CARD8 firstBtn;
CARD8 nBtns;
CARD16 supported;
CARD16 unsupported;
CARD16 pad3;
} xkbExtensionDeviceNotify;
typedef struct _xkbEvent {
    union {
        xkbAnyEvent any;
        xkbNewKeyboardNotify new_kbd;
        xkbMapNotify map;
        xkbStateNotify state;
        xkbControlsNotify ctrls;
        xkbIndicatorNotify indicators;
        xkbNamesNotify names;
        xkbCompatMapNotify compat;
        xkbBellNotify bell;
        xkbActionMessage message;
        xkbAccessXNotify accessx;
        xkbExtensionDeviceNotify device;
    } u;
} xkbEvent;

```

6.2.19. X11/extensions/XKBstr.h

```

#define _XKBSTR_H_
#define XkbSMKeyActionsPtr(m,k) (&(m)->acts[(m)->key_acts[k]])
#define XkbCMKeySymsPtr(m,k) (&(m)->syms[XkbCMKeySymsOffset(m,k)])
#define XkbCMKeyType(m,k,g) (&(m)->types[XkbCMKeyTypeIndex(m,k,g)])
#define XkbIM_IsAuto(i) (((i)->flags&XkbIM_NoAutomatic)==0)&& ((i)->which_groups&&(i)->groups)
#define XkbActionCtrls(a) (((unsigned int)(a)->ctrls3)<<24|((unsigned int)(a)->ctrls2)<<16|((unsigned int)(a)->ctrls1)<<8|((unsigned int)(a)->ctrls0))
#define XkbSARedirectVMods(a) (((unsigned int)(a)->vmods1)<<8|((unsigned int)(a)->vmods0))
#define XkbSARedirectVModsMask(a) (((unsigned int)(a)->vmods_mask1)<<8|((unsigned int)(a)->vmods_mask0))
#define XkbActionSetCtrls(a,c) (((a)->ctrls3=((c)>>24)&0xff), ((a)->ctrls2=((c)>>16)&0xff), ((a)->ctrls1=((c)>>8)&0xff), ((a)->ctrls0=((c)&0xff))
#define XkbSetModActionVMods(a,v) (((a)->vmods1=((v)>>8)&0xff), ((a)->vmods2=((v)&0xff))
#define XkbSARedirectSetVMods(a,m) (((a)->vmods_mask1=((m)>>8)&0xff), ((a)->vmods_mask0=((m)&0xff))
#define XkbSARedirectSetVModsMask(a,m) (((a)->vmods_mask1=((m)>>8)&0xff), ((a)->vmods_mask0=((m)&0xff))
#define XkbXI_DevHasBtnActs(d) ((d)->num_btns>0)&&((d)->btn_acts!=NULL)
#define XkbXI_DevHasLeds(d) ((d)->num_leds>0)&&((d)->leds!=NULL)
#define XkbOutOfRangeGroupNumber(g) (((g)&0x30)>>4)
#define XkbSetNumGroups(g,n) (((g)&0xf0)|((n)&0x0f))
#define XkbIntTo2Chars(i,h,l) ((h)=((i)>>8)&0xff), ((l)=((i)&0xff))
#define XkbIM_InUse(i) (((i)->flags)|((i)->which_groups)|((i)->which_mods)|((i)->ctrls))
#define XkbKeycodeInRange(d,k) (((k)>=(d)->min_key_code)&&((k)<=(d)->max_key_code))
#define XkbSetGroupInfo(g,w,n) (((w)&0xc0)|(((n)&3)<<4)|((g)&0x0f))
#define XkbSASetGroup(a,g) ((a)->group_XXX=(g))
#define XkbSASetScreen(a,s) ((a)->screenXXX=((s)&0xff))
#define XkbSASetPtrDfltValue(a,c) ((a)->valueXXX=((c)&0xff))
#define XkbAX_NeedOption(c,w) ((c)->ax_options&(w))
#define XkbAX_AnyFeedback(c) ((c)->enabled_ctrls&XkbAccessXFeedbackMask)
#define XkbNumKeys(d) ((d)->max_key_code-(d)->min_key_code+1)
#define XkbKeyHasActions(d,k) ((d)->server->key_acts[k]!=0)
#define XkbNumGroups(g) ((g)&0x0f)
#define XkbOutOfRangeGroupAction(g) ((g)&0xc0)
#define XkbOutOfRangeGroupInfo(g) ((g)&0xf0)

```

```

#define XkbCMKeyGroupInfo(m,k) ((m)->key_sym_map[k].group_info)
#define XkbCMKeyTypeIndex(m,k,g) ((m)->key_sym_map[k].kt_index[g&0x3])
#define XkbCMKeySymsOffset(m,k) ((m)->key_sym_map[k].offset)
#define XkbCMKeyGroupsWidth(m,k) ((m)->key_sym_map[k].width)
#define XkbStateGroup(s) ((s)->base_group+(s)->latched_group+XkbGroupLock(s))
#define XkbStateMods(s) ((s)->base_mods|(s)->latched_mods|XkbModLocks(s))
#define XkbGroupLock(s) ((s)->locked_group)
#define XkbModLocks(s) ((s)->locked_mods)
#define XkbModActionVMods(a) ((short)((a)->vmods1<<8)|((a)->vmods2))
#define Xkb2CharsToInt(h,l) ((short)((h)<<8)|(l))
#define XkbCharToInt(v) ((v)&0x80?(int)((v)|(~0xff)): (int)((v)&0x7f))
#define XkbPtrActionX(a) (Xkb2CharsToInt((a)->high_XXX,(a)->low_XXX))
#define XkbPtrActionY(a) (Xkb2CharsToInt((a)->high_YYY,(a)->low_YYY))
#define XkbAX_NeedFeedback(c,w) (XkbAX_AnyFeedback(c)&&XkbAX_NeedOption(c,w))
#define XkbSAGroup(a) (XkbCharToInt((a)->group_XXX))
#define XkbSAScreen(a) (XkbCharToInt((a)->screenXXX))
#define XkbSAPtrDfltValue(a) (XkbCharToInt((a)->valueXXX))
#define XkbKeyGroupInfo(d,k) (XkbCMKeyGroupInfo((d)->map,(k)))
#define XkbKeyGroupsWidth(d,k) (XkbCMKeyGroupsWidth((d)->map,(k)))
#define XkbCMKeyNumSyms(m,k) (XkbCMKeyGroupsWidth(m,k)*XkbCMKeyNumGroups(m,k))
#define XkbKeyGroupWidth(d,k,g) (XkbCMKeyGroupWidth((d)->map,(k,g)))
#define XkbKeyNumGroups(d,k) (XkbCMKeyNumGroups((d)->map,(k)))
#define XkbKeyNumSyms(d,k) (XkbCMKeyNumSyms((d)->map,(k)))
#define XkbKeySymsPtr(d,k) (XkbCMKeySymsPtr((d)->map,(k)))
#define XkbKeyKeyType(d,k,g) (XkbCMKeyType((d)->map,(k,g)))
#define XkbCMKeyGroupWidth(m,k,g) (XkbCMKeyType(m,k,g)->num_levels)
#define XkbKeyKeyTypeIndex(d,k,g) (XkbCMKeyTypeIndex((d)->map,(k,g)))
#define XkbSetPtrActionX(a,x) (XkbIntTo2Chars(x,(a)->high_XXX,(a)->low_XXX))
#define XkbSetPtrActionY(a,y) (XkbIntTo2Chars(y,(a)->high_YYY,(a)->low_YYY))
#define XkbKeyActionEntry(d,k,sl,g) (XkbKeyHasActions(d,k)? XkbKeyAction(d,k,((XkbKeyGroupsWidth(d,k)*g)+(sl))))
#define XkbKeyAction(d,k,n) (XkbKeyHasActions(d,k)?&XkbKeyActionsPtr(d,k)[n]:NULL)
#define XkbKeyNumActions(d,k) (XkbKeyHasActions(d,k)?XkbKeyNumSyms(d,k):1)
#define XkbKeySymEntry(d,k,sl,g) (XkbKeySym(d,k,((XkbKeyGroupsWidth(d,k)*g)+(sl))))
#define XkbKeySym(d,k,n) (XkbKeySymsPtr(d,k)[n])
#define XkbCMKeyNumGroups(m,k) (XkbNumGroups((m)->key_sym_map[k].group_info))
#define XkbKeyActionsPtr(d,k) (XkbSMKeyActionsPtr((d)->server,(k)))
#define XkbXI_LegalDevBtn(d,b) (XkbXI_DevHasBtnActs(d)&&((b)<((d)->num_btns))
#define XkbAnyActionDataSize 7
#define XkbGrabStateFromRec(s) XkbBuildCoreState((s)->grab_mods,(s)->group)
#define XkbStateFieldFromRec(s) XkbBuildCoreState((s)->lookup_mods,(s)->group)

typedef struct _XkbStateRec {
    unsigned char group;
    unsigned char locked_group;
    unsigned short base_group;
    unsigned short latched_group;
    unsigned char mods;
    unsigned char base_mods;
    unsigned char latched_mods;
    unsigned char locked_mods;
    unsigned char compat_state;
    unsigned char grab_mods;
    unsigned char compat_grab_mods;
    unsigned char lookup_mods;
    unsigned char compat_lookup_mods;
    unsigned short ptr_buttons;
} XkbStateRec;

typedef struct _XkbStateRec *XkbStatePtr;
typedef struct _XkbMods *XkbModsPtr;
typedef struct _XkbMods {
    unsigned char mask;
    unsigned char real_mods;

```

```

    unsigned short vmods;
} XkbModsRec;
typedef struct _XkbKMapEntry {
    int active;
    unsigned char level;
    XkbModsRec mods;
} XkbKMapEntryRec;
typedef struct _XkbKMapEntry *XkbKMapEntryPtr;
typedef struct _XkbKeyType {
    XkbModsRec mods;
    unsigned char num_levels;
    unsigned char map_count;
    XkbKMapEntryPtr map;
    XkbModsPtr preserve;
    Atom name;
    Atom *level_names;
} XkbKeyTypeRec;
typedef struct _XkbKeyType *XkbKeyTypePtr;
typedef struct _XkbBehavior {
    unsigned char type;
    unsigned char data;
} XkbBehavior;
typedef struct _XkbAnyAction {
    unsigned char type;
    unsigned char data[8];
} XkbAnyAction;
typedef struct _XkbModAction {
    unsigned char type;
    unsigned char flags;
    unsigned char mask;
    unsigned char real_mods;
    unsigned char vmods1;
    unsigned char vmods2;
} XkbModAction;
typedef struct _XkbGroupAction {
    unsigned char type;
    unsigned char flags;
    char group_XXX;
} XkbGroupAction;
typedef struct _XkbISOAction {
    unsigned char type;
    unsigned char flags;
    unsigned char mask;
    unsigned char real_mods;
    char group_XXX;
    unsigned char affect;
    unsigned char vmods1;
    unsigned char vmods2;
} XkbISOAction;
typedef struct _XkbPtrAction {
    unsigned char type;
    unsigned char flags;
    unsigned char high_XXX;
    unsigned char low_XXX;
    unsigned char high_YYY;
    unsigned char low_YYY;
} XkbPtrAction;
typedef struct _XkbPtrBtnAction {
    unsigned char type;
    unsigned char flags;
    unsigned char count;
    unsigned char button;

```

```

} XkbPtrBtnAction;
typedef struct _XkbPtrDfltAction {
    unsigned char type;
    unsigned char flags;
    unsigned char affect;
    char valueXXX;
} XkbPtrDfltAction;
typedef struct _XkbSwitchScreenAction {
    unsigned char type;
    unsigned char flags;
    char screenXXX;
} XkbSwitchScreenAction;
typedef struct _XkbCtrlsAction {
    unsigned char type;
    unsigned char flags;
    unsigned char ctrls3;
    unsigned char ctrls2;
    unsigned char ctrls1;
    unsigned char ctrls0;
} XkbCtrlsAction;
typedef struct _XkbMessageAction {
    unsigned char type;
    unsigned char flags;
    unsigned char message[6];
} XkbMessageAction;
typedef struct _XkbRedirectKeyAction {
    unsigned char type;
    unsigned char new_key;
    unsigned char mods_mask;
    unsigned char mods;
    unsigned char vmods_mask0;
    unsigned char vmods_mask1;
    unsigned char vmods0;
    unsigned char vmods1;
} XkbRedirectKeyAction;
typedef struct _XkbDeviceBtnAction {
    unsigned char type;
    unsigned char flags;
    unsigned char count;
    unsigned char button;
    unsigned char device;
} XkbDeviceBtnAction;
typedef struct _XkbDeviceValuatorAction {
    unsigned char type;
    unsigned char device;
    unsigned char v1_what;
    unsigned char v1_ndx;
    unsigned char v1_value;
    unsigned char v2_what;
    unsigned char v2_ndx;
    unsigned char v2_value;
} XkbDeviceValuatorAction;
typedef union _XkbAction {
    XkbAnyAction any;
    XkbModAction mods;
    XkbGroupAction group;
    XkbISOAction iso;
    XkbPtrAction ptr;
    XkbPtrBtnAction btn;
    XkbPtrDfltAction dflt;
    XkbSwitchScreenAction screen;
    XkbCtrlsAction ctrls;

```



```

    XkbMessageAction msg;
    XkbRedirectKeyAction redirect;
    XkbDeviceBtnAction devbtn;
    XkbDeviceValuatorAction devval;
    unsigned char type;
} XkbAction;
typedef struct _XkbControls {
    unsigned char mk_dflt_btn;
    unsigned char num_groups;
    unsigned char groups_wrap;
    XkbModsRec internal;
    XkbModsRec ignore_lock;
    unsigned int enabled_ctrls;
    unsigned short repeat_delay;
    unsigned short repeat_interval;
    unsigned short slow_keys_delay;
    unsigned short debounce_delay;
    unsigned short mk_delay;
    unsigned short mk_interval;
    unsigned short mk_time_to_max;
    unsigned short mk_max_speed;
    short mk_curve;
    unsigned short ax_options;
    unsigned short ax_timeout;
    unsigned short ax_opts_mask;
    unsigned short ax_opts_values;
    unsigned int ax_ctrls_mask;
    unsigned int ax_ctrls_values;
    unsigned char per_key_repeat[32];
} XkbControlsRec;
typedef struct _XkbControls *XkbControlsPtr;
typedef struct _XkbServerMapRec {
    unsigned short num_acts;
    unsigned short size_acts;
    XkbAction *acts;
    XkbBehavior *behaviors;
    unsigned short *key_acts;
#if defined(__cplusplus) || defined(c_plusplus)
    unsigned char *c_explicit;
#else
    unsigned char *explicit;
#endif
    unsigned char vmods[16];
    unsigned short *vmodmap;
} XkbServerMapRec;
typedef struct _XkbServerMapRec *XkbServerMapPtr;
typedef struct _XkbSymMapRec {
    unsigned char kt_index[4];
    unsigned char group_info;
    unsigned char width;
    unsigned short offset;
} XkbSymMapRec;
typedef struct _XkbSymMapRec *XkbSymMapPtr;
typedef struct _XkbClientMapRec {
    unsigned char size_types;
    unsigned char num_types;
    XkbKeyTypePtr types;
    unsigned short size_syms;
    unsigned short num_syms;
    KeySym *syms;
    XkbSymMapPtr key_sym_map;
    unsigned char *modmap;

```

```

} XkbClientMapRec;
typedef struct _XkbClientMapRec *XkbClientMapPtr;
typedef struct _XkbSymInterpretRec {
    KeySym sym;
    unsigned char flags;
    unsigned char match;
    unsigned char mods;
    unsigned char virtual_mod;
    XkbAnyAction act;
} XkbSymInterpretRec;
typedef struct _XkbSymInterpretRec *XkbSymInterpretPtr;
typedef struct _XkbCompatMapRec {
    XkbSymInterpretPtr sym_interpret;
    XkbModsRec groups[4];
    unsigned short num_si;
    unsigned short size_si;
} XkbCompatMapRec;
typedef struct _XkbCompatMapRec *XkbCompatMapPtr;
typedef struct _XkbIndicatorMapRec *XkbIndicatorMapPtr;
typedef struct _XkbIndicatorMapRec {
    unsigned char flags;
    unsigned char which_groups;
    unsigned char groups;
    unsigned char which_mods;
    XkbModsRec mods;
    unsigned int ctrls;
} XkbIndicatorMapRec;
typedef struct _XkbIndicatorRec {
    unsigned long int phys_indicators;
    XkbIndicatorMapRec maps[32];
} XkbIndicatorRec;
typedef struct _XkbIndicatorRec *XkbIndicatorPtr;
typedef struct _XkbKeyNameRec {
    char name[4];
} XkbKeyNameRec;
typedef struct _XkbKeyNameRec *XkbKeyNamePtr;
typedef struct _XkbKeyAliasRec {
    char real[4];
    char alias[4];
} XkbKeyAliasRec;
typedef struct _XkbKeyAliasRec *XkbKeyAliasPtr;
typedef struct _XkbNamesRec {
    Atom keycodes;
    Atom geometry;
    Atom symbols;
    Atom types;
    Atom compat;
    Atom vmods[16];
    Atom indicators[32];
    Atom groups[4];
    XkbKeyNamePtr keys;
    XkbKeyAliasPtr key_aliases;
    Atom *radio_groups;
    Atom phys_symbols;
    unsigned char num_keys;
    unsigned char num_key_aliases;
    unsigned short num_rg;
} XkbNamesRec;
typedef struct _XkbNamesRec *XkbNamesPtr;
typedef struct _XkbGeometry *XkbGeometryPtr;
typedef struct _XkbDesc {
    struct _XDisplay *dpy;

```

```

    unsigned short flags;
    unsigned short device_spec;
    KeyCode min_key_code;
    KeyCode max_key_code;
    XkbControlsPtr ctrls;
    XkbServerMapPtr server;
    XkbClientMapPtr map;
    XkbIndicatorPtr indicators;
    XkbNamesPtr names;
    XkbCompatMapPtr compat;
    XkbGeometryPtr geom;
} XkbDescRec;
typedef struct _XkbDesc *XkbDescPtr;
typedef struct _XkbMapChanges *XkbMapChangesPtr;
typedef struct _XkbMapChanges {
    unsigned short changed;
    KeyCode min_key_code;
    KeyCode max_key_code;
    unsigned char first_type;
    unsigned char num_types;
    KeyCode first_key_sym;
    unsigned char num_key_syms;
    KeyCode first_key_act;
    unsigned char num_key_acts;
    KeyCode first_key_behavior;
    unsigned char num_key_behaviors;
    KeyCode first_key_explicit;
    unsigned char num_key_explicit;
    KeyCode first_modmap_key;
    unsigned char num_modmap_keys;
    KeyCode first_vmodmap_key;
    unsigned char num_vmodmap_keys;
    unsigned char pad;
    unsigned short vmods;
} XkbMapChangesRec;
typedef struct _XkbControlsChanges *XkbControlsChangesPtr;
typedef struct _XkbControlsChanges {
    unsigned int changed_ctrls;
    unsigned int enabled_ctrls_changes;
    int num_groups_changed;
} XkbControlsChangesRec;
typedef struct _XkbIndicatorChanges *XkbIndicatorChangesPtr;
typedef struct _XkbIndicatorChanges {
    unsigned int state_changes;
    unsigned int map_changes;
} XkbIndicatorChangesRec;
typedef struct _XkbNameChanges {
    unsigned int changed;
    unsigned char first_type;
    unsigned char num_types;
    unsigned char first_lvl;
    unsigned char num_lvls;
    unsigned char num_aliases;
    unsigned char num_rg;
    unsigned char first_key;
    unsigned char num_keys;
    unsigned short changed_vmods;
    unsigned long int changed_indicators;
    unsigned char changed_groups;
} XkbNameChangesRec;
typedef struct _XkbNameChanges *XkbNameChangesPtr;
typedef struct _XkbCompatChanges {

```

```

    unsigned char changed_groups;
    unsigned short first_si;
    unsigned short num_si;
} XkbCompatChangesRec;
typedef struct _XkbCompatChanges *XkbCompatChangesPtr;
typedef struct _XkbChanges {
    unsigned short device_spec;
    unsigned short state_changes;
    XkbMapChangesRec map;
    XkbControlsChangesRec ctrls;
    XkbIndicatorChangesRec indicators;
    XkbNameChangesRec names;
    XkbCompatChangesRec compat;
} XkbChangesRec;
typedef struct _XkbChanges *XkbChangesPtr;
typedef struct _XkbComponentNames {
    char *keymap;
    char *keycodes;
    char *types;
    char *compat;
    char *symbols;
    char *geometry;
} XkbComponentNamesRec;
typedef struct _XkbComponentNames *XkbComponentNamesPtr;
typedef struct _XkbComponentName {
    unsigned short flags;
    char *name;
} XkbComponentNameRec;
typedef struct _XkbComponentName *XkbComponentNamePtr;
typedef struct _XkbComponentList {
    int num_keymaps;
    int num_keycodes;
    int num_types;
    int num_compat;
    int num_symbols;
    int num_geometry;
    XkbComponentNamePtr keymaps;
    XkbComponentNamePtr keycodes;
    XkbComponentNamePtr types;
    XkbComponentNamePtr compat;
    XkbComponentNamePtr symbols;
    XkbComponentNamePtr geometry;
} XkbComponentListRec;
typedef struct _XkbComponentList *XkbComponentListPtr;
typedef struct _XkbDeviceLedInfo {
    unsigned short led_class;
    unsigned short led_id;
    unsigned int phys_indicators;
    unsigned int maps_present;
    unsigned int names_present;
    unsigned int state;
    Atom names[32];
    XkbIndicatorMapRec maps[32];
} XkbDeviceLedInfoRec;
typedef struct _XkbDeviceLedInfo *XkbDeviceLedInfoPtr;
typedef struct _XkbDeviceInfo {
    char *name;
    Atom type;
    unsigned short device_spec;
    int has_own_state;
    unsigned short supported;
    unsigned short unsupported;

```

```

    unsigned short num_btns;
    XkbAction *btn_acts;
    unsigned short sz_leds;
    unsigned short num_leds;
    unsigned short dflt_kbd_fb;
    unsigned short dflt_led_fb;
    XkbDeviceLedInfoPtr leds;
} XkbDeviceInfoRec;
typedef struct _XkbDeviceInfo *XkbDeviceInfoPtr;
typedef struct _XkbDeviceLedChanges {
    unsigned short led_class;
    unsigned short led_id;
    unsigned int defined;
    struct _XkbDeviceLedChanges *next;
} XkbDeviceLedChangesRec;
typedef struct _XkbDeviceLedChanges *XkbDeviceLedChangesPtr;
typedef struct _XkbDeviceChanges {
    unsigned int changed;
    unsigned short first_btn;
    unsigned short num_btns;
    XkbDeviceLedChangesRec leds;
} XkbDeviceChangesRec;
typedef struct _XkbDeviceChanges *XkbDeviceChangesPtr;

```

6.2.20. X11/extensions/securstr.h

```

#define SECURITY_MINOR_VERSION 0
#define X_SecurityQueryVersion 0
#define SECURITY_MAJOR_VERSION 1
#define X_SecurityGenerateAuthorization 1
#define _SECURSTR_H 1
#define sz_xSecurityGenerateAuthorizationReq 12
#define X_SecurityRevokeAuthorization 2
#define sz_xSecurityAuthorizationRevokedEvent 32
#define sz_xSecurityGenerateAuthorizationReply 32
#define sz_xSecurityQueryVersionReply 32
#define sz_xSecurityQueryVersionReq 8
#define sz_xSecurityRevokeAuthorizationReq 8
#define SECURITY_EXTENSION_NAME "SECURITY"

typedef struct {
    CARD8 reqType;
    CARD8 securityReqType;
    CARD16 length;
    CARD16 majorVersion;
    CARD16 minorVersion;
} xSecurityQueryVersionReq;
typedef struct {
    CARD8 type;
    CARD8 pad0;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 majorVersion;
    CARD16 minorVersion;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xSecurityQueryVersionReply;
typedef struct {

```

```

    CARD8 reqType;
    CARD8 securityReqType;
    CARD16 length;
    CARD16 nbytesAuthProto;
    CARD16 nbytesAuthData;
    CARD32 valueMask;
} xSecurityGenerateAuthorizationReq;
typedef struct {
    CARD8 type;
    CARD8 pad0;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 authId;
    CARD16 dataLength;
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xSecurityGenerateAuthorizationReply;
typedef struct {
    CARD8 reqType;
    CARD8 securityReqType;
    CARD16 length;
    CARD32 authId;
} xSecurityRevokeAuthorizationReq;
typedef struct _xSecurityAuthorizationRevokedEvent {
    BYTE type;
    BYTE detail;
    CARD16 sequenceNumber;
    CARD32 authId;
    CARD32 pad0;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xSecurityAuthorizationRevokedEvent;

```

6.2.21. X11/keysym.h

```

#define XK_ARABIC
#define XK_ARMENIAN
#define XK_BRAILLE
#define XK_CAUCASUS
#define XK_CURRENCY
#define XK_CYRILLIC
#define XK_GEORGIAN
#define XK_GREEK
#define XK_HEBREW
#define XK_KATAKANA
#define XK_KOREAN
#define XK_LATIN1
#define XK_LATIN2
#define XK_LATIN3
#define XK_LATIN4
#define XK_LATIN8
#define XK_LATIN9
#define XK_MATHEMATICAL
#define XK_THAI
#define XK_VIETNAMESE

```

```
#define XK_XKB_KEYS
```

6.2.22. X11/keysymdef.h

```
#define XK_space      0x0020
#define XK_exclam     0x0021
#define XK_quotedbl   0x0022
#define XK_numbersign 0x0023
#define XK_dollar     0x0024
#define XK_percent     0x0025
#define XK_ampersand   0x0026
#define XK_apostrophe  0x0027
#define XK_quoteright 0x0027
#define XK_parenleft   0x0028
#define XK_parenright  0x0029
#define XK_asterisk    0x002a
#define XK_plus       0x002b
#define XK_comma       0x002c
#define XK_minus       0x002d
#define XK_period      0x002e
#define XK_slash       0x002f
#define XK_0           0x0030
#define XK_1           0x0031
#define XK_2           0x0032
#define XK_3           0x0033
#define XK_4           0x0034
#define XK_5           0x0035
#define XK_6           0x0036
#define XK_7           0x0037
#define XK_8           0x0038
#define XK_9           0x0039
#define XK_colon       0x003a
#define XK_semicolon   0x003b
#define XK_less        0x003c
#define XK_equal       0x003d
#define XK_greater     0x003e
#define XK_question    0x003f
#define XK_at          0x0040
#define XK_A           0x0041
#define XK_B           0x0042
#define XK_C           0x0043
#define XK_D           0x0044
#define XK_E           0x0045
#define XK_F           0x0046
#define XK_G           0x0047
#define XK_H           0x0048
#define XK_I           0x0049
#define XK_J           0x004a
#define XK_K           0x004b
#define XK_L           0x004c
#define XK_M           0x004d
#define XK_N           0x004e
#define XK_O           0x004f
#define XK_P           0x0050
#define XK_Q           0x0051
#define XK_R           0x0052
#define XK_S           0x0053
#define XK_T           0x0054
#define XK_U           0x0055
#define XK_V           0x0056
#define XK_W           0x0057
```

```

#define XK_X      0x0058
#define XK_Y      0x0059
#define XK_Z      0x005a
#define XK_bracketleft  0x005b
#define XK_backslash  0x005c
#define XK_bracketright 0x005d
#define XK_asciicircum 0x005e
#define XK_underscore 0x005f
#define XK_grave       0x0060
#define XK_quoteleft   0x0060
#define XK_a           0x0061
#define XK_b           0x0062
#define XK_c           0x0063
#define XK_d           0x0064
#define XK_e           0x0065
#define XK_f           0x0066
#define XK_g           0x0067
#define XK_h           0x0068
#define XK_i           0x0069
#define XK_j           0x006a
#define XK_k           0x006b
#define XK_l           0x006c
#define XK_m           0x006d
#define XK_n           0x006e
#define XK_o           0x006f
#define XK_p           0x0070
#define XK_q           0x0071
#define XK_r           0x0072
#define XK_s           0x0073
#define XK_t           0x0074
#define XK_u           0x0075
#define XK_v           0x0076
#define XK_w           0x0077
#define XK_x           0x0078
#define XK_y           0x0079
#define XK_z           0x007a
#define XK_braceleft   0x007b
#define XK_bar         0x007c
#define XK_braceright  0x007d
#define XK_asciitilde  0x007e
#define XK_nobreakspace 0x00a0
#define XK_exclamdown  0x00a1
#define XK_cent         0x00a2
#define XK_sterling     0x00a3
#define XK_currency     0x00a4
#define XK_yen          0x00a5
#define XK_brokenbar    0x00a6
#define XK_section      0x00a7
#define XK_diaeresis    0x00a8
#define XK_copyright    0x00a9
#define XK_ordfeminine  0x00aa
#define XK_guillemotleft 0x00ab
#define XK_notsign      0x00ac
#define XK_hyphen       0x00ad
#define XK_registered   0x00ae
#define XK_macron        0x00af
#define XK_degree       0x00b0
#define XK_plusminus    0x00b1
#define XK_twosuperior  0x00b2
#define XK_threesuperior 0x00b3
#define XK_acute         0x00b4
#define XK_mu            0x00b5

```



```

#define XK_paragraph      0x00b6
#define XK_periodcentered 0x00b7
#define XK_cedilla        0x00b8
#define XK_onesuperior    0x00b9
#define XK_masculine      0x00ba
#define XK_guillemotright 0x00bb
#define XK_onequarter     0x00bc
#define XK_onehalf        0x00bd
#define XK_threequarters  0x00be
#define XK_questiondown   0x00bf
#define XK_Agrave         0x00c0
#define XK_Aacute         0x00c1
#define XK_Acircumflex    0x00c2
#define XK_Atilde         0x00c3
#define XK_Adiaeresis     0x00c4
#define XK_Aring          0x00c5
#define XK_AE             0x00c6
#define XK_Ccedilla       0x00c7
#define XK_Egrave         0x00c8
#define XK_Eacute         0x00c9
#define XK_Ecircumflex    0x00ca
#define XK_Ediaeresis     0x00cb
#define XK_Igrave         0x00cc
#define XK_Iacute         0x00cd
#define XK_Icircumflex    0x00ce
#define XK_Idiaeresis     0x00cf
#define XK_ETH            0x00d0
#define XK_Eth            0x00d0
#define XK_Ntilde         0x00d1
#define XK_Ograve         0x00d2
#define XK_Oacute         0x00d3
#define XK_Ocircumflex    0x00d4
#define XK_Otilde         0x00d5
#define XK_Odiaeresis     0x00d6
#define XK_multiply       0x00d7
#define XK_Ooblique       0x00d8
#define XK_Oslash         0x00d8
#define XK_Ugrave         0x00d9
#define XK_Uacute         0x00da
#define XK_Ucircumflex    0x00db
#define XK_Udiaeresis     0x00dc
#define XK_Yacute         0x00dd
#define XK_THORN          0x00de
#define XK_Thorn          0x00de
#define XK_ssharp         0x00df
#define XK_agrave         0x00e0
#define XK_aacute         0x00e1
#define XK_acircumflex    0x00e2
#define XK_atilde         0x00e3
#define XK_adiaeresis     0x00e4
#define XK_aring          0x00e5
#define XK_ae             0x00e6
#define XK_ccedilla       0x00e7
#define XK_egrave         0x00e8
#define XK_eacute         0x00e9
#define XK_ecircumflex    0x00ea
#define XK_ediaeresis     0x00eb
#define XK_igrave         0x00ec
#define XK_iacute         0x00ed
#define XK_icircumflex    0x00ee
#define XK_idiaeresis     0x00ef
#define XK_eth            0x00f0

```

```

#define XK_ntilde      0x00f1
#define XK_ograve      0x00f2
#define XK_oacute      0x00f3
#define XK_ocircumflex 0x00f4
#define XK_otilde      0x00f5
#define XK_odiaeresis  0x00f6
#define XK_division     0x00f7
#define XK_ooblique    0x00f8
#define XK_oslash      0x00f8
#define XK_ugrave      0x00f9
#define XK_uacute      0x00fa
#define XK_ucircumflex 0x00fb
#define XK_udiaeresis  0x00fc
#define XK_yacute      0x00fd
#define XK_thorn        0x00fe
#define XK_ydiaeresis  0x00ff
#define XK_Aogonek      0x01a1
#define XK_breve        0x01a2
#define XK_Lstroke      0x01a3
#define XK_Lcaron       0x01a5
#define XK_Sacute       0x01a6
#define XK_Scaron       0x01a9
#define XK_Scedilla     0x01aa
#define XK_Tcaron       0x01ab
#define XK_Zacute       0x01ac
#define XK_Zcaron       0x01ae
#define XK_Zabovedot    0x01af
#define XK_aogonek      0x01b1
#define XK_ogonek       0x01b2
#define XK_lstroke      0x01b3
#define XK_lcaron       0x01b5
#define XK_sacute       0x01b6
#define XK_caron         0x01b7
#define XK_scaron       0x01b9
#define XK_scedilla     0x01ba
#define XK_tcaron       0x01bb
#define XK_zacute       0x01bc
#define XK_doubleacute   0x01bd
#define XK_zcaron       0x01be
#define XK_zabovedot    0x01bf
#define XK_Racute       0x01c0
#define XK_Abreve       0x01c3
#define XK_Lacute       0x01c5
#define XK_Cacute       0x01c6
#define XK_Ccaron       0x01c8
#define XK_Eogonek      0x01ca
#define XK_Ecaron       0x01cc
#define XK_Dcaron       0x01cf
#define XK_Dstroke      0x01d0
#define XK_Nacute       0x01d1
#define XK_Ncaron       0x01d2
#define XK_Odoubleacute 0x01d5
#define XK_Rcaron       0x01d8
#define XK_Uring        0x01d9
#define XK_Udoubleacute 0x01db
#define XK_Tcedilla     0x01de
#define XK_racute       0x01e0
#define XK_abreve       0x01e3
#define XK_lacute       0x01e5
#define XK_cacute       0x01e6
#define XK_ccaron       0x01e8
#define XK_eogonek      0x01ea

```

```

#define XK_ecaron      0x01ec
#define XK_dcaron      0x01ef
#define XK_dstroke     0x01f0
#define XK_nacute      0x01f1
#define XK_ncaron      0x01f2
#define XK_odoubleacute 0x01f5
#define XK_rcaron      0x01f8
#define XK_uring       0x01f9
#define XK_udoubleacute 0x01fb
#define XK_tcedilla     0x01fe
#define XK_abovedot     0x01ff
#define XK_Hstroke     0x02a1
#define XK_Hcircumflex  0x02a6
#define XK_Iabovedot   0x02a9
#define XK_Gbreve       0x02ab
#define XK_Jcircumflex  0x02ac
#define XK_hstroke     0x02b1
#define XK_hcircumflex  0x02b6
#define XK_idotless     0x02b9
#define XK_gbreve       0x02bb
#define XK_jcircumflex  0x02bc
#define XK_Cabovedot   0x02c5
#define XK_Ccircumflex  0x02c6
#define XK_Gabovedot   0x02d5
#define XK_Gcircumflex  0x02d8
#define XK_Ubreve       0x02dd
#define XK_Scircumflex  0x02de
#define XK_cabovedot   0x02e5
#define XK_ccircumflex  0x02e6
#define XK_gabovedot   0x02f5
#define XK_gcircumflex  0x02f8
#define XK_ubreve       0x02fd
#define XK_scircumflex  0x02fe
#define XK_kappa        0x03a2
#define XK_kra 0x03a2
#define XK_Rcedilla     0x03a3
#define XK_Itilde       0x03a5
#define XK_Lcedilla     0x03a6
#define XK_Emacron      0x03aa
#define XK_Gcedilla     0x03ab
#define XK_Tslash       0x03ac
#define XK_rcedilla     0x03b3
#define XK_ityilde      0x03b5
#define XK_lcedilla     0x03b6
#define XK_emacron      0x03ba
#define XK_gcedilla     0x03bb
#define XK_tslash       0x03bc
#define XK_ENG 0x03bd
#define XK_eng 0x03bf
#define XK_Amacron      0x03c0
#define XK_Iogonek      0x03c7
#define XK_Eabovedot    0x03cc
#define XK_Imacron      0x03cf
#define XK_Ncedilla     0x03d1
#define XK_Omacron      0x03d2
#define XK_Kcedilla     0x03d3
#define XK_Uogonek      0x03d9
#define XK_Utilde       0x03dd
#define XK_Umacron      0x03de
#define XK_amacron      0x03e0
#define XK_iogonek      0x03e7
#define XK_eabovedot    0x03ec

```

```

#define XK_imacon       0x03ef
#define XK_ncedilla     0x03f1
#define XK_omacron      0x03f2
#define XK_kcedilla     0x03f3
#define XK_uogonek      0x03f9
#define XK_utilde       0x03fd
#define XK_umacron      0x03fe
#define XK_overline     0x047e
#define XK_kana_fullstop 0x04a1
#define XK_kana_openingbracket 0x04a2
#define XK_kana_closingbracket 0x04a3
#define XK_kana_comma    0x04a4
#define XK_kana_conjunctive 0x04a5
#define XK_kana_middledot 0x04a5
#define XK_kana_WO       0x04a6
#define XK_kana_a        0x04a7
#define XK_kana_i        0x04a8
#define XK_kana_u        0x04a9
#define XK_kana_e        0x04aa
#define XK_kana_o        0x04ab
#define XK_kana_ya       0x04ac
#define XK_kana_yu       0x04ad
#define XK_kana_yo       0x04ae
#define XK_kana_tsu      0x04af
#define XK_kana_tu       0x04af
#define XK_prolongedsound 0x04b0
#define XK_kana_A        0x04b1
#define XK_kana_I        0x04b2
#define XK_kana_U        0x04b3
#define XK_kana_E        0x04b4
#define XK_kana_O        0x04b5
#define XK_kana_KA       0x04b6
#define XK_kana_KI       0x04b7
#define XK_kana_KU       0x04b8
#define XK_kana_KE       0x04b9
#define XK_kana_KO       0x04ba
#define XK_kana_SA       0x04bb
#define XK_kana_SHI      0x04bc
#define XK_kana_SU       0x04bd
#define XK_kana_SE       0x04be
#define XK_kana_SO       0x04bf
#define XK_kana_TA       0x04c0
#define XK_kana_CHI      0x04c1
#define XK_kana_TI       0x04c1
#define XK_kana_TSU      0x04c2
#define XK_kana_TU       0x04c2
#define XK_kana_TE       0x04c3
#define XK_kana_TO       0x04c4
#define XK_kana_NA       0x04c5
#define XK_kana_NI       0x04c6
#define XK_kana_NU       0x04c7
#define XK_kana_NE       0x04c8
#define XK_kana_NO       0x04c9
#define XK_kana_HA       0x04ca
#define XK_kana_HI       0x04cb
#define XK_kana_FU       0x04cc
#define XK_kana_HU       0x04cc
#define XK_kana_HE       0x04cd
#define XK_kana_HO       0x04ce
#define XK_kana_MA       0x04cf
#define XK_kana_MI       0x04d0
#define XK_kana_MU       0x04d1

```

```

#define XK_kana_ME      0x04d2
#define XK_kana_MO      0x04d3
#define XK_kana_YA      0x04d4
#define XK_kana_YU      0x04d5
#define XK_kana_YO      0x04d6
#define XK_kana_RA      0x04d7
#define XK_kana_RI      0x04d8
#define XK_kana_RU      0x04d9
#define XK_kana_RE      0x04da
#define XK_kana_RO      0x04db
#define XK_kana_WA      0x04dc
#define XK_kana_N       0x04dd
#define XK_voicedsound  0x04de
#define XK_semivoicedsound 0x04df
#define XK_Arabic_comma 0x05ac
#define XK_Arabic_semicolon 0x05bb
#define XK_Arabic_question_mark 0x05bf
#define XK_Arabic_hamza 0x05c1
#define XK_Arabic_maddaonalef 0x05c2
#define XK_Arabic_hamzaonalef 0x05c3
#define XK_Arabic_hamzaonwaw 0x05c4
#define XK_Arabic_hamzaunderalef 0x05c5
#define XK_Arabic_hamzaonyeh 0x05c6
#define XK_Arabic_alef 0x05c7
#define XK_Arabic_beh 0x05c8
#define XK_Arabic_tehmarbuta 0x05c9
#define XK_Arabic_teh 0x05ca
#define XK_Arabic_theh 0x05cb
#define XK_Arabic_jeem 0x05cc
#define XK_Arabic_hah 0x05cd
#define XK_Arabic_khah 0x05ce
#define XK_Arabic_dal 0x05cf
#define XK_Arabic_thal 0x05d0
#define XK_Arabic_ra 0x05d1
#define XK_Arabic_zain 0x05d2
#define XK_Arabic_seen 0x05d3
#define XK_Arabic_sheen 0x05d4
#define XK_Arabic_sad 0x05d5
#define XK_Arabic_dad 0x05d6
#define XK_Arabic_tah 0x05d7
#define XK_Arabic_zah 0x05d8
#define XK_Arabic_ain 0x05d9
#define XK_Arabic_ghain 0x05da
#define XK_Arabic_tatweel 0x05e0
#define XK_Arabic_feh 0x05e1
#define XK_Arabic_qaf 0x05e2
#define XK_Arabic_kaf 0x05e3
#define XK_Arabic_lam 0x05e4
#define XK_Arabic_meem 0x05e5
#define XK_Arabic_noon 0x05e6
#define XK_Arabic_ha 0x05e7
#define XK_Arabic_heh 0x05e7
#define XK_Arabic_waw 0x05e8
#define XK_Arabic_alefmaksura 0x05e9
#define XK_Arabic_yeh 0x05ea
#define XK_Arabic_fathatan 0x05eb
#define XK_Arabic_dammatan 0x05ec
#define XK_Arabic_kasratan 0x05ed
#define XK_Arabic_fatha 0x05ee
#define XK_Arabic_damma 0x05ef
#define XK_Arabic_kasra 0x05f0
#define XK_Arabic_shadda 0x05f1

```

```

#define XK_Arabic_sukun 0x05f2
#define XK_Serbian_dje 0x06a1
#define XK_Macedonia_gje 0x06a2
#define XK_Cyrillic_io 0x06a3
#define XK_Ukrainian_ie 0x06a4
#define XK_Ukranian_je 0x06a4
#define XK_Macedonia_dse 0x06a5
#define XK_Ukrainian_i 0x06a6
#define XK_Ukranian_i 0x06a6
#define XK_Ukrainian_yi 0x06a7
#define XK_Ukranian_yi 0x06a7
#define XK_Cyrillic_je 0x06a8
#define XK_Serbian_je 0x06a8
#define XK_Cyrillic_lje 0x06a9
#define XK_Serbian_lje 0x06a9
#define XK_Cyrillic_nje 0x06aa
#define XK_Serbian_nje 0x06aa
#define XK_Serbian_tshe 0x06ab
#define XK_Macedonia_kje 0x06ac
#define XK_Ukrainian_ghe_with_upturn 0x06ad
#define XK_Byelorussian_shortu 0x06ae
#define XK_Cyrillic_dzhe 0x06af
#define XK_Serbian_dze 0x06af
#define XK_numerosign 0x06b0
#define XK_Serbian_DJE 0x06b1
#define XK_Macedonia_GJE 0x06b2
#define XK_Cyrillic_IO 0x06b3
#define XK_Ukrainian_IE 0x06b4
#define XK_Ukranian_JE 0x06b4
#define XK_Macedonia_DSE 0x06b5
#define XK_Ukrainian_I 0x06b6
#define XK_Ukranian_I 0x06b6
#define XK_Ukrainian_YI 0x06b7
#define XK_Ukranian_YI 0x06b7
#define XK_Cyrillic_JE 0x06b8
#define XK_Serbian_JE 0x06b8
#define XK_Cyrillic_LJE 0x06b9
#define XK_Serbian_LJE 0x06b9
#define XK_Cyrillic_NJE 0x06ba
#define XK_Serbian_NJE 0x06ba
#define XK_Serbian_TSHE 0x06bb
#define XK_Macedonia_KJE 0x06bc
#define XK_Ukrainian_GHE_WITH_UPTURN 0x06bd
#define XK_Byelorussian_SHORTU 0x06be
#define XK_Cyrillic_DZHE 0x06bf
#define XK_Serbian_DZE 0x06bf
#define XK_Cyrillic_yu 0x06c0
#define XK_Cyrillic_a 0x06c1
#define XK_Cyrillic_be 0x06c2
#define XK_Cyrillic_tse 0x06c3
#define XK_Cyrillic_de 0x06c4
#define XK_Cyrillic_ie 0x06c5
#define XK_Cyrillic_ef 0x06c6
#define XK_Cyrillic_ghe 0x06c7
#define XK_Cyrillic_ha 0x06c8
#define XK_Cyrillic_i 0x06c9
#define XK_Cyrillic_shorti 0x06ca
#define XK_Cyrillic_ka 0x06cb
#define XK_Cyrillic_el 0x06cc
#define XK_Cyrillic_em 0x06cd
#define XK_Cyrillic_en 0x06ce
#define XK_Cyrillic_o 0x06cf

```

```

#define XK_Cyrillic_pe 0x06d0
#define XK_Cyrillic_ya 0x06d1
#define XK_Cyrillic_er 0x06d2
#define XK_Cyrillic_es 0x06d3
#define XK_Cyrillic_te 0x06d4
#define XK_Cyrillic_u 0x06d5
#define XK_Cyrillic_zhe 0x06d6
#define XK_Cyrillic_ve 0x06d7
#define XK_Cyrillic_softsign 0x06d8
#define XK_Cyrillic_yeru 0x06d9
#define XK_Cyrillic_ze 0x06da
#define XK_Cyrillic_sha 0x06db
#define XK_Cyrillic_e 0x06dc
#define XK_Cyrillic_shcha 0x06dd
#define XK_Cyrillic_che 0x06de
#define XK_Cyrillic_hardsign 0x06df
#define XK_Cyrillic_YU 0x06e0
#define XK_Cyrillic_A 0x06e1
#define XK_Cyrillic_BE 0x06e2
#define XK_Cyrillic_TSE 0x06e3
#define XK_Cyrillic_DE 0x06e4
#define XK_Cyrillic_IE 0x06e5
#define XK_Cyrillic_EF 0x06e6
#define XK_Cyrillic_GHE 0x06e7
#define XK_Cyrillic_HA 0x06e8
#define XK_Cyrillic_I 0x06e9
#define XK_Cyrillic_SHORTI 0x06ea
#define XK_Cyrillic_KA 0x06eb
#define XK_Cyrillic_EL 0x06ec
#define XK_Cyrillic_EM 0x06ed
#define XK_Cyrillic_EN 0x06ee
#define XK_Cyrillic_O 0x06ef
#define XK_Cyrillic_PE 0x06f0
#define XK_Cyrillic_YA 0x06f1
#define XK_Cyrillic_ER 0x06f2
#define XK_Cyrillic_ES 0x06f3
#define XK_Cyrillic_TE 0x06f4
#define XK_Cyrillic_U 0x06f5
#define XK_Cyrillic_ZHE 0x06f6
#define XK_Cyrillic_VE 0x06f7
#define XK_Cyrillic_SOFTSIGN 0x06f8
#define XK_Cyrillic_YERU 0x06f9
#define XK_Cyrillic_ZE 0x06fa
#define XK_Cyrillic_SHA 0x06fb
#define XK_Cyrillic_E 0x06fc
#define XK_Cyrillic_SHCHA 0x06fd
#define XK_Cyrillic_CHE 0x06fe
#define XK_Cyrillic_HARDSIGN 0x06ff
#define XK_Greek_ALPHAaccent 0x07a1
#define XK_Greek_EPSILONaccent 0x07a2
#define XK_Greek_ETAaccent 0x07a3
#define XK_Greek_IOTAaccent 0x07a4
#define XK_Greek_IOTAdiaeresis 0x07a5
#define XK_Greek_IOTAdieresis 0x07a5
#define XK_Greek_OMICRONaccent 0x07a7
#define XK_Greek_UPSILONaccent 0x07a8
#define XK_Greek_UPSILONdieresis 0x07a9
#define XK_Greek_OMEGAaccent 0x07ab
#define XK_Greek_accentdieresis 0x07ae
#define XK_Greek_horizbar 0x07af
#define XK_Greek_alphaaccent 0x07b1
#define XK_Greek_epsilonaccent 0x07b2

```

```

#define XK_Greek_etaaccent      0x07b3
#define XK_Greek_iotaaccent     0x07b4
#define XK_Greek_iotadieresis  0x07b5
#define XK_Greek_iotaaccentdieresis 0x07b6
#define XK_Greek_omicronaccent 0x07b7
#define XK_Greek_upsilonaccent 0x07b8
#define XK_Greek_upsilondieresis 0x07b9
#define XK_Greek_upsilonaccentdieresis 0x07ba
#define XK_Greek_omegaaccent   0x07bb
#define XK_Greek_ALPHA         0x07c1
#define XK_Greek_BETA          0x07c2
#define XK_Greek_GAMMA         0x07c3
#define XK_Greek_DELTA         0x07c4
#define XK_Greek_EPSILON       0x07c5
#define XK_Greek_ZETA          0x07c6
#define XK_Greek_ETA           0x07c7
#define XK_Greek_THETA         0x07c8
#define XK_Greek_IOTA          0x07c9
#define XK_Greek_KAPPA         0x07ca
#define XK_Greek_LAMBDA        0x07cb
#define XK_Greek_LAMDA         0x07cb
#define XK_Greek_MU            0x07cc
#define XK_Greek_NU            0x07cd
#define XK_Greek_XI            0x07ce
#define XK_Greek_OMICRON       0x07cf
#define XK_Greek_PI            0x07d0
#define XK_Greek_RHO           0x07d1
#define XK_Greek_SIGMA         0x07d2
#define XK_Greek_TAU           0x07d4
#define XK_Greek_UPSILON       0x07d5
#define XK_Greek_PHI           0x07d6
#define XK_Greek_CHI           0x07d7
#define XK_Greek_PSI           0x07d8
#define XK_Greek_OMEGA         0x07d9
#define XK_Greek_alpha         0x07e1
#define XK_Greek_beta          0x07e2
#define XK_Greek_gamma         0x07e3
#define XK_Greek_delta         0x07e4
#define XK_Greek_epsilon       0x07e5
#define XK_Greek_zeta          0x07e6
#define XK_Greek_eta           0x07e7
#define XK_Greek_theta         0x07e8
#define XK_Greek_iota          0x07e9
#define XK_Greek_kappa         0x07ea
#define XK_Greek_lambda        0x07eb
#define XK_Greek_lamda         0x07eb
#define XK_Greek_mu            0x07ec
#define XK_Greek_nu            0x07ed
#define XK_Greek_xi            0x07ee
#define XK_Greek_omicron       0x07ef
#define XK_Greek_pi            0x07f0
#define XK_Greek_rho           0x07f1
#define XK_Greek_sigma         0x07f2
#define XK_Greek_finalsmallsigma 0x07f3
#define XK_Greek_tau           0x07f4
#define XK_Greek_upsilon       0x07f5
#define XK_Greek_phi           0x07f6
#define XK_Greek_chi           0x07f7
#define XK_Greek_psi           0x07f8
#define XK_Greek_omega         0x07f9
#define XK_leftradical         0x08a1
#define XK_toplefttrical       0x08a2

```


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```
#define XK_horizconnector      0x08a3
#define XK_topintegral        0x08a4
#define XK_botintegral        0x08a5
#define XK_vertconnector      0x08a6
#define XK_topleftsqbracket   0x08a7
#define XK_botleftsqbracket   0x08a8
#define XK_toprightsqbracket  0x08a9
#define XK_botrightsqbracket  0x08aa
#define XK_topleftparens     0x08ab
#define XK_botleftparens     0x08ac
#define XK_toprightparens    0x08ad
#define XK_botrightparens    0x08ae
#define XK_leftmiddlecurlybrace 0x08af
#define XK_rightmiddlecurlybrace 0x08b0
#define XK_topleftsummation   0x08b1
#define XK_botleftsummation   0x08b2
#define XK_topvertsummationconnector 0x08b3
#define XK_botvertsummationconnector 0x08b4
#define XK_toprightsummation  0x08b5
#define XK_botrightsummation  0x08b6
#define XK_rightmiddlesummation 0x08b7
#define XK_lessthanequal      0x08bc
#define XK_notequal          0x08bd
#define XK_greaterthanequal   0x08be
#define XK_integral           0x08bf
#define XK_therefore          0x08c0
#define XK_variation           0x08c1
#define XK_infinity           0x08c2
#define XK_nabla              0x08c5
#define XK_approximate        0x08c8
#define XK_similarequal       0x08c9
#define XK_ifonlyif           0x08cd
#define XK_implies            0x08ce
#define XK_identical          0x08cf
#define XK_radical             0x08d6
#define XK_includedin         0x08da
#define XK_includes            0x08db
#define XK_intersection        0x08dc
#define XK_union              0x08dd
#define XK_logicaland          0x08de
#define XK_logicalor           0x08df
#define XK_partialderivative   0x08ef
#define XK_function            0x08f6
#define XK_leftarrow           0x08fb
#define XK_uparrow             0x08fc
#define XK_rightarrow          0x08fd
#define XK_downarrow           0x08fe
#define XK_blank               0x09df
#define XK_soliddiamond        0x09e0
#define XK_checkerboard        0x09e1
#define XK_ht                  0x09e2
#define XK_ff                   0x09e3
#define XK_cr                   0x09e4
#define XK_lf                   0x09e5
#define XK_nl                   0x09e8
#define XK_vt                   0x09e9
#define XK_lowrightcorner      0x09ea
#define XK_uprightcorner       0x09eb
#define XK_upleftcorner        0x09ec
#define XK_lowleftcorner       0x09ed
#define XK_crossinglines       0x09ee
#define XK_horizlinescan1      0x09ef
```

```

#define XK_horizlinescan3      0x09f0
#define XK_horizlinescan5      0x09f1
#define XK_horizlinescan7      0x09f2
#define XK_horizlinescan9      0x09f3
#define XK_lefttt              0x09f4
#define XK_righttt             0x09f5
#define XK_bott 0x09f6
#define XK_topt 0x09f7
#define XK_vertbar             0x09f8
#define XK_emspace             0x0aa1
#define XK_enspace             0x0aa2
#define XK_em3space            0x0aa3
#define XK_em4space            0x0aa4
#define XK_digitspace          0x0aa5
#define XK_punctspace          0x0aa6
#define XK_thinspace           0x0aa7
#define XK_hairspace           0x0aa8
#define XK_emdash              0x0aa9
#define XK_endash              0xaaa
#define XK_signifblank         0xaac
#define XK_ellipsis            0xaae
#define XK_doubbaselinedot     0xaaf
#define XK_onethird            0xab0
#define XK_twothirds           0xab1
#define XK_onefifth            0xab2
#define XK_twofifths           0xab3
#define XK_threefifths         0xab4
#define XK_fourfifths          0xab5
#define XK_onesixth            0xab6
#define XK_fivesixths          0xab7
#define XK_careof              0xab8
#define XK_figdash             0abb
#define XK_leftanglebracket    0abc
#define XK_decimalpoint        0abd
#define XK_rightanglebracket   0abe
#define XK_marker              0abf
#define XK_oneeighth           0ac3
#define XK_threeeighths        0ac4
#define XK_fiveeighths         0ac5
#define XK_seveneighths        0ac6
#define XK_trademark           0ac9
#define XK_signaturemark       0aca
#define XK_trademarkincircle   0acb
#define XK_leftopentriangle     0acc
#define XK_rightopentriangle    0acd
#define XK_emopencircle         0ace
#define XK_emopenrectangle      0acf
#define XK_leftsinglequotemark 0ad0
#define XK_rightsinglequotemark 0ad1
#define XK_leftdoublequotemark 0ad2
#define XK_rightdoublequotemark 0ad3
#define XK_prescription          0ad4
#define XK_minutes              0ad6
#define XK_seconds              0ad7
#define XK_latincross           0ad9
#define XK_hexagram             0ada
#define XK_filledrectbullet     0adb
#define XK_filledlefttribullet 0adc
#define XK_filledrighttribullet 0add
#define XK_emfilledcircle       0ade
#define XK_emfilledrect         0adf
#define XK_enopencircbullet     0ae0

```

```

#define XK_enopensquarebullet 0x0ae1
#define XK_openrectbullet     0x0ae2
#define XK_opentribulletup    0x0ae3
#define XK_opentribulletdown  0x0ae4
#define XK_openstar           0x0ae5
#define XK_enfilledcircbullet 0x0ae6
#define XK_enfilledsqbullet   0x0ae7
#define XK_filledtribulletup   0x0ae8
#define XK_filledtribulletdown 0x0ae9
#define XK_leftpointer        0x0aea
#define XK_rightpointer       0x0aeb
#define XK_club               0x0aec
#define XK_diamond            0x0aed
#define XK_heart              0x0aee
#define XK_maltesecross       0x0af0
#define XK_dagger             0x0af1
#define XK_doubledagger       0x0af2
#define XK_checkmark          0x0af3
#define XK_ballotcross        0x0af4
#define XK_musicalsharp       0x0af5
#define XK_musicalflat        0x0af6
#define XK_malesymbol         0x0af7
#define XK_femalesymbol       0x0af8
#define XK_telephone          0x0af9
#define XK_telephonerecorder   0x0afa
#define XK_phonographcopyright 0x0afb
#define XK_caret              0x0afc
#define XK_singlelowquotemark 0x0afd
#define XK_doublelowquotemark 0x0afe
#define XK_cursor             0x0aff
#define XK_leftcaret          0x0ba3
#define XK_rightcaret         0x0ba6
#define XK_downcaret          0x0ba8
#define XK_upcaret            0x0ba9
#define XK_overbar            0x0bc0
#define XK_downtack           0x0bc2
#define XK_upshoe             0x0bc3
#define XK_downstile          0x0bc4
#define XK_underbar           0x0bc6
#define XK_jot                0x0bca
#define XK_quad               0x0bcc
#define XK_uptack             0x0bce
#define XK_circle             0x0bcf
#define XK_upstile            0x0bd3
#define XK_downshoe           0x0bd6
#define XK_rightshoe          0x0bd8
#define XK_leftshoe           0x0bda
#define XK_leftttack          0x0bdc
#define XK_rightttack         0x0bfc
#define XK_hebrew_doublelowline 0x0cdf
#define XK_hebrew_aleph       0x0ce0
#define XK_hebrew_bet         0x0ce1
#define XK_hebrew_beth        0x0ce1
#define XK_hebrew_gimel       0x0ce2
#define XK_hebrew_gimmel      0x0ce2
#define XK_hebrew_dalet       0x0ce3
#define XK_hebrew_daleth      0x0ce3
#define XK_hebrew_he          0x0ce4
#define XK_hebrew_waw         0x0ce5
#define XK_hebrew_zain        0x0ce6
#define XK_hebrew_zayin       0x0ce6
#define XK_hebrew_chet        0x0ce7

```

```

#define XK_hebrew_het      0x0ce7
#define XK_hebrew_tet      0x0ce8
#define XK_hebrew_teth     0x0ce8
#define XK_hebrew_yod      0x0ce9
#define XK_hebrew_finalkaph 0x0cea
#define XK_hebrew_kaph     0x0ceb
#define XK_hebrew_lamed    0x0cec
#define XK_hebrew_finalmem  0x0ced
#define XK_hebrew_mem      0x0cee
#define XK_hebrew_finalnun  0x0cef
#define XK_hebrew_nun      0x0cf0
#define XK_hebrew_samech    0x0cf1
#define XK_hebrew_samekh    0x0cf1
#define XK_hebrew_ayin     0x0cf2
#define XK_hebrew_finalpe   0x0cf3
#define XK_hebrew_pe       0x0cf4
#define XK_hebrew_finalzade 0x0cf5
#define XK_hebrew_finalzadi 0x0cf5
#define XK_hebrew_zade     0x0cf6
#define XK_hebrew_zadi     0x0cf6
#define XK_hebrew_kuf      0x0cf7
#define XK_hebrew_qoph     0x0cf7
#define XK_hebrew_resh     0x0cf8
#define XK_hebrew_shin     0x0cf9
#define XK_hebrew_taf      0x0cfa
#define XK_hebrew_taw      0x0cfa
#define XK_Thai_kokai      0x0dal
#define XK_Thai_khokhai    0x0da2
#define XK_Thai_khokhuat   0x0da3
#define XK_Thai_khokhwai   0x0da4
#define XK_Thai_khokhon    0x0da5
#define XK_Thai_khorakhang 0x0da6
#define XK_Thai_ngongu     0x0da7
#define XK_Thai_chochan    0x0da8
#define XK_Thai_choching   0x0da9
#define XK_Thai_chochang   0x0daa
#define XK_Thai_soso       0x0dab
#define XK_Thai_chochoe    0x0dac
#define XK_Thai_yoying     0x0dad
#define XK_Thai_dochada    0x0dae
#define XK_Thai_topatak    0x0daf
#define XK_Thai_thothan    0x0db0
#define XK_Thai_thonangmontho 0x0db1
#define XK_Thai_thophuthao 0x0db2
#define XK_Thai_nonen      0x0db3
#define XK_Thai_dodek      0x0db4
#define XK_Thai_totao      0x0db5
#define XK_Thai_thothung   0x0db6
#define XK_Thai_thothahan  0x0db7
#define XK_Thai_thothong   0x0db8
#define XK_Thai_nonu       0x0db9
#define XK_Thai_bobaimai   0x0dba
#define XK_Thai_popla      0x0dbb
#define XK_Thai_phophung   0x0dbc
#define XK_Thai_fofa       0x0dbd
#define XK_Thai_phophan    0x0dbe
#define XK_Thai_fofan      0x0dbf
#define XK_Thai_phosamphao 0x0dc0
#define XK_Thai_moma       0x0dc1
#define XK_Thai_yoyak      0x0dc2
#define XK_Thai_rorua      0x0dc3
#define XK_Thai_ru         0x0dc4

```

```

#define XK_Thai_loling 0x0dc5
#define XK_Thai_lu 0x0dc6
#define XK_Thai_wowaen 0x0dc7
#define XK_Thai_sosala 0x0dc8
#define XK_Thai_sorusi 0x0dc9
#define XK_Thai_sosua 0x0dca
#define XK_Thai_hohip 0x0dcb
#define XK_Thai_lochula 0x0dcc
#define XK_Thai_oang 0x0dcd
#define XK_Thai_honokhuk 0x0dce
#define XK_Thai_paiyannoi 0x0dcf
#define XK_Thai_saraa 0x0dd0
#define XK_Thai_maihanakat 0x0dd1
#define XK_Thai_saraaa 0x0dd2
#define XK_Thai_saraam 0x0dd3
#define XK_Thai_sarai 0x0dd4
#define XK_Thai_saraii 0x0dd5
#define XK_Thai_saraue 0x0dd6
#define XK_Thai_sarauee 0x0dd7
#define XK_Thai_sarau 0x0dd8
#define XK_Thai_sarauu 0x0dd9
#define XK_Thai_phinthu 0x0dda
#define XK_Thai_maihanakat_maitho 0x0dde
#define XK_Thai_baht 0x0ddf
#define XK_Thai_sarae 0x0de0
#define XK_Thai_saraae 0x0de1
#define XK_Thai_sarao 0x0de2
#define XK_Thai_saraaimaimuan 0x0de3
#define XK_Thai_saraaimaimalai 0x0de4
#define XK_Thai_lakkhangyao 0x0de5
#define XK_Thai_maiyamok 0x0de6
#define XK_Thai_maitaikhui 0x0de7
#define XK_Thai_maiek 0x0de8
#define XK_Thai_maitho 0x0de9
#define XK_Thai_maitri 0x0dea
#define XK_Thai_maichattawa 0x0deb
#define XK_Thai_thanthakhat 0x0dec
#define XK_Thai_nikhahit 0x0ded
#define XK_Thai_leksun 0x0df0
#define XK_Thai_leknung 0x0df1
#define XK_Thai_leksong 0x0df2
#define XK_Thai_leksam 0x0df3
#define XK_Thai_leksi 0x0df4
#define XK_Thai_lekha 0x0df5
#define XK_Thai_lekhok 0x0df6
#define XK_Thai_lekchet 0x0df7
#define XK_Thai_lekpaet 0x0df8
#define XK_Thai_lekkao 0x0df9
#define XK_Hangul_Kiyeog 0x0ea1
#define XK_Hangul_SsangKiyeog 0x0ea2
#define XK_Hangul_KiyeogSios 0x0ea3
#define XK_Hangul_Nieun 0x0ea4
#define XK_Hangul_NieunJieuj 0x0ea5
#define XK_Hangul_NieunHieuh 0x0ea6
#define XK_Hangul_Dikeud 0x0ea7
#define XK_Hangul_SsangDikeud 0x0ea8
#define XK_Hangul_Rieul 0x0ea9
#define XK_Hangul_RieulKiyeog 0x0eaa
#define XK_Hangul_RieulMieum 0x0eab
#define XK_Hangul_RieulPieub 0x0eac
#define XK_Hangul_RieulSios 0x0ead
#define XK_Hangul_RieulTieut 0x0eae

```

```

#define XK_Hangul_RieulPhieuf 0x0eaf
#define XK_Hangul_RieulHieuh 0x0eb0
#define XK_Hangul_Mieum 0x0eb1
#define XK_Hangul_Pieub 0x0eb2
#define XK_Hangul_SsangPieub 0x0eb3
#define XK_Hangul_PieubSios 0x0eb4
#define XK_Hangul_Sios 0x0eb5
#define XK_Hangul_SsangSios 0x0eb6
#define XK_Hangul_Ieung 0x0eb7
#define XK_Hangul_Jieuj 0x0eb8
#define XK_Hangul_SsangJieuj 0x0eb9
#define XK_Hangul_Cieuc 0x0eba
#define XK_Hangul_Khieuq 0x0ebb
#define XK_Hangul_Tieut 0x0ebc
#define XK_Hangul_Phieuf 0x0ebd
#define XK_Hangul_Hieuh 0x0ebe
#define XK_Hangul_A 0x0ebf
#define XK_Hangul_AE 0x0ec0
#define XK_Hangul_YA 0x0ec1
#define XK_Hangul_YAE 0x0ec2
#define XK_Hangul_EO 0x0ec3
#define XK_Hangul_E 0x0ec4
#define XK_Hangul_YEO 0x0ec5
#define XK_Hangul_YE 0x0ec6
#define XK_Hangul_O 0x0ec7
#define XK_Hangul_WA 0x0ec8
#define XK_Hangul_WAE 0x0ec9
#define XK_Hangul_OE 0x0eca
#define XK_Hangul_YO 0x0ecb
#define XK_Hangul_U 0x0ecc
#define XK_Hangul_WEO 0x0ecd
#define XK_Hangul_WE 0x0ece
#define XK_Hangul_WI 0x0ecf
#define XK_Hangul_YU 0x0ed0
#define XK_Hangul_EU 0x0ed1
#define XK_Hangul_YI 0x0ed2
#define XK_Hangul_I 0x0ed3
#define XK_Hangul_J_Kiyeog 0x0ed4
#define XK_Hangul_J_SsangKiyeog 0x0ed5
#define XK_Hangul_J_KiyeogSios 0x0ed6
#define XK_Hangul_J_Nieun 0x0ed7
#define XK_Hangul_J_NieunJieuj 0x0ed8
#define XK_Hangul_J_NieunHieuh 0x0ed9
#define XK_Hangul_J_Dikeud 0x0eda
#define XK_Hangul_J_Rieul 0x0edb
#define XK_Hangul_J_RieulKiyeog 0x0edc
#define XK_Hangul_J_RieulMieum 0x0edd
#define XK_Hangul_J_RieulPieub 0x0ede
#define XK_Hangul_J_RieulSios 0x0edf
#define XK_Hangul_J_RieulTieut 0x0ee0
#define XK_Hangul_J_RieulPhieuf 0x0ee1
#define XK_Hangul_J_RieulHieuh 0x0ee2
#define XK_Hangul_J_Mieum 0x0ee3
#define XK_Hangul_J_Pieub 0x0ee4
#define XK_Hangul_J_PieubSios 0x0ee5
#define XK_Hangul_J_Sios 0x0ee6
#define XK_Hangul_J_SsangSios 0x0ee7
#define XK_Hangul_J_Ieung 0x0ee8
#define XK_Hangul_J_Jieuj 0x0ee9
#define XK_Hangul_J_Cieuc 0x0eea
#define XK_Hangul_J_Khieuq 0x0eeb
#define XK_Hangul_J_Tieut 0x0eec

```

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```
#define XK_Hangul_J_Phieuf      0x0eed
#define XK_Hangul_J_Hieuh      0x0eee
#define XK_Hangul_RieulYeorinHieuh 0x0eef
#define XK_Hangul_SunkyeongeumMieum 0x0ef0
#define XK_Hangul_SunkyeongeumPieub 0x0ef1
#define XK_Hangul_PanSios      0x0ef2
#define XK_Hangul_KkogjiDalrinJeung 0x0ef3
#define XK_Hangul_SunkyeongeumPhieuf 0x0ef4
#define XK_Hangul_YeorinHieuh 0x0ef5
#define XK_Hangul_AraeA 0x0ef6
#define XK_Hangul_AraeAE      0x0ef7
#define XK_Hangul_J_PanSios    0x0ef8
#define XK_Hangul_J_KkogjiDalrinJeung 0x0ef9
#define XK_Hangul_J_YeorinHieuh 0x0efa
#define XK_Korean_Won         0x0eff
#define XK_Ibreve              0x100012c
#define XK_ibreve              0x100012d
#define XK_Wcircumflex         0x1000174
#define XK_wcircumflex         0x1000175
#define XK_Ycircumflex         0x1000176
#define XK_ycircumflex         0x1000177
#define XK_SCHWA                0x100018f
#define XK_Obarred              0x100019f
#define XK_Ohorn                0x10001a0
#define XK_ohorn                0x10001a1
#define XK_Uhorn                0x10001af
#define XK_uhorn                0x10001b0
#define XK_Zstroke              0x10001b5
#define XK_zstroke              0x10001b6
#define XK_Ocaron               0x10001d1
#define XK_ocaron               0x10001d2
#define XK_Gcaron               0x10001e6
#define XK_gcaron               0x10001e7
#define XK_schwa                0x1000259
#define XK_obarred              0x1000275
#define XK_Cyrillic_GHE_bar     0x1000492
#define XK_Cyrillic_ghe_bar     0x1000493
#define XK_Cyrillic_ZHE_descender 0x1000496
#define XK_Cyrillic_zhe_descender 0x1000497
#define XK_Cyrillic_KA_descender 0x100049a
#define XK_Cyrillic_ka_descender 0x100049b
#define XK_Cyrillic_KA_vertstroke 0x100049c
#define XK_Cyrillic_ka_vertstroke 0x100049d
#define XK_Cyrillic_EN_descender 0x10004a2
#define XK_Cyrillic_en_descender 0x10004a3
#define XK_Cyrillic_U_straight 0x10004ae
#define XK_Cyrillic_u_straight 0x10004af
#define XK_Cyrillic_U_straight_bar 0x10004b0
#define XK_Cyrillic_u_straight_bar 0x10004b1
#define XK_Cyrillic_HA_descender 0x10004b2
#define XK_Cyrillic_ha_descender 0x10004b3
#define XK_Cyrillic_CHE_descender 0x10004b6
#define XK_Cyrillic_che_descender 0x10004b7
#define XK_Cyrillic_CHE_vertstroke 0x10004b8
#define XK_Cyrillic_che_vertstroke 0x10004b9
#define XK_Cyrillic_SHHA        0x10004ba
#define XK_Cyrillic_shha        0x10004bb
#define XK_Cyrillic_SCHWA       0x10004d8
#define XK_Cyrillic_schwa       0x10004d9
#define XK_Cyrillic_I_macron    0x10004e2
#define XK_Cyrillic_i_macron    0x10004e3
#define XK_Cyrillic_O_bar       0x10004e8
```

```

#define XK_Cyrillic_o_bar      0x10004e9
#define XK_Cyrillic_U_macron   0x10004ee
#define XK_Cyrillic_u_macron   0x10004ef
#define XK_Armenian_AYB 0x1000531
#define XK_Armenian_BEN 0x1000532
#define XK_Armenian_GIM 0x1000533
#define XK_Armenian_DA  0x1000534
#define XK_Armenian_YECH      0x1000535
#define XK_Armenian_ZA  0x1000536
#define XK_Armenian_E  0x1000537
#define XK_Armenian_AT  0x1000538
#define XK_Armenian_TO  0x1000539
#define XK_Armenian_ZHE 0x100053a
#define XK_Armenian_INI 0x100053b
#define XK_Armenian_LYUN      0x100053c
#define XK_Armenian_KHE 0x100053d
#define XK_Armenian_TSA 0x100053e
#define XK_Armenian_KEN 0x100053f
#define XK_Armenian_HO  0x1000540
#define XK_Armenian_DZA 0x1000541
#define XK_Armenian_GHAT      0x1000542
#define XK_Armenian_TCHE      0x1000543
#define XK_Armenian_MEN 0x1000544
#define XK_Armenian_HI  0x1000545
#define XK_Armenian_NU  0x1000546
#define XK_Armenian_SHA 0x1000547
#define XK_Armenian_VO  0x1000548
#define XK_Armenian_CHA 0x1000549
#define XK_Armenian_PE  0x100054a
#define XK_Armenian_JE  0x100054b
#define XK_Armenian_RA  0x100054c
#define XK_Armenian_SE  0x100054d
#define XK_Armenian_VEV 0x100054e
#define XK_Armenian_TYUN      0x100054f
#define XK_Armenian_RE  0x1000550
#define XK_Armenian_TSO 0x1000551
#define XK_Armenian_VYUN      0x1000552
#define XK_Armenian_PYUR      0x1000553
#define XK_Armenian_KE  0x1000554
#define XK_Armenian_O  0x1000555
#define XK_Armenian_FE  0x1000556
#define XK_Armenian_apostrophe 0x100055a
#define XK_Armenian_accent      0x100055b
#define XK_Armenian_shesht      0x100055b
#define XK_Armenian_amanak      0x100055c
#define XK_Armenian_exclam      0x100055c
#define XK_Armenian_but 0x100055d
#define XK_Armenian_separation_mark 0x100055d
#define XK_Armenian_paruyk      0x100055e
#define XK_Armenian_question      0x100055e
#define XK_Armenian_ayb 0x1000561
#define XK_Armenian_ben 0x1000562
#define XK_Armenian_gim 0x1000563
#define XK_Armenian_da  0x1000564
#define XK_Armenian_yech      0x1000565
#define XK_Armenian_za  0x1000566
#define XK_Armenian_e  0x1000567
#define XK_Armenian_at  0x1000568
#define XK_Armenian_to  0x1000569
#define XK_Armenian_zhe 0x100056a
#define XK_Armenian_ini 0x100056b
#define XK_Armenian_lyun      0x100056c

```



```

#define XK_Armenian_khe 0x100056d
#define XK_Armenian_tsa 0x100056e
#define XK_Armenian_ken 0x100056f
#define XK_Armenian_ho 0x1000570
#define XK_Armenian_dza 0x1000571
#define XK_Armenian_ghat 0x1000572
#define XK_Armenian_tche 0x1000573
#define XK_Armenian_men 0x1000574
#define XK_Armenian_hi 0x1000575
#define XK_Armenian_nu 0x1000576
#define XK_Armenian_sha 0x1000577
#define XK_Armenian_vo 0x1000578
#define XK_Armenian_cha 0x1000579
#define XK_Armenian_pe 0x100057a
#define XK_Armenian_je 0x100057b
#define XK_Armenian_ra 0x100057c
#define XK_Armenian_se 0x100057d
#define XK_Armenian_vev 0x100057e
#define XK_Armenian_tyun 0x100057f
#define XK_Armenian_re 0x1000580
#define XK_Armenian_tso 0x1000581
#define XK_Armenian_vyun 0x1000582
#define XK_Armenian_pyur 0x1000583
#define XK_Armenian_ke 0x1000584
#define XK_Armenian_o 0x1000585
#define XK_Armenian_fe 0x1000586
#define XK_Armenian_ligature_ew 0x1000587
#define XK_Armenian_full_stop 0x1000589
#define XK_Armenian_verjaket 0x1000589
#define XK_Armenian_hyphen 0x100058a
#define XK_Armenian_yentamna 0x100058a
#define XK_Arabic_madda_above 0x1000653
#define XK_Arabic_hamza_above 0x1000654
#define XK_Arabic_hamza_below 0x1000655
#define XK_Arabic_0 0x1000660
#define XK_Arabic_1 0x1000661
#define XK_Arabic_2 0x1000662
#define XK_Arabic_3 0x1000663
#define XK_Arabic_4 0x1000664
#define XK_Arabic_5 0x1000665
#define XK_Arabic_6 0x1000666
#define XK_Arabic_7 0x1000667
#define XK_Arabic_8 0x1000668
#define XK_Arabic_9 0x1000669
#define XK_Arabic_percent 0x100066a
#define XK_Arabic_superscript_alef 0x1000670
#define XK_Arabic_tteh 0x1000679
#define XK_Arabic_peh 0x100067e
#define XK_Arabic_tcheh 0x1000686
#define XK_Arabic_ddal 0x1000688
#define XK_Arabic_rreh 0x1000691
#define XK_Arabic_jeh 0x1000698
#define XK_Arabic_veh 0x10006a4
#define XK_Arabic_keheh 0x10006a9
#define XK_Arabic_gaf 0x10006af
#define XK_Arabic_noon_ghunna 0x10006ba
#define XK_Arabic_heh_doachashmee 0x10006be
#define XK_Arabic_heh_goal 0x10006c1
#define XK_Arabic_farsi_yeh 0x10006cc
#define XK_Farsi_yeh 0x10006cc
#define XK_Arabic_yeh_baree 0x10006d2
#define XK_Arabic_fullstop 0x10006d4

```

```

#define XK_Farsi_0      0x10006f0
#define XK_Farsi_1      0x10006f1
#define XK_Farsi_2      0x10006f2
#define XK_Farsi_3      0x10006f3
#define XK_Farsi_4      0x10006f4
#define XK_Farsi_5      0x10006f5
#define XK_Farsi_6      0x10006f6
#define XK_Farsi_7      0x10006f7
#define XK_Farsi_8      0x10006f8
#define XK_Farsi_9      0x10006f9
#define XK_Georgian_an  0x10010d0
#define XK_Georgian_ban 0x10010d1
#define XK_Georgian_gan 0x10010d2
#define XK_Georgian_don 0x10010d3
#define XK_Georgian_en  0x10010d4
#define XK_Georgian_vin 0x10010d5
#define XK_Georgian_zen 0x10010d6
#define XK_Georgian_tan 0x10010d7
#define XK_Georgian_in  0x10010d8
#define XK_Georgian_kan 0x10010d9
#define XK_Georgian_las 0x10010da
#define XK_Georgian_man 0x10010db
#define XK_Georgian_nar 0x10010dc
#define XK_Georgian_on  0x10010dd
#define XK_Georgian_par 0x10010de
#define XK_Georgian_zhar 0x10010df
#define XK_Georgian_rae 0x10010e0
#define XK_Georgian_san 0x10010e1
#define XK_Georgian_tar 0x10010e2
#define XK_Georgian_un  0x10010e3
#define XK_Georgian_phar 0x10010e4
#define XK_Georgian_khar 0x10010e5
#define XK_Georgian_ghan 0x10010e6
#define XK_Georgian_qar 0x10010e7
#define XK_Georgian_shin 0x10010e8
#define XK_Georgian_chin 0x10010e9
#define XK_Georgian_can 0x10010ea
#define XK_Georgian_jil 0x10010eb
#define XK_Georgian_cil 0x10010ec
#define XK_Georgian_char 0x10010ed
#define XK_Georgian_xan 0x10010ee
#define XK_Georgian_jhan 0x10010ef
#define XK_Georgian_hae 0x10010f0
#define XK_Georgian_he  0x10010f1
#define XK_Georgian_hie 0x10010f2
#define XK_Georgian_we  0x10010f3
#define XK_Georgian_har 0x10010f4
#define XK_Georgian_hoe 0x10010f5
#define XK_Georgian_fi  0x10010f6
#define XK_Babovedot    0x1001e02
#define XK_babovedot    0x1001e03
#define XK_Dabovedot    0x1001e0a
#define XK_dabovedot    0x1001e0b
#define XK_Fabovedot    0x1001e1e
#define XK_fabovedot    0x1001e1f
#define XK_Lbelowdot    0x1001e36
#define XK_lbelowdot    0x1001e37
#define XK_Mabovedot    0x1001e40
#define XK_mabovedot    0x1001e41
#define XK_Pabovedot    0x1001e56
#define XK_pabovedot    0x1001e57
#define XK_Sabovedot    0x1001e60

```

```

#define XK_sabovedot      0x1001e61
#define XK_Tabovedot      0x1001e6a
#define XK_tabovedot      0x1001e6b
#define XK_Wgrave         0x1001e80
#define XK_wgrave         0x1001e81
#define XK_Wacute         0x1001e82
#define XK_wacute         0x1001e83
#define XK_Wdiaeresis     0x1001e84
#define XK_wdiaeresis     0x1001e85
#define XK_Xabovedot      0x1001e8a
#define XK_xabovedot      0x1001e8b
#define XK_Abelowdot      0x1001ea0
#define XK_abelowdot      0x1001ea1
#define XK_Ahook          0x1001ea2
#define XK_ahook          0x1001ea3
#define XK_Acircumflexacute 0x1001ea4
#define XK_acircumflexacute 0x1001ea5
#define XK_Acircumflexgrave 0x1001ea6
#define XK_acircumflexgrave 0x1001ea7
#define XK_Acircumflexhook 0x1001ea8
#define XK_acircumflexhook 0x1001ea9
#define XK_Acircumflextilde 0x1001eaa
#define XK_acircumflextilde 0x1001eab
#define XK_Acircumflexbelowdot 0x1001eac
#define XK_acircumflexbelowdot 0x1001ead
#define XK_Abreveacute     0x1001eae
#define XK_abreveacute     0x1001eaf
#define XK_Abrevegrave     0x1001eb0
#define XK_abrevegrave     0x1001eb1
#define XK_Abrevehook      0x1001eb2
#define XK_abrevehook      0x1001eb3
#define XK_Abrevetilde     0x1001eb4
#define XK_abrevetilde     0x1001eb5
#define XK_Abrevebelowdot  0x1001eb6
#define XK_abrevebelowdot  0x1001eb7
#define XK_Ebelowdot       0x1001eb8
#define XK_ebelowdot       0x1001eb9
#define XK_Ehook           0x1001eba
#define XK_ehook           0x1001ebb
#define XK_Etilde          0x1001ebc
#define XK_etilde          0x1001ebd
#define XK_Ecircumflexacute 0x1001ebe
#define XK_ecircumflexacute 0x1001ebf
#define XK_Ecircumflexgrave 0x1001ec0
#define XK_ecircumflexgrave 0x1001ec1
#define XK_Ecircumflexhook 0x1001ec2
#define XK_ecircumflexhook 0x1001ec3
#define XK_Ecircumflextilde 0x1001ec4
#define XK_ecircumflextilde 0x1001ec5
#define XK_Ecircumflexbelowdot 0x1001ec6
#define XK_ecircumflexbelowdot 0x1001ec7
#define XK_Ihook           0x1001ec8
#define XK_ihook           0x1001ec9
#define XK_Ibelowdot       0x1001eca
#define XK_ibelowdot       0x1001ecb
#define XK_Obelowdot       0x1001ecc
#define XK_obelowdot       0x1001ecd
#define XK_Ohook           0x1001ece
#define XK_ohook           0x1001ecf
#define XK_Ocircumflexacute 0x1001ed0
#define XK_ocircumflexacute 0x1001ed1
#define XK_Ocircumflexgrave 0x1001ed2

```

```

#define XK_ocircumflexgrave      0x1001ed3
#define XK_Ocircumflexhook       0x1001ed4
#define XK_ocircumflexhook       0x1001ed5
#define XK_Ocircumflextilde      0x1001ed6
#define XK_ocircumflextilde      0x1001ed7
#define XK_Ocircumflexbelowdot   0x1001ed8
#define XK_ocircumflexbelowdot   0x1001ed9
#define XK_Ohornacute            0x1001eda
#define XK_ohornacute            0x1001edb
#define XK_Ohorngrave            0x1001edc
#define XK_ohorngrave            0x1001edd
#define XK_Ohornhook             0x1001ede
#define XK_ohornhook             0x1001edf
#define XK_Ohorntilde            0x1001ee0
#define XK_ohorntilde            0x1001ee1
#define XK_Ohornbelowdot         0x1001ee2
#define XK_ohornbelowdot         0x1001ee3
#define XK_Ubelowdot             0x1001ee4
#define XK_ubelowdot             0x1001ee5
#define XK_Uhook                 0x1001ee6
#define XK_uhook                 0x1001ee7
#define XK_Uhornacute            0x1001ee8
#define XK_uhornacute            0x1001ee9
#define XK_Uhorngrave            0x1001eea
#define XK_uhorngrave            0x1001eeb
#define XK_Uhornhook             0x1001eec
#define XK_uhornhook             0x1001eed
#define XK_Uhorntilde            0x1001eee
#define XK_uhorntilde            0x1001eef
#define XK_Uhornbelowdot         0x1001ef0
#define XK_uhornbelowdot         0x1001ef1
#define XK_Ygrave                0x1001ef2
#define XK_ygrave                0x1001ef3
#define XK_Ybelowdot             0x1001ef4
#define XK_ybelowdot             0x1001ef5
#define XK_Yhook                 0x1001ef6
#define XK_yhook                 0x1001ef7
#define XK_Ytilde                0x1001ef8
#define XK_ytilde                0x1001ef9
#define XK_zerosuperior          0x1002070
#define XK_foursuperior          0x1002074
#define XK_fivesuperior          0x1002075
#define XK_sixsuperior           0x1002076
#define XK_sevensuperior         0x1002077
#define XK_eightsuperior         0x1002078
#define XK_ninesuperior          0x1002079
#define XK_zerosubscript         0x1002080
#define XK_onesubscript          0x1002081
#define XK_twosubscript          0x1002082
#define XK_threesubscript        0x1002083
#define XK_foursubscript         0x1002084
#define XK_fivesubscript         0x1002085
#define XK_sixsubscript          0x1002086
#define XK_sevensubscript        0x1002087
#define XK_eightsubscript        0x1002088
#define XK_ninesubscript         0x1002089
#define XK_EcuSign               0x10020a0
#define XK_ColonSign             0x10020a1
#define XK_CruzeiroSign          0x10020a2
#define XK_FFrancSign            0x10020a3
#define XK_LiraSign              0x10020a4
#define XK_MillSign              0x10020a5

```

```

#define XK_NairaSign      0x10020a6
#define XK_PesetaSign     0x10020a7
#define XK_RupeeSign      0x10020a8
#define XK_WonSign        0x10020a9
#define XK_NewSheqelSign  0x10020aa
#define XK_DongSign       0x10020ab
#define XK_partdifferential 0x1002202
#define XK_emptyset       0x1002205
#define XK_elementof      0x1002208
#define XK_notelementof  0x1002209
#define XK_containsas     0x100220B
#define XK_squareroot     0x100221A
#define XK_cuberoot       0x100221B
#define XK_fourthroot     0x100221C
#define XK_dintegral      0x100222C
#define XK_tintegral      0x100222D
#define XK_because        0x1002235
#define XK_notapproxseq   0x1002247
#define XK_approxseq      0x1002248
#define XK_notidentical   0x1002262
#define XK_stricteq       0x1002263
#define XK_braille_blank  0x1002800
#define XK_braille_dots_1 0x1002801
#define XK_braille_dots_2 0x1002802
#define XK_braille_dots_12 0x1002803
#define XK_braille_dots_3 0x1002804
#define XK_braille_dots_13 0x1002805
#define XK_braille_dots_23 0x1002806
#define XK_braille_dots_123 0x1002807
#define XK_braille_dots_4 0x1002808
#define XK_braille_dots_14 0x1002809
#define XK_braille_dots_24 0x100280a
#define XK_braille_dots_124 0x100280b
#define XK_braille_dots_34 0x100280c
#define XK_braille_dots_134 0x100280d
#define XK_braille_dots_234 0x100280e
#define XK_braille_dots_1234 0x100280f
#define XK_braille_dots_5 0x1002810
#define XK_braille_dots_15 0x1002811
#define XK_braille_dots_25 0x1002812
#define XK_braille_dots_125 0x1002813
#define XK_braille_dots_35 0x1002814
#define XK_braille_dots_135 0x1002815
#define XK_braille_dots_235 0x1002816
#define XK_braille_dots_1235 0x1002817
#define XK_braille_dots_45 0x1002818
#define XK_braille_dots_145 0x1002819
#define XK_braille_dots_245 0x100281a
#define XK_braille_dots_1245 0x100281b
#define XK_braille_dots_345 0x100281c
#define XK_braille_dots_1345 0x100281d
#define XK_braille_dots_2345 0x100281e
#define XK_braille_dots_12345 0x100281f
#define XK_braille_dots_6 0x1002820
#define XK_braille_dots_16 0x1002821
#define XK_braille_dots_26 0x1002822
#define XK_braille_dots_126 0x1002823
#define XK_braille_dots_36 0x1002824
#define XK_braille_dots_136 0x1002825
#define XK_braille_dots_236 0x1002826
#define XK_braille_dots_1236 0x1002827
#define XK_braille_dots_46 0x1002828

```

```

#define XK_braille_dots_146      0x1002829
#define XK_braille_dots_246      0x100282a
#define XK_braille_dots_1246     0x100282b
#define XK_braille_dots_346      0x100282c
#define XK_braille_dots_1346     0x100282d
#define XK_braille_dots_2346     0x100282e
#define XK_braille_dots_12346    0x100282f
#define XK_braille_dots_56       0x1002830
#define XK_braille_dots_156      0x1002831
#define XK_braille_dots_256      0x1002832
#define XK_braille_dots_1256     0x1002833
#define XK_braille_dots_356      0x1002834
#define XK_braille_dots_1356     0x1002835
#define XK_braille_dots_2356     0x1002836
#define XK_braille_dots_12356    0x1002837
#define XK_braille_dots_456      0x1002838
#define XK_braille_dots_1456     0x1002839
#define XK_braille_dots_2456     0x100283a
#define XK_braille_dots_12456    0x100283b
#define XK_braille_dots_3456     0x100283c
#define XK_braille_dots_13456    0x100283d
#define XK_braille_dots_23456    0x100283e
#define XK_braille_dots_123456   0x100283f
#define XK_braille_dots_7        0x1002840
#define XK_braille_dots_17       0x1002841
#define XK_braille_dots_27       0x1002842
#define XK_braille_dots_127      0x1002843
#define XK_braille_dots_37       0x1002844
#define XK_braille_dots_137      0x1002845
#define XK_braille_dots_237      0x1002846
#define XK_braille_dots_1237     0x1002847
#define XK_braille_dots_47       0x1002848
#define XK_braille_dots_147      0x1002849
#define XK_braille_dots_247      0x100284a
#define XK_braille_dots_1247     0x100284b
#define XK_braille_dots_347      0x100284c
#define XK_braille_dots_1347     0x100284d
#define XK_braille_dots_2347     0x100284e
#define XK_braille_dots_12347    0x100284f
#define XK_braille_dots_57       0x1002850
#define XK_braille_dots_157      0x1002851
#define XK_braille_dots_257      0x1002852
#define XK_braille_dots_1257     0x1002853
#define XK_braille_dots_357      0x1002854
#define XK_braille_dots_1357     0x1002855
#define XK_braille_dots_2357     0x1002856
#define XK_braille_dots_12357    0x1002857
#define XK_braille_dots_457      0x1002858
#define XK_braille_dots_1457     0x1002859
#define XK_braille_dots_2457     0x100285a
#define XK_braille_dots_12457    0x100285b
#define XK_braille_dots_3457     0x100285c
#define XK_braille_dots_13457    0x100285d
#define XK_braille_dots_23457    0x100285e
#define XK_braille_dots_123457   0x100285f
#define XK_braille_dots_67       0x1002860
#define XK_braille_dots_167      0x1002861
#define XK_braille_dots_267      0x1002862
#define XK_braille_dots_1267     0x1002863
#define XK_braille_dots_367      0x1002864
#define XK_braille_dots_1367     0x1002865
#define XK_braille_dots_2367     0x1002866

```

```

#define XK_braille_dots_12367 0x1002867
#define XK_braille_dots_467 0x1002868
#define XK_braille_dots_1467 0x1002869
#define XK_braille_dots_2467 0x100286a
#define XK_braille_dots_12467 0x100286b
#define XK_braille_dots_3467 0x100286c
#define XK_braille_dots_13467 0x100286d
#define XK_braille_dots_23467 0x100286e
#define XK_braille_dots_123467 0x100286f
#define XK_braille_dots_567 0x1002870
#define XK_braille_dots_1567 0x1002871
#define XK_braille_dots_2567 0x1002872
#define XK_braille_dots_12567 0x1002873
#define XK_braille_dots_3567 0x1002874
#define XK_braille_dots_13567 0x1002875
#define XK_braille_dots_23567 0x1002876
#define XK_braille_dots_123567 0x1002877
#define XK_braille_dots_4567 0x1002878
#define XK_braille_dots_14567 0x1002879
#define XK_braille_dots_24567 0x100287a
#define XK_braille_dots_124567 0x100287b
#define XK_braille_dots_34567 0x100287c
#define XK_braille_dots_134567 0x100287d
#define XK_braille_dots_234567 0x100287e
#define XK_braille_dots_1234567 0x100287f
#define XK_braille_dots_8 0x1002880
#define XK_braille_dots_18 0x1002881
#define XK_braille_dots_28 0x1002882
#define XK_braille_dots_128 0x1002883
#define XK_braille_dots_38 0x1002884
#define XK_braille_dots_138 0x1002885
#define XK_braille_dots_238 0x1002886
#define XK_braille_dots_1238 0x1002887
#define XK_braille_dots_48 0x1002888
#define XK_braille_dots_148 0x1002889
#define XK_braille_dots_248 0x100288a
#define XK_braille_dots_1248 0x100288b
#define XK_braille_dots_348 0x100288c
#define XK_braille_dots_1348 0x100288d
#define XK_braille_dots_2348 0x100288e
#define XK_braille_dots_12348 0x100288f
#define XK_braille_dots_58 0x1002890
#define XK_braille_dots_158 0x1002891
#define XK_braille_dots_258 0x1002892
#define XK_braille_dots_1258 0x1002893
#define XK_braille_dots_358 0x1002894
#define XK_braille_dots_1358 0x1002895
#define XK_braille_dots_2358 0x1002896
#define XK_braille_dots_12358 0x1002897
#define XK_braille_dots_458 0x1002898
#define XK_braille_dots_1458 0x1002899
#define XK_braille_dots_2458 0x100289a
#define XK_braille_dots_12458 0x100289b
#define XK_braille_dots_3458 0x100289c
#define XK_braille_dots_13458 0x100289d
#define XK_braille_dots_23458 0x100289e
#define XK_braille_dots_123458 0x100289f
#define XK_braille_dots_68 0x10028a0
#define XK_braille_dots_168 0x10028a1
#define XK_braille_dots_268 0x10028a2
#define XK_braille_dots_1268 0x10028a3
#define XK_braille_dots_368 0x10028a4

```

```

#define XK_braille_dots_1368 0x10028a5
#define XK_braille_dots_2368 0x10028a6
#define XK_braille_dots_12368 0x10028a7
#define XK_braille_dots_468 0x10028a8
#define XK_braille_dots_1468 0x10028a9
#define XK_braille_dots_2468 0x10028aa
#define XK_braille_dots_12468 0x10028ab
#define XK_braille_dots_3468 0x10028ac
#define XK_braille_dots_13468 0x10028ad
#define XK_braille_dots_23468 0x10028ae
#define XK_braille_dots_123468 0x10028af
#define XK_braille_dots_568 0x10028b0
#define XK_braille_dots_1568 0x10028b1
#define XK_braille_dots_2568 0x10028b2
#define XK_braille_dots_12568 0x10028b3
#define XK_braille_dots_3568 0x10028b4
#define XK_braille_dots_13568 0x10028b5
#define XK_braille_dots_23568 0x10028b6
#define XK_braille_dots_123568 0x10028b7
#define XK_braille_dots_4568 0x10028b8
#define XK_braille_dots_14568 0x10028b9
#define XK_braille_dots_24568 0x10028ba
#define XK_braille_dots_124568 0x10028bb
#define XK_braille_dots_34568 0x10028bc
#define XK_braille_dots_134568 0x10028bd
#define XK_braille_dots_234568 0x10028be
#define XK_braille_dots_1234568 0x10028bf
#define XK_braille_dots_78 0x10028c0
#define XK_braille_dots_178 0x10028c1
#define XK_braille_dots_278 0x10028c2
#define XK_braille_dots_1278 0x10028c3
#define XK_braille_dots_378 0x10028c4
#define XK_braille_dots_1378 0x10028c5
#define XK_braille_dots_2378 0x10028c6
#define XK_braille_dots_12378 0x10028c7
#define XK_braille_dots_478 0x10028c8
#define XK_braille_dots_1478 0x10028c9
#define XK_braille_dots_2478 0x10028ca
#define XK_braille_dots_12478 0x10028cb
#define XK_braille_dots_3478 0x10028cc
#define XK_braille_dots_13478 0x10028cd
#define XK_braille_dots_23478 0x10028ce
#define XK_braille_dots_123478 0x10028cf
#define XK_braille_dots_578 0x10028d0
#define XK_braille_dots_1578 0x10028d1
#define XK_braille_dots_2578 0x10028d2
#define XK_braille_dots_12578 0x10028d3
#define XK_braille_dots_3578 0x10028d4
#define XK_braille_dots_13578 0x10028d5
#define XK_braille_dots_23578 0x10028d6
#define XK_braille_dots_123578 0x10028d7
#define XK_braille_dots_4578 0x10028d8
#define XK_braille_dots_14578 0x10028d9
#define XK_braille_dots_24578 0x10028da
#define XK_braille_dots_124578 0x10028db
#define XK_braille_dots_34578 0x10028dc
#define XK_braille_dots_134578 0x10028dd
#define XK_braille_dots_234578 0x10028de
#define XK_braille_dots_1234578 0x10028df
#define XK_braille_dots_678 0x10028e0
#define XK_braille_dots_1678 0x10028e1
#define XK_braille_dots_2678 0x10028e2

```



```

#define XK_braille_dots_12678 0x10028e3
#define XK_braille_dots_3678 0x10028e4
#define XK_braille_dots_13678 0x10028e5
#define XK_braille_dots_23678 0x10028e6
#define XK_braille_dots_123678 0x10028e7
#define XK_braille_dots_4678 0x10028e8
#define XK_braille_dots_14678 0x10028e9
#define XK_braille_dots_24678 0x10028ea
#define XK_braille_dots_124678 0x10028eb
#define XK_braille_dots_34678 0x10028ec
#define XK_braille_dots_134678 0x10028ed
#define XK_braille_dots_234678 0x10028ee
#define XK_braille_dots_1234678 0x10028ef
#define XK_braille_dots_5678 0x10028f0
#define XK_braille_dots_15678 0x10028f1
#define XK_braille_dots_25678 0x10028f2
#define XK_braille_dots_125678 0x10028f3
#define XK_braille_dots_35678 0x10028f4
#define XK_braille_dots_135678 0x10028f5
#define XK_braille_dots_235678 0x10028f6
#define XK_braille_dots_1235678 0x10028f7
#define XK_braille_dots_45678 0x10028f8
#define XK_braille_dots_145678 0x10028f9
#define XK_braille_dots_245678 0x10028fa
#define XK_braille_dots_1245678 0x10028fb
#define XK_braille_dots_345678 0x10028fc
#define XK_braille_dots_1345678 0x10028fd
#define XK_braille_dots_2345678 0x10028fe
#define XK_braille_dots_12345678 0x10028ff
#define XK_OE 0x13bc
#define XK_oe 0x13bd
#define XK_Ydiaeresis 0x13be
#define XK_EuroSign 0x20ac
#define XK_ISO_Lock 0xfe01
#define XK_ISO_Level2_Latch 0xfe02
#define XK_ISO_Level3_Shift 0xfe03
#define XK_ISO_Level3_Latch 0xfe04
#define XK_ISO_Level3_Lock 0xfe05
#define XK_ISO_Group_Latch 0xfe06
#define XK_ISO_Group_Lock 0xfe07
#define XK_ISO_Next_Group 0xfe08
#define XK_ISO_Next_Group_Lock 0xfe09
#define XK_ISO_Prev_Group 0xfe0a
#define XK_ISO_Prev_Group_Lock 0xfe0b
#define XK_ISO_First_Group 0xfe0c
#define XK_ISO_First_Group_Lock 0xfe0d
#define XK_ISO_Last_Group 0xfe0e
#define XK_ISO_Last_Group_Lock 0xfe0f
#define XK_ISO_Level5_Shift 0xfe11
#define XK_ISO_Level5_Latch 0xfe12
#define XK_ISO_Level5_Lock 0xfe13
#define XK_ISO_Left_Tab 0xfe20
#define XK_ISO_Move_Line_Up 0xfe21
#define XK_ISO_Move_Line_Down 0xfe22
#define XK_ISO_Partial_Line_Up 0xfe23
#define XK_ISO_Partial_Line_Down 0xfe24
#define XK_ISO_Partial_Space_Left 0xfe25
#define XK_ISO_Partial_Space_Right 0xfe26
#define XK_ISO_Set_Margin_Left 0xfe27
#define XK_ISO_Set_Margin_Right 0xfe28
#define XK_ISO_Release_Margin_Left 0xfe29
#define XK_ISO_Release_Margin_Right 0xfe2a

```

```

#define XK_ISO_Release_Both_Margins      0xfe2b
#define XK_ISO_Fast_Cursor_Left 0xfe2c
#define XK_ISO_Fast_Cursor_Right 0xfe2d
#define XK_ISO_Fast_Cursor_Up 0xfe2e
#define XK_ISO_Fast_Cursor_Down 0xfe2f
#define XK_ISO_Continuous_Underline 0xfe30
#define XK_ISO_Discontinuous_Underline 0xfe31
#define XK_ISO_Emphasize 0xfe32
#define XK_ISO_Center_Object 0xfe33
#define XK_ISO_Enter 0xfe34
#define XK_dead_grave 0xfe50
#define XK_dead_acute 0xfe51
#define XK_dead_circumflex 0xfe52
#define XK_dead_tilde 0xfe53
#define XK_dead_macron 0xfe54
#define XK_dead_breve 0xfe55
#define XK_dead_abovedot 0xfe56
#define XK_dead_diaeresis 0xfe57
#define XK_dead_abovering 0xfe58
#define XK_dead_doubleacute 0xfe59
#define XK_dead_caron 0xfe5a
#define XK_dead_cedilla 0xfe5b
#define XK_dead_ogonek 0xfe5c
#define XK_dead_iota 0xfe5d
#define XK_dead_voiced_sound 0xfe5e
#define XK_dead_semivoiced_sound 0xfe5f
#define XK_dead_belowdot 0xfe60
#define XK_dead_hook 0xfe61
#define XK_dead_horn 0xfe62
#define XK_dead_stroke 0xfe63
#define XK_dead_abovecomma 0xfe64
#define XK_dead_psili 0xfe64
#define XK_dead_abovereversedcomma 0xfe65
#define XK_dead_dasia 0xfe66
#define XK_dead_belowring 0xfe67
#define XK_dead_belowmacron 0xfe68
#define XK_dead_belowcircumflex 0xfe69
#define XK_dead_belowtilde 0xfe6a
#define XK_dead_belowbreve 0xfe6b
#define XK_dead_belowdiaeresis 0xfe6c
#define XK_AccessX_Enable 0xfe70
#define XK_AccessX_Feedback_Enable 0xfe71
#define XK_RepeatKeys_Enable 0xfe72
#define XK_SlowKeys_Enable 0xfe73
#define XK_BounceKeys_Enable 0xfe74
#define XK_StickyKeys_Enable 0xfe75
#define XK_MouseKeys_Enable 0xfe76
#define XK_MouseKeys_Accel_Enable 0xfe77
#define XK_Overlay1_Enable 0xfe78
#define XK_Overlay2_Enable 0xfe79
#define XK_AudibleBell_Enable 0xfe7a
#define XK_First_Virtual_Screen 0xfed0
#define XK_Prev_Virtual_Screen 0xfed1
#define XK_Next_Virtual_Screen 0xfed2
#define XK_Last_Virtual_Screen 0xfed4
#define XK_Terminate_Server 0xfed5
#define XK_Pointer_Left 0xfee0
#define XK_Pointer_Right 0xfee1
#define XK_Pointer_Up 0xfee2
#define XK_Pointer_Down 0xfee3
#define XK_Pointer_UpLeft 0xfee4
#define XK_Pointer_UpRight 0xfee5

```

```

#define XK_Pointer_DownLeft      0xfee6
#define XK_Pointer_DownRight     0xfee7
#define XK_Pointer_Button_Dflt   0xfee8
#define XK_Pointer_Button1       0xfee9
#define XK_Pointer_Button2       0xfeea
#define XK_Pointer_Button3       0xfeeb
#define XK_Pointer_Button4       0xfeec
#define XK_Pointer_Button5       0xfeed
#define XK_Pointer_DblClick_Dflt 0xfeee
#define XK_Pointer_DblClick1     0xfeef
#define XK_Pointer_DblClick2     0xfef0
#define XK_Pointer_DblClick3     0xfef1
#define XK_Pointer_DblClick4     0xfef2
#define XK_Pointer_DblClick5     0xfef3
#define XK_Pointer_Drag_Dflt      0xfef4
#define XK_Pointer_Drag1         0xfef5
#define XK_Pointer_Drag2         0xfef6
#define XK_Pointer_Drag3         0xfef7
#define XK_Pointer_Drag4         0xfef8
#define XK_Pointer_EnableKeys    0xfef9
#define XK_Pointer_Accelerate     0xfefa
#define XK_Pointer_DfltBtnNext    0xfefb
#define XK_Pointer_DfltBtnPrev   0xfefc
#define XK_Pointer_Drag5         0xfefd
#define XK_BackSpace             0xff08
#define XK_Tab                   0xff09
#define XK_Linefeed              0xff0a
#define XK_Clear                 0xff0b
#define XK_Return                0xff0d
#define XK_Pause                 0xff13
#define XK_Scroll_Lock           0xff14
#define XK_Sys_Req               0xff15
#define XK_Escape                0xff1b
#define XK_Multi_key             0xff20
#define XK_Kanji                 0xff21
#define XK_Muhenkan              0xff22
#define XK_Henkan                0xff23
#define XK_Henkan_Mode           0xff23
#define XK_Romaji                0xff24
#define XK_Hiragana              0xff25
#define XK_Katakana              0xff26
#define XK_Hiragana_Katakana     0xff27
#define XK_Zenkaku               0xff28
#define XK_Hankaku              0xff29
#define XK_Zenkaku_Hankaku       0xff2a
#define XK_Touroku               0xff2b
#define XK_Massyo                0xff2c
#define XK_Kana_Lock             0xff2d
#define XK_Kana_Shift            0xff2e
#define XK_Eisu_Shift            0xff2f
#define XK_Eisu_toggle           0xff30
#define XK_Hangul                0xff31
#define XK_Hangul_Start          0xff32
#define XK_Hangul_End            0xff33
#define XK_Hangul_Hanja          0xff34
#define XK_Hangul_Jamo           0xff35
#define XK_Hangul_Romaja         0xff36
#define XK_Codeinput             0xff37
#define XK_Hangul_Codeinput      0xff37
#define XK_Kanji_Bangou          0xff37
#define XK_Hangul_Jeonja         0xff38
#define XK_Hangul_Banja          0xff39

```

```

#define XK_Hangul_PreHanja      0xff3a
#define XK_Hangul_PostHanja     0xff3b
#define XK_Hangul_SingleCandidate 0xff3c
#define XK_SingleCandidate      0xff3c
#define XK_Hangul_MultipleCandidate 0xff3d
#define XK_MultipleCandidate     0xff3d
#define XK_Zen_Koho             0xff3d
#define XK_Hangul_PreviousCandidate 0xff3e
#define XK_Mae_Koho             0xff3e
#define XK_PreviousCandidate     0xff3e
#define XK_Hangul_Special       0xff3f
#define XK_Home 0xff50
#define XK_Left 0xff51
#define XK_Up    0xff52
#define XK_Right 0xff53
#define XK_Down 0xff54
#define XK_Page_Up    0xff55
#define XK_Prior      0xff55
#define XK_Next 0xff56
#define XK_Page_Down  0xff56
#define XK_End 0xff57
#define XK_Begin      0xff58
#define XK_Select      0xff60
#define XK_Print       0xff61
#define XK_Execute     0xff62
#define XK_Insert      0xff63
#define XK_Undo 0xff65
#define XK_Redo 0xff66
#define XK_Menu 0xff67
#define XK_Find 0xff68
#define XK_Cancel      0xff69
#define XK_Help 0xff6a
#define XK_Break       0xff6b
#define XK_Arabic_switch 0xff7e
#define XK_Greek_switch 0xff7e
#define XK_Hangul_switch 0xff7e
#define XK_Hebrew_switch 0xff7e
#define XK_ISO_Group_Shift 0xff7e
#define XK_Mode_switch 0xff7e
#define XK_kana_switch 0xff7e
#define XK_script_switch 0xff7e
#define XK_Num_Lock     0xff7f
#define XK_KP_Space     0xff80
#define XK_KP_Tab       0xff89
#define XK_KP_Enter     0xff8d
#define XK_KP_F1        0xff91
#define XK_KP_F2        0xff92
#define XK_KP_F3        0xff93
#define XK_KP_F4        0xff94
#define XK_KP_Home      0xff95
#define XK_KP_Left      0xff96
#define XK_KP_Up        0xff97
#define XK_KP_Right     0xff98
#define XK_KP_Down      0xff99
#define XK_KP_Page_Up   0xff9a
#define XK_KP_Prior     0xff9a
#define XK_KP_Next      0xff9b
#define XK_KP_Page_Down 0xff9b
#define XK_KP_End       0xff9c
#define XK_KP_Begin     0xff9d
#define XK_KP_Insert    0xff9e
#define XK_KP_Delete    0xff9f

```

```

#define XK_KP_Multiply 0xffaa
#define XK_KP_Add      0xffab
#define XK_KP_Separator 0xffac
#define XK_KP_Subtract 0xffad
#define XK_KP_Decimal  0xffae
#define XK_KP_Divide   0xffaf
#define XK_KP_0 0xffb0
#define XK_KP_1 0xffb1
#define XK_KP_2 0xffb2
#define XK_KP_3 0xffb3
#define XK_KP_4 0xffb4
#define XK_KP_5 0xffb5
#define XK_KP_6 0xffb6
#define XK_KP_7 0xffb7
#define XK_KP_8 0xffb8
#define XK_KP_9 0xffb9
#define XK_KP_Equal 0xffbd
#define XK_F1 0xffbe
#define XK_F2 0xffbf
#define XK_F3 0xffc0
#define XK_F4 0xffc1
#define XK_F5 0xffc2
#define XK_F6 0xffc3
#define XK_F7 0xffc4
#define XK_F8 0xffc5
#define XK_F9 0xffc6
#define XK_F10 0xffc7
#define XK_F11 0xffc8
#define XK_L1 0xffc8
#define XK_F12 0xffc9
#define XK_L2 0xffc9
#define XK_F13 0xffca
#define XK_L3 0xffca
#define XK_F14 0xffcb
#define XK_L4 0xffcb
#define XK_F15 0xffcc
#define XK_L5 0xffcc
#define XK_F16 0xffcd
#define XK_L6 0xffcd
#define XK_F17 0xffce
#define XK_L7 0xffce
#define XK_F18 0xffcf
#define XK_L8 0xffcf
#define XK_F19 0xffd0
#define XK_L9 0xffd0
#define XK_F20 0xffd1
#define XK_L10 0xffd1
#define XK_F21 0xffd2
#define XK_R1 0xffd2
#define XK_F22 0xffd3
#define XK_R2 0xffd3
#define XK_F23 0xffd4
#define XK_R3 0xffd4
#define XK_F24 0xffd5
#define XK_R4 0xffd5
#define XK_F25 0xffd6
#define XK_R5 0xffd6
#define XK_F26 0xffd7
#define XK_R6 0xffd7
#define XK_F27 0xffd8
#define XK_R7 0xffd8
#define XK_F28 0xffd9

```

```

#define XK_R8      0xffd9
#define XK_F29     0xffda
#define XK_R9      0xffda
#define XK_F30     0xffdb
#define XK_R10     0xffdb
#define XK_F31     0xffdc
#define XK_R11     0xffdc
#define XK_F32     0xffdd
#define XK_R12     0xffdd
#define XK_F33     0xffde
#define XK_R13     0xffde
#define XK_F34     0xffdf
#define XK_R14     0xffdf
#define XK_F35     0xffe0
#define XK_R15     0xffe0
#define XK_Shift_L 0xffe1
#define XK_Shift_R 0xffe2
#define XK_Control_L 0xffe3
#define XK_Control_R 0xffe4
#define XK_Caps_Lock 0xffe5
#define XK_Shift_Lock 0xffe6
#define XK_Meta_L 0xffe7
#define XK_Meta_R 0xffe8
#define XK_Alt_L 0xffe9
#define XK_Alt_R 0xffea
#define XK_Super_L 0xffeb
#define XK_Super_R 0xffec
#define XK_Hyper_L 0xffed
#define XK_Hyper_R 0xffee
#define XK_braille_dot_1 0xffff1
#define XK_braille_dot_2 0xffff2
#define XK_braille_dot_3 0xffff3
#define XK_braille_dot_4 0xffff4
#define XK_braille_dot_5 0xffff5
#define XK_braille_dot_6 0xffff6
#define XK_braille_dot_7 0xffff7
#define XK_braille_dot_8 0xffff8
#define XK_braille_dot_9 0xffff9
#define XK_braille_dot_10 0xffffa
#define XK_Delete 0xfffff
#define XK_VoidSymbol 0xfffffff /* Void symbol */

```

6.3. Interface Definitions for libX11

The interfaces defined on the following pages are included in libX11 and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 6.1](#) shall behave as described in the referenced base document.

6.4. Interfaces for libSM

[Table 6-3](#) defines the library name and shared object name for the libSM library

Table 6-3. libSM Definition

Library:	libSM
SONAME:	libSM.so.6

The behavior of the interfaces in this library is specified by the following specifications:

[XSM] [X11 Session Management](#)

6.4.1. Session Management Functions

6.4.1.1. Interfaces for Session Management Functions

An LSB conforming implementation shall provide the generic functions for Session Management Functions specified in [Table 6-4](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-4. libSM - Session Management Functions Function Interfaces

SmFreeProperty [XSM]	SmFreeReasons [XSM]	SmcClientID [XSM]	SmcCloseConnection [XSM]
SmcDeleteProperties [XSM]	SmcGetIceConnection [XSM]	SmcGetProperties [XSM]	SmcInteractDone [XSM]
SmcInteractRequest [XSM]	SmcModifyCallbacks [XSM]	SmcOpenConnection [XSM]	SmcProtocolRevision [XSM]
SmcProtocolVersion [XSM]	SmcRelease [XSM]	SmcRequestSaveYourself [XSM]	SmcRequestSaveYourselfPhase2 [XSM]
SmcSaveYourselfDone [XSM]	SmcSetErrorHandler [XSM]	SmcSetProperties [XSM]	SmcVendor [XSM]
SmsCleanUp [XSM]	SmsClientHostName [XSM]	SmsClientID [XSM]	SmsDie [XSM]
SmsGenerateClientID [XSM]	SmsGetIceConnection [XSM]	SmsInitialize [XSM]	SmsInteract [XSM]
SmsProtocolRevision [XSM]	SmsProtocolVersion [XSM]	SmsRegisterClientReply [XSM]	SmsReturnProperties [XSM]
SmsSaveComplete [XSM]	SmsSaveYourself [XSM]	SmsSaveYourselfPhase2 [XSM]	SmsSetErrorHandler [XSM]
SmsShutdownCancelled [XSM]			

6.5. Data Definitions for libSM

This section defines global identifiers and their values that are associated with interfaces contained in libSM. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an

interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the ISO C (1999) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.5.1. X11/SM/SM.h

```
#define SM_Error 0
#define SmDialogError 0
#define SmInteractStyleNone 0
#define SmProtoMinor 0
#define SmRestartIfRunning 0
#define SmSaveGlobal 0
#define SM_RegisterClient 1
#define SmDialogNormal 1
#define SmInteractStyleErrors 1
#define SmProtoMajor 1
#define SmRestartAnyway 1
#define SmSaveLocal 1
#define SM_ShutdownCancelled 10
#define SM_CloseConnection 11
#define SM_SetProperties 12
#define SM_DeleteProperties 13
#define SM_GetProperties 14
#define SM_PropertiesReply 15
#define SM_SaveYourselfPhase2Request 16
#define SM_SaveYourselfPhase2 17
#define SM_SaveComplete 18
#define SM_RegisterClientReply 2
#define SmInteractStyleAny 2
#define SmRestartImmediately 2
#define SmSaveBoth 2
#define SM_SaveYourself 3
#define SmRestartNever 3
#define SM_SaveYourselfRequest 4
#define SM_InteractRequest 5
#define SM_Interact 6
#define SM_InteractDone 7
#define SM_SaveYourselfDone 8
#define SM_Die 9
#define SmARRAY8 "ARRAY8"
#define SmCARD8 "CARD8"
#define SmCloneCommand "CloneCommand"
#define SmCurrentDirectory "CurrentDirectory"
#define SmDiscardCommand "DiscardCommand"
#define SmEnvironment "Environment"
#define SmLISTOfARRAY8 "LISTOfARRAY8"
#define SmProcessID "ProcessID"
#define SmProgram "Program"
#define SmResignCommand "ResignCommand"
#define SmRestartCommand "RestartCommand"
#define SmRestartStyleHint "RestartStyleHint"
#define SmShutdownCommand "ShutdownCommand"
```



```
#define SmUserID "UserID"
```

6.5.2. X11/SM/SMlib.h

```
#define SmcSaveYourselfProcMask (1L << 0)
#define SmsRegisterClientProcMask (1L << 0)
#define SmcDieProcMask (1L << 1)
#define SmsInteractRequestProcMask (1L << 1)
#define SmcSaveCompleteProcMask (1L << 2)
#define SmsInteractDoneProcMask (1L << 2)
#define SmcShutdownCancelledProcMask (1L << 3)
#define SmsSaveYourselfRequestProcMask (1L << 3)
#define SmsSaveYourselfP2RequestProcMask (1L << 4)
#define SmsSaveYourselfDoneProcMask (1L << 5)
#define SmsCloseConnectionProcMask (1L << 6)
#define SmsSetPropertiesProcMask (1L << 7)
#define SmsDeletePropertiesProcMask (1L << 8)
#define SmsGetPropertiesProcMask (1L << 9)

typedef void *SmPointer;
typedef struct {
    int length;
    SmPointer value;
} SmPropValue;
typedef struct {
    char *name;
    char *type;
    int num_vals;
    SmPropValue *vals;
} SmProp;
struct _SmcConn;
typedef struct _SmcConn *SmcConn;
typedef void (*SmcSaveYourselfProc) (SmcConn, SmPointer, int, int, int,
                                     int);
typedef void (*SmcDieProc) (SmcConn, SmPointer);
typedef void (*SmcSaveCompleteProc) (SmcConn, SmPointer);
typedef void (*SmcShutdownCancelledProc) (SmcConn, SmPointer);
typedef struct {
    struct {
        SmcSaveYourselfProc callback;
        SmPointer client_data;
    } save_yourself;
    struct {
        SmcDieProc callback;
        SmPointer client_data;
    } die;
    struct {
        SmcSaveCompleteProc callback;
        SmPointer client_data;
    } save_complete;
    struct {
        SmcShutdownCancelledProc callback;
        SmPointer client_data;
    } shutdown_cancelled;
} SmcCallbacks;
struct _SmsConn;
typedef struct _SmsConn *SmsConn;
typedef void (*SmsErrorHandler) (SmsConn, int, int, long unsigned int, int,
                                 int, SmPointer);
typedef void (*SmcErrorHandler) (SmcConn, int, int, long unsigned int, int,
                                 int, SmPointer);
```

```

typedef int (*SmsRegisterClientProc) (SmsConn, SmPointer, char *);
typedef void (*SmsInteractRequestProc) (SmsConn, SmPointer, int);
typedef void (*SmsInteractDoneProc) (SmsConn, SmPointer, int);
typedef void (*SmsSaveYourselfRequestProc) (SmsConn, SmPointer, int, int,
                                             int, int, int);
typedef void (*SmsSaveYourselfPhase2RequestProc) (SmsConn, SmPointer);
typedef void (*SmsSaveYourselfDoneProc) (SmsConn, SmPointer, int);
typedef void (*SmsCloseConnectionProc) (SmsConn, SmPointer, int, char **);
typedef void (*SmsSetPropertiesProc) (SmsConn, SmPointer, int, SmProp * *);
typedef void (*SmsDeletePropertiesProc) (SmsConn, SmPointer, int, char **);
typedef void (*SmsGetPropertiesProc) (SmsConn, SmPointer);
typedef struct {
    struct {
        SmsRegisterClientProc callback;
        SmPointer manager_data;
    } register_client;
    struct {
        SmsInteractRequestProc callback;
        SmPointer manager_data;
    } interact_request;
    struct {
        SmsInteractDoneProc callback;
        SmPointer manager_data;
    } interact_done;
    struct {
        SmsSaveYourselfRequestProc callback;
        SmPointer manager_data;
    } save_yourself_request;
    struct {
        SmsSaveYourselfPhase2RequestProc callback;
        SmPointer manager_data;
    } save_yourself_phase2_request;
    struct {
        SmsSaveYourselfDoneProc callback;
        SmPointer manager_data;
    } save_yourself_done;
    struct {
        SmsCloseConnectionProc callback;
        SmPointer manager_data;
    } close_connection;
    struct {
        SmsSetPropertiesProc callback;
        SmPointer manager_data;
    } set_properties;
    struct {
        SmsDeletePropertiesProc callback;
        SmPointer manager_data;
    } delete_properties;
    struct {
        SmsGetPropertiesProc callback;
        SmPointer manager_data;
    } get_properties;
} SmsCallbacks;
typedef int (*SmsNewClientProc) (SmsConn, SmPointer, long unsigned int *,
                                 SmsCallbacks *, char **);
typedef void (*SmcPropReplyProc) (SmcConn, SmPointer, int, SmProp * *);
typedef void (*SmcInteractProc) (SmcConn, SmPointer);
typedef void (*SmcSaveYourselfPhase2Proc) (SmcConn, SmPointer);
typedef enum {
    SmcClosedNow = 0,
    SmcClosedASAP = 1,
    SmcConnectionInUse = 2
}

```

```

} SmcCloseStatus;
extern void SmFreeProperty(SmProp *);
extern void SmFreeReasons(int, char **);
extern char *SmcClientID(SmcConn);
extern SmcCloseStatus SmcCloseConnection(SmcConn, int, char **);
extern void SmcDeleteProperties(SmcConn, int, char **);
extern IceConn SmcGetIceConnection(SmcConn);
extern int SmcGetProperties(SmcConn, SmcPropReplyProc, SmPointer);
extern void SmcInteractDone(SmcConn, int);
extern int SmcInteractRequest(SmcConn, int, SmcInteractProc, SmPointer);
extern void SmcModifyCallbacks(SmcConn, long unsigned int, SmCallbacks *);
extern SmcConn SmcOpenConnection(char *, SmPointer, int, int,
                                long unsigned int, SmCallbacks *, char *,
                                char **, int, char *);
extern int SmcProtocolRevision(SmcConn);
extern int SmcProtocolVersion(SmcConn);
extern char *SmcRelease(SmcConn);
extern void SmcRequestSaveYourself(SmcConn, int, int, int, int, int);
extern int SmcRequestSaveYourselfPhase2(SmcConn, SmcSaveYourselfPhase2Proc,
                                         SmPointer);
extern void SmcSaveYourselfDone(SmcConn, int);
extern SmcErrorHandler SmcSetErrorHandler(SmcErrorHandler);
extern void SmcSetProperties(SmcConn, int, SmProp * *);
extern char *SmcVendor(SmcConn);
extern void SmsCleanUp(SmsConn);
extern char *SmsClientHostName(SmsConn);
extern char *SmsClientID(SmsConn);
extern void SmsDie(SmsConn);
extern char *SmsGenerateClientID(SmsConn);
extern IceConn SmsGetIceConnection(SmsConn);
extern int SmsInitialize(char *, char *, SmsNewClientProc, SmPointer,
                        IceHostBasedAuthProc, int, char *);
extern void SmsInteract(SmsConn);
extern int SmsProtocolRevision(SmsConn);
extern int SmsProtocolVersion(SmsConn);
extern int SmsRegisterClientReply(SmsConn, char *);
extern void SmsReturnProperties(SmsConn, int, SmProp * *);
extern void SmsSaveComplete(SmsConn);
extern void SmsSaveYourself(SmsConn, int, int, int, int);
extern void SmsSaveYourselfPhase2(SmsConn);
extern SmsErrorHandler SmsSetErrorHandler(SmsErrorHandler);
extern void SmsShutdownCancelled(SmsConn);

```

6.5.3. X11/SM/SMproto.h

```

#define sz_smSaveYourselfMsg      16
#define sz_smSaveYourselfRequestMsg 16
#define sz_smCloseConnectionMsg  8
#define sz_smDeletePropertiesMsg  8
#define sz_smDieMsg              8
#define sz_smGetPropertiesMsg     8
#define sz_smInteractDoneMsg     8
#define sz_smInteractMsg         8
#define sz_smInteractRequestMsg  8
#define sz_smPropertiesReplyMsg   8
#define sz_smRegisterClientMsg   8
#define sz_smRegisterClientReplyMsg 8
#define sz_smSaveCompleteMsg     8
#define sz_smSaveYourselfDoneMsg 8
#define sz_smSaveYourselfPhase2Msg 8
#define sz_smSaveYourselfPhase2RequestMsg 8

```

```
#define sz_smSetPropertiesMsg      8
#define sz_smShutdownCancelledMsg 8
```

6.6. Interfaces for libICE

[Table 6-5](#) defines the library name and shared object name for the libICE library

Table 6-5. libICE Definition

Library:	libICE
SONAME:	libICE.so.6

The behavior of the interfaces in this library is specified by the following specifications:

[LSB] [This Specification](#)

[XICE] [X11 Inter-Client Exchange](#)

6.6.1. ICE Functions

6.6.1.1. Interfaces for ICE Functions

An LSB conforming implementation shall provide the generic functions for ICE Functions specified in [Table 6-6](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-6. libICE - ICE Functions Function Interfaces

IceAcceptConnection [XICE]	IceAddConnectionWatch [XICE]	IceAllocScratch [XICE]	IceAppLockConn [XICE]
IceAppUnlockConn [XICE]	IceAuthFileName [XICE]	IceCheckShutdownNegotiation [XICE]	IceCloseConn [XICE]
IceComposeNetworkIdList [XICE]	IceConnectionNumber [XICE]	IceConnectionStatus [XICE]	IceConnectionS [XICE]
IceFlush [XICE]	IceFreeAuthFileEntry [XICE]	IceFreeListenObjs [XICE]	IceGenerateMag [XICE]
IceGetAuthFileEntry [XICE]	IceGetConnectionContext [XICE]	IceGetInBufSize [XICE]	IceGetListenCon [XICE]
IceGetListenConnectionString [XICE]	IceGetOutBufSize [XICE]	IceInitThreads [XICE]	IceLastReceived [XICE]
IceLastSentSequenceNumber [XICE]	IceListenForConnections [XICE]	IceListenForWellKnownConnections [XICE]	IceLockAuthFil [XICE]
IceOpenConnection [XICE]	IcePing [XICE]	IceProcessMessages [XICE]	IceProtocolRevi [XICE]
IceProtocolSetup [XICE]		IceProtocolVersion [XICE]	IceReadAuthFil [XICE]

	IceProtocolShutdown [XICE]		
IceRegisterForProtocolReply [XICE]	IceRegisterForProtocolSetup [XICE]	IceRelease [XICE]	IceRemoveConn [XICE]
IceSetErrorHandler [XICE]	IceSetHostBasedAuthProc [XICE]	IceSetIOErrorHandler [XICE]	IceSetPaAuthDa
IceSetShutdownNegotiation [XICE]	IceSwapping [XICE]	IceUnlockAuthFile [XICE]	IceVendor [XIC
IceWriteAuthFileEntry [XICE]	_IceRead [LSB]	_IceReadSkip [LSB]	_IceWrite [LSB

An LSB conforming implementation shall provide the generic deprecated functions for ICE Functions specified in [Table 6-7](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 6-7. libICE - ICE Functions Deprecated Function Interfaces

IceAppLockConn [XICE]	IceAppUnlockConn [XICE]	IceInitThreads [XICE]	

6.7. Data Definitions for libICE

This section defines global identifiers and their values that are associated with interfaces contained in libICE. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.7.1. X11/ICE/ICE.h

```
#define ICE_Error      0
#define IceBadMajor    0
#define IceCanContinue 0
#define IceLSBfirst    0
#define IceProtoMinor  0
#define IceBadMinor    0x8000
#define IceBadState    0x8001
```

```

#define IceBadLength      0x8002
#define IceBadValue       0x8003
#define ICE_ByteOrder     1
#define IceFatalToProtocol 1
#define IceMSBfirst       1
#define IceNoAuth         1
#define IceProtoMajor     1
#define ICE_PingReply     10
#define ICE_WantToClose   11
#define ICE_NoClose       12
#define ICE_ConnectionSetup 2
#define IceFatalToConnection 2
#define IceNoVersion      2
#define ICE_AuthRequired   3
#define IceSetupFailed     3
#define ICE_AuthReply      4
#define IceAuthRejected    4
#define ICE_AuthNextPhase  5
#define IceAuthFailed      5
#define ICE_ConnectionReply 6
#define IceProtocolDuplicate 6
#define ICE_ProtocolSetup  7
#define IceMajorOpcodeDuplicate 7
#define ICE_ProtocolReply  8
#define IceUnknownProtocol 8
#define ICE_Ping           9

```

6.7.2. X11/ICE/ICEconn.h

```

struct _XtransConnInfo;
typedef struct {
    char *vendor;
    char *release;
    int version_count;
    IcePoVersionRec *version_recs;
    int auth_count;
    char **auth_names;
    IcePoAuthProc *auth_procs;
    IceIOErrorProc io_error_proc;
} _IcePoProtocol;
typedef struct {
    char *vendor;
    char *release;
    int version_count;
    IcePaVersionRec *version_recs;
    IceProtocolSetupProc protocol_setup_proc;
    IceProtocolActivateProc protocol_activate_proc;
    int auth_count;
    char **auth_names;
    IcePaAuthProc *auth_procs;
    IceHostBasedAuthProc host_based_auth_proc;
    IceIOErrorProc io_error_proc;
} _IcePaProtocol;
typedef struct {
    char *protocol_name;
    _IcePoProtocol *orig_client;
    _IcePaProtocol *accept_client;
} _IceProtocol;
typedef struct {
    int in_use;
    int my_opcode;

```

```

_IceProtocol *protocol;
IcePointer client_data;
int accept_flag;
union {
    IcePaProcessMsgProc accept_client;
    IcePoProcessMsgProc orig_client;
} process_msg_proc;
} _IceProcessMsgInfo;
typedef struct _IceSavedReplyWait {
    IceReplyWaitInfo *reply_wait;
    int reply_ready;
    _IceSavedReplyWait *next;
} _IceSavedReplyWait;
typedef struct _IcePingWait {
    IcePingReplyProc ping_reply_proc;
    IcePointer client_data;
    _IcePingWait *next;
} _IcePingWait;
typedef struct {
    int auth_active;
    char my_auth_index;
    IcePointer my_auth_state;
} _IceConnectToYouInfo;
typedef struct {
    int my_opcode;
    int my_auth_count;
    int *my_auth_indices;
    int auth_active;
    char my_auth_index;
    IcePointer my_auth_state;
} _IceProtoSetupToYouInfo;
typedef struct {
    int his_version_index;
    int my_version_index;
    char *his_vendor;
    char *his_release;
    char my_auth_index;
    IcePointer my_auth_state;
    int must_authenticate;
} _IceConnectToMeInfo;
typedef struct {
    int his_opcode;
    int my_opcode;
    int his_version_index;
    int my_version_index;
    char *his_vendor;
    char *his_release;
    char my_auth_index;
    IcePointer my_auth_state;
    int must_authenticate;
} _IceProtoSetupToMeInfo;
struct _IceConn {
    unsigned int io_ok:1;
    unsigned int swap:1;
    unsigned int waiting_for_byteorder:1;
    unsigned int skip_want_to_close:1;
    unsigned int want_to_close:1;
    unsigned int free_asap:1;
    unsigned int unused1:2;
    unsigned int unused2:8;
    IceConnectStatus connection_status;
    unsigned char my_ice_version_index;

```

```

struct _XtransConnInfo *trans_conn;
long unsigned int send_sequence;
long unsigned int receive_sequence;
char *connection_string;
char *vendor;
char *release;
char *inbuf;
char *inbufptr;
char *inbufmax;
char *outbuf;
char *outbufptr;
char *outbufmax;
char *scratch;
long unsigned int scratch_size;
int dispatch_level;
IcePointer context;
_IceProcessMsgInfo *process_msg_info;
char his_min_opcode;
char his_max_opcode;
unsigned char open_ref_count;
unsigned char proto_ref_count;
IceListenObj listen_obj;
_IceSavedReplyWait *saved_reply_waits;
_IcePingWait *ping_waits;
_IceConnectToYouInfo *connect_to_you;
_IceProtoSetupToYouInfo *protosetup_to_you;
_IceConnectToMeInfo *connect_to_me;
_IceProtoSetupToMeInfo *protosetup_to_me;
};

```

6.7.3. X11/ICE/ICElib.h

```

typedef void *IcePointer;
typedef struct _IceConn *IceConn;
typedef void (*IcePaProcessMsgProc) (IceConn, IcePointer, int,
                                     long unsigned int, int);

typedef struct {
    int major_version;
    int minor_version;
    IcePaProcessMsgProc process_msg_proc;
} IcePaVersionRec;
typedef struct {
    long unsigned int sequence_of_request;
    int major_opcode_of_request;
    int minor_opcode_of_request;
    IcePointer reply;
} IceReplyWaitInfo;
typedef void (*IcePoProcessMsgProc) (IceConn, IcePointer, int,
                                     long unsigned int, int,
                                     IceReplyWaitInfo *, int *);

typedef struct {
    int major_version;
    int minor_version;
    IcePoProcessMsgProc process_msg_proc;
} IcePoVersionRec;
typedef IcePoAuthStatus (*IcePoAuthProc) (IceConn, IcePointer *, int, int,
                                           int, IcePointer, int *,
                                           IcePointer *, char **);
typedef IcePaAuthStatus (*IcePaAuthProc) (IceConn, IcePointer *, int, int,
                                           IcePointer, int *, IcePointer *,
                                           char **);

```



```

typedef enum {
    IceAcceptSuccess = 0,
    IceAcceptFailure = 1,
    IceAcceptBadMalloc = 2
} IceAcceptStatus;
struct _IceListenObj;
typedef struct _IceListenObj *IceListenObj;
typedef enum {
    IceConnectPending = 0,
    IceConnectAccepted = 1,
    IceConnectRejected = 2,
    IceConnectIOError = 3
} IceConnectStatus;
typedef void (*IceIOErrorProc) (IceConn);
typedef int (*IceProtocolSetupProc) (IceConn, int, int, char *, char *,
                                     IcePointer *, char **);
typedef void (*IceProtocolActivateProc) (IceConn, IcePointer);
typedef int (*IceHostBasedAuthProc) (char *);
typedef void (*IcePingReplyProc) (IceConn, IcePointer);
typedef enum {
    IceProcessMessagesSuccess = 0,
    IceProcessMessagesIOError = 1,
    IceProcessMessagesConnectionClosed = 2
} IceProcessMessagesStatus;
typedef enum {
    IceClosedNow = 0,
    IceClosedASAP = 1,
    IceConnectionInUse = 2,
    IceStartedShutdownNegotiation = 3
} IceCloseStatus;
typedef enum {
    IceProtocolSetupSuccess = 0,
    IceProtocolSetupFailure = 1,
    IceProtocolSetupIOError = 2,
    IceProtocolAlreadyActive = 3
} IceProtocolSetupStatus;
typedef void (*IceWatchProc) (IceConn, IcePointer, int, IcePointer *);
typedef void (*IceIOErrorHandler) (IceConn);
typedef void (*IceErrorHandler) (IceConn, int, int, long unsigned int, int,
                                 int, IcePointer);
typedef enum {
    IcePoAuthHaveReply,
    IcePoAuthRejected,
    IcePoAuthFailed,
    IcePoAuthDoneCleanup
} IcePoAuthStatus;
typedef enum {
    IcePaAuthContinue,
    IcePaAuthAccepted,
    IcePaAuthRejected,
    IcePaAuthFailed
} IcePaAuthStatus;
extern IceConn IceAcceptConnection(IceListenObj, IceAcceptStatus *);
extern int IceAddConnectionWatch(IceWatchProc, IcePointer);
extern char *IceAllocScratch(IceConn, long unsigned int);
extern void IceAppLockConn(IceConn);
extern void IceAppUnlockConn(IceConn);
extern int IceCheckShutdownNegotiation(IceConn);
extern IceCloseStatus IceCloseConnection(IceConn);
extern char *IceComposeNetworkIdList(int, IceListenObj *);
extern int IceConnectionNumber(IceConn);
extern IceConnectStatus IceConnectionStatus(IceConn);

```

```

extern char *IceConnectionString(IceConn);
extern int IceFlush(IceConn);
extern void IceFreeListenObjs(int, IceListenObj *);
extern IcePointer IceGetConnectionContext(IceConn);
extern int IceGetInBufSize(IceConn);
extern int IceGetListenConnectionNumber(IceListenObj);
extern char *IceGetListenConnectionString(IceListenObj);
extern int IceGetOutBufSize(IceConn);
extern int IceInitThreads(void);
extern long unsigned int IceLastReceivedSequenceNumber(IceConn);
extern long unsigned int IceLastSentSequenceNumber(IceConn);
extern int IceListenForConnections(int *, IceListenObj **, int, char *);
extern int IceListenForWellKnownConnections(char *, int *,
                                             IceListenObj **, int, char *);
extern IceConn IceOpenConnection(char *, IcePointer, int, int, int,
                                 char *);
extern int IcePing(IceConn, IcePingReplyProc, IcePointer);
extern IceProcessMessagesStatus IceProcessMessages(IceConn,
                                                    IceReplyWaitInfo *,
                                                    int *);
extern int IceProtocolRevision(IceConn);
extern IceProtocolSetupStatus IceProtocolSetup(IceConn, int, IcePointer,
                                              int, int *, int *, char **,
                                              char **, int, char *);
extern int IceProtocolShutdown(IceConn, int);
extern int IceProtocolVersion(IceConn);
extern int IceRegisterForProtocolReply(char *, char *, char *, int,
                                       IcePaVersionRec *, int,
                                       const char **, IcePaAuthProc *,
                                       IceHostBasedAuthProc,
                                       IceProtocolSetupProc,
                                       IceProtocolActivateProc,
                                       IceIOErrorProc);
extern int IceRegisterForProtocolSetup(char *, char *, char *, int,
                                       IcePoVersionRec *, int,
                                       const char **, IcePoAuthProc *,
                                       IceIOErrorProc);
extern char *IceRelease(IceConn);
extern void IceRemoveConnectionWatch(IceWatchProc, IcePointer);
extern IceErrorHandler IceSetErrorHandler(IceErrorHandler);
extern void IceSetHostBasedAuthProc(IceListenObj, IceHostBasedAuthProc);
extern IceIOErrorHandler IceSetIOErrorHandler(IceIOErrorHandler);
extern void IceSetShutdownNegotiation(IceConn, int);
extern int IceSwapping(IceConn);
extern char *IceVendor(IceConn);

```

6.7.4. X11/ICE/ICEmsg.h

```

#define IceWriteData16(_iceConn, _bytes, _data) IceWriteData (_iceConn, _bytes, (char *) _data)
#define IceWriteData32(_iceConn, _bytes, _data) IceWriteData (_iceConn, _bytes, (char *) _data)
#define IceDisposeCompleteMessage(_iceConn, _pData) if ((char *) _pData < _iceConn->inbuf ||
    free ((char *) _pData);
#define IceGetHeaderExtra(_iceConn, _major, _minor, _headerSize, _extra, _msgType, _pMsg, _pData) i
    _pMsg = (_msgType *) _iceConn->outbufptr; \
    if ((_iceConn->outbufptr + _headerSize + ((_extra) << 3)) <= _iceConn->outbufmax) _pData = (char
    else _pData = ((void *)0); \
    _pMsg->majorOpcode = _major; \
    _pMsg->minorOpcode = _minor; \
    _pMsg->length = ((_headerSize - SIZEOF (iceMsg)) >> 3) + (_extra); \
    _iceConn->outbufptr += (_headerSize + ((_extra) << 3)); \
    _iceConn->send_sequence++

```

```

#define IceGetHeader(_iceConn, _major, _minor, _headerSize, _msgType, _pMsg) if ((_iceConn->outbufptr +
    _pMsg = (_msgType *) _iceConn->outbufptr;\
    _pMsg->majorOpcode = _major;\
    _pMsg->minorOpcode = _minor;\
    _pMsg->length = (_headerSize - SIZEOF (iceMsg)) >> 3;\
    _iceConn->outbufptr += _headerSize;\
    _iceConn->send_sequence++
#define IceValidIO(_iceConn)      _iceConn->io_ok
#define IceReadData(_iceConn, _bytes, _pData)      _IceRead (_iceConn, (unsigned long) (_bytes), (ch
#define IceReadSimpleMessage(_iceConn, _msgType, _pMsg)  _pMsg = (_msgType *) (_iceConn->inbuf);
#define IceReadPad(_iceConn, _bytes)      { char _dummy[7]; _IceRead (_iceConn, (unsigned long) (_b
#define IceErrorHandler(_iceConn, _offendingMajorOpcode, _offendingMinorOpcode, _offendingSequenceNum
    IceGetHeader (_iceConn, _offendingMajorOpcode, ICE_Error, SIZEOF (iceErrorMsg), iceErrorMsg, _pM
    _pMsg->length += (_dataLength);\
    _pMsg->offendingMinorOpcode = _offendingMinorOpcode;\
    _pMsg->severity = _severity;\
    _pMsg->offendingSequenceNum = _offendingSequenceNum;\
    _pMsg->errorClass = _errorClass;\
}
#define IceSimpleMessage(_iceConn, _major, _minor)      { iceMsg *_pMsg; IceGetHeader (_iceConn,
#define IceWritePad(_iceConn, _bytes)      { if ((_iceConn->outbufptr + (_bytes)) > _iceConn->outbuf
    IceFlush (_iceConn);\
    _IceWrite (_iceConn, (unsigned long) (_bytes), _dummy);\
} else { _iceConn->outbufptr += (_bytes);\
} }
#define IceWriteData(_iceConn, _bytes, _data)      { if ((_iceConn->outbufptr + (_bytes)) > _iceConn
    _IceWrite (_iceConn, (unsigned long) (_bytes), _data);\
} else { memcpy (_iceConn->outbufptr, _data, _bytes);\
    _iceConn->outbufptr += (_bytes);\
} }
#define IceSendData(_iceConn, _bytes, _data)      { if (_iceConn->outbufptr > _iceConn->outbuf) Ice
    _IceWrite (_iceConn, (unsigned long) (_bytes), _data);\
}
#define IceReadCompleteMessage(_iceConn, _headerSize, _msgType, _pMsg, _pData)      { \
    unsigned long _bytes; \
    IceReadMessageHeader (_iceConn, _headerSize, _msgType, _pMsg); \
    _bytes = (_pMsg->length << 3) - (_headerSize - SIZEOF (iceMsg)); \
    if ((_iceConn->inbufmax - _iceConn->inbufptr) >= _bytes) \
    { \
        _IceRead (_iceConn, _bytes, _iceConn->inbufptr); \
        _pData = _iceConn->inbufptr; \
        _iceConn->inbufptr += _bytes; \
    } \
    else \
    { \
        _pData = (char *) malloc ((unsigned) _bytes); \
        if (_pData) \
            _IceRead (_iceConn, _bytes, _pData); \
        else \
            _IceReadSkip (_iceConn, _bytes); \
    } \
}
#define IceReadData16(_iceConn, _swap, _bytes, _pData)      { _IceRead (_iceConn, (unsigned long) (_b
#define IceReadData32(_iceConn, _swap, _bytes, _pData)      { _IceRead (_iceConn, (unsigned long) (_b
#define IceReadMessageHeader(_iceConn, _headerSize, _msgType, _pMsg)      { _IceRead (_iceConn, (un
    _pMsg = (_msgType *) (_iceConn->inbuf);\
    _iceConn->inbufptr += (_headerSize - SIZEOF (iceMsg));\
}

extern int _IceRead(IceConn, unsigned long int, char *);
extern void _IceReadSkip(IceConn, unsigned long int);
extern void _IceWrite(IceConn, unsigned long int, char *);

```

6.7.5. X11/ICE/ICEproto.h

```
#define sz_iceAuthNextPhaseMsg 16
#define sz_iceAuthReplyMsg 16
#define sz_iceAuthRequiredMsg 16
#define sz_iceConnectionSetupMsg 16
#define sz_iceErrorMsg 16
#define sz_iceProtocolSetupMsg 16
#define sz_iceByteOrderMsg 8
#define sz_iceConnectionReplyMsg 8
#define sz_iceMsg 8
#define sz_iceNoCloseMsg 8
#define sz_icePingMsg 8
#define sz_icePingReplyMsg 8
#define sz_iceProtocolReplyMsg 8
#define sz_iceWantToCloseMsg 8

typedef iceErrorMsg icePingMsg;
typedef iceErrorMsg icePingReplyMsg;
typedef iceErrorMsg iceWantToCloseMsg;
typedef iceErrorMsg iceNoCloseMsg;
```

6.7.6. X11/ICE/ICEutil.h

```
#define IceAuthLockSuccess 0
#define IceAuthLockError 1
#define IceAuthLockTimeout 2

typedef struct {
    char *protocol_name;
    char *network_id;
    char *auth_name;
    short unsigned int auth_data_length;
    char *auth_data;
} IceAuthDataEntry;
typedef struct {
    char *protocol_name;
    short unsigned int protocol_data_length;
    char *protocol_data;
    char *network_id;
    char *auth_name;
    short unsigned int auth_data_length;
    char *auth_data;
} IceAuthFileEntry;
extern char *IceAuthFileName(void);
extern void IceFreeAuthFileEntry(IceAuthFileEntry *);
extern char *IceGenerateMagicCookie(int);
extern IceAuthFileEntry *IceGetAuthFileEntry(char *, char *, char *);
extern int IceLockAuthFile(char *, int, int, long int);
extern IceAuthFileEntry *IceReadAuthFileEntry(FILE *);
extern void IceSetPaAuthData(int, IceAuthDataEntry *);
extern void IceUnlockAuthFile(char *);
extern int IceWriteAuthFileEntry(FILE *, IceAuthFileEntry *);
```

6.8. Interface Definitions for libICE

Table of Contents

IceRead -- read the specified number of bytes from an ICE connection

IceReadSkip -- advance to the end of the message when a bad header is read

IceWrite -- write the specified number of bytes of data to an ICE connection

The interfaces defined on the following pages are included in libICE and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 6.6](#) shall behave as described in the referenced base document.

_IceRead

Name

`_IceRead` -- read the specified number of bytes from an ICE connection

Synopsis

```
#include <X11/ICE/ICEmsg.h>
int _IceRead(IceConn iceConn, unsigned long int nbytes, char * ptr);
```

Description

The interface `_IceRead()` shall read the specified number of bytes from an Inter-Client Exchange connection.

The parameter *iceConn* shall specify the Inter-Client Exchange connection.

The parameter *nbytes* shall specify the number of bytes to read.

The output parameter *ptr* shall contain the data that was read.

Return Value

`_IceRead()` shall return 0 if it detects that the connection has closed and this was expected.

In the case of a fatal I/O error, `_IceRead()` shall return 1.

See Also

`_IceReadSkip()`, `_IceWrite()`.

_IceReadSkip

Name

_IceReadSkip -- advance to the end of the message when a bad header is read

Synopsis

```
#include <X11/ICE/ICEmsg.h>
void _IceReadSkip(IceConn iceConn, unsigned long int nbytes);
```

Description

The interface `_IceReadSkip()` shall advance to the end of the message when a header with a bad major or minor opcode is read, so the next message can be processed correctly.

The parameter *iceConn* shall specify the Inter-Client Exchange connection.

The parameter *nbytes* shall specify the number of bytes to skip. If the number of bytes specified is less than 512, the interface shall assume 512 bytes should be skipped.

See Also

`_IceRead()`, `_IceWrite()`.

_IceWrite

Name

`_IceWrite` -- write the specified number of bytes of data to an ICE connection

Synopsis

```
#include <X11/ICE/ICEmsg.h>
void _IceWrite(IceConn iceConn, unsigned long int nbytes, char * ptr);
```

Description

The interface `_IceWrite()` shall write the specified number of bytes to an Inter-Client Exchange connection.

The parameter *iceConn* shall specify the Inter-Client Exchange connection.

The parameter *nbytes* shall specify the number of bytes of the specified data to write.

The parameter *ptr* shall contain the data to write.

See Also

`_IceRead()`, `_IceReadSkip()`.

6.9. Interfaces for libXt

Table 6-8 defines the library name and shared object name for the libXt library

Table 6-8. libXt Definition

Library:	libXt
SONAME:	libXt.so.6

The behavior of the interfaces in this library is specified by the following specifications:

[LSB] [This Specification](#)

[Xt] [X11 Toolkit Intrinsic](#)

6.9.1. X Toolkit

6.9.1.1. Interfaces for X Toolkit

An LSB conforming implementation shall provide the generic functions for X Toolkit specified in [Table 6-9](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-9. libXt - X Toolkit Function Interfaces

XtAddActions [Xt]	XtAddCallback [Xt]	XtAddCallbacks [Xt]	XtAddC
XtAddEventHandler [Xt]	XtAddExposureToRegion [Xt]	XtAddGrab [Xt]	XtAddIn
XtAddRawEventHandler [Xt]	XtAddSignal [Xt]	XtAddTimeOut [Xt]	XtAddW
XtAllocateGC [Xt]	XtAppAddActionHook [Xt]	XtAppAddActions [Xt]	XtAppA
XtAppAddConverter [Xt]	XtAppAddInput [Xt]	XtAppAddSignal [Xt]	XtAppA
XtAppAddWorkProc [Xt]	XtAppCreateShell [Xt]	XtAppError [Xt]	XtAppE
XtAppGetErrorDatabase [Xt]	XtAppGetErrorDatabaseText [Xt]	XtAppGetExitFlag [Xt]	XtAppG [Xt]
XtAppInitialize [Xt]	XtAppLock [Xt]	XtAppMainLoop [Xt]	XtAppN
XtAppPeekEvent [Xt]	XtAppPending [Xt]	XtAppProcessEvent [Xt]	XtAppR
XtAppSetErrorHandler [Xt]	XtAppSetErrorMsgHandler [Xt]	XtAppSetExitFlag [Xt]	XtAppSe [Xt]
XtAppSetSelectionTimeout [Xt]	XtAppSetTypeConverter [Xt]	XtAppSetWarningHandler [Xt]	XtAppSe [Xt]
XtAppUnlock [Xt]	XtAppWarning [Xt]	XtAppWarningMsg [Xt]	XtAugm
XtBuildEventMask [Xt]	XtCallAcceptFocus [Xt]	XtCallActionProc [Xt]	XtCallC
XtCallCallbacks [Xt]	XtCallConverter [Xt]	XtCallbackExclusive [Xt]	XtCallba
XtCallbackNonexclusive [Xt]	XtCallbackPopdown [Xt]	XtCallbackReleaseCacheRef [Xt]	XtCallba [Xt]
XtCalloc [Xt]	XtCancelSelectionRequest [Xt]	XtChangeManagedSet [Xt]	XtClass
XtCloseDisplay [Xt]	XtConfigureWidget [Xt]	XtConvert [Xt]	XtConve
XtConvertCase [Xt]	XtCreateApplicationContext [Xt]	XtCreateApplicationShell [Xt]	XtCreate
XtCreatePopupShell [Xt]	XtCreateSelectionRequest [Xt]	XtCreateWidget [Xt]	XtCreate
XtCvtColorToPixel [Xt]	XtCvtIntToBool [Xt]	XtCvtIntToBoolean [Xt]	XtCvtInt
XtCvtIntToFloat [Xt]	XtCvtIntToFont [Xt]	XtCvtIntToPixel [Xt]	XtCvtInt
XtCvtIntToShort [Xt]	XtCvtIntToUnsignedChar [Xt]	XtCvtStringToAcceleratorTable [Xt]	XtCvtStr

XtCvtStringToBool [Xt]	XtCvtStringToBoolean [Xt]	XtCvtStringToCommandArgArray [Xt]	XtCvtStr
XtCvtStringToDimension [Xt]	XtCvtStringToDirectoryString [Xt]	XtCvtStringToDisplay [Xt]	XtCvtStr
XtCvtStringToFloat [Xt]	XtCvtStringToFont [Xt]	XtCvtStringToFontSet [Xt]	XtCvtStr
XtCvtStringToGravity [Xt]	XtCvtStringToInitialState [Xt]	XtCvtStringToInt [Xt]	XtCvtStr
XtCvtStringToRestartStyle [Xt]	XtCvtStringToShort [Xt]	XtCvtStringToTranslationTable [Xt]	XtCvtStr [Xt]
XtCvtStringToVisual [Xt]	XtDatabase [Xt]	XtDestroyApplicationContext [Xt]	XtDestro
XtDestroyWidget [Xt]	XtDirectConvert [Xt]	XtDisownSelection [Xt]	XtDispat
XtDispatchEventToWidget [Xt]	XtDisplay [Xt]	XtDisplayInitialize [Xt]	XtDispla
XtDisplayStringConversionWarning [Xt]	XtDisplayToApplicationContext [Xt]	XtError [Xt]	XtErrorM
XtFindFile [Xt]	XtFree [Xt]	XtGetActionKeysym [Xt]	XtGetAc
XtGetApplicationNameAndClass [Xt]	XtGetApplicationResources [Xt]	XtGetClassExtension [Xt]	XtGetCo [Xt]
XtGetDisplays [Xt]	XtGetErrorDatabase [Xt]	XtGetErrorDatabaseText [Xt]	XtGetGC
XtGetKeyboardFocusWidget [Xt]	XtGetKeysymTable [Xt]	XtGetMultiClickTime [Xt]	XtGetRe
XtGetSelectionParameters [Xt]	XtGetSelectionRequest [Xt]	XtGetSelectionTimeout [Xt]	XtGetSe
XtGetSelectionValueIncremental [Xt]	XtGetSelectionValues [Xt]	XtGetSelectionValuesIncremental [Xt]	XtGetSu
XtGetSubvalues [Xt]	XtGetValues [Xt]	XtGrabButton [Xt]	XtGrabK
XtGrabKeyboard [Xt]	XtGrabPointer [Xt]	XtHasCallbacks [Xt]	XtHooks
XtInitialize [Xt]	XtInitializeWidgetClass [Xt]	XtInsertEventHandler [Xt]	XtInsertl
XtInsertRawEventHandler [Xt]	XtInstallAccelerators [Xt]	XtInstallAllAccelerators [Xt]	XtIsApp
XtIsComposite [Xt]	XtIsConstraint [Xt]	XtIsManaged [Xt]	XtIsObj
XtIsOverrideShell [Xt]	XtIsRealized [Xt]	XtIsRectObj [Xt]	XtIsSens
XtIsSessionShell [Xt]	XtIsShell [Xt]	XtIsSubclass [Xt]	XtIsTop
XtIsTransientShell [Xt]	XtIsVendorShell [Xt]	XtIsWMSHELL [Xt]	XtIsWid
XtKeysymToKeycodeList [Xt]	XtLastEventProcessed [Xt]	XtLastTimestampProcessed [Xt]	XtMainL
XtMakeGeometryRequest [Xt]	XtMakeResizeRequest [Xt]	XtMalloc [Xt]	XtManag
XtManageChildren [Xt]	XtMapWidget [Xt]	XtMenuPopupAction [Xt]	XtMerge
XtMoveWidget [Xt]	XtName [Xt]	XtNameToWidget [Xt]	XtNewS
XtNextEvent [Xt]	XtNoticeSignal [Xt]	XtOpenApplication [Xt]	XtOpenI
XtOverrideTranslations [Xt]	XtOwnSelection [Xt]	XtOwnSelectionIncremental [Xt]	XtParent

XtParseAcceleratorTable [Xt]	XtParseTranslationTable [Xt]	XtPeekEvent [Xt]	XtPending [Xt]
XtPopdown [Xt]	XtPopup [Xt]	XtPopupSpringLoaded [Xt]	XtProcess [Xt]
XtProcessLock [Xt]	XtProcessUnlock [Xt]	XtQueryGeometry [Xt]	XtRealize [Xt]
XtRealloc [Xt]	XtRegisterCaseConverter [Xt]	XtRegisterDrawable [Xt]	XtRegisterErrorHandler [Xt]
XtRegisterGrabAction [Xt]	XtReleaseGC [Xt]	XtReleasePropertyAtom [Xt]	XtRemoveAllCallbacks [Xt]
XtRemoveAllCallbacks [Xt]	XtRemoveBlockHook [Xt]	XtRemoveCallback [Xt]	XtRemoveEventDispatcher [Xt]
XtRemoveEventHandler [Xt]	XtRemoveEventTypeHandler [Xt]	XtRemoveGrab [Xt]	XtRemoveRawEventHandler [Xt]
XtRemoveRawEventHandler [Xt]	XtRemoveSignal [Xt]	XtRemoveTimeOut [Xt]	XtReservePropertyAtom [Xt]
XtReservePropertyAtom [Xt]	XtResizeWidget [Xt]	XtResizeWindow [Xt]	XtScreen [Xt]
XtScreen [Xt]	XtScreenDatabase [Xt]	XtScreenOfObject [Xt]	XtSessionGetToken [Xt]
XtSessionGetToken [Xt]	XtSessionReturnToken [Xt]	XtSetErrorHandler [Xt]	XtSetEventDispatcher [Xt]
XtSetEventDispatcher [Xt]	XtSetKeyTranslator [Xt]	XtSetKeyboardFocus [Xt]	XtSetMappedWhenManaged [Xt]
XtSetMappedWhenManaged [Xt]	XtSetMultiClickTime [Xt]	XtSetSelectionParameters [Xt]	XtSetSensitive [Xt]
XtSetSensitive [Xt]	XtSetSubvalues [Xt]	XtSetTypeConverter [Xt]	XtSetWMColormapWindows [Xt]
XtSetWMColormapWindows [Xt]	XtSetWarningHandler [Xt]	XtSetWarningMsgHandler [Xt]	XtSuperclass [Xt]
XtSuperclass [Xt]	XtToolkitInitialize [Xt]	XtToolkitThreadInitialize [Xt]	XtTranslateKey [Xt]
XtTranslateKey [Xt]	XtTranslateKeycode [Xt]	XtUngrabButton [Xt]	XtUngrabKeyboard [Xt]
XtUngrabKeyboard [Xt]	XtUngrabPointer [Xt]	XtUninstallTranslations [Xt]	XtUnmanageChildren [Xt]
XtUnmanageChildren [Xt]	XtUnmapWidget [Xt]	XtUnrealizeWidget [Xt]	XtVaAppCreateShell [Xt]
XtVaAppCreateShell [Xt]	XtVaAppInitialize [Xt]	XtVaCreateArgsList [Xt]	XtVaCreatePopupShell [Xt]
XtVaCreatePopupShell [Xt]	XtVaCreateWidget [Xt]	XtVaGetApplicationResources [Xt]	XtVaGetSubvalues [Xt]
XtVaGetSubvalues [Xt]	XtVaGetValues [Xt]	XtVaOpenApplication [Xt]	XtVaSetValues [Xt]
XtVaSetValues [Xt]	XtWarning [Xt]	XtWarningMsg [Xt]	XtWindow [Xt]
XtWindow [Xt]	XtWindowOfObject [Xt]	XtWindowToWidget [Xt]	_XtCopyFromArg [LSB]
_XtCopyFromArg [LSB]	_XtInherit [LSB]	_XtIsSubclassOf [LSB]	

An LSB conforming implementation shall provide the generic data interfaces for X Toolkit specified in [Table 6-10](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-10. libXt - X Toolkit Data Interfaces

XtCxtToolkitError [Xt]	XtShellStrings [Xt]	XtStrings [Xt]	_XtInheritTranslations [LSB]
applicationShellClassRec [Xt]	applicationShellWidgetClass [Xt]	colorConvertArgs [Xt]	compositeClassRec [Xt]
compositeWidgetClass [Xt]	constraintClassRec [Xt]	constraintWidgetClass [Xt]	coreWidgetClass [Xt]
objectClass [Xt]	objectClassRec [Xt]	overrideShellClassRec [Xt]	overrideShellWidgetClass [Xt]
rectObjClass [Xt]	rectObjClassRec [Xt]	sessionShellClassRec [Xt]	sessionShellWidgetClass [Xt]
shellClassRec [Xt]	shellWidgetClass [Xt]	topLevelShellClassRec [Xt]	topLevelShellWidgetClass [Xt]
transientShellClassRec [Xt]	transientShellWidgetClass [Xt]	widgetClass [Xt]	widgetClassRec [Xt]
wmShellClassRec [Xt]	wmShellWidgetClass [Xt]		

6.10. Data Definitions for libXt

This section defines global identifiers and their values that are associated with interfaces contained in libXt. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.10.1. X11/Composite.h

```
#define _XtComposite_h 1

typedef void (*XtDoChangeProc) (Widget, WidgetList, Cardinal *, WidgetList,
                                Cardinal *, XtPointer);
typedef struct _CompositeClassRec *CompositeWidgetClass;
typedef Cardinal (*XtOrderProc) (Widget);
extern void XtChangeManagedSet (WidgetList, Cardinal, XtDoChangeProc,
                                XtPointer, WidgetList, Cardinal);
extern void XtManageChild (Widget);
extern void XtManageChildren (WidgetList, Cardinal);
extern void XtUnmanageChild (Widget);
extern void XtUnmanageChildren (WidgetList, Cardinal);
extern WidgetClass compositeWidgetClass;
```

6.10.2. X11/CompositeP.h

```
#define XtInheritGeometryManager      ((XtGeometryHandler) _XtInherit)
#define XtInheritChangeManaged      ((XtWidgetProc) _XtInherit)
#define XtInheritDeleteChild         ((XtWidgetProc) _XtInherit)
#define XtInheritInsertChild         ((XtWidgetProc) _XtInherit)
#define _XtCompositeP_h 1
#define XtCompositeExtensionVersion  2L

typedef struct _CompositePart {
    WidgetList children;
    Cardinal num_children;
    Cardinal num_slots;
    XtOrderProc insert_position;
} CompositePart;
typedef struct _CompositeClassPart {
    XtGeometryHandler geometry_manager;
    XtWidgetProc change_managed;
    XtWidgetProc insert_child;
    XtWidgetProc delete_child;
    XtPointer extension;
} CompositeClassPart;
typedef struct _CompositePart *CompositePtr;
typedef struct _CompositeRec {
    CorePart core;
    CompositePart composite;
} CompositeRec;
typedef struct _CompositeClassPart *CompositePartPtr;
typedef struct {
    XtPointer next_extension;
    XrmQuark record_type;
    long int version;
    Cardinal record_size;
    Boolean accepts_objects;
    Boolean allows_change_managed_set;
} CompositeClassExtensionRec;
typedef CompositeClassExtensionRec *CompositeClassExtension;

typedef struct _CompositeClassRec CompositeClassRec;
extern CompositeClassRec compositeClassRec;
```

6.10.3. X11/ConstrainP.h

```
#define XtConstraintExtensionVersion  1L

typedef struct _ConstraintPart {
    XtPointer mumble;          /* No new fields, keep C compiler happy */
} ConstraintPart;
typedef struct _ConstraintClassRec *ConstraintClassRec;
typedef struct _ConstraintClassPart {
    XtResourceList resources;
    Cardinal num_resources;
    Cardinal constraint_size;
    XtInitProc initialize;
    XtWidgetProc destroy;
    XtSetValuesFunc set_values;
    XtPointer extension;
} ConstraintClassPart;
```

```

struct _ConstraintClassRec {
    CoreClassPart core_class;
    CompositeClassPart composite_class;
    ConstraintClassPart constraint_class;
};
typedef struct _ConstraintRec {
    CorePart core;
    CompositePart composite;
    ConstraintPart constraint;
} ConstraintRec;
typedef struct _ConstraintRec *ConstraintWidget;
typedef struct {
    XtPointer next_extension;
    XrmQuark record_type;
    long int version;
    Cardinal record_size;
    XtArgsProc get_values_hook;
} ConstraintClassExtensionRec;
typedef ConstraintClassExtensionRec *ConstraintClassExtension;
extern ConstraintClassRec constraintClassRec;

```

6.10.4. X11/Constraint.h

```

#define _XtConstraint_h 1

typedef struct _ConstraintClassRec *ConstraintWidgetClass;
extern WidgetClass constraintWidgetClass;

```

6.10.5. X11/Core.h

```

#define _XtCore_h 1

typedef struct _WidgetClassRec *CoreWidgetClass;
typedef struct _WidgetClassRec *CoreWidget;
extern WidgetClass coreWidgetClass;
extern WidgetClass widgetClass;

```

6.10.6. X11/CoreP.h

```

#define XtInheritTranslations ((String) &_XtInheritTranslations)
#define XtInheritAcceptFocus ((XtAcceptFocusProc) _XtInherit)
#define XtInheritSetValuesAlmost ((XtAlmostProc) _XtInherit)
#define XtInheritExpose ((XtExposeProc) _XtInherit)
#define XtInheritQueryGeometry ((XtGeometryHandler) _XtInherit)
#define XtInheritRealize ((XtRealizeProc) _XtInherit)
#define XtInheritDisplayAccelerator ((XtStringProc) _XtInherit)
#define XtInheritResize ((XtWidgetProc) _XtInherit)
#define XtCoreP_h 1

typedef struct _CorePart {
    Widget self;
    WidgetClass widget_class;
    Widget parent;
    XrmName xrm_name;
    Boolean being_destroyed;
    XtCallbackList destroy_callbacks;
    XtPointer constraints;
    Position x;

```

```

Position y;
Dimension width;
Dimension height;
Dimension border_width;
Boolean managed;
Boolean sensitive;
Boolean ancestor_sensitive;
XtEventTable event_table;
XtTMRRec tm;
XtTranslations accelerators;
Pixel border_pixel;
Pixmap border_pixmap;
WidgetList popup_list;
Cardinal num_popups;
String name;
Screen *screen;
Colormap colormap;
Window window;
Cardinal depth;
Pixel background_pixel;
Pixmap background_pixmap;
Boolean visible;
Boolean mapped_when_managed;
} CorePart;
typedef struct _CoreClassPart {
    WidgetClass superclass;
    String class_name;
    Cardinal widget_size;
    XtProc class_initialize;
    XtWidgetClassProc class_part_initialize;
    XtEnum class_inited;
    XtInitProc initialize;
    XtArgsProc initialize_hook;
    XtRealizeProc realize;
    XtActionList actions;
    Cardinal num_actions;
    XtResourceList resources;
    Cardinal num_resources;
    XrmClass xrm_class;
    Boolean compress_motion;
    XtEnum compress_exposure;
    Boolean compress_enterleave;
    Boolean visible_interest;
    XtWidgetProc destroy;
    XtWidgetProc resize;
    XtExposeProc expose;
    XtSetValuesFunc set_values;
    XtArgsFunc set_values_hook;
    XtAlmostProc set_values_almost;
    XtArgsProc get_values_hook;
    XtAcceptFocusProc accept_focus;
    XtVersionType version;
    XtPointer callback_private;
    String tm_table;
    XtGeometryHandler query_geometry;
    XtStringProc display_accelerator;
    XtPointer extension;
} CoreClassPart;
typedef struct _WidgetRec {
    CorePart core;
} WidgetRec;
typedef struct _WidgetRec {

```

```

    CorePart core;
} CoreRec;
typedef struct _WidgetClassRec {
    CoreClassPart core_class;
} WidgetClassRec;
typedef struct _WidgetClassRec {
    CoreClassPart core_class;
} CoreClassRec;
extern int _XtInheritTranslations;
extern WidgetClassRec widgetClassRec;

```

6.10.7. X11/Eventl.h

```

typedef struct _XtGrabRec *XtGrabList;
typedef struct _XtGrabRec {
    XtGrabList next;
    Widget widget;
    unsigned int exclusive:1;
    unsigned int spring_loaded:1;
} XtGrabRec;
typedef struct _XtEventRec {
    XtEventTable next;
    EventMask mask;
    XtEventHandler proc;
    XtPointer closure;
    unsigned int select:1;
    unsigned int has_type_specifier:1;
    unsigned int async:1;
} XtEventRec;

```

6.10.8. X11/Intrinsic.h

```

#define XtOffset(p_type, field) ((Cardinal) (((char *) (&((p_type)NULL->field))) - ((char *) NULL)))
#define XtNumber(arr) ((Cardinal) (sizeof(arr) / sizeof(arr[0])))
#define XtAllEvents ((EventMask) -1L)
#define XtUnspecifiedPixmap ((Pixmap) 2)
#define XtNew(type) ((type *) XtMalloc((unsigned) sizeof(type)))
#define XtSetArg(arg, n, d) ((void) ( (arg).name = (n), (arg).value = (XtArgVal) (d) ))
#define XtUnspecifiedWindow ((Window) 2)
#define XtUnspecifiedWindowGroup ((Window) 3)
#define XtUnspecifiedShellInt (-1)
#define XtCWQueryOnly (1 << 7)
#define XtInputReadMask (1L << 0)
#define XtInputWriteMask (1L << 1)
#define XtInputExceptMask (1L << 2)
#define XT_CONVERT_FAIL (Atom) 0x80000001
#define XtIMAll (XtIMXEvent | XtIMTimer | XtIMAlternateInput | XtIMSignal)
#define XtIsRectObj(object) (_XtCheckSubclassFlag(object, (XtEnum) 0x02))
#define XtIsWidget(object) (_XtCheckSubclassFlag(object, (XtEnum) 0x04))
#define XtIsComposite(widget) (_XtCheckSubclassFlag(widget, (XtEnum) 0x08))
#define XtIsConstraint(widget) (_XtCheckSubclassFlag(widget, (XtEnum) 0x10))
#define XtIsShell(widget) (_XtCheckSubclassFlag(widget, (XtEnum) 0x20))
#define XtIsWMShell(widget) (_XtCheckSubclassFlag(widget, (XtEnum) 0x40))
#ifndef FALSE
#define FALSE 0
#endif
#define XtInputNoneMask 0L
#define XtCacheNone 0x001
#define XtCacheAll 0x002

```



```

#define XtCacheByDisplay      0x003
#define XtCacheRefCount 0x100
#ifndef TRUE
#define TRUE      1
#endif
#define XtIMXEvent      1
#define _XtIntrinsic_h  1
#define XtIMTimer       2
#define XtIMAlternateInput      4
#define XtSMDontChange   5
#define XtSpecificationRelease  6
#define XtIMSignal       8
#define _XtString         char*
#define externalref      extern
#define _XtBoolean        int
#define _XtPosition       int
#define XtOffsetOf(s_type, field)      offsetof(s_type, field)
#define _XtDimension      unsigned int
#define _XtKeyCode        unsigned int
#define _XtXtEnum         unsigned int
#define XtCurrentDirectory      "XtCurrentDirectory"
#define XtCvtPixelToColor      XtCvtIntToColor
#define XtCvtIntToDimension     XtCvtIntToShort
#define XtCvtIntToPosition      XtCvtIntToShort
#define XtCvtStringToPosition   XtCvtStringToShort
#define XtDefaultBackground     "XtDefaultBackground"
#define XtDefaultFont           "XtDefaultFont"
#define XtDefaultFontSet        "XtDefaultFontSet"
#define XtDefaultForeground     "XtDefaultForeground"
#define XtVaNestedList          "XtVaNestedList"
#define XtVaTypedArg            "XtVaTypedArg"

typedef unsigned int Cardinal;
typedef void *XtPointer;
struct _WidgetRec;
typedef struct _WidgetRec *Widget;
typedef char *String;
typedef unsigned int XtGeometryMask;
typedef short int Position;
typedef short unsigned int Dimension;
typedef struct {
    XtGeometryMask request_mode;
    Position x;
    Position y;
    Dimension width;
    Dimension height;
    Dimension border_width;
    Widget sibling;
    int stack_mode;
} XtWidgetGeometry;
typedef unsigned int Modifiers;
typedef void *XtCacheRef;
typedef struct _XtResource *XtResourceList;
struct _XtAppStruct;
typedef struct _XtAppStruct *XtAppContext;
typedef void (*XtActionProc) (Widget, XEvent *, String *, Cardinal *);
typedef struct _XtActionsRec *XtActionList;
typedef char Boolean;
typedef int XtCacheType;
typedef long unsigned int XtGCMask;
typedef unsigned char XtEnum;
typedef long unsigned int XtSignalId;

```

```

typedef long unsigned int XtWorkProcId;
typedef long unsigned int XtInputId;
typedef long unsigned int XtIntervalId;
struct _WidgetClassRec;
typedef struct _WidgetClassRec *WidgetClass;
typedef Widget *WidgetList;
typedef struct _TranslationData *XtAccelerators;
typedef struct _TranslationData *XtTranslations;
typedef enum {
    XtGeometryYes = 0,
    XtGeometryNo = 1,
    XtGeometryAlmost = 2,
    XtGeometryDone = 3
} XtGeometryResult;
typedef enum {
    XtAddress = 0,
    XtBaseOffset = 1,
    XtImmediate = 2,
    XtResourceString = 3,
    XtResourceQuark = 4,
    XtWidgetBaseOffset = 5,
    XtProcedureArg = 6
} XtAddressMode;
typedef struct {
    XtAddressMode address_mode;
    XtPointer address_id;
    Cardinal size;
} XtConvertArgRec;
typedef XtConvertArgRec *XtConvertArgList;
typedef long int XtArgVal;
typedef struct {
    String name;
    XtArgVal value;
} Arg;
typedef Arg *ArgList;
typedef void (*XtSignalCallbackProc) (XtPointer, XtSignalId *);
typedef enum {
    XtCallbackNoList = 0,
    XtCallbackHasNone = 1,
    XtCallbackHasSome = 2
} XtCallbackStatus;
typedef void (*XtInputCallbackProc) (XtPointer, int *, XtInputId *);
typedef void (*XtTimerCallbackProc) (XtPointer, XtIntervalId *);
typedef long unsigned int XtInputMask;
typedef enum {
    XtListHead = 0,
    XtListTail = 1
} XtListPosition;
typedef void (*XtCallbackProc) (Widget, XtPointer, XtPointer);
typedef struct _XtCallbackRec *XtCallbackList;
typedef long unsigned int EventMask;
typedef void *XtVarArgsList;
typedef void (*XtEventHandler) (Widget, XtPointer, XEvent *, Boolean *);
typedef void (*XtCaseProc) (Display *, KeySym, KeySym *, KeySym *);
typedef void (*XtKeyProc) (Display *, unsigned int, Modifiers, Modifiers *,
    KeySym *);
typedef void (*XtBlockHookProc) (XtPointer);
typedef long unsigned int XtBlockHookId;
typedef void (*XtActionHookProc) (Widget, XtPointer, String, XEvent *,
    String *, Cardinal *);
typedef void *XtActionHookId;
typedef void (*XtDestructor) (XtAppContext, XrmValue *, XtPointer,

```

```

        XrmValue *, Cardinal *);
typedef Boolean(*XtTypeConverter) (Display *, XrmValue *, Cardinal *,
                                   XrmValue *, XrmValue *, XtPointer *);
typedef void (*XtConverter) (XrmValue *, Cardinal *, XrmValue *,
                             XrmValue *);
typedef void *XtRequestId;
typedef Boolean(*XtFilePredicate) (String);
typedef struct {
    char match;
    String substitution;
} SubstitutionRec;
typedef SubstitutionRec *Substitution;
typedef void (*XtSelectionCallbackProc) (Widget, XtPointer, Atom *, Atom *,
                                         XtPointer, long unsigned int *,
                                         int *);

typedef Boolean(*XtWorkProc) (XtPointer);
typedef void (*XtSelectionDoneProc) (Widget, Atom *, Atom *);
typedef void (*XtLoseSelectionProc) (Widget, Atom *);
typedef void (*XtErrorHandler) (String);
typedef Boolean(*XtConvertSelectionProc) (Widget, Atom *, Atom *, Atom *,
                                         XtPointer *, long unsigned int *,
                                         int *);

typedef void (*XtErrorMsgHandler) (String, String, String, String,
                                   String *, Cardinal *);
typedef String(*XtLanguageProc) (Display *, String, XtPointer);
typedef enum {
    XtGrabNone = 0,
    XtGrabNonexclusive = 1,
    XtGrabExclusive = 2
} XtGrabKind;
typedef struct _XtCheckpointTokenRec *XtCheckpointToken;
typedef void (*XtExtensionSelectProc) (Widget, int *, XtPointer *, int,
                                       XtPointer);

typedef Boolean(*XtEventDispatchProc) (XEvent *);
typedef void (*XtCancelConvertSelectionProc) (Widget, Atom *, Atom *,
                                              XtRequestId *, XtPointer);
typedef Boolean(*XtConvertSelectionIncrProc) (Widget, Atom *, Atom *,
                                             Atom *, XtPointer *,
                                             long unsigned int *, int *,
                                             long unsigned int *,
                                             XtPointer, XtRequestId *);

typedef void (*XtSelectionDoneIncrProc) (Widget, Atom *, Atom *,
                                         XtRequestId *, XtPointer);
typedef void (*XtLoseSelectionIncrProc) (Widget, Atom *, XtPointer);
typedef long unsigned int XtValueMask;
typedef struct _XtEventRec *XtEventTable;
typedef void (*XtCreatePopupChildProc) (Widget);
typedef struct _XtResource {
    String resource_name;
    String resource_class;
    String resource_type;
    Cardinal resource_size;
    Cardinal resource_offset;
    String default_type;
    XtPointer default_addr;
} XtResource;
typedef struct _XtCallbackRec {
    XtCallbackProc callback;
    XtPointer closure;
} XtCallbackRec;
typedef struct _XtCheckpointTokenRec {
    int save_type;

```

```

    int interact_style;
    Boolean shutdown;
    Boolean fast;
    Boolean cancel_shutdown;
    int phase;
    int interact_dialog_type;
    Boolean request_cancel;
    Boolean request_next_phase;
    Boolean save_success;
    int type;
    Widget widget;
} XtCheckpointTokenRec;
typedef long unsigned int Pixel;
typedef struct _XtActionsRec {
    String string;
    XtActionProc proc;
} XtActionsRec;
typedef struct {
    Widget shell_widget;
    Widget enable_widget;
} XtPopdownIDRec;
typedef XtPopdownIDRec *XtPopdownID;
typedef XtActionProc *XtBoundActions;
typedef struct {
    String type;
    Widget widget;
    ArgList args;
    Cardinal num_args;
} XtCreateHookDataRec;
typedef XtCreateHookDataRec *XtCreateHookData;
typedef struct {
    String type;
    Widget widget;
    XtPointer event_data;
    Cardinal num_event_data;
} XtChangeHookDataRec;
typedef XtChangeHookDataRec *XtChangeHookData;
typedef struct {
    Widget old;
    Widget req;
    ArgList args;
    Cardinal num_args;
} XtChangeHookSetValuesDataRec;
typedef XtChangeHookSetValuesDataRec *XtChangeHookSetValuesData;
typedef struct {
    String type;
    Widget widget;
    XtGeometryMask changeMask;
    XWindowChanges changes;
} XtConfigureHookDataRec;
typedef XtConfigureHookDataRec *XtConfigureHookData;
typedef struct {
    String type;
    Widget widget;
    XtWidgetGeometry *request;
    XtWidgetGeometry *reply;
    XtGeometryResult result;
} XtGeometryHookDataRec;
typedef XtGeometryHookDataRec *XtGeometryHookData;
typedef struct {
    String type;
    Widget widget;

```

```

} XtDestroyHookDataRec;
typedef XtDestroyHookDataRec *XtDestroyHookData;
extern void XtAddActions(XtActionList, Cardinal);
extern void XtAddCallback(Widget, const char *, XtCallbackProc, XtPointer);
extern void XtAddCallbacks(Widget, const char *, XtCallbackList);
extern void XtAddConverter(const char *, const char *, XtConverter,
                           XtConvertArgList, Cardinal);
extern void XtAddEventHandler(Widget, EventMask, int, XtEventHandler,
                              XtPointer);
extern void XtAddExposureToRegion(XEvent *, Region);
extern void XtAddGrab(Widget, int, int);
extern XtInputId XtAddInput(int, XtPointer, XtInputCallbackProc,
                           XtPointer);
extern void XtAddRawEventHandler(Widget, EventMask, int, XtEventHandler,
                                XtPointer);
extern XtSignalId XtAddSignal(XtSignalCallbackProc, XtPointer);
extern XtIntervalId XtAddTimeout(long unsigned int, XtTimerCallbackProc,
                                XtPointer);
extern XtWorkProcId XtAddWorkProc(XtWorkProc, XtPointer);
extern GC XtAllocateGC(Widget, Cardinal, XtGCMask, XGCValues *, XtGCMask,
                      XtGCMask);
extern XtActionHookId XtAppAddActionHook(XtAppContext, XtActionHookProc,
                                          XtPointer);
extern void XtAppAddActions(XtAppContext, XtActionList, Cardinal);
extern XtBlockHookId XtAppAddBlockHook(XtAppContext, XtBlockHookProc,
                                       XtPointer);
extern void XtAppAddConverter(XtAppContext, const char *, const char *,
                              XtConverter, XtConvertArgList, Cardinal);
extern XtInputId XtAppAddInput(XtAppContext, int, XtPointer,
                              XtInputCallbackProc, XtPointer);
extern XtSignalId XtAppAddSignal(XtAppContext, XtSignalCallbackProc,
                                XtPointer);
extern XtIntervalId XtAppAddTimeout(XtAppContext, long unsigned int,
                                   XtTimerCallbackProc, XtPointer);
extern XtWorkProcId XtAppAddWorkProc(XtAppContext, XtWorkProc, XtPointer);
extern Widget XtAppCreateShell(const char *, const char *, WidgetClass,
                              Display *, ArgList, Cardinal);
extern void XtAppError(XtAppContext, const char *);
extern void XtAppErrorMsg(XtAppContext, const char *, const char *,
                          const char *, const char *, String *,
                          Cardinal *);
extern XrmDatabase *XtAppGetErrorDatabase(XtAppContext);
extern void XtAppGetErrorDatabaseText(XtAppContext, const char *,
                                     const char *, const char *,
                                     const char *, String, int,
                                     XrmDatabase);
extern Boolean XtAppGetExitFlag(XtAppContext);
extern long unsigned int XtAppGetSelectionTimeout(XtAppContext);
extern Widget XtAppInitialize(XtAppContext *, const char *,
                              XrmOptionDescList, Cardinal, int *, String *,
                              String *, ArgList, Cardinal);
extern void XtAppLock(XtAppContext);
extern void XtAppMainLoop(XtAppContext);
extern void XtAppNextEvent(XtAppContext, XEvent *);
extern Boolean XtAppPeekEvent(XtAppContext, XEvent *);
extern XtInputMask XtAppPending(XtAppContext);
extern void XtAppProcessEvent(XtAppContext, XtInputMask);
extern void XtAppReleaseCacheRefs(XtAppContext, XtCacheRef *);
extern XtErrorHandler XtAppSetErrorHandler(XtAppContext, XtErrorHandler);
extern XtErrorMsgHandler XtAppSetErrorMsgHandler(XtAppContext,
                                                  XtErrorMsgHandler);
extern void XtAppSetExitFlag(XtAppContext);

```

```

extern void XtAppSetFallbackResources(XtAppContext, String *);
extern void XtAppSetSelectionTimeout(XtAppContext, long unsigned int);
extern void XtAppSetTypeConverter(XtAppContext, const char *, const char *,
                                   XtTypeConverter, XtConvertArgList,
                                   Cardinal, XtCacheType, XtDestructor);
extern XtErrorHandler XtAppSetWarningHandler(XtAppContext, XtErrorHandler);
extern XtErrorMsgHandler XtAppSetWarningMsgHandler(XtAppContext,
                                                    XtErrorMsgHandler);

extern void XtAppUnlock(XtAppContext);
extern void XtAppWarning(XtAppContext, const char *);
extern void XtAppWarningMsg(XtAppContext, const char *, const char *,
                             const char *, const char *, String *,
                             Cardinal *);

extern void XtAugmentTranslations(Widget, XtTranslations);
extern EventMask XtBuildEventMask(Widget);
extern Boolean XtCallAcceptFocus(Widget, Time *);
extern void XtCallActionProc(Widget, const char *, XEvent *, String *,
                              Cardinal);
extern void XtCallCallbackList(Widget, XtCallbackList, XtPointer);
extern void XtCallCallbacks(Widget, const char *, XtPointer);
extern Boolean XtCallConverter(Display *, XtTypeConverter, XrmValuePtr,
                               Cardinal, XrmValuePtr, XrmValue *,
                               XtCacheRef *);
extern void XtCallbackExclusive(Widget, XtPointer, XtPointer);
extern void XtCallbackNone(Widget, XtPointer, XtPointer);
extern void XtCallbackNonexclusive(Widget, XtPointer, XtPointer);
extern void XtCallbackPopdown(Widget, XtPointer, XtPointer);
extern void XtCallbackReleaseCacheRef(Widget, XtPointer, XtPointer);
extern void XtCallbackReleaseCacheRefList(Widget, XtPointer, XtPointer);
extern char *XtCalloc(Cardinal, Cardinal);
extern void XtCancelSelectionRequest(Widget, Atom);
extern WidgetClass XtClass(Widget);
extern void XtCloseDisplay(Display *);
extern void XtConvert(Widget, const char *, XrmValue *, const char *,
                      XrmValue *);
extern Boolean XtConvertAndStore(Widget, const char *, XrmValue *,
                                 const char *, XrmValue *);
extern void XtConvertCase(Display *, KeySym, KeySym *, KeySym *);
extern XtAppContext XtCreateApplicationContext(void);
extern Widget XtCreateApplicationShell(const char *, WidgetClass, ArgList,
                                       Cardinal);
extern Widget XtCreateManagedWidget(const char *, WidgetClass, Widget,
                                     ArgList, Cardinal);
extern Widget XtCreatePopupShell(const char *, WidgetClass, Widget,
                                 ArgList, Cardinal);
extern void XtCreateSelectionRequest(Widget, Atom);
extern Widget XtCreateWidget(const char *, WidgetClass, Widget, ArgList,
                              Cardinal);
extern Boolean XtCvtColorToPixel(Display *, XrmValuePtr, Cardinal *,
                                  XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtIntToBool(Display *, XrmValuePtr, Cardinal *,
                               XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtIntToBoolean(Display *, XrmValuePtr, Cardinal *,
                                  XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtIntToColor(Display *, XrmValuePtr, Cardinal *,
                                XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtIntToFloat(Display *, XrmValuePtr, Cardinal *,
                                XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtIntToFont(Display *, XrmValuePtr, Cardinal *,
                               XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtIntToPixel(Display *, XrmValuePtr, Cardinal *,
                                XrmValuePtr, XrmValuePtr, XtPointer *);

```

```

extern Boolean XtCvtIntToPixmap(Display *, XrmValuePtr, Cardinal *,
                                XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtIntToShort(Display *, XrmValuePtr, Cardinal *,
                               XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtIntToUnsignedChar(Display *, XrmValuePtr, Cardinal *,
                                       XrmValuePtr, XrmValuePtr,
                                       XtPointer *);
extern Boolean XtCvtStringToAcceleratorTable(Display *, XrmValuePtr,
                                              Cardinal *, XrmValuePtr,
                                              XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToAtom(Display *, XrmValuePtr, Cardinal *,
                                 XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToBool(Display *, XrmValuePtr, Cardinal *,
                                 XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToBoolean(Display *, XrmValuePtr, Cardinal *,
                                    XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToCommandArgArray(Display *, XrmValuePtr,
                                             Cardinal *, XrmValuePtr,
                                             XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToCursor(Display *, XrmValuePtr, Cardinal *,
                                   XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToDimension(Display *, XrmValuePtr, Cardinal *,
                                       XrmValuePtr, XrmValuePtr,
                                       XtPointer *);
extern Boolean XtCvtStringToDirectoryString(Display *, XrmValuePtr,
                                             Cardinal *, XrmValuePtr,
                                             XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToDisplay(Display *, XrmValuePtr, Cardinal *,
                                    XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToFile(Display *, XrmValuePtr, Cardinal *,
                                 XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToFloat(Display *, XrmValuePtr, Cardinal *,
                                  XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToFont(Display *, XrmValuePtr, Cardinal *,
                                 XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToFontSet(Display *, XrmValuePtr, Cardinal *,
                                    XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToFontStruct(Display *, XrmValuePtr, Cardinal *,
                                       XrmValuePtr, XrmValuePtr,
                                       XtPointer *);
extern Boolean XtCvtStringToGravity(Display *, XrmValuePtr, Cardinal *,
                                   XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToInitialState(Display *, XrmValuePtr,
                                          Cardinal *, XrmValuePtr,
                                          XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToInt(Display *, XrmValuePtr, Cardinal *,
                                XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToPixel(Display *, XrmValuePtr, Cardinal *,
                                  XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToRestartStyle(Display *, XrmValuePtr,
                                          Cardinal *, XrmValuePtr,
                                          XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToShort(Display *, XrmValuePtr, Cardinal *,
                                  XrmValuePtr, XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToTranslationTable(Display *, XrmValuePtr,
                                              Cardinal *, XrmValuePtr,
                                              XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToUnsignedChar(Display *, XrmValuePtr,
                                          Cardinal *, XrmValuePtr,
                                          XrmValuePtr, XtPointer *);
extern Boolean XtCvtStringToVisual(Display *, XrmValuePtr, Cardinal *,
                                   XrmValuePtr, XrmValuePtr, XtPointer *);

```

```

extern XrmDatabase XtDatabase(Display *);
extern void XtDestroyApplicationContext(XtAppContext);
extern void XtDestroyGC(GC);
extern void XtDestroyWidget(Widget);
extern void XtDirectConvert(XtConverter, XrmValuePtr, Cardinal,
                           XrmValuePtr, XrmValue *);
extern void XtDisownSelection(Widget, Atom, Time);
extern Boolean XtDispatchEvent(XEvent *);
extern Boolean XtDispatchEventToWidget(Widget, XEvent *);
extern Display *XtDisplay(Widget);
extern void XtDisplayInitialize(XtAppContext, Display *, const char *,
                              const char *, XrmOptionDescRec *, Cardinal,
                              int *, char **);
extern Display *XtDisplayOfObject(Widget);
extern void XtDisplayStringConversionWarning(Display *, const char *,
                                             const char *);
extern XtAppContext XtDisplayToApplicationContext(Display *);
extern void XtError(const char *);
extern void XtErrorMsg(const char *, const char *, const char *,
                      const char *, String *, Cardinal *);
extern String XtFindFile(const char *, Substitution, Cardinal,
                        XtFilePredicate);
extern void XtFree(char *);
extern KeySym XtGetActionKeysym(XEvent *, Modifiers *);
extern void XtGetActionList(WidgetClass, XtActionList *, Cardinal *);
extern void XtGetApplicationNameAndClass(Display *, String *, String *);
extern void XtGetApplicationResources(Widget, XtPointer, XtResourceList,
                                      Cardinal, ArgList, Cardinal);
extern XtPointer XtGetClassExtension(WidgetClass, Cardinal, XrmQuark,
                                    long int, Cardinal);
extern void XtGetConstraintResourceList(WidgetClass, XtResourceList *,
                                       Cardinal *);
extern void XtGetDisplays(XtAppContext, Display * **, Cardinal *);
extern XrmDatabase *XtGetErrorDatabase(void);
extern void XtGetErrorDatabaseText(const char *, const char *,
                                   const char *, const char *, String,
                                   int);
extern GC XtGetGC(Widget, XtGCMask, XGCValues *);
extern Widget XtGetKeyboardFocusWidget(Widget);
extern KeySym *XtGetKeysymTable(Display *, KeyCode *, int *);
extern int XtGetMultiClickTime(Display *);
extern void XtGetResourceList(WidgetClass, XtResourceList *, Cardinal *);
extern void XtGetSelectionParameters(Widget, Atom, XtRequestId, Atom *,
                                     XtPointer *, long unsigned int *,
                                     int *);
extern XSelectionRequestEvent *XtGetSelectionRequest(Widget, Atom,
                                                    XtRequestId);
extern long unsigned int XtGetSelectionTimeout(void);
extern void XtGetSelectionValue(Widget, Atom, Atom,
                               XtSelectionCallbackProc, XtPointer, Time);
extern void XtGetSelectionValueIncremental(Widget, Atom, Atom,
                                           XtSelectionCallbackProc,
                                           XtPointer, Time);
extern void XtGetSelectionValues(Widget, Atom, Atom *, int,
                                 XtSelectionCallbackProc, XtPointer *,
                                 Time);
extern void XtGetSelectionValuesIncremental(Widget, Atom, Atom *, int,
                                           XtSelectionCallbackProc,
                                           XtPointer *, Time);
extern void XtGetSubresources(Widget, XtPointer, const char *,
                             const char *, XtResourceList, Cardinal,
                             ArgList, Cardinal);

```


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```
extern void XtGetSubvalues(XtPointer, XtResourceList, Cardinal, ArgList,
                          Cardinal);
extern void XtGetValues(Widget, ArgList, Cardinal);
extern void XtGrabButton(Widget, int, Modifiers, int, unsigned int, int,
                        int, Window, Cursor);
extern void XtGrabKey(Widget, unsigned int, Modifiers, int, int, int);
extern int XtGrabKeyboard(Widget, int, int, int, Time);
extern int XtGrabPointer(Widget, int, unsigned int, int, int, Window,
                        Cursor, Time);
extern XtCallbackStatus XtHasCallbacks(Widget, const char *);
extern Widget XtHooksOfDisplay(Display *);
extern Widget XtInitialize(const char *, const char *, XrmOptionDescRec *,
                          Cardinal, int *, char **);
extern void XtInitializeWidgetClass(WidgetClass);
extern void XtInsertEventHandler(Widget, EventMask, int, XtEventHandler,
                                XtPointer, XtListPosition);
extern void XtInsertEventTypeHandler(Widget, int, XtPointer,
                                    XtEventHandler, XtPointer,
                                    XtListPosition);
extern void XtInsertRawEventHandler(Widget, EventMask, int, XtEventHandler,
                                   XtPointer, XtListPosition);
extern void XtInstallAccelerators(Widget, Widget);
extern void XtInstallAllAccelerators(Widget, Widget);
extern Boolean XtIsApplicationShell(Widget);
extern Boolean XtIsManaged(Widget);
extern Boolean XtIsObject(Widget);
extern Boolean XtIsOverrideShell(Widget);
extern Boolean XtIsRealized(Widget);
extern Boolean XtIsSensitive(Widget);
extern Boolean XtIsSessionShell(Widget);
extern Boolean XtIsSubclass(Widget, WidgetClass);
extern Boolean XtIsTransientShell(Widget);
extern Boolean XtIsVendorShell(Widget);
extern void XtKeysymToKeycodeList(Display *, KeySym, KeyCode * *,
                                  Cardinal *);
extern XEvent *XtLastEventProcessed(Display *);
extern Time XtLastTimestampProcessed(Display *);
extern void XtMainLoop(void);
extern XtGeometryResult XtMakeGeometryRequest(Widget, XtWidgetGeometry *,
                                              XtWidgetGeometry *);
extern XtGeometryResult XtMakeResizeRequest(Widget, unsigned int,
                                             unsigned int, Dimension *,
                                             Dimension *);
extern char *XtMalloc(Cardinal);
extern void XtMapWidget(Widget);
extern void XtMenuPopupAction(Widget, XEvent *, String *, Cardinal *);
extern ArgList XtMergeArgLists(ArgList, Cardinal, ArgList, Cardinal);
extern String XtName(Widget);
extern Widget XtNameToWidget(Widget, const char *);
extern String XtNewString(String);
extern void XtNextEvent(XEvent *);
extern void XtNoticeSignal(XtSignalId);
extern Widget XtOpenApplication(XtAppContext *, const char *,
                               XrmOptionDescList, Cardinal, int *,
                               String *, String *, WidgetClass, ArgList,
                               Cardinal);
extern Display *XtOpenDisplay(XtAppContext, const char *, const char *,
                              const char *, XrmOptionDescRec *, Cardinal,
                              int *, char **);
extern void XtOverrideTranslations(Widget, XtTranslations);
extern Boolean XtOwnSelection(Widget, Atom, Time, XtConvertSelectionProc,
                             XtLoseSelectionProc, XtSelectionDoneProc);
```

```

extern Boolean XtOwnSelectionIncremental(Widget, Atom, Time,
                                         XtConvertSelectionIncrProc,
                                         XtLoseSelectionIncrProc,
                                         XtSelectionDoneIncrProc,
                                         XtCancelConvertSelectionProc,
                                         XtPointer);

extern Widget XtParent(Widget);
extern XtAccelerators XtParseAcceleratorTable(const char *);
extern XtTranslations XtParseTranslationTable(const char *);
extern Boolean XtPeekEvent(XEvent *);
extern Boolean XtPending(void);
extern void XtPopdown(Widget);
extern void XtPopup(Widget, XtGrabKind);
extern void XtPopupSpringLoaded(Widget);
extern void XtProcessEvent(XtInputMask);
extern XtGeometryResult XtQueryGeometry(Widget, XtWidgetGeometry *,
                                         XtWidgetGeometry *);

extern void XtRealizeWidget(Widget);
extern char *XtRealloc(char *, Cardinal);
extern void XtRegisterCaseConverter(Display *, XtCaseProc, KeySym, KeySym);
extern void XtRegisterDrawable(Display *, Drawable, Widget);
extern void XtRegisterExtensionSelector(Display *, int, int,
                                         XtExtensionSelectProc, XtPointer);
extern void XtRegisterGrabAction(XtActionProc, int, unsigned int, int,
                                 int);
extern void XtReleaseGC(Widget, GC);
extern void XtReleasePropertyAtom(Widget, Atom);
extern void XtRemoveActionHook(XtActionHookId);
extern void XtRemoveAllCallbacks(Widget, const char *);
extern void XtRemoveBlockHook(XtBlockHookId);
extern void XtRemoveCallback(Widget, const char *, XtCallbackProc,
                             XtPointer);
extern void XtRemoveCallbacks(Widget, const char *, XtCallbackList);
extern void XtRemoveEventHandler(Widget, EventMask, int, XtEventHandler,
                                XtPointer);
extern void XtRemoveEventTypeHandler(Widget, int, XtPointer,
                                     XtEventHandler, XtPointer);
extern void XtRemoveGrab(Widget);
extern void XtRemoveInput(XtInputId);
extern void XtRemoveRawEventHandler(Widget, EventMask, int, XtEventHandler,
                                   XtPointer);
extern void XtRemoveSignal(XtSignalId);
extern void XtRemoveTimeOut(XtIntervalId);
extern void XtRemoveWorkProc(XtWorkProcId);
extern Atom XtReservePropertyAtom(Widget);
extern String XtResolvePathname(Display *, const char *, const char *,
                                const char *, const char *, Substitution,
                                Cardinal, XtFilePredicate);
extern Screen *XtScreen(Widget);
extern XrmDatabase XtScreenDatabase(Screen *);
extern Screen *XtScreenOfObject(Widget);
extern void XtSendSelectionRequest(Widget, Atom, Time);
extern XtCheckpointToken XtSessionGetToken(Widget);
extern void XtSessionReturnToken(XtCheckpointToken);
extern void XtSetErrorHandler(XtErrorHandler);
extern void XtSetErrorMsgHandler(XtErrorMsgHandler);
extern XtEventDispatchProc XtSetEventDispatcher(Display *, int,
                                                XtEventDispatchProc);
extern void XtSetKeyTranslator(Display *, XtKeyProc);
extern void XtSetKeyboardFocus(Widget, Widget);
extern XtLanguageProc XtSetLanguageProc(XtAppContext, XtLanguageProc,
                                         XtPointer);

```

```

extern void XtSetMappedWhenManaged(Widget, int);
extern void XtSetMultiClickTime(Display *, int);
extern void XtSetSelectionParameters(Widget, Atom, Atom, XtPointer,
                                     long unsigned int, int);
extern void XtSetSelectionTimeout(long unsigned int);
extern void XtSetSensitive(Widget, int);
extern void XtSetSubvalues(XtPointer, XtResourceList, Cardinal, ArgList,
                           Cardinal);
extern void XtSetTypeConverter(const char *, const char *, XtTypeConverter,
                               XtConvertArgList, Cardinal, XtCacheType,
                               XtDestructor);
extern void XtSetValues(Widget, ArgList, Cardinal);
extern void XtSetWMColormapWindows(Widget, Widget *, Cardinal);
extern void XtSetWarningHandler(XtErrorHandler);
extern void XtSetWarningMsgHandler(XtErrorMsgHandler);
extern void XtStringConversionWarning(const char *, const char *);
extern WidgetClass XtSuperclass(Widget);
extern void XtToolkitInitialize(void);
extern Boolean XtToolkitThreadInitialize(void);
extern void XtTranslateCoords(Widget, int, int, Position *, Position *);
extern void XtTranslateKey(Display *, unsigned int, Modifiers, Modifiers *,
                           KeySym *);
extern void XtTranslateKeycode(Display *, unsigned int, Modifiers,
                               Modifiers *, KeySym *);
extern void XtUngrabButton(Widget, unsigned int, Modifiers);
extern void XtUngrabKey(Widget, unsigned int, Modifiers);
extern void XtUngrabKeyboard(Widget, Time);
extern void XtUngrabPointer(Widget, Time);
extern void XtUninstallTranslations(Widget);
extern void XtUnmapWidget(Widget);
extern void XtUnrealizeWidget(Widget);
extern void XtUnregisterDrawable(Display *, Drawable);
extern Widget XtVaAppCreateShell(const char *, const char *, WidgetClass,
                                Display *, ...);
extern Widget XtVaAppInitialize(XtAppContext *, const char *,
                                XrmOptionDescList, Cardinal, int *,
                                String *, String *, ...);
extern XtVarArgsList XtVaCreateArgsList(XtPointer, ...);
extern Widget XtVaCreateManagedWidget(const char *, WidgetClass, Widget,
                                       ...);
extern Widget XtVaCreatePopupShell(const char *, WidgetClass, Widget, ...);
extern Widget XtVaCreateWidget(const char *, WidgetClass, Widget, ...);
extern void XtVaGetApplicationResources(Widget, XtPointer, XtResourceList,
                                       Cardinal, ...);
extern void XtVaGetSubresources(Widget, XtPointer, const char *,
                                const char *, XtResourceList, Cardinal,
                                ...);
extern void XtVaGetSubvalues(XtPointer, XtResourceList, Cardinal, ...);
extern void XtVaGetValues(Widget, ...);
extern Widget XtVaOpenApplication(XtAppContext *, const char *,
                                XrmOptionDescList, Cardinal, int *,
                                String *, String *, WidgetClass, ...);
extern void XtVaSetSubvalues(XtPointer, XtResourceList, Cardinal, ...);
extern void XtVaSetValues(Widget, ...);
extern void XtWarning(const char *);
extern void XtWarningMsg(const char *, const char *, const char *,
                        const char *, String *, Cardinal *);
extern XtAppContext XtWidgetToApplicationContext(Widget);
extern Window XtWindow(Widget);
extern Window XtWindowOfObject(Widget);
extern Widget XtWindowToWidget(Display *, Window);
extern Boolean _XtCheckSubclassFlag(Widget, unsigned int);

```

```
extern Boolean _XtIsSubclassOf(Widget, WidgetClass, WidgetClass,
                               unsigned int);
extern const XtConvertArgRec colorConvertArgs[];
```

6.10.9. X11/Intrinsic.h

```
#define CALLGEOTAT(f)
#define XTERROR_PREFIX ""
#define XTWARNING_PREFIX ""
#define XtStackAlloc(size, stack_cache_array) ((size) <= sizeof(stack_cache_array) ? (XtPointer)
#define XtWindowOfObject(object) ((XtIsWidget(object) ? (object) : _XtWindowedAncestor(object))
#define XtIsSensitive(object) (XtIsRectObj(object) ? ((object)->core.sensitive && (object)->core
#define XtIsManaged(object) (XtIsRectObj(object) ? (object)->core.managed : False)
#define XtScreenOfObject(object) (XtIsWidget(object) ? (object)->core.screen : _XtIsHookOb
#define XtDisplayOfObject(object) (XtIsWidget(object) ? (object)->core.screen->display : _X
#define XFILESEARCHPATHDEFAULT "/usr/lib/X11/%L/%T/%N%S:/usr/lib/X11/%l/%T/%N%S:/usr/lib/X11/%T/
#define ERRORDB "/usr/lib/X11/XtErrorDB"
#define RectObjClassFlag 0x02
#define WidgetClassFlag 0x04
#define CompositeClassFlag 0x08
#define ConstraintClassFlag 0x10
#define ShellClassFlag 0x20
#define WMShellClassFlag 0x40
#define TopLevelClassFlag 0x80
#define _XtintrinsicI_h 1
#define XtBZero(dst, size) bzero((char *) (dst), (int) (size))
#define XtMemmove(dst, src, size) if ((char *) (dst) != (char *) (src)) { (void) memcpy((char *) (dst)
#define XtMemcpy(b1, b2, size) memcpy((char *) (b1), (char *) (b2), (int) (size))
#define _XBCOPYFUNC _XtBcopy
#define XtStackFree(pointer, stack_cache_array) { if ((pointer) != ((XtPointer) (stack_cache_array)

extern String XtCXtToolkitError;
```

6.10.10. X11/IntrinsicP.h

```
#define XtCheckSubclass(w, widget_class, message)
#define XtExposeNoCompress ((XtEnum) False)
#define XtExposeCompressSeries ((XtEnum) True)
#define XtVersion (XT_VERSION * 1000 + XT_REVISION)
#define XtVersionDontCheck 0
#define XtExposeGraphicsExpose 0x10
#define XtExposeGraphicsExposeMerged 0x20
#define XtExposeNoExpose 0x40
#define XtExposeNoRegion 0x80
#define _XtintrinsicP_h 1
#define XT_VERSION 11
#define XtExposeCompressMultiple 2
#define XtExposeCompressMaximal 3
#define XT_REVISION 6

typedef struct {
    long int xrm_name;
    long int xrm_class;
    long int xrm_type;
    Cardinal xrm_size;
    int xrm_offset;
    long int xrm_default_type;
    XtPointer xrm_default_addr;
} XrmResource;
```

```

typedef XrmResource *XrmResourceList;
typedef struct _XtTMRec *XtTM;
typedef struct {
    String name;
    String type;
    XtArgVal value;
    int size;
} XtTypedArg;
typedef XtTypedArg *XtTypedArgList;
typedef void (*XtProc) (void);
typedef void (*XtWidgetClassProc) (WidgetClass);
typedef void (*XtInitProc) (Widget, Widget, ArgList, Cardinal *);
typedef void (*XtArgsProc) (Widget, ArgList, Cardinal *);
typedef void (*XtRealizeProc) (Widget, XtValueMask *,
                               XSetWindowAttributes *);
typedef void (*XtWidgetProc) (Widget);
typedef void (*XtExposeProc) (Widget, XEvent *, Region);
typedef Boolean (*XtArgsFunc) (Widget, ArgList, Cardinal *);
typedef void (*XtAlmostProc) (Widget, Widget, XtWidgetGeometry *,
                               XtWidgetGeometry *);
typedef Boolean (*XtAcceptFocusProc) (Widget, Time *);
typedef long unsigned int XtVersionType;
typedef XtGeometryResult (*XtGeometryHandler) (Widget, XtWidgetGeometry *,
                                                XtWidgetGeometry *);
typedef void (*XtAllocateProc) (WidgetClass, Cardinal *, Cardinal *,
                                ArgList, Cardinal *, XtTypedArgList,
                                Cardinal *, struct _WidgetRec * *,
                                void **);
typedef void (*XtDeallocateProc) (struct _WidgetRec *, void *);
typedef struct _XtTMRec {
    XtTranslations translations;
    XtBoundActions proc_table;
    struct _XtStateRec *current_state;
    long unsigned int lastEventTime;
} XtTMRec;

typedef void (*XtStringProc) (Widget, String);
typedef Boolean (*XtSetValuesFunc) (Widget, Widget, Widget, ArgList,
                                    Cardinal *);
extern void XtConfigureWidget(Widget, int, int, unsigned int, unsigned int,
                              unsigned int);
extern void XtCreateWindow(Widget, unsigned int, Visual *, XtValueMask,
                           XSetWindowAttributes *);
extern Boolean XtIsComposite(Widget);
extern Boolean XtIsConstraint(Widget);
extern Boolean XtIsRectObj(Widget);
extern Boolean XtIsShell(Widget);
extern Boolean XtIsTopLevelShell(Widget);
extern Boolean XtIsWMShell(Widget);
extern Boolean XtIsWidget(Widget);
extern void XtMoveWidget(Widget, int, int);
extern void XtProcessLock(void);
extern void XtProcessUnlock(void);
extern void XtResizeWidget(Widget, unsigned int, unsigned int,
                           unsigned int);
extern void XtResizeWindow(Widget);
extern void _XtInherit(void);

```

6.10.11. X11/Object.h

```
#define _XtObject_h      1

typedef struct _ObjectClassRec *ObjectClass;
typedef struct _ObjectClassRec *Object;
extern WidgetClass objectClass;
```

6.10.12. X11/ObjectP.h

```
#define XtInheritAllocate      ((XtAllocateProc) _XtInherit)
#define XtInheritDeallocate    ((XtDeallocateProc) _XtInherit)
#define _Xt_ObjectP_h_  1
#define XtObjectExtensionVersion  1L

typedef struct _ObjectPart {
    Widget self;
    WidgetClass widget_class;
    Widget parent;
    XrmName xrm_name;
    Boolean being_destroyed;
    XtCallbackList destroy_callbacks;
    XtPointer constraints;
} ObjectPart;
typedef struct _ObjectRec {
    ObjectPart object;
} ObjectRec;
typedef struct _ObjectClassPart {
    WidgetClass superclass;
    String class_name;
    Cardinal widget_size;
    XtProc class_initialize;
    XtWidgetClassProc class_part_initialize;
    XtEnum class_initied;
    XtInitProc initialize;
    XtArgsProc initialize_hook;
    XtProc obj1;
    XtPointer obj2;
    Cardinal obj3;
    XtResourceList resources;
    Cardinal num_resources;
    XrmClass xrm_class;
    Boolean obj4;
    XtEnum obj5;
    Boolean obj6;
    Boolean obj7;
    XtWidgetProc destroy;
    XtProc obj8;
    XtProc obj9;
    XtSetValuesFunc set_values;
    XtArgsFunc set_values_hook;
    XtProc obj10;
    XtArgsProc get_values_hook;
    XtProc obj11;
    XtVersionType version;
    XtPointer callback_private;
    String obj12;
    XtProc obj13;
    XtProc obj14;
    XtPointer extension;
```

```

} ObjectClassPart;
typedef struct {
    XtPointer next_extension;
    XrmQuark record_type;
    long int version;
    Cardinal record_size;
    XtAllocateProc allocate;
    XtDeallocateProc deallocate;
} ObjectClassExtensionRec;
typedef ObjectClassExtensionRec *ObjectClassExtension;

typedef struct _ObjectClassRec {
    ObjectClassPart object_class;
} ObjectClassRec;
extern ObjectClassRec objectClassRec;

```

6.10.13. X11/RectObj.h

```

typedef struct _RectObjRec *RectObj;
typedef struct _RectObjClassRec *RectObjClass;
extern WidgetClass rectObjClass;

```

6.10.14. X11/RectObjP.h

```

typedef struct _RectObjPart {
    Position x;
    Position y;
    Dimension width;
    Dimension height;
    Dimension border_width;
    Boolean managed;
    Boolean sensitive;
    Boolean ancestor_sensitive;
} RectObjPart;

typedef struct _RectObjRec {
    ObjectPart object;
    RectObjPart rectangle;
} RectObjRec;

typedef struct _RectObjClassPart {
    WidgetClass superclass;
    String class_name;
    Cardinal widget_size;
    XtProc class_initialize;
    XtWidgetClassProc class_part_initialize;
    XtEnum class_initied;
    XtInitProc initialize;
    XtArgsProc initialize_hook;
    XtProc rect1;
    XtPointer rect2;
    Cardinal rect3;
    XtResourceList resources;
    Cardinal num_resources;
    XrmClass xrm_class;
    Boolean rect4;
    XtEnum rect5;
    Boolean rect6;
    Boolean rect7;
} RectObjClassPart;

```

```

XtWidgetProc destroy;
XtWidgetProc resize;
XtExposeProc expose;
XtSetValuesFunc set_values;
XtArgsFunc set_values_hook;
XtAlmostProc set_values_almost;
XtArgsProc get_values_hook;
XtProc rect9;
XtVersionType version;
XtPointer callback_private;
String rect10;
XtGeometryHandler query_geometry;
XtProc rect11;
XtPointer extension;
} RectObjClassPart;

typedef struct _RectObjClassRec {
    RectObjClassPart rect_class;
} RectObjClassRec;
extern RectObjClassRec rectObjClassRec;

```

6.10.15. X11/ResourceI.h

```

#define _XtresourceI_h
#define StringToClass(string)    XrmStringToQuark(string)
#define StringToName(string)    XrmStringToQuark(string)
#define StringToQuark(string)   XrmStringToQuark(string)

extern void _XtCopyFromArg(XtArgVal, char *, unsigned int);

```

6.10.16. X11/Shell.h

```

#define XtNiconName      ((char*)&XtShellStrings[0])
#define XtCDiscardCommand ((char*)&XtShellStrings[1001])
#define XtNenvironment  ((char*)&XtShellStrings[1016])
#define XtCEnvironment  ((char*)&XtShellStrings[1028])
#define XtNinteractCallback ((char*)&XtShellStrings[1040])
#define XtNvisual        ((char*)&XtShellStrings[104])
#define XtNjoinSession   ((char*)&XtShellStrings[1057])
#define XtCJoinSession   ((char*)&XtShellStrings[1069])
#define XtNprogramPath   ((char*)&XtShellStrings[1081])
#define XtCProgramPath   ((char*)&XtShellStrings[1093])
#define XtNresignCommand  ((char*)&XtShellStrings[1105])
#define XtCResignCommand  ((char*)&XtShellStrings[1119])
#define XtCVisual        ((char*)&XtShellStrings[111])
#define XtNrestartCommand ((char*)&XtShellStrings[1133])
#define XtCRestartCommand ((char*)&XtShellStrings[1148])
#define XtNrestartStyle   ((char*)&XtShellStrings[1163])
#define XtCRestartStyle   ((char*)&XtShellStrings[1176])
#define XtNsaveCallback   ((char*)&XtShellStrings[1189])
#define XtNtitleEncoding  ((char*)&XtShellStrings[118])
#define XtNsaveCompleteCallback ((char*)&XtShellStrings[1202])
#define XtNsessionID      ((char*)&XtShellStrings[1223])
#define XtCSessionID      ((char*)&XtShellStrings[1233])
#define XtNshutdownCommand ((char*)&XtShellStrings[1243])
#define XtCShutdownCommand ((char*)&XtShellStrings[1259])
#define XtNerrorCallback  ((char*)&XtShellStrings[1275])
#define XtCTitleEncoding  ((char*)&XtShellStrings[132])
#define XtNsaveUnder      ((char*)&XtShellStrings[146])

```



```

#define XtCSaveUnder      ((char*)&XtShellStrings[156])
#define XtNTransient      ((char*)&XtShellStrings[166])
#define XtCTransient      ((char*)&XtShellStrings[176])
#define XtNOverrideRedirect ((char*)&XtShellStrings[186])
#define XtNIconPixmap     ((char*)&XtShellStrings[18])
#define XtCOverrideRedirect ((char*)&XtShellStrings[203])
#define XtNTransientFor   ((char*)&XtShellStrings[220])
#define XtCTransientFor   ((char*)&XtShellStrings[233])
#define XtNIconNameEncoding ((char*)&XtShellStrings[246])
#define XtCIconNameEncoding ((char*)&XtShellStrings[263])
#define XtNallowShellResize ((char*)&XtShellStrings[280])
#define XtCallowShellResize ((char*)&XtShellStrings[297])
#define XtCIconPixmap     ((char*)&XtShellStrings[29])
#define XtNcreatePopupChildProc ((char*)&XtShellStrings[314])
#define XtCCreatePopupChildProc ((char*)&XtShellStrings[335])
#define XtNtitle          ((char*)&XtShellStrings[356])
#define XtCTitle          ((char*)&XtShellStrings[362])
#define XtNargc ((char*)&XtShellStrings[373])
#define XtCargc ((char*)&XtShellStrings[378])
#define XtNargv ((char*)&XtShellStrings[383])
#define XtCargv ((char*)&XtShellStrings[388])
#define XtNiconX          ((char*)&XtShellStrings[393])
#define XtCIconX          ((char*)&XtShellStrings[399])
#define XtNiconY          ((char*)&XtShellStrings[405])
#define XtNiconWindow     ((char*)&XtShellStrings[40])
#define XtCIconY          ((char*)&XtShellStrings[411])
#define XtNinput          ((char*)&XtShellStrings[417])
#define XtCinput          ((char*)&XtShellStrings[423])
#define XtNiconic         ((char*)&XtShellStrings[429])
#define XtCIconic         ((char*)&XtShellStrings[436])
#define XtNinitialState   ((char*)&XtShellStrings[443])
#define XtCInitialState   ((char*)&XtShellStrings[456])
#define XtNgeometry       ((char*)&XtShellStrings[469])
#define XtCGeometry       ((char*)&XtShellStrings[478])
#define XtNbaseWidth      ((char*)&XtShellStrings[487])
#define XtCbaseWidth      ((char*)&XtShellStrings[497])
#define XtNbaseHeight     ((char*)&XtShellStrings[507])
#define XtCbaseHeight     ((char*)&XtShellStrings[518])
#define XtCIconWindow     ((char*)&XtShellStrings[51])
#define XtNwinGravity     ((char*)&XtShellStrings[529])
#define XtCwinGravity     ((char*)&XtShellStrings[540])
#define XtNminWidth       ((char*)&XtShellStrings[551])
#define XtCminWidth       ((char*)&XtShellStrings[560])
#define XtNminHeight      ((char*)&XtShellStrings[569])
#define XtCminHeight      ((char*)&XtShellStrings[579])
#define XtNmaxWidth       ((char*)&XtShellStrings[589])
#define XtCmaxWidth       ((char*)&XtShellStrings[598])
#define XtNmaxHeight      ((char*)&XtShellStrings[607])
#define XtCmaxHeight      ((char*)&XtShellStrings[617])
#define XtNwidthInc       ((char*)&XtShellStrings[627])
#define XtNiconMask       ((char*)&XtShellStrings[62])
#define XtCwidthInc       ((char*)&XtShellStrings[636])
#define XtNheightInc      ((char*)&XtShellStrings[645])
#define XtCheightInc      ((char*)&XtShellStrings[655])
#define XtNminAspectY     ((char*)&XtShellStrings[665])
#define XtCminAspectY     ((char*)&XtShellStrings[676])
#define XtNmaxAspectY     ((char*)&XtShellStrings[687])
#define XtCmaxAspectY     ((char*)&XtShellStrings[698])
#define XtNminAspectX     ((char*)&XtShellStrings[709])
#define XtCIconMask       ((char*)&XtShellStrings[71])
#define XtCminAspectX     ((char*)&XtShellStrings[720])
#define XtNmaxAspectX     ((char*)&XtShellStrings[731])

```

```

#define XtCMaxAspectX      ((char*)&XtShellStrings[742])
#define XtNwmTimeout       ((char*)&XtShellStrings[753])
#define XtCWmTimeout       ((char*)&XtShellStrings[763])
#define XtNwaitForWm       ((char*)&XtShellStrings[773])
#define XtCWaitForWm       ((char*)&XtShellStrings[783])
#define XtNwaitforwm       ((char*)&XtShellStrings[793])
#define XtCWaitforwm       ((char*)&XtShellStrings[803])
#define XtNwindowGroup     ((char*)&XtShellStrings[80])
#define XtNclientLeader    ((char*)&XtShellStrings[813])
#define XtCClientLeader    ((char*)&XtShellStrings[826])
#define XtNwindowRole      ((char*)&XtShellStrings[839])
#define XtCWindowRole      ((char*)&XtShellStrings[850])
#define XtNurgency          ((char*)&XtShellStrings[861])
#define XtCUrgency         ((char*)&XtShellStrings[869])
#define XtNcancelCallback   ((char*)&XtShellStrings[877])
#define XtNcloneCommand     ((char*)&XtShellStrings[892])
#define XtCCloneCommand     ((char*)&XtShellStrings[905])
#define XtNconnection       ((char*)&XtShellStrings[918])
#define XtCConnection       ((char*)&XtShellStrings[929])
#define XtCWindowGroup      ((char*)&XtShellStrings[92])
#define XtNcurrentDirectory ((char*)&XtShellStrings[940])
#define XtCCurrentDirectory ((char*)&XtShellStrings[957])
#define XtNdieCallback      ((char*)&XtShellStrings[974])
#define XtNdiscardCommand   ((char*)&XtShellStrings[986])
#define XtCIconName         ((char*)&XtShellStrings[9])
#define _XtShell_h          1

extern char XtShellStrings[];
extern WidgetClass applicationShellWidgetClass;
extern WidgetClass overrideShellWidgetClass;
extern WidgetClass sessionShellWidgetClass;
extern WidgetClass shellWidgetClass;
extern WidgetClass topLevelShellWidgetClass;
extern WidgetClass transientShellWidgetClass;
extern WidgetClass wmShellWidgetClass;

```

6.10.17. X11/ShellP.h

```

struct _OldXSizeHints {
    long int flags;
    int x;
    int y;
    int width;
    int height;
    int min_width;
    int min_height;
    int max_width;
    int max_height;
    int width_inc;
    int height_inc;
    struct {
        int x;
        int y;
    } min_aspect;
    struct {
        int x;
        int y;
    } max_aspect;
};

#define _XtShellPositionValid ((Boolean) (1<<0))

```

```

#define _XtShellNotReparented    ((Boolean) (1<<1))
#define _XtShellPPositionOK      ((Boolean) (1<<2))
#define _XtShellGeometryParsed  ((Boolean) (1<<3))
#define XtInheritRootGeometryManager ((XtGeometryHandler)_XtInherit)
#define XtShellExtensionVersion 1L

typedef struct {
    XtPointer extension;
} ShellClassPart;
typedef struct {
    XtPointer next_extension;
    XrmQuark record_type;
    long int version;
    Cardinal record_size;
    XtGeometryHandler root_geometry_manager;
} ShellClassExtensionRec;
typedef ShellClassExtensionRec *ShellClassExtension;
typedef struct _ShellClassRec {
    CoreClassPart core_class;
    CompositeClassPart composite_class;
    ShellClassPart shell_class;
} ShellClassRec;
typedef struct {
    char *geometry;
    XtCreatePopupChildProc create_popup_child_proc;
    XtGrabKind grab_kind;
    Boolean spring_loaded;
    Boolean popped_up;
    Boolean allow_shell_resize;
    Boolean client_specified;
    Boolean save_under;
    Boolean override_redirect;
    XtCallbackList popup_callback;
    XtCallbackList popdown_callback;
    Visual *visual;
} ShellPart;
typedef struct {
    CorePart core;
    CompositePart composite;
    ShellPart shell;
} ShellRec;
typedef ShellRec *ShellWidget;
typedef struct {
    XtPointer extension;
} OverrideShellClassPart;
typedef struct _OverrideShellClassRec {
    CoreClassPart core_class;
    CompositeClassPart composite_class;
    ShellClassPart shell_class;
    OverrideShellClassPart override_shell_class;
} OverrideShellClassRec;
typedef struct {
    int frabjous;
} OverrideShellPart;
typedef struct {
    CorePart core;
    CompositePart composite;
    ShellPart shell;
    OverrideShellPart override;
} OverrideShellRec;
typedef OverrideShellRec *OverrideShellWidget;
typedef struct {

```

```

    XtPointer extension;
} WMShellClassPart;
typedef struct _WMShellClassRec {
    CoreClassPart core_class;
    CompositeClassPart composite_class;
    ShellClassPart shell_class;
    WMShellClassPart wm_shell_class;
} WMShellClassRec;
typedef struct {
    char *title;
    int wm_timeout;
    Boolean wait_for_wm;
    Boolean transient;
    Boolean urgency;
    Widget client_leader;
    String window_role;
    struct _OldXSizeHints size_hints;
    XWMHints wm_hints;
    int base_width;
    int base_height;
    int win_gravity;
    Atom title_encoding;
} WMShellPart;
typedef struct {
    CorePart core;
    CompositePart composite;
    ShellPart shell;
    WMShellPart wm;
} WMShellRec;
typedef WMShellRec *WMShellWidget;
typedef struct {
    XtPointer extension;
} TransientShellClassPart;
typedef struct _TransientShellClassRec {
    CoreClassPart core_class;
    CompositeClassPart composite_class;
    ShellClassPart shell_class;
    WMShellClassPart wm_shell_class;
    VendorShellClassPart vendor_shell_class;
    TransientShellClassPart transient_shell_class;
} TransientShellClassRec;
typedef struct {
    Widget transient_for;
} TransientShellPart;
typedef struct {
    CorePart core;
    CompositePart composite;
    ShellPart shell;
    WMShellPart wm;
    VendorShellPart vendor;
    TransientShellPart transient;
} TransientShellRec;
typedef TransientShellRec *TransientShellWidget;
typedef struct {
    XtPointer extension;
} TopLevelShellClassPart;
typedef struct _TopLevelShellClassRec {
    CoreClassPart core_class;
    CompositeClassPart composite_class;
    ShellClassPart shell_class;
    WMShellClassPart wm_shell_class;
    VendorShellClassPart vendor_shell_class;

```

```

    TopLevelShellClassPart top_level_shell_class;
} TopLevelShellClassRec;
typedef struct {
    char *icon_name;
    Boolean iconic;
    Atom icon_name_encoding;
} TopLevelShellPart;
typedef struct {
    CorePart core;
    CompositePart composite;
    ShellPart shell;
    WMShellPart wm;
    VendorShellPart vendor;
    TopLevelShellPart topLevel;
} TopLevelShellRec;
typedef TopLevelShellRec *TopLevelShellWidget;
typedef struct {
    XtPointer extension;
} ApplicationShellClassPart;
typedef struct _ApplicationShellClassRec {
    CoreClassPart core_class;
    CompositeClassPart composite_class;
    ShellClassPart shell_class;
    WMShellClassPart wm_shell_class;
    VendorShellClassPart vendor_shell_class;
    TopLevelShellClassPart top_level_shell_class;
    ApplicationShellClassPart application_shell_class;
} ApplicationShellClassRec;
typedef struct {
#ifdef __cplusplus || defined(c_plusplus)
    char *c_class;
#else
    char *class;
#endif
    XrmClass xrm_class;
    int argc;
    char **argv;
} ApplicationShellPart;
typedef struct {
    CorePart core;
    CompositePart composite;
    ShellPart shell;
    WMShellPart wm;
    VendorShellPart vendor;
    TopLevelShellPart topLevel;
    ApplicationShellPart application;
} ApplicationShellRec;
typedef ApplicationShellRec *ApplicationShellWidget;
typedef struct {
    XtPointer extension;
} SessionShellClassPart;
typedef struct _SessionShellClassRec {
    CoreClassPart core_class;
    CompositeClassPart composite_class;
    ShellClassPart shell_class;
    WMShellClassPart wm_shell_class;
    VendorShellClassPart vendor_shell_class;
    TopLevelShellClassPart top_level_shell_class;
    ApplicationShellClassPart application_shell_class;
    SessionShellClassPart session_shell_class;
} SessionShellClassRec;
typedef struct _XtSaveYourselfRec *XtSaveYourself;

```

```

typedef struct {
    SmcConn connection;
    String session_id;
    char **restart_command;
    char **clone_command;
    char **discard_command;
    char **resign_command;
    char **shutdown_command;
    char **environment;
    String current_dir;
    String program_path;
    unsigned char restart_style;
    unsigned char checkpoint_state;
    Boolean join_session;
    XtCallbackList save_callbacks;
    XtCallbackList interact_callbacks;
    XtCallbackList cancel_callbacks;
    XtCallbackList save_complete_callbacks;
    XtCallbackList die_callbacks;
    XtCallbackList error_callbacks;
    XtSaveYourself save;
    XtInputId input_id;
    XtPointer ses20;
    XtPointer ses19;
    XtPointer ses18;
    XtPointer ses17;
    XtPointer ses16;
    XtPointer ses15;
    XtPointer ses14;
    XtPointer ses13;
    XtPointer ses12;
    XtPointer ses11;
    XtPointer ses10;
    XtPointer ses9;
    XtPointer ses8;
    XtPointer ses7;
    XtPointer ses6;
    XtPointer ses5;
    XtPointer ses4;
    XtPointer ses3;
    XtPointer ses2;
    XtPointer ses1;
} SessionShellPart;

typedef struct {
    CorePart core;
    CompositePart composite;
    ShellPart shell;
    WMShellPart wm;
    VendorShellPart vendor;
    TopLevelShellPart topLevel;
    ApplicationShellPart application;
    SessionShellPart session;
} SessionShellRec;

typedef SessionShellRec *SessionShellWidget;
extern ApplicationShellClassRec applicationShellClassRec;
extern OverrideShellClassRec overrideShellClassRec;
extern SessionShellClassRec sessionShellClassRec;
extern ShellClassRec shellClassRec;
extern TopLevelShellClassRec topLevelShellClassRec;
extern TransientShellClassRec transientShellClassRec;
extern WMShellClassRec wmShellClassRec;

```

6.10.18. X11/StringDefs.h

```
#define XtNaccelerators ((char*)&XtStrings[0])
#define XtCFile ((char*)&XtStrings[1012])
#define XtCFont ((char*)&XtStrings[1017])
#define XtCForeground ((char*)&XtStrings[1022])
#define XtCFraction ((char*)&XtStrings[1033])
#define XtCFunction ((char*)&XtStrings[1042])
#define XtCHeight ((char*)&XtStrings[1051])
#define XtCHSpace ((char*)&XtStrings[1058])
#define XtCIndex ((char*)&XtStrings[1065])
#define XtCInitialResourcesPersistent ((char*)&XtStrings[1071])
#define XtCInsertPosition ((char*)&XtStrings[1098])
#define XtCInterval ((char*)&XtStrings[1113])
#define XtNborderPixmap ((char*)&XtStrings[111])
#define XtCJustify ((char*)&XtStrings[1122])
#define XtCKnobIndent ((char*)&XtStrings[1130])
#define XtCKnobPixel ((char*)&XtStrings[1141])
#define XtCLabel ((char*)&XtStrings[1151])
#define XtCLength ((char*)&XtStrings[1157])
#define XtCMappedWhenManaged ((char*)&XtStrings[1164])
#define XtCMargin ((char*)&XtStrings[1182])
#define XtCMenuEntry ((char*)&XtStrings[1189])
#define XtCNotify ((char*)&XtStrings[1199])
#define XtCOrientation ((char*)&XtStrings[1206])
#define XtCParameter ((char*)&XtStrings[1218])
#define XtCPixmap ((char*)&XtStrings[1228])
#define XtCPosition ((char*)&XtStrings[1235])
#define XtCReadOnly ((char*)&XtStrings[1244])
#define XtNborderWidth ((char*)&XtStrings[124])
#define XtCResize ((char*)&XtStrings[1253])
#define XtCReverseVideo ((char*)&XtStrings[1260])
#define XtCScreen ((char*)&XtStrings[1273])
#define XtCScrollProc ((char*)&XtStrings[1280])
#define XtCScrollDCursor ((char*)&XtStrings[1291])
#define XtCScrollHCursor ((char*)&XtStrings[1305])
#define XtCScrollLCursor ((char*)&XtStrings[1319])
#define XtCScrollRCursor ((char*)&XtStrings[1333])
#define XtCScrollUCursor ((char*)&XtStrings[1347])
#define XtCScrollVCursor ((char*)&XtStrings[1361])
#define XtNcallback ((char*)&XtStrings[136])
#define XtCSelection ((char*)&XtStrings[1375])
#define XtCSensitive ((char*)&XtStrings[1385])
#define XtCSelectionArray ((char*)&XtStrings[1395])
#define XtNallowHoriz ((char*)&XtStrings[13])
#define XtCSpace ((char*)&XtStrings[1410])
#define XtCString ((char*)&XtStrings[1416])
#define XtCTextOptions ((char*)&XtStrings[1423])
#define XtCTextPosition ((char*)&XtStrings[1435])
#define XtCTextSink ((char*)&XtStrings[1448])
#define XtCTextSource ((char*)&XtStrings[1457])
#define XtNchildren ((char*)&XtStrings[145])
#define XtCThickness ((char*)&XtStrings[1468])
#define XtCThumb ((char*)&XtStrings[1478])
#define XtCTranslations ((char*)&XtStrings[1484])
#define XtCValue ((char*)&XtStrings[1497])
#define XtCVSpace ((char*)&XtStrings[1503])
#define XtCWidth ((char*)&XtStrings[1510])
#define XtCWindow ((char*)&XtStrings[1516])
#define XtCX ((char*)&XtStrings[1523])
```

```

#define XtCY      ((char*)&XtStrings[1525])
#define XtRAcceleratorTable ((char*)&XtStrings[1527])
#define XtRAtom ((char*)&XtStrings[1544])
#define XtRBitmap ((char*)&XtStrings[1549])
#define XtNcolormap ((char*)&XtStrings[154])
#define XtRBool ((char*)&XtStrings[1556])
#define XtRBoolean ((char*)&XtStrings[1561])
#define XtRCallback ((char*)&XtStrings[1569])
#define XtRCallProc ((char*)&XtStrings[1578])
#define XtRCardinal ((char*)&XtStrings[1587])
#define XtRColor ((char*)&XtStrings[1596])
#define XtRColormap ((char*)&XtStrings[1602])
#define XtRCursor ((char*)&XtStrings[1611])
#define XtRDimension ((char*)&XtStrings[1618])
#define XtRDisplay ((char*)&XtStrings[1628])
#define XtREditMode ((char*)&XtStrings[1636])
#define XtNdepth ((char*)&XtStrings[163])
#define XtREnum ((char*)&XtStrings[1645])
#define XtRFile ((char*)&XtStrings[1650])
#define XtRFloat ((char*)&XtStrings[1655])
#define XtRFont ((char*)&XtStrings[1661])
#define XtRFontStruct ((char*)&XtStrings[1666])
#define XtRFunction ((char*)&XtStrings[1677])
#define XtRGeometry ((char*)&XtStrings[1686])
#define XtRImmediate ((char*)&XtStrings[1695])
#define XtNdestroyCallback ((char*)&XtStrings[169])
#define XtRInitialState ((char*)&XtStrings[1705])
#define XtRInt ((char*)&XtStrings[1718])
#define XtRJustify ((char*)&XtStrings[1722])
#define XtRLongBoolean ((char*)&XtStrings[1730])
#define XtRObject ((char*)&XtStrings[1735])
#define XtROrientation ((char*)&XtStrings[1742])
#define XtRPixel ((char*)&XtStrings[1754])
#define XtRPixmap ((char*)&XtStrings[1760])
#define XtRPointer ((char*)&XtStrings[1767])
#define XtRPosition ((char*)&XtStrings[1775])
#define XtRScreen ((char*)&XtStrings[1784])
#define XtRShort ((char*)&XtStrings[1791])
#define XtRString ((char*)&XtStrings[1797])
#define XtRStringArray ((char*)&XtStrings[1804])
#define XtRStringTable ((char*)&XtStrings[1816])
#define XtRUnsignedChar ((char*)&XtStrings[1828])
#define XtRTranslationTable ((char*)&XtStrings[1841])
#define XtRVisual ((char*)&XtStrings[1858])
#define XtNeditType ((char*)&XtStrings[185])
#define XtRWidget ((char*)&XtStrings[1865])
#define XtRWidgetClass ((char*)&XtStrings[1872])
#define XtRWidgetList ((char*)&XtStrings[1884])
#define XtRWindow ((char*)&XtStrings[1895])
#define XtEoff ((char*)&XtStrings[1902])
#define XtEfalse ((char*)&XtStrings[1906])
#define XtEno ((char*)&XtStrings[1912])
#define XtEon ((char*)&XtStrings[1915])
#define XtEtrue ((char*)&XtStrings[1918])
#define XtEyes ((char*)&XtStrings[1923])
#define XtEvertical ((char*)&XtStrings[1927])
#define XtEhorizontal ((char*)&XtStrings[1936])
#define XtEtextRead ((char*)&XtStrings[1947])
#define XtNfile ((char*)&XtStrings[194])
#define XtEtextAppend ((char*)&XtStrings[1952])
#define XtEtextEdit ((char*)&XtStrings[1959])
#define XtExtdefaultbackground ((char*)&XtStrings[1964])

```



```

#define XtExtdefaultforeground ((char*)&XtStrings[1984])
#define XtNfont ((char*)&XtStrings[199])
#define XtExtdefaultfont ((char*)&XtStrings[2004])
#define XtNfontSet ((char*)&XtStrings[2018])
#define XtRFontSet ((char*)&XtStrings[2026])
#define XtCFontSet ((char*)&XtStrings[2034])
#define XtRGravity ((char*)&XtStrings[2042])
#define XtNforceBars ((char*)&XtStrings[204])
#define XtNcreateHook ((char*)&XtStrings[2050])
#define XtNchangeHook ((char*)&XtStrings[2061])
#define XtNconfigureHook ((char*)&XtStrings[2072])
#define XtNgeometryHook ((char*)&XtStrings[2086])
#define XtNdestroyHook ((char*)&XtStrings[2099])
#define XtNshells ((char*)&XtStrings[2111])
#define XtNnumShells ((char*)&XtStrings[2118])
#define XtRCommandArgArray ((char*)&XtStrings[2128])
#define XtRDirectoryString ((char*)&XtStrings[2144])
#define XtNforeground ((char*)&XtStrings[214])
#define XtREnvironmentArray ((char*)&XtStrings[2160])
#define XtRRestartStyle ((char*)&XtStrings[2177])
#define XtRSmcConn ((char*)&XtStrings[2190])
#define XtHcreate ((char*)&XtStrings[2198])
#define XtHsetValues ((char*)&XtStrings[2207])
#define XtHmanageChildren ((char*)&XtStrings[2219])
#define XtHunmanageChildren ((char*)&XtStrings[2236])
#define XtHmanageSet ((char*)&XtStrings[2255])
#define XtNfunction ((char*)&XtStrings[225])
#define XtHunmanageSet ((char*)&XtStrings[2267])
#define XtHrealizeWidget ((char*)&XtStrings[2281])
#define XtHunrealizeWidget ((char*)&XtStrings[2297])
#define XtHaddCallback ((char*)&XtStrings[2315])
#define XtHaddCallbacks ((char*)&XtStrings[2329])
#define XtHremoveCallback ((char*)&XtStrings[2344])
#define XtNheight ((char*)&XtStrings[234])
#define XtHremoveCallbacks ((char*)&XtStrings[2361])
#define XtHremoveAllCallbacks ((char*)&XtStrings[2379])
#define XtHaugmentTranslations ((char*)&XtStrings[2400])
#define XtNhighlight ((char*)&XtStrings[241])
#define XtHoverrideTranslations ((char*)&XtStrings[2422])
#define XtHuninstallTranslations ((char*)&XtStrings[2445])
#define XtHsetKeyboardFocus ((char*)&XtStrings[2469])
#define XtHsetWMColormapWindows ((char*)&XtStrings[2488])
#define XtNallowVert ((char*)&XtStrings[24])
#define XtHsetMappedWhenManaged ((char*)&XtStrings[2511])
#define XtNhSpace ((char*)&XtStrings[251])
#define XtHmapWidget ((char*)&XtStrings[2534])
#define XtHunmapWidget ((char*)&XtStrings[2546])
#define XtHpopup ((char*)&XtStrings[2560])
#define XtHpopupSpringLoaded ((char*)&XtStrings[2568])
#define XtHpopdown ((char*)&XtStrings[2588])
#define XtNindex ((char*)&XtStrings[258])
#define XtHconfigure ((char*)&XtStrings[2598])
#define XtHpreGeometry ((char*)&XtStrings[2610])
#define XtHpostGeometry ((char*)&XtStrings[2624])
#define XtHdestroy ((char*)&XtStrings[2639])
#define XtNinitialResourcesPersistent ((char*)&XtStrings[264])
#define XtNinnerHeight ((char*)&XtStrings[291])
#define XtNinnerWidth ((char*)&XtStrings[303])
#define XtNinnerWindow ((char*)&XtStrings[314])
#define XtNinsertPosition ((char*)&XtStrings[326])
#define XtNinternalHeight ((char*)&XtStrings[341])
#define XtNancestorSensitive ((char*)&XtStrings[34])

```

```

#define XtNinternalWidth      ((char*)&XtStrings[356])
#define XtNjumpProc          ((char*)&XtStrings[370])
#define XtNjustify           ((char*)&XtStrings[379])
#define XtNknobHeight        ((char*)&XtStrings[387])
#define XtNknobIndent        ((char*)&XtStrings[398])
#define XtNknobPixel         ((char*)&XtStrings[409])
#define XtNknobWidth         ((char*)&XtStrings[419])
#define XtNlabel              ((char*)&XtStrings[429])
#define XtNlength            ((char*)&XtStrings[435])
#define XtNlowerRight        ((char*)&XtStrings[442])
#define XtNmappedWhenManaged ((char*)&XtStrings[453])
#define XtNmenuEntry         ((char*)&XtStrings[471])
#define XtNname ((char*)&XtStrings[481])
#define XtNnotify            ((char*)&XtStrings[486])
#define XtNnumChildren       ((char*)&XtStrings[493])
#define XtNorientation       ((char*)&XtStrings[505])
#define XtNparameter         ((char*)&XtStrings[517])
#define XtNpixmap            ((char*)&XtStrings[527])
#define XtNbackground        ((char*)&XtStrings[52])
#define XtNpopupCallback      ((char*)&XtStrings[534])
#define XtNpopdownCallback    ((char*)&XtStrings[548])
#define XtNresize            ((char*)&XtStrings[564])
#define XtNreverseVideo      ((char*)&XtStrings[571])
#define XtNscreen            ((char*)&XtStrings[584])
#define XtNscrollProc        ((char*)&XtStrings[591])
#define XtNscrollDCursor     ((char*)&XtStrings[602])
#define XtNscrollHCursor     ((char*)&XtStrings[616])
#define XtNscrollLCursor     ((char*)&XtStrings[630])
#define XtNbackgroundPixmap  ((char*)&XtStrings[63])
#define XtNscrollRCursor     ((char*)&XtStrings[644])
#define XtNscrollUCursor     ((char*)&XtStrings[658])
#define XtNscrollVCursor     ((char*)&XtStrings[672])
#define XtNselection         ((char*)&XtStrings[686])
#define XtNselectionArray    ((char*)&XtStrings[696])
#define XtNsensitive         ((char*)&XtStrings[711])
#define XtNshown             ((char*)&XtStrings[721])
#define XtNspace             ((char*)&XtStrings[727])
#define XtNstring            ((char*)&XtStrings[733])
#define XtNtextOptions       ((char*)&XtStrings[740])
#define XtNtextSink          ((char*)&XtStrings[752])
#define XtNtextSource        ((char*)&XtStrings[761])
#define XtNthickness         ((char*)&XtStrings[772])
#define XtNthumb             ((char*)&XtStrings[782])
#define XtNthumbProc         ((char*)&XtStrings[788])
#define XtNtop ((char*)&XtStrings[798])
#define XtNtranslations      ((char*)&XtStrings[802])
#define XtNbitmap            ((char*)&XtStrings[80])
#define XtNunrealizeCallback ((char*)&XtStrings[815])
#define XtNupdate            ((char*)&XtStrings[833])
#define XtNuseBottom         ((char*)&XtStrings[840])
#define XtNuseRight          ((char*)&XtStrings[850])
#define XtNvalue             ((char*)&XtStrings[859])
#define XtNvSpace            ((char*)&XtStrings[865])
#define XtNwidth             ((char*)&XtStrings[872])
#define XtNwindow            ((char*)&XtStrings[878])
#define XtNborderColor       ((char*)&XtStrings[87])
#define XtNx ((char*)&XtStrings[885])
#define XtNy ((char*)&XtStrings[887])
#define XtCAccelerators      ((char*)&XtStrings[889])
#define XtCBackground        ((char*)&XtStrings[902])
#define XtCBitmap            ((char*)&XtStrings[913])
#define XtCBoolean           ((char*)&XtStrings[920])

```

```

#define XtCBorderColor      ((char*)&XtStrings[928])
#define XtCBorderWidth     ((char*)&XtStrings[940])
#define XtCCallback        ((char*)&XtStrings[952])
#define XtCColormap        ((char*)&XtStrings[961])
#define XtCColor           ((char*)&XtStrings[970])
#define XtCCursor          ((char*)&XtStrings[976])
#define XtCDepth           ((char*)&XtStrings[983])
#define XtCEditType        ((char*)&XtStrings[989])
#define XtCEventBindings   ((char*)&XtStrings[998])
#define XtNborder          ((char*)&XtStrings[99])
#define _XtStringDefs_h_   1

extern char XtStrings[];

```

6.10.19. X11/Translatel.h

```

struct _TranslationData {
    unsigned char hasBindings;
    unsigned char operation;
    TMShortCard numStateTrees;
    struct _TranslationData *composers[2];
    EventMask eventMask;
    TMStateTree stateTreeTbl[1];
};
typedef struct _ActionsRec *ActionPtr;
typedef struct _ActionsRec {
    int idx;
    String *params;
    Cardinal num_params;
    ActionPtr next;
} ActionRec;
typedef long unsigned int TMLongCard;
struct _LateBindings {
    unsigned int knot:1;
    unsigned int pair:1;
    short unsigned int ref_count;
    KeySym keysym;
};
typedef struct _LateBindings *LateBindingsPtr;
struct _TMTypeMatchRec {
    TMLongCard eventType;
    TMLongCard eventCode;
    TMLongCard eventCodeMask;
    MatchProc matchEvent;
};
typedef struct _TMTypeMatchRec *TMTypeMatch;
struct _TMModifierMatchRec {
    TMLongCard modifiers;
    TMLongCard modifierMask;
    LateBindingsPtr lateModifiers;
    Boolean standard;
};
typedef struct _TMModifierMatchRec *TMModifierMatch;
typedef struct _TMEventRec *TMEventPtr;
typedef Boolean(*MatchProc) (TMTypeMatch, TMModifierMatch, TMEventPtr);
struct _TMEventRec {
    XEvent *xev;
    Event event;
};
typedef struct _EventRec {
    TMLongCard modifiers;

```

```

    TMLongCard modifierMask;
    LateBindingsPtr lateModifiers;
    TMLongCard eventType;
    TMLongCard eventCode;
    TMLongCard eventCodeMask;
    MatchProc matchEvent;
    Boolean standard;
} Event;
typedef short unsigned int TMShortCard;
typedef struct _TMBranchHeadRec {
    unsigned int isSimple:1;
    unsigned int hasActions:1;
    unsigned int hasCycles:1;
    unsigned int more:13;
    TMShortCard typeIndex;
    TMShortCard modIndex;
} TMBranchHeadRec;
typedef struct _TMSimpleStateTreeRec {
    unsigned int isSimple:1;
    unsigned int isAccelerator:1;
    unsigned int mappingNotifyInterest:1;
    unsigned int refCount:13;
    TMShortCard numBranchHeads;
    TMShortCard numQuarks;
    TMShortCard unused;
    TMBranchHeadRec *branchHeadTbl;
    XrmQuark *quarkTbl;
} TMSimpleStateTreeRec;
struct _XtStateRec {
    unsigned int isCycleStart:1;
    unsigned int isCycleEnd:1;
    TMShortCard typeIndex;
    TMShortCard modIndex;
    ActionPtr actions;
    StatePtr nextLevel;
};
typedef struct _XtStateRec *StatePtr;
typedef struct _TMParseStateTreeRec {
    unsigned int isSimple:1;
    unsigned int isAccelerator:1;
    unsigned int mappingNotifyInterest:1;
    unsigned int isStackQuarks:1;
    unsigned int isStackBranchHeads:1;
    unsigned int isStackComplexBranchHeads:1;
    unsigned int unused:10;
    TMShortCard numBranchHeads;
    TMShortCard numQuarks;
    TMShortCard numComplexBranchHeads;
    TMBranchHeadRec *branchHeadTbl;
    XrmQuark *quarkTbl;
    StatePtr *complexBranchHeadTbl;
    TMShortCard branchHeadTblSize;
    TMShortCard quarkTblSize;
    TMShortCard complexBranchHeadTblSize;
    StatePtr head;
} TMParseStateTreeRec;
typedef struct _TMComplexStateTreeRec {
    unsigned int isSimple:1;
    unsigned int isAccelerator:1;
    unsigned int mappingNotifyInterest:1;
    unsigned int refCount:13;
    TMShortCard numBranchHeads;

```

```

    TMShortCard numQuarks;
    TMShortCard numComplexBranchHeads;
    TMBranchHeadRec *branchHeadTbl;
    XrmQuark *quarkTbl;
    StatePtr *complexBranchHeadTbl;
} TMComplexStateTreeRec;
union _TMStateTreeRec {
    TMSimpleStateTreeRec simple;
    TMParseStateTreeRec parse;
    TMComplexStateTreeRec complex;
};
typedef union _TMStateTreeRec *TMStateTree;
typedef Boolean(*_XtTraversalProc) (StatePtr, XtPointer);
typedef struct _TMSimpleBindProcsRec {
    XtActionProc *procs;
} TMSimpleBindProcsRec;
typedef struct _TMSimpleBindDataRec {
    unsigned int isComplex:1;
    TMSimpleBindProcsRec bindTbl[8];
} TMSimpleBindDataRec;
typedef struct _TMComplexBindProcsRec {
    Widget widget;
    XtTranslations aXlations;
    XtActionProc *procs;
} TMComplexBindProcsRec;
struct _ATranslationData {
    unsigned char hasBindings;
    unsigned char operation;
    struct _TranslationData *xlations;
    struct _ATranslationData *next;
    TMComplexBindProcsRec bindTbl[24];
};
typedef struct _TMComplexBindDataRec {
    unsigned int isComplex:1;
    struct _ATranslationData *accel_context;
    TMComplexBindProcsRec bindTbl[24];
} TMComplexBindDataRec;
union _TMBindDataRec {
    TMSimpleBindDataRec simple;
    TMComplexBindDataRec complex;
};
typedef union _TMBindDataRec *TMBindData;
typedef struct _TMParseStateTreeRec *TMParseStateTree;
struct _EventSeqRec {
    Event event;
    StatePtr state;
    EventSeqPtr next;
    ActionPtr actions;
};
typedef struct _EventSeqRec *EventSeqPtr;
typedef struct _TMBranchHeadRec *TMBranchHead;
typedef unsigned int _XtTranslateOp;

```

6.10.20. X11/VendorP.h

```

typedef struct {
    XtPointer extension;
} VendorShellClassPart;
typedef struct _VendorShellClassRec {
    CoreClassPart core_class;
    CompositeClassPart composite_class;
} VendorShellClassRec;

```

```

    ShellClassPart shell_class;
    WMShellClassPart wm_shell_class;
    VendorShellClassPart vendor_shell_class;
} VendorShellClassRec;
typedef struct {
    int vendor_specific;
} VendorShellPart;
typedef struct {
    CorePart core;
    CompositePart composite;
    ShellPart shell;
    WMShellPart wm;
    VendorShellPart vendor;
} VendorShellRec;
typedef VendorShellRec *VendorShellWidget;

```

6.11. Interface Definitions for libXt

Table of Contents

XtCopyFromArg -- Copy "size" bytes from src to dst.

XtInherit -- inheritance operation.

XtInheritTranslations -- an inheritance constant

XtIsSubclassOf -- determine if Widget is a subclass of WidgetClass.

The interfaces defined on the following pages are included in libXt and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 6.9](#) shall behave as described in the referenced base document.

_XtCopyFromArg

Name

_XtCopyFromArg -- Copy "size" bytes from src to dst.

Synopsis

```
void _XtCopyFromArg(XtArgVal src, char* dst, unsigned int size);
```

Description

The _XtCopyFromArg() function copies "size" bytes from src to dst. This is an internal X function call.

_XtInherit

Name

_XtInherit -- inheritance operation.

Synopsis

```
#include <IntrinsicP.h>

extern void _XtInherit(
#ifdef NeedFunctionPrototypes
    void
#endif
);
```

Description

_XtInherit() is a procedure that issues an error message if it is actually called.

_XtInheritTranslations

Name

_XtInheritTranslations -- an inheritance constant

Synopsis

```
#include <CoreP.h>

externalref int _XtInheritTranslations;
```

Description

_XtInheritTranslations is an inheritance constant.

_XtIsSubclassOf

Name

`_XtIsSubclassOf` -- determine if Widget is a subclass of WidgetClass.

Synopsis

```
#include <Intrinsic.h>

extern Boolean _XtIsSubclassOf(
    Widget          /* object*   /,
    WidgetClass     /* widget_class *//,
    WidgetClass     /* flag_class *//,
    _XtXtEnum       /* type_flag *//,
);
```

Description

Determine if Widget(object) is a subclass of WidgetClass(widget_class).

6.12. Interfaces for libXext

[Table 6-11](#) defines the library name and shared object name for the libXext library

Table 6-11. libXext Definition

Library:	libXext
SONAME:	libXext.so.6

The behavior of the interfaces in this library is specified by the following specifications:

[LSB] [This Specification](#)
[X-dbe] [Double Buffer Extension Library](#)
[X-DPMS] [X Display Power Management Signaling](#)
[X-evi] [X Extended Visual Interface Extension](#)
[X-security] [X Security Extension Specification](#)
[X-shape] [X Nonrectangular Window Shape Extension Library](#)
[X-shm] [The MIT Shared Memory Extension](#)
[X-sync] [X Synchronization Extension Library](#)

6.12.1. libXext interfaces

6.12.1.1. Interfaces for libXext interfaces

An LSB conforming implementation shall provide the generic functions for libXext interfaces specified in [Table 6-12](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-12. libXext - libXext interfaces Function Interfaces

XMissingExtension [LSB]	XSetExtensionErrorHandler [LSB]	XextAddDisplay [LSB]	XextCreateExtension [LSB]
XextDestroyExtension [LSB]	XextFindDisplay [LSB]	XextRemoveDisplay [LSB]	

6.12.2. X Shape Extension

6.12.2.1. Interfaces for X Shape Extension

An LSB conforming implementation shall provide the generic functions for X Shape Extension specified in [Table 6-13](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-13. libXext - X Shape Extension Function Interfaces

XShapeCombineMask [X-shape]	XShapeCombineRectangles [X-shape]	XShapeCombineRegion [X-shape]	XShapeCombineShape [X-shape]
XShapeGetRectangles [X-shape]	XShapeInputSelected [X-shape]	XShapeOffsetShape [X-shape]	XShapeQueryExtension [X-shape]
XShapeQueryExtents [X-shape]	XShapeQueryVersion [X-shape]	XShapeSelectInput [X-shape]	

6.12.3. X Display Power Management Signaling Extension

6.12.3.1. Interfaces for X Display Power Management Signaling Extension

An LSB conforming implementation shall provide the generic functions for X Display Power Management Signaling Extension specified in [Table 6-14](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-14. libXext - X Display Power Management Signaling Extension Function Interfaces

DPMSCapable [X-DPMS]	DPMSDisable [X-DPMS]	DPMSEnable [X-DPMS]	DPMSForceLevel [X-DPMS]

DPMSGetTimeouts [X-DPMS]	DPMSGetVersion [X-DPMS]	DPMSInfo [X-DPMS]	DPMSQueryExtension [X-DPMS]
DPMSSetTimeouts [X-DPMS]			

6.12.4. X Shared Memory Extensions

6.12.4.1. Interfaces for X Shared Memory Extensions

An LSB conforming implementation shall provide the generic functions for X Shared Memory Extensions specified in [Table 6-15](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-15. libXext - X Shared Memory Extensions Function Interfaces

XShmAttach [X-shm]	XShmCreateImage [X-shm]	XShmCreatePixmap [X-shm]	XShmDetach [X-shm]
XShmGetEventBase [X-shm]	XShmGetImage [X-shm]	XShmPixmapFormat [X-shm]	XShmPutImage [X-shm]
XShmQueryExtension [X-shm]	XShmQueryVersion [X-shm]		

6.12.5. X Synchronization Extension

6.12.5.1. Interfaces for X Synchronization Extension

An LSB conforming implementation shall provide the generic functions for X Synchronization Extension specified in [Table 6-16](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-16. libXext - X Synchronization Extension Function Interfaces

XSyncAwait [X-sync]	XSyncChangeAlarm [X-sync]	XSyncChangeCounter [X-sync]	XSyncCreateAlarm [X-sync]
XSyncCreateCounter [X-sync]	XSyncDestroyAlarm [X-sync]	XSyncDestroyCounter [X-sync]	XSyncFreeSystemCounterList [X-sync]
XSyncGetPriority [X-sync]	XSyncInitialize [X-sync]	XSyncIntToValue [X-sync]	XSyncIntsToValue [X-sync]
XSyncListSystemCounters [X-sync]	XSyncMaxValue [X-sync]	XSyncMinValue [X-sync]	XSyncQueryAlarm [X-sync]
XSyncQueryCounter [X-sync]	XSyncQueryExtension [X-sync]	XSyncSetCounter [X-sync]	XSyncSetPriority [X-sync]

XSyncValueAdd [X-sync]	XSyncValueEqual [X-sync]	XSyncValueGreaterOrEqual [X-sync]	XSyncValueGreaterThan [X-sync]
XSyncValueHigh32 [X-sync]	XSyncValueIsNegative [X-sync]	XSyncValueIsPositive [X-sync]	XSyncValueIsZero [X-sync]
XSyncValueLessOrEqual [X-sync]	XSyncValueLessThan [X-sync]	XSyncValueLow32 [X-sync]	XSyncValueSubtract [X-sync]

6.12.6. X Security Extension

6.12.6.1. Interfaces for X Security Extension

An LSB conforming implementation shall provide the generic functions for X Security Extension specified in [Table 6-17](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-17. libXext - X Security Extension Function Interfaces

XSecurityAllocXauth [X-security]	XSecurityFreeXauth [X-security]	XSecurityGenerateAuthorization [X-security]	XSecurityQueryExtension [X-security]
XSecurityRevokeAuthorization [X-security]			

6.12.7. X Double Buffer Extension

6.12.7.1. Interfaces for X Double Buffer Extension

An LSB conforming implementation shall provide the generic functions for X Double Buffer Extension specified in [Table 6-18](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-18. libXext - X Double Buffer Extension Function Interfaces

XdbeAllocateBackBufferName [X-dbe]	XdbeBeginIdiom [X-dbe]	XdbeDeallocateBackBufferName [X-dbe]	XdbeEndIdiom [X-dbe]
XdbeFreeVisualInfo [X-dbe]	XdbeGetBackBufferAttributes [X-dbe]	XdbeGetVisualInfo [X-dbe]	XdbeQueryExtension [X-dbe]
XdbeSwapBuffers [X-dbe]			

6.12.8. X Extended Visual Interface Extension

6.12.8.1. Interfaces for X Extended Visual Interface Extension

An LSB conforming implementation shall provide the generic functions for X Extended Visual Interface Extension specified in [Table 6-19](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-19. libXext - X Extended Visual Interface Extension Function Interfaces

XeviGetVisualInfo [X-evi]	XeviQueryExtension [X-evi]	XeviQueryVersion [X-evi]	

6.13. Data Definitions for libXext

This section defines global identifiers and their values that are associated with interfaces contained in libXext. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.13.1. X11/extensions/XEVI.h

```
#define XEVI_TRANSPARENCY_NONE 0
#define X_EVIQueryVersion 0
#define XEVI_TRANSPARENCY_PIXEL 1
#define X_EVIGetVisualInfo 1
#define XEVI_TRANSPARENCY_MASK 2

typedef struct {
    VisualID core_visual_id;
    int screen;
    int level;
    unsigned int transparency_type;
    unsigned int transparency_value;
    unsigned int min_hw_colormaps;
    unsigned int max_hw_colormaps;
    unsigned int num_colormap_conflicts;
    VisualID *colormap_conflicts;
} ExtendedVisualInfo;
extern int XeviGetVisualInfo(Display *, VisualID *, int,
                             ExtendedVisualInfo *, int *);
extern int XeviQueryExtension(Display *);
extern int XeviQueryVersion(Display *, int *, int *);
```

6.13.2. X11/extensions/XEVIstr.h

```

#define XEVI_MINOR_VERSION      0
#define XEVI_MAJOR_VERSION      1
#define _EVISTR_H              1
#define sz_xExtendedVisualInfo  16
#define sz_xEVIGetVisualInfoReply 32
#define sz_xEVIQueryVersionReply 32
#define sz_VisualID32           4
#define sz_xEVIQueryVersionReq  4
#define sz_xEVIGetVisualInfoReq 8
#define EVINAME "Extended-Visual-Information"

typedef unsigned int VisualID32;
typedef struct _xExtendedVisualInfo {
    CARD32 core_visual_id;
    INT8 screen;
    INT8 level;
    CARD8 transparency_type;
    CARD8 pad0;
    CARD32 transparency_value;
    CARD8 min_hw_colormaps;
    CARD8 max_hw_colormaps;
    CARD16 num_colormap_conflicts;
} xExtendedVisualInfo;
typedef struct _XEVIQueryVersion {
    CARD8 reqType;
    CARD8 xeviReqType;
    CARD16 length;
} xEVIQueryVersionReq;
typedef struct {
    BYTE type;
    CARD8 unused;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 majorVersion;
    CARD16 minorVersion;
    CARD32 pad0;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
} xEVIQueryVersionReply;
typedef struct _XEVIGetVisualInfoReq {
    CARD8 reqType;
    CARD8 xeviReqType;
    CARD16 length;
    CARD32 n_visual;
} xEVIGetVisualInfoReq;
typedef struct _XEVIGetVisualInfoReply {
    BYTE type;
    CARD8 unused;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 n_info;
    CARD32 n_conflicts;
    CARD32 pad0;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
} xEVIGetVisualInfoReply;

```

6.13.3. X11/extensions/XKBbells.h

```
#define _XKBABELLS_H_
#define XkbBI_Info 0
#define XkbBI_Warning 1
#define XkbBI_Failure 10
#define XkbBI_Wait 11
#define XkbBI_Proceed 12
#define XkbBI_Ignore 13
#define XkbBI_Iconify 14
#define XkbBI_Deiconify 15
#define XkbBI_Open 16
#define XkbBI_Close 17
#define XkbBI_TerminalBell 18
#define XkbBI_MarginBell 19
#define XkbBI_MinorError 2
#define XkbBI_CursorStuck 20
#define XkbBI_NewMail 21
#define XkbBI_LaunchApp 22
#define XkbBI_AppDeath 23
#define XkbBI_ImAlive 24
#define XkbBI_ClockChimeHour 25
#define XkbBI_ClockChimeHalf 26
#define XkbBI_ClockChimeQuarter 27
#define XkbBI_RepeatingLastBell 28
#define XkbBI_ComposeFail 29
#define XkbBI_MajorError 3
#define XkbBI_AX_FeatureOn 30
#define XkbBI_AX_FeatureOff 31
#define XkbBI_AX_FeatureChange 32
#define XkbBI_AX_IndicatorOn 33
#define XkbBI_AX_IndicatorOff 34
#define XkbBI_AX_IndicatorChange 35
#define XkbBI_AX_SlowKeysWarning 36
#define XkbBI_AX_SlowKeyPress 37
#define XkbBI_AX_SlowKeyAccept 38
#define XkbBI_AX_SlowKeyReject 39
#define XkbBI_BadValue 4
#define XkbBI_AX_SlowKeyRelease 40
#define XkbBI_AX_BounceKeyReject 41
#define XkbBI_AX_StickyLatch 42
#define XkbBI_AX_StickyLock 43
#define XkbBI_AX_StickyUnlock 44
#define XkbBI_NumBells 45
#define XkbBI_InvalidLocation 5
#define XkbBI_Question 6
#define XkbBI_Start 7
#define XkbBI_End 8
#define XkbBI_Success 9
#define XkbBN_AppDeath "AppDeath"
#define XkbBN_AX_BounceKeyReject "AX_BounceKeyReject"
#define XkbBN_AX_FeatureChange "AX_FeatureChange"
#define XkbBN_AX_FeatureOff "AX_FeatureOff"
#define XkbBN_AX_FeatureOn "AX_FeatureOn"
#define XkbBN_AX_IndicatorChange "AX_IndicatorChange"
#define XkbBN_AX_IndicatorOff "AX_IndicatorOff"
#define XkbBN_AX_IndicatorOn "AX_IndicatorOn"
#define XkbBN_AX_SlowKeyAccept "AX_SlowKeyAccept"
#define XkbBN_AX_SlowKeyPress "AX_SlowKeyPress"
#define XkbBN_AX_SlowKeyReject "AX_SlowKeyReject"
```



```

#define XkbBN_AX_SlowKeyRelease "AX_SlowKeyRelease"
#define XkbBN_AX_SlowKeysWarning "AX_SlowKeysWarning"
#define XkbBN_AX_StickyLatch "AX_StickyLatch"
#define XkbBN_AX_StickyLock "AX_StickyLock"
#define XkbBN_AX_StickyUnlock "AX_StickyUnlock"
#define XkbBN_BadValue "BadValue"
#define XkbBN_ClockChimeHalf "ClockChimeHalf"
#define XkbBN_ClockChimeHour "ClockChimeHour"
#define XkbBN_ClockChimeQuarter "ClockChimeQuarter"
#define XkbBN_Close "Close"
#define XkbBN_ComposeFail "ComposeFail"
#define XkbBN_CursorStuck "CursorStuck"
#define XkbBN_Deiconify "Deiconify"
#define XkbBN_End "End"
#define XkbBN_Failure "Failure"
#define XkbBN_Iconify "Iconify"
#define XkbBN_Ignore "Ignore"
#define XkbBN_ImAlive "ImAlive"
#define XkbBN_Info "Info"
#define XkbBN_InvalidLocation "InvalidLocation"
#define XkbBN_LaunchApp "LaunchApp"
#define XkbBN_MajorError "MajorError"
#define XkbBN_MarginBell "MarginBell"
#define XkbBN_MinorError "MinorError"
#define XkbBN_NewMail "NewMail"
#define XkbBN_Open "Open"
#define XkbBN_Proceed "Proceed"
#define XkbBN_Question "Question"
#define XkbBN_RepeatingLastBell "RepeatingLastBell"
#define XkbBN_Start "Start"
#define XkbBN_Success "Success"
#define XkbBN_TerminalBell "TerminalBell"
#define XkbBN_Wait "Wait"
#define XkbBN_Warning "Warning"

```

6.13.4. X11/extensions/XShm.h

```

#define X_ShmQueryVersion 0
#define X_ShmAttach 1
#define X_ShmDetach 2
#define X_ShmPutImage 3
#define X_ShmGetImage 4
#define X_ShmCreatePixmap 5
#define ShmCompletion 0
#define ShmNumberEvents (ShmCompletion + 1)
#define BadShmSeg 0
#define ShmNumberErrors (BadShmSeg + 1)

typedef unsigned long int ShmSeg;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Drawable drawable;
    int major_code;
    int minor_code;
    ShmSeg shmseg;
    unsigned long int offset;
} XShmCompletionEvent;
typedef struct {

```

```

    ShmSeg shmseg;
    int shmId;
    char *shmaddr;
    int readOnly;
} XShmSegmentInfo;
extern int XShmAttach(Display *, XShmSegmentInfo *);
extern XImage *XShmCreateImage(Display *, Visual *, unsigned int, int,
                                char *, XShmSegmentInfo *, unsigned int,
                                unsigned int);
extern Pixmap XShmCreatePixmap(Display *, Drawable, char *,
                                XShmSegmentInfo *, unsigned int,
                                unsigned int, unsigned int);
extern int XShmDetach(Display *, XShmSegmentInfo *);
extern int XShmGetEventBase(Display *);
extern int XShmGetImage(Display *, Drawable, XImage *, int, int,
                          unsigned long int);
extern int XShmPixmapFormat(Display *);
extern int XShmPutImage(Display *, Drawable, GC, XImage *, int, int, int,
                          int, unsigned int, unsigned int, int);
extern int XShmQueryExtension(Display *);
extern int XShmQueryVersion(Display *, int *, int *, int *);

```

6.13.5. X11/extensions/Xdbe.h

```

#define XdbeBadBuffer    0

typedef Drawable XdbeBackBuffer;
typedef unsigned char XdbeSwapAction;
typedef struct {
    Window swap_window;
    XdbeSwapAction swap_action;
} XdbeSwapInfo;
typedef struct {
    Window window;
} XdbeBackBufferAttributes;
typedef struct {
    int type;
    Display *display;
    XdbeBackBuffer buffer;
    unsigned long int serial;
    unsigned char error_code;
    unsigned char request_code;
    unsigned char minor_code;
} XdbeBufferError;
extern XdbeBackBuffer XdbeAllocateBackBufferName(Display *, Window,
                                                  XdbeSwapAction);

extern int XdbeBeginIdiom(Display *);
extern int XdbeDeallocateBackBufferName(Display *, XdbeBackBuffer);
extern int XdbeEndIdiom(Display *);
extern void XdbeFreeVisualInfo(XdbeScreenVisualInfo *);
extern XdbeBackBufferAttributes *XdbeGetBackBufferAttributes(Display *,
                                                              XdbeBackBuffer);
extern XdbeScreenVisualInfo *XdbeGetVisualInfo(Display *, Drawable *,
                                                int *);
extern int XdbeQueryExtension(Display *, int *, int *);
extern int XdbeSwapBuffers(Display *, XdbeSwapInfo *, int);

```

6.13.6. X11/extensions/Xdbeproto.h

```
#define DbeNumberErrors (DbeBadBuffer + 1)
#define DBE_MINOR_VERSION 0
#define DbeBadBuffer 0
#define DbeNumberEvents 0
#define X_DbeGetVersion 0
#define XdbeUndefined 0
#define DBE_MAJOR_VERSION 1
#define X_DbeAllocateBackBufferName 1
#define XdbeBackground 1
#define X_DbeDeallocateBackBufferName 2
#define XdbeUntouched 2
#define X_DbeSwapBuffers 3
#define XdbeCopied 3
#define X_DbeBeginIdiom 4
#define X_DbeEndIdiom 5
#define X_DbeGetVisualInfo 6
#define X_DbeGetBackBufferAttributes 7
#define DBE_PROTOCOL_NAME "DOUBLE-BUFFER"

typedef CARD8 xDbeSwapAction;
typedef CARD32 xDbeBackBuffer;
```

6.13.7. X11/extensions/Xext.h

```
#define X_EXTENSION_MISSING "missing"
#define X_EXTENSION_UNKNOWN "unknown"

extern int XMissingExtension(Display *, const char *);
extern
    int (*XSetExtensionErrorHandler(int (*)(Display *, char *, char *))
        (Display *, char *, char *);
```

6.13.8. X11/extensions/dpms.h

```
#define DPMSModeOn 0
#define DPMSModeStandby 1
#define DPMSModeSuspend 2
#define DPMSModeOff 3

extern int DPMSCapable(Display *);
extern int DPMSDisable(Display *);
extern int DPMSEnable(Display *);
extern int DPMSForceLevel(Display *, CARD16);
extern int DPMSGetTimeouts(Display *, CARD16 *, CARD16 *, CARD16 *);
extern int DPMSGetVersion(Display *, int *, int *);
extern int DPMSInfo(Display *, CARD16 *, BOOL *);
extern int DPMSQueryExtension(Display *, int *, int *);
extern int DPMSSetTimeouts(Display *, CARD16, CARD16, CARD16);
```

6.13.9. X11/extensions/dpmsstr.h

```
#define DPMSNumberErrors 0
#define DPMSNumberEvents 0
#define X_DPMSGetVersion 0
#define DPMSMajorVersion 1
```

```

#define DPMSMinorVersion      1
#define X_DPMSCapable        1
#define _DPMSSTR_H_          1
#define sz_xDPMSSetTimeoutsReq 12
#define X_DPMSGetTimeouts      2
#define X_DPMSSetTimeouts      3
#define sz_xDPMSCapableReply    32
#define sz_xDPMSGetTimeoutsReply 32
#define sz_xDPMSGetVersionReply 32
#define sz_xDPMSInfoReply      32
#define X_DPMSEnable           4
#define sz_xDPMSCapableReq      4
#define sz_xDPMSDisableReq      4
#define sz_xDPMSEnableReq      4
#define sz_xDPMSGetTimeoutsReq  4
#define sz_xDPMSInfoReq        4
#define X_DPMSDisable          5
#define X_DPMSForceLevel       6
#define X_DPMSInfo              7
#define sz_xDPMSForceLevelReq   8
#define sz_xDPMSGetVersionReq   8
#define DPMSExtensionName      "DPMS"

typedef struct {
    CARD8 reqType;
    CARD8 dpmsReqType;
    CARD16 length;
    CARD16 majorVersion;
    CARD16 minorVersion;
} xDPMSGetVersionReq;
typedef struct {
    BYTE type;
    CARD8 pad0;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 majorVersion;
    CARD16 minorVersion;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xDPMSGetVersionReply;
typedef struct {
    CARD8 reqType;
    CARD8 dpmsReqType;
    CARD16 length;
} xDPMSCapableReq;
typedef struct {
    BYTE type;
    CARD8 pad0;
    CARD16 sequenceNumber;
    CARD32 length;
    BOOL capable;
    CARD8 pad1;
    CARD16 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
    CARD32 pad7;
} xDPMSCapableReply;

```

```

typedef struct {
    CARD8 reqType;
    CARD8 dpmsReqType;
    CARD16 length;
} xDPMSGetTimeoutsReq;
typedef struct {
    BYTE type;
    CARD8 pad0;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 standby;
    CARD16 suspend;
    CARD16 off;
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
} xDPMSGetTimeoutsReply;
typedef struct {
    CARD8 reqType;
    CARD8 dpmsReqType;
    CARD16 length;
    CARD16 standby;
    CARD16 suspend;
    CARD16 off;
    CARD16 pad0;
} xDPMSSetTimeoutsReq;
typedef struct {
    CARD8 reqType;
    CARD8 dpmsReqType;
    CARD16 length;
} xDPMSEnableReq;
typedef struct {
    CARD8 reqType;
    CARD8 dpmsReqType;
    CARD16 length;
} xDPMSDisableReq;
typedef struct {
    CARD8 reqType;
    CARD8 dpmsReqType;
    CARD16 length;
    CARD16 level;
    CARD16 pad0;
} xDPMSForceLevelReq;
typedef struct {
    CARD8 reqType;
    CARD8 dpmsReqType;
    CARD16 length;
} xDPMSInfoReq;
typedef struct {
    BYTE type;
    CARD8 pad0;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 power_level;
    BOOL state;
    CARD8 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
}

```

```
CARD32 pad6;
} xDPMSInfoReply;
```

6.13.10. X11/extensions/extutil.h

```
#define XextHasExtension(i)      ((i) && ((i)->codes))
#define XEXT_ERROR_STRING_PROTO(proc) \
    char *proc(Display *dpy, int code, XExtCodes *codes, char *buf, int n)
#define XEXT_CLOSE_DISPLAY_PROTO(proc) \
    int proc(Display *dpy, XExtCodes *codes)
#define XEXT_FIND_DISPLAY_PROTO(proc) \
    XExtDisplayInfo *proc(Display *dpy)
#define XextCheckExtension(dpy,i,name,val) \
    if (!XextHasExtension(i)) { XMissingExtension (dpy, name); return val; }
#define XextSimpleCheckExtension(dpy,i,name) \
    if (!XextHasExtension(i)) { XMissingExtension (dpy, name); return; }
#define XEXT_GENERATE_ERROR_STRING(proc,extname,nerr,errl) \
char *proc (Display *dpy, int code, XExtCodes *codes, char *buf, int n) \
{ \
    code -= codes->first_error; \
    if (code >= 0 && code < nerr) { \
        char tmp[256]; \
        sprintf (tmp, "%s.%d", extname, code); \
        XGetErrorDatabaseText (dpy, "XProtoError", tmp, errl[code], buf, n); \
        return buf; \
    } \
    return (char *)0; \
}
#define XEXT_GENERATE_CLOSE_DISPLAY(proc,extinfo) \
int proc (Display *dpy, XExtCodes *codes) \
{ \
    return XextRemoveDisplay (extinfo, dpy); \
}
#define XEXT_GENERATE_FIND_DISPLAY(proc,extinfo,extname,hooks,nev,data) \
XExtDisplayInfo *proc (Display *dpy) \
{ \
    XExtDisplayInfo *dpyinfo; \
    if (!extinfo) { if (!(extinfo = XextCreateExtension())) return NULL; } \
    if (!(dpyinfo = XextFindDisplay (extinfo, dpy))) \
        dpyinfo = XextAddDisplay (extinfo,dpy,extname,hooks,nev,data); \
    return dpyinfo; \
}

typedef struct _XExtDisplayInfo {
    struct _XExtDisplayInfo *next;
    Display *display;
    XExtCodes *codes;
    XPointer data;
} XExtDisplayInfo;
typedef struct _XExtensionInfo {
    XExtDisplayInfo *head;
    XExtDisplayInfo *cur;
    int ndisplays;
} XExtensionInfo;
typedef struct _XExtensionHooks {
    int (*create_gc) (Display *, GC, XExtCodes *);
    int (*copy_gc) (Display *, GC, XExtCodes *);
    int (*flush_gc) (Display *, GC, XExtCodes *);
    int (*free_gc) (Display *, GC, XExtCodes *);
    int (*create_font) (Display *, XFontStruct *, XExtCodes *);
    int (*free_font) (Display *, XFontStruct *, XExtCodes *);
```

```

int (*close_display) (Display *, XExtCodes *);
int (*wire_to_event) (Display *, XEvent *, xEvent *);
int (*event_to_wire) (Display *, XEvent *, xEvent *);
int (*error) (Display *, xError *, XExtCodes *, int *);
char *(*error_string) (Display *, int, XExtCodes *, char *, int);
} XExtensionHooks;
extern XExtDisplayInfo *XextAddDisplay(XExtensionInfo *, Display *, char *,
                                      XExtensionHooks *, int, XPointer);
extern XExtensionInfo *XextCreateExtension(void);
extern void XextDestroyExtension(XExtensionInfo *);
extern XExtDisplayInfo *XextFindDisplay(XExtensionInfo *, Display *);
extern int XextRemoveDisplay(XExtensionInfo *, Display *);

```

6.13.11. X11/extensions/security.h

```

#define XSecurityAuthorizationName      "XC-QUERY-SECURITY-1"
#define XSecurityAuthorizationRevokedMask (1<<0)
#define XSecurityTimeout                (1<<0)
#define XSecurityTrustLevel             (1<<1)
#define XSecurityGroup                  (1<<2)
#define XSecurityEventMask              (1<<3)
#define XSecurityAllAuthorizationAttributes (XSecurityTimeout | XSecurityTrustLevel | XSecurityGroup | XSecurityEventMask)
#define XSecurityAuthorizationRevoked 0
#define XSecurityBadAuthorization      0
#define XSecurityClientTrusted         0
#define XSecurityBadAuthorizationProtocol 1
#define XSecurityClientUntrusted       1
#define XSecurityNumberEvents          1
#define XSecurityAuthorizationNameLen  19
#define XSecurityNumberErrors          2
#define XSecurityAllEventMasks XSecurityAuthorizationRevokedMask

typedef unsigned long int XSecurityAuthorization;
typedef struct {
    unsigned int timeout;
    unsigned int trust_level;
    XID group;
    long int event_mask;
} XSecurityAuthorizationAttributes;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    XSecurityAuthorization auth_id;
} XSecurityAuthorizationRevokedEvent;
extern Xauth *XSecurityAllocXauth(void);
extern void XSecurityFreeXauth(Xauth *);
extern Xauth *XSecurityGenerateAuthorization(Display *, Xauth *,
                                             unsigned long int,
                                             XSecurityAuthorizationAttributes
                                             *, XSecurityAuthorization *);
extern int XSecurityQueryExtension(Display *, int *, int *);
extern int XSecurityRevokeAuthorization(Display *, XSecurityAuthorization);

```

6.13.12. X11/extensions/shape.h

```

#define X_ShapeQueryVersion      0
#define X_ShapeRectangles       1
#define X_ShapeMask              2
#define X_ShapeCombine           3
#define X_ShapeOffset            4
#define X_ShapeQueryExtents      5
#define X_ShapeSelectInput       6
#define X_ShapeInputSelected     7
#define X_ShapeGetRectangles     8
#define ShapeSet                 0
#define ShapeUnion                1
#define ShapeIntersect            2
#define ShapeSubtract             3
#define ShapeInvert               4
#define ShapeBounding             0
#define ShapeClip                 1
#define ShapeInput                2
#define ShapeNotifyMask (1L << 0)
#define ShapeNotify              0
#define ShapeNumberEvents        (ShapeNotify + 1)

typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    Window window;
    int kind;
    int x;
    int y;
    unsigned int width;
    unsigned int height;
    Time time;
    int shaped;
} XShapeEvent;
extern void XShapeCombineMask(Display *, Window, int, int, int, Pixmap,
                             int);
extern void XShapeCombineRectangles(Display *, Window, int, int, int,
                                   XRectangle *, int, int, int);
extern void XShapeCombineRegion(Display *, Window, int, int, int, Region,
                               int);
extern void XShapeCombineShape(Display *, Window, int, int, int, Window,
                              int, int);
extern XRectangle *XShapeGetRectangles(Display *, Window, int, int *,
                                       int *);
extern unsigned long int XShapeInputSelected(Display *, Window);
extern void XShapeOffsetShape(Display *, Window, int, int, int);
extern int XShapeQueryExtension(Display *, int *, int *);
extern int XShapeQueryExtents(Display *, Window, int *, int *, int *,
                              unsigned int *, unsigned int *, int *, int *,
                              int *, unsigned int *, unsigned int *);
extern int XShapeQueryVersion(Display *, int *, int *);
extern void XShapeSelectInput(Display *, Window, unsigned long int);

```


6.13.13. X11/extensions/sync.h

```

typedef XID XSyncCounter;
typedef XID XSyncAlarm;
typedef struct _XSyncValue {
    int hi;
    unsigned int lo;
} XSyncValue;
typedef enum {
    XSyncAbsolute,
    XSyncRelative
} XSyncValueType;
typedef enum {
    XSyncPositiveTransition,
    XSyncNegativeTransition,
    XSyncPositiveComparison,
    XSyncNegativeComparison
} XSyncTestType;
typedef enum {
    XSyncAlarmActive,
    XSyncAlarmInactive,
    XSyncAlarmDestroyed
} XSyncAlarmState;

#define SYNC_NAME "SYNC"
#define _XSyncValueIsPositive(v) ((v).hi&0x80000000)?0:1
#define _XSyncValueIsNegative(v) ((v).hi&0x80000000)?1:0
#define _XSyncValueLessThan(a,b) ((a).hi<(b).hi || ((a).hi==(b).hi && (a).lo<(b).lo))
#define _XSyncValueLessOrEqual(a,b) ((a).hi<(b).hi || ((a).hi==(b).hi && (a).lo<=(b).lo))
#define _XSyncValueGreaterThan(a,b) ((a).hi>(b).hi || ((a).hi==(b).hi && (a).lo>(b).lo))
#define _XSyncValueGreaterOrEqual(a,b) ((a).hi>(b).hi || ((a).hi==(b).hi && (a).lo>=(b).lo))
#define _XSyncValueEqual(a,b) ((a).lo==(b).lo && (a).hi==(b).hi)
#define _XSyncValueIsZero(a) ((a).lo==0&&(a).hi==0)
#define _XSyncIntToValue(pv,i) ((pv)->hi=((i<0)?~0:0),(pv)->lo=(i))
#define _XSyncMaxValue(pv) ((pv)->hi=0x7fffffff,(pv)->lo=0xffffffff)
#define _XSyncMinValue(pv) ((pv)->hi=0x80000000,(pv)->lo=0)
#define _XSyncIntsToValue(pv,l,h) ((pv)->lo = (l), (pv)->hi = (h))
#define _XSyncValueHigh32(v) ((v).hi)
#define _XSyncValueLow32(v) ((v).lo)
#define XSyncCACounter (1L<<0)
#define XSyncCAValueType (1L<<1)
#define XSyncCAValue (1L<<2)
#define XSyncCATestType (1L<<3)
#define XSyncCADelta (1L<<4)
#define XSyncCAEvents (1L<<5)
#define XSyncAlarmNotifyMask (1L<<XSyncAlarmNotify)
#define XSyncNumberErrors (XSyncBadAlarm+1)
#define SYNC_MINOR_VERSION 0
#define XSyncCounterNotify 0
#define X_SyncInitialize 0
#define XSyncBadCounter 0L
#define XSyncAlarmNotify 1
#define X_SyncListSystemCounters 1
#define X_SyncQueryAlarm 10
#define X_SyncDestroyAlarm 11
#define X_SyncSetPriority 12
#define X_SyncGetPriority 13
#define XSyncBadAlarm 1L
#define X_SyncCreateCounter 2
#define XSyncNumberEvents 2L
#define SYNC_MAJOR_VERSION 3

```

```

#define X_SyncSetCounter      3
#define X_SyncChangeCounter  4
#define X_SyncQueryCounter    5
#define X_SyncDestroyCounter  6
#define X_SyncAwait          7
#define X_SyncCreateAlarm     8
#define X_SyncChangeAlarm     9
#define _XSyncValueAdd(presult,a,b,poverflow)  {\
int t = (a).lo;\
    Bool signa = XSyncValueIsNegative(a);\
    Bool signb = XSyncValueIsNegative(b);\
    ((presult)->lo = (a).lo + (b).lo);\
    ((presult)->hi = (a).hi + (b).hi);\
    if (t>(presult)->lo) (presult)->hi++;\
    *poverflow = ((signa == signb) && !(signa == XSyncValueIsNegative(*presult)));\
}
#define _XSyncValueSubtract(presult,a,b,poverflow)  {\
int t = (a).lo;\
    Bool signa = XSyncValueIsNegative(a);\
    Bool signb = XSyncValueIsNegative(b);\
    ((presult)->lo = (a).lo - (b).lo);\
    ((presult)->hi = (a).hi - (b).hi);\
    if (t>(presult)->lo) (presult)->hi--;\
    *poverflow = ((signa == signb) && !(signa == XSyncValueIsNegative(*presult)));\
}

typedef struct _XSyncSystemCounter {
    char *name;
    XSyncCounter counter;
    XSyncValue resolution;
} XSyncSystemCounter;
typedef struct {
    XSyncCounter counter;
    XSyncValueType value_type;
    XSyncValue wait_value;
    XSyncTestType test_type;
} XSyncTrigger;
typedef struct {
    XSyncTrigger trigger;
    XSyncValue event_threshold;
} XSyncWaitCondition;
typedef struct {
    XSyncTrigger trigger;
    XSyncValue delta;
    int events;
    XSyncAlarmState state;
} XSyncAlarmAttributes;
typedef struct {
    int type;
    unsigned long int serial;
    int send_event;
    Display *display;
    XSyncCounter counter;
    XSyncValue wait_value;
    XSyncValue counter_value;
    Time time;
    int count;
    int destroyed;
} XSyncCounterNotifyEvent;
typedef struct {
    int type;
    unsigned long int serial;

```

```

    int send_event;
    Display *display;
    XSyncAlarm alarm;
    XSyncValue counter_value;
    XSyncValue alarm_value;
    Time time;
    XSyncAlarmState state;
} XSyncAlarmNotifyEvent;
typedef struct {
    int type;
    Display *display;
    XSyncAlarm alarm;
    unsigned long int serial;
    unsigned char error_code;
    unsigned char request_code;
    unsigned char minor_code;
} XSyncAlarmError;
typedef struct {
    int type;
    Display *display;
    XSyncCounter counter;
    unsigned long int serial;
    unsigned char error_code;
    unsigned char request_code;
    unsigned char minor_code;
} XSyncCounterError;
extern int XSyncAwait(Display *, XSyncWaitCondition *, int);
extern int XSyncChangeAlarm(Display *, XSyncAlarm, unsigned long int,
                           XSyncAlarmAttributes *);
extern int XSyncChangeCounter(Display *, XSyncCounter, XSyncValue);
extern XSyncAlarm XSyncCreateAlarm(Display *, unsigned long int,
                                   XSyncAlarmAttributes *);
extern XSyncCounter XSyncCreateCounter(Display *, XSyncValue);
extern int XSyncDestroyAlarm(Display *, XSyncAlarm);
extern int XSyncDestroyCounter(Display *, XSyncCounter);
extern void XSyncFreeSystemCounterList(XSyncSystemCounter *);
extern int XSyncGetPriority(Display *, XID, int *);
extern int XSyncInitialize(Display *, int *, int *);
extern void XSyncIntToValue(XSyncValue *, int);
extern void XSyncIntsToValue(XSyncValue *, unsigned int, int);
extern XSyncSystemCounter *XSyncListSystemCounters(Display *, int *);
extern void XSyncMaxValue(XSyncValue *);
extern void XSyncMinValue(XSyncValue *);
extern int XSyncQueryAlarm(Display *, XSyncAlarm, XSyncAlarmAttributes *);
extern int XSyncQueryCounter(Display *, XSyncCounter, XSyncValue *);
extern int XSyncQueryExtension(Display *, int *, int *);
extern int XSyncSetCounter(Display *, XSyncCounter, XSyncValue);
extern int XSyncSetPriority(Display *, XID, int);
extern void XSyncValueAdd(XSyncValue *, XSyncValue, XSyncValue, int *);
extern int XSyncValueEqual(XSyncValue, XSyncValue);
extern int XSyncValueGreaterOrEqual(XSyncValue, XSyncValue);
extern int XSyncValueGreaterThan(XSyncValue, XSyncValue);
extern int XSyncValueHigh32(XSyncValue);
extern int XSyncValueIsNegative(XSyncValue);
extern int XSyncValueIsPositive(XSyncValue);
extern int XSyncValueIsZero(XSyncValue);
extern int XSyncValueLessOrEqual(XSyncValue, XSyncValue);
extern int XSyncValueLessThan(XSyncValue, XSyncValue);
extern unsigned int XSyncValueLow32(XSyncValue);
extern void XSyncValueSubtract(XSyncValue *, XSyncValue, XSyncValue,
                              int *);

```

6.13.14. X11/extensions/syncstr.h

```

#define sz_xSyncChangeAlarmReq 12
#define sz_xSyncCreateAlarmReq 12
#define sz_xSyncSetPriorityReq 12
#define sz_xSyncSystemCounter 14
#define sz_xSyncChangeCounterReq 16
#define sz_xSyncCreateCounterReq 16
#define sz_xSyncSetCounterReq 16
#define sz_xSyncWaitCondition 28
#define sz_xSyncGetPriorityReply 32
#define sz_xSyncInitializeReply 32
#define sz_xSyncListSystemCountersReply 32
#define sz_xSyncQueryCounterReply 32
#define sz_xSyncAwaitReq 4
#define sz_xSyncListSystemCountersReq 4
#define sz_xSyncQueryAlarmReply 40
#define sz_xSyncDestroyAlarmReq 8
#define sz_xSyncDestroyCounterReq 8
#define sz_xSyncGetPriorityReq 8
#define sz_xSyncInitializeReq 8
#define sz_xSyncQueryAlarmReq 8
#define sz_xSyncQueryCounterReq 8

typedef struct _xSyncInitialize {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD8 majorVersion;
    CARD8 minorVersion;
    CARD16 pad;
} xSyncInitializeReq;
typedef struct {
    BYTE type;
    CARD8 unused;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 majorVersion;
    CARD8 minorVersion;
    CARD16 pad;
    CARD32 pad0;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
} xSyncInitializeReply;
typedef struct _xSyncListSystemCounters {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
} xSyncListSystemCountersReq;
typedef struct {
    BYTE type;
    CARD8 unused;
    CARD16 sequenceNumber;
    CARD32 length;
    INT32 nCounters;
    CARD32 pad0;
    CARD32 pad1;
    CARD32 pad2;

```

```

        CARD32 pad3;
        CARD32 pad4;
    } xSyncListSystemCountersReply;
typedef struct {
    CARD32 counter;
    INT32 resolution_hi;
    CARD32 resolution_lo;
    CARD16 name_length;
} xSyncSystemCounter;
typedef struct _xSyncCreateCounterReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 cid;
    INT32 initial_value_hi;
    CARD32 initial_value_lo;
} xSyncCreateCounterReq;
typedef struct _xSyncChangeCounterReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 cid;
    INT32 value_hi;
    CARD32 value_lo;
} xSyncChangeCounterReq;
typedef struct _xSyncSetCounterReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 cid;
    INT32 value_hi;
    CARD32 value_lo;
} xSyncSetCounterReq;
typedef struct _xSyncDestroyCounterReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 counter;
} xSyncDestroyCounterReq;
typedef struct _xSyncQueryCounterReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 counter;
} xSyncQueryCounterReq;
typedef struct {
    BYTE type;
    CARD8 unused;
    CARD16 sequenceNumber;
    CARD32 length;
    INT32 value_hi;
    CARD32 value_lo;
    CARD32 pad0;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
} xSyncQueryCounterReply;
typedef struct _xSyncAwaitReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
} xSyncAwaitReq;

```

```

typedef struct _xSyncWaitCondition {
    CARD32 counter;
    CARD32 value_type;
    INT32 wait_value_hi;
    CARD32 wait_value_lo;
    CARD32 test_type;
    INT32 event_threshold_hi;
    CARD32 event_threshold_lo;
} xSyncWaitCondition;
typedef struct _xSyncCreateAlarmReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 id;
    CARD32 valueMask;
} xSyncCreateAlarmReq;
typedef struct _xSyncDestroyAlarmReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 alarm;
} xSyncDestroyAlarmReq;
typedef struct _xSyncQueryAlarmReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 alarm;
} xSyncQueryAlarmReq;
typedef struct {
    BYTE type;
    CARD8 unused;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 counter;
    CARD32 value_type;
    INT32 wait_value_hi;
    CARD32 wait_value_lo;
    CARD32 test_type;
    INT32 delta_hi;
    CARD32 delta_lo;
    BOOL events;
    BYTE state;
    BYTE pad0;
    BYTE pad1;
} xSyncQueryAlarmReply;
typedef struct _xSyncChangeAlarmReq {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 alarm;
    CARD32 valueMask;
} xSyncChangeAlarmReq;
typedef struct _xSyncSetPriority {
    CARD8 reqType;
    CARD8 syncReqType;
    CARD16 length;
    CARD32 id;
    INT32 priority;
} xSyncSetPriorityReq;
typedef struct _xSyncGetPriority {
    CARD8 reqType;
    CARD8 syncReqType;

```

```

    CARD16 length;
    CARD32 id;
} xSyncGetPriorityReq;
typedef struct {
    BYTE type;
    CARD8 unused;
    CARD16 sequenceNumber;
    CARD32 length;
    INT32 priority;
    CARD32 pad0;
    CARD32 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
} xSyncGetPriorityReply;
typedef struct _xSyncCounterNotifyEvent {
    BYTE type;
    BYTE kind;
    CARD16 sequenceNumber;
    CARD32 counter;
    INT32 wait_value_hi;
    CARD32 wait_value_lo;
    INT32 counter_value_hi;
    CARD32 counter_value_lo;
    CARD32 time;
    CARD16 count;
    BOOL destroyed;
    BYTE pad0;
} xSyncCounterNotifyEvent;
typedef struct _xSyncAlarmNotifyEvent {
    BYTE type;
    BYTE kind;
    CARD16 sequenceNumber;
    CARD32 alarm;
    INT32 counter_value_hi;
    CARD32 counter_value_lo;
    INT32 alarm_value_hi;
    CARD32 alarm_value_lo;
    CARD32 time;
    CARD8 state;
    BYTE pad0;
    BYTE pad1;
    BYTE pad2;
} xSyncAlarmNotifyEvent;

```

6.14. Interface Definitions for libXext

The interfaces defined on the following pages are included in libXext and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 6.12](#) shall behave as described in the referenced base document.

6.15. Interfaces for libXi

[Table 6-20](#) defines the library name and shared object name for the libXi library

Table 6-20. libXi Definition

Library:	libXi
SONAME:	libXi.so.6

The behavior of the interfaces in this library is specified by the following specifications:

[XINPUT] [X11 Input Library](#)

6.15.1. XInput

6.15.1.1. Interfaces for XInput

An LSB conforming implementation shall provide the generic functions for XInput specified in [Table 6-21](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-21. libXi - XInput Function Interfaces

XAllowDeviceEvents [XINPUT]	XChangeDeviceControl [XINPUT]	XChangeDeviceDontPropagateList [XINPUT]	XChangeDeviceKey [XINPUT]
XChangeFeedbackControl [XINPUT]	XChangeKeyboardDevice [XINPUT]	XChangePointerDevice [XINPUT]	XCloseDevice [XINPUT]
XDeviceBell [XINPUT]	XFreeDeviceControl [XINPUT]	XFreeDeviceList [XINPUT]	XFreeDeviceMotion [XINPUT]
XFreeDeviceState [XINPUT]	XFreeFeedbackList [XINPUT]	XGetDeviceButtonMapping [XINPUT]	XGetDeviceControl [XINPUT]
XGetDeviceDontPropagateList [XINPUT]	XGetDeviceFocus [XINPUT]	XGetDeviceKeyMapping [XINPUT]	XGetDeviceModifie [XINPUT]
XGetDeviceMotionEvents [XINPUT]	XGetExtensionVersion [XINPUT]	XGetFeedbackControl [XINPUT]	XGetSelectedExtens [XINPUT]
XGrabDevice [XINPUT]	XGrabDeviceButton [XINPUT]	XGrabDeviceKey [XINPUT]	XListInputDevices
XOpenDevice [XINPUT]	XQueryDeviceState [XINPUT]	XSelectExtensionEvent [XINPUT]	XSendExtensionEve [XINPUT]
XSetDeviceButtonMapping [XINPUT]	XSetDeviceFocus [XINPUT]	XSetDeviceMode [XINPUT]	XSetDeviceModifie [XINPUT]
XSetDeviceValuators [XINPUT]	XUngrabDevice [XINPUT]	XUngrabDeviceButton [XINPUT]	XUngrabDeviceKey [XINPUT]

6.16. Data Definitions for libXi

This section defines global identifiers and their values that are associated with interfaces contained in libXi. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.16.1. X11/extensions/XI.h

```
#define InProximity      (0L << 1)
#define DeviceMode      (1L << 0)
#define DvAccelNum      (1L << 0)
#define DvInteger       (1L << 0)
#define DvString        (1L << 0)
#define DvAccelDenom    (1L << 1)
#define OutOfProximity  (1L << 1)
#define ProximityState  (1L << 1)
#define DvThreshold     (1L << 2)
#define DvKeyClickPercent (1L<<0)
#define DvPercent       (1L<<1)
#define DvPitch (1L<<2)
#define DvDuration      (1L<<3)
#define DvLed (1L<<4)
#define DvLedMode       (1L<<5)
#define DvKey (1L<<6)
#define DvAutoRepeatMode (1L<<7)
#define AddToList        0
#define AsyncThisDevice  0
#define COUNT            0
#define DeviceAdded      0
#define Dont_Check       0
#define IsXPointer        0
#define KbdFeedbackClass 0
#define KeyClass          0
#define NewPointer        0
#define Relative          0
#define XI_Absent         0
#define XI_BadDevice      0
#define XI_Initial_Release_Minor 0
#define XPOINTER          0
#define _devicePointerMotionHint 0
#define _devicePresence  0
#define UseXKeyboard      0xFF
#define Absolute          1
#define ButtonClass       1
#define CREATE            1
#define DEVICE_RESOLUTION 1
#define DeleteFromList    1
```

```

#define DeviceRemoved      1
#define IsXKeyboard        1
#define NewKeyboard        1
#define NoSuchExtension    1
#define PtrFeedbackClass   1
#define SyncThisDevice     1
#define XI_Add_DevicePresenceNotify_Major      1
#define XI_Add_XChangeDeviceControl_Major      1
#define XI_Add_XDeviceBell_Major               1
#define XI_Add_XDeviceBell_Minor               1
#define XI_Add_XSetDeviceValuators_Major        1
#define XI_BadEvent          1
#define XI_Initial_Release_Major                1
#define XI_Present           1
#define XInput_Initial_Release 1
#define XKEYBOARD            1
#define _deviceButton1Motion  1
#define sz_xAllowDeviceEventsReq      12
#define sz_xChangeDeviceDontPropagateListReq 12
#define sz_xChangeFeedbackControlReq  12
#define sz_xSelectExtensionEventReq   12
#define sz_xUngrabDeviceReq           12
#define sz_xGetDeviceMotionEventsReq  16
#define sz_xSendExtensionEventReq     16
#define sz_xSetDeviceFocusReq         16
#define sz_xUngrabDeviceButtonReq     16
#define sz_xUngrabDeviceKeyReq        16
#define DEVICE_ABS_CALIB           2
#define DeviceEnabled            2
#define IsXExtensionDevice        2
#define ReplayThisDevice          2
#define StringFeedbackClass       2
#define ValuatorClass             2
#define XI_Add_XSetDeviceValuators_Minor        2
#define XI_BadMode                2
#define XInput_Add_XDeviceBell      2
#define _deviceButton2Motion        2
#define sz_xGrabDeviceButtonReq     20
#define sz_xGrabDeviceKeyReq        20
#define sz_xGrabDeviceReq           20
#define AsyncOtherDevices           3
#define DEVICE_CORE                 3
#define DeviceDisabled             3
#define FeedbackClass              3
#define FollowKeyboard              3
#define IntegerFeedbackClass        3
#define IsXExtensionKeyboard        3
#define RevertToFollowKeyboard      3
#define XI_Add_XChangeDeviceControl_Minor        3
#define XI_DeviceBusy              3
#define XInput_Add_XSetDeviceValuators 3
#define _deviceButton3Motion        3
#define sz_xChangeDeviceControlReply 32
#define sz_xChangeKeyboardDeviceReply 32
#define sz_xChangePointerDeviceReply 32
#define sz_xGetDeviceButtonMappingReply 32
#define sz_xGetDeviceControlReply    32
#define sz_xGetDeviceDontPropagateListReply      32
#define sz_xGetDeviceFocusReply      32
#define sz_xGetDeviceKeyMappingReply 32
#define sz_xGetDeviceMotionEventsReply 32
#define sz_xGetExtensionVersionReply 32

```

```

#define sz_xGetFeedbackControlReply      32
#define sz_xGetSelectedExtensionEventsReply      32
#define sz_xGrabDeviceButtonReply      32
#define sz_xGrabDeviceKeyReply      32
#define sz_xGrabDeviceReply      32
#define sz_xListInputDevicesReply      32
#define sz_xOpenDeviceReply      32
#define sz_xQueryDeviceStateReply      32
#define sz_xSetDeviceButtonMappingReply      32
#define sz_xSetDeviceModeReply      32
#define sz_xSetDeviceModifierMappingReply      32
#define sz_xSetDeviceValuatorsReply      32
#define AsyncAll      4
#define DEVICE_ENABLE      4
#define DeviceUnrecoverable      4
#define IsXExtensionPointer      4
#define LedFeedbackClass      4
#define ProximityClass      4
#define XI_Add_DevicePresenceNotify_Minor      4
#define XI_BadClass      4
#define XInput_Add_XChangeDeviceControl      4
#define _deviceButton4Motion      4
#define sz_xListInputDevicesReq      4
#define BellFeedbackClass      5
#define DEVICE_ABS_AREA      5
#define FocusClass      5
#define SyncAll      5
#define XInput_Add_DevicePresenceNotify      5
#define _deviceButton5Motion      5
#define OtherClass      6
#define _deviceButtonMotion      6
#define _deviceButtonGrab      7
#define _deviceOwnerGrabButton      8
#define sz_xChangeDeviceControlReq      8
#define sz_xChangeDeviceKeyMappingReq      8
#define sz_xChangeKeyboardDeviceReq      8
#define sz_xChangePointerDeviceReq      8
#define sz_xCloseDeviceReq      8
#define sz_xDeviceBellReq      8
#define sz_xGetDeviceButtonMappingReq      8
#define sz_xGetDeviceControlReq      8
#define sz_xGetDeviceDontPropagateListReq      8
#define sz_xGetDeviceFocusReq      8
#define sz_xGetDeviceKeyMappingReq      8
#define sz_xGetDeviceModifierMappingReq      8
#define sz_xGetExtensionVersionReq      8
#define sz_xGetFeedbackControlReq      8
#define sz_xGetSelectedExtensionEventsReq      8
#define sz_xOpenDeviceReq      8
#define sz_xQueryDeviceStateReq      8
#define sz_xSetDeviceButtonMappingReq      8
#define sz_xSetDeviceModeReq      8
#define sz_xSetDeviceModifierMappingReq      8
#define sz_xSetDeviceValuatorsReq      8
#define _noExtensionEvent      9
#define XI_BARCODE      "BARCODE"
#define XI_BUTTONBOX      "BUTTONBOX"
#define XI_CURSORKEYS      "CURSORKEYS"
#define XI_DATAGLOVE      "DATAGLOVE"
#define XI_EYETRACKER      "EYETRACKER"
#define XI_FOOTMOUSE      "FOOTMOUSE"
#define XI_ID_MODULE      "ID_MODULE"

```

```

#define XI_KEYBOARD      "KEYBOARD"
#define XI_KNOB_BOX      "KNOB_BOX"
#define XI_MOUSE         "MOUSE"
#define XI_NINE_KNOB     "NINE_KNOB"
#define XI_ONE_KNOB      "ONE_KNOB"
#define XI_QUADRATURE    "QUADRATURE"
#define XI_SPACEBALL     "SPACEBALL"
#define XI_TABLET        "TABLET"
#define XI_TOUCHPAD      "TOUCHPAD"
#define XI_TOUCHSCREEN    "TOUCHSCREEN"
#define XI_TRACKBALL     "TRACKBALL"
#define INAME            "XInputExtension"

typedef long unsigned int XEventClass;
typedef struct {
    int present;
    short int major_version;
    short int minor_version;
} XExtensionVersion;

```

6.16.2. X11/extensions/XInput.h

```

#define _XINPUT_H_
#define DeviceButtonPress(d,type,_class) \
    FindTypeAndClass(d, type, _class, ButtonClass, _deviceButtonPress)
#define DeviceButtonRelease(d,type,_class) \
    FindTypeAndClass(d, type, _class, ButtonClass, _deviceButtonRelease)
#define DeviceFocusIn(d,type,_class) \
    FindTypeAndClass(d, type, _class, FocusClass, _deviceFocusIn)
#define DeviceFocusOut(d,type,_class) \
    FindTypeAndClass(d, type, _class, FocusClass, _deviceFocusOut)
#define DeviceKeyPress(d,type,_class) \
    FindTypeAndClass(d, type, _class, KeyClass, _deviceKeyPress)
#define DeviceKeyRelease(d,type,_class) \
    FindTypeAndClass(d, type, _class, KeyClass, _deviceKeyRelease)
#define ChangeDeviceNotify(d,type,_class) \
    FindTypeAndClass(d, type, _class, OtherClass, _changeDeviceNotify)
#define DeviceMappingNotify(d,type,_class) \
    FindTypeAndClass(d, type, _class, OtherClass, _deviceMappingNotify)
#define DeviceStateNotify(d,type,_class) \
    FindTypeAndClass(d, type, _class, OtherClass, _deviceStateNotify)
#define ProximityIn(d,type,_class) \
    FindTypeAndClass(d, type, _class, ProximityClass, _proximityIn)
#define ProximityOut(d,type,_class) \
    FindTypeAndClass(d, type, _class, ProximityClass, _proximityOut)
#define DeviceMotionNotify(d,type,_class) \
    FindTypeAndClass(d, type, _class, ValuatorClass, _deviceMotionNotify)
#define FindTypeAndClass(d,type,_class,classid,offset) \
    { int _i; XInputClassInfo *_ip; type = 0; _class = 0; for (_i=0, _ip= \
    ((XDevice *) d)->classes; _i< ((XDevice *) d)->num_classes; _i++, \
    _ip++) if (_ip->input_class == classid) {type = _ip->event_type_base + \
    offset; _class = ((XDevice *) d)->device_id << 8 | type;}}
#define DevicePointerMotionHint(d,type,_class) \
    { _class = ((XDevice *) d)->device_id << 8 | \
    _devicePointerMotionHint;}
#define DeviceButton1Motion(d,type,_class) \
    { _class = ((XDevice *) d)->device_id << 8 | _deviceButton1Motion;}
#define DeviceButton2Motion(d,type,_class) \
    { _class = ((XDevice *) d)->device_id << 8 | _deviceButton2Motion;}
#define DeviceButton3Motion(d,type,_class) \
    { _class = ((XDevice *) d)->device_id << 8 | _deviceButton3Motion;}

```

```

#define DeviceButton5Motion(d,type,_class) \
    { _class = ((XDevice *) d)->device_id << 8 | _deviceButton5Motion;}
#define DeviceButtonPressGrab(d,type,_class) \
    { _class = ((XDevice *) d)->device_id << 8 | _deviceButtonGrab;}
#define DeviceOwnerGrabButton(d,type,_class) \
    { _class = ((XDevice *) d)->device_id << 8 | _deviceOwnerGrabButton;}
#define NoExtensionEvent(d,type,_class) \
    { _class = ((XDevice *) d)->device_id << 8 | _noExtensionEvent;}
#define _deviceButtonPress 0
#define _deviceFocusIn 0
#define _deviceKeyPress 0
#define _deviceMotionNotify 0
#define _deviceStateNotify 0
#define _proximityIn 0
#define _deviceButtonRelease 1
#define _deviceFocusOut 1
#define _deviceKeyRelease 1
#define _deviceMappingNotify 1
#define _proximityOut 1
#define _changeDeviceNotify 2
#define DeviceButton4Motion(d,type, _class) { _class = ((XDevice *) d)->device_id << 8 | _de
#define DeviceButtonMotion(d,type, _class) { _class = ((XDevice *) d)->device_id << 8 | _de
#define DevicePresence(dpy, type, _class) {\
    extern int _XiGetDevicePresenceNotifyEvent(Display *); \
    type = _XiGetDevicePresenceNotifyEvent(dpy); \
    _class = (0x10000 | _devicePresence); \
}

typedef struct {
    unsigned char input_class;
    unsigned char event_type_base;
} XInputClassInfo;
typedef struct {
    XID device_id;
    int num_classes;
    XInputClassInfo *classes;
} XDevice;
typedef struct {
    int type;
    long unsigned int serial;
    int send_event;
    Display *display;
    Window window;
    XID deviceid;
    Window root;
    Window subwindow;
    Time time;
    int x;
    int y;
    int x_root;
    int y_root;
    unsigned int state;
    unsigned int keycode;
    int same_screen;
    unsigned int device_state;
    unsigned char axes_count;
    unsigned char first_axis;
    int axis_data[6];
} XDeviceKeyEvent;
typedef XDeviceKeyEvent XDeviceKeyPressedEvent;
typedef XDeviceKeyEvent XDeviceKeyReleasedEvent;
typedef struct {

```

```

    int type;
    long unsigned int serial;
    int send_event;
    Display *display;
    Window window;
    XID deviceid;
    Window root;
    Window subwindow;
    Time time;
    int x;
    int y;
    int x_root;
    int y_root;
    unsigned int state;
    unsigned int button;
    int same_screen;
    unsigned int device_state;
    unsigned char axes_count;
    unsigned char first_axis;
    int axis_data[6];
} XDeviceButtonEvent;
typedef XDeviceButtonEvent XDeviceButtonPressedEvent;
typedef XDeviceButtonEvent XDeviceButtonReleasedEvent;
typedef struct {
    int type;
    long unsigned int serial;
    int send_event;
    Display *display;
    Window window;
    XID deviceid;
    Window root;
    Window subwindow;
    Time time;
    int x;
    int y;
    int x_root;
    int y_root;
    unsigned int state;
    char is_hint;
    int same_screen;
    unsigned int device_state;
    unsigned char axes_count;
    unsigned char first_axis;
    int axis_data[6];
} XDeviceMotionEvent;
typedef struct {
    int type;
    long unsigned int serial;
    int send_event;
    Display *display;
    Window window;
    XID deviceid;
    int mode;
    int detail;
    Time time;
} XDeviceFocusChangeEvent;
typedef XDeviceFocusChangeEvent XDeviceFocusInEvent;
typedef XDeviceFocusChangeEvent XDeviceFocusOutEvent;
typedef struct {
    int type;
    long unsigned int serial;
    int send_event;

```

```

    Display *display;
    Window window;
    XID deviceid;
    Window root;
    Window subwindow;
    Time time;
    int x;
    int y;
    int x_root;
    int y_root;
    unsigned int state;
    int same_screen;
    unsigned int device_state;
    unsigned char axes_count;
    unsigned char first_axis;
    int axis_data[6];
} XProximityNotifyEvent;
typedef XProximityNotifyEvent XProximityInEvent;
typedef XProximityNotifyEvent XProximityOutEvent;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    unsigned c_class;
#else
    unsigned class;
#endif
    unsigned char length;
} XInputClass;
typedef struct {
    int type;
    long unsigned int serial;
    int send_event;
    Display *display;
    Window window;
    XID deviceid;
    Time time;
    int num_classes;
    char data[64];
} XDeviceStateNotifyEvent;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    unsigned c_class;
#else
    unsigned class;
#endif
    unsigned char length;
    unsigned char num_valuators;
    unsigned char mode;
    int valuator[6];
} XValuatorStatus;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    unsigned c_class;
#else
    unsigned class;
#endif
    unsigned char length;
    short int num_keys;
    char keys[32];
} XKeyStatus;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    unsigned c_class;

```

```

#else
    unsigned class;
#endif
    unsigned char length;
    short int num_buttons;
    char buttons[32];
} XButtonStatus;
typedef struct {
    int type;
    long unsigned int serial;
    int send_event;
    Display *display;
    Window window;
    XID deviceid;
    Time time;
    int request;
    int first_keycode;
    int count;
} XDeviceMappingEvent;
typedef struct {
    int type;
    long unsigned int serial;
    int send_event;
    Display *display;
    Window window;
    XID deviceid;
    Time time;
    int request;
} XChangeDeviceNotifyEvent;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    XID id;
} XFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    XID id;
    int click;
    int percent;
    int pitch;
    int duration;
    int led_mask;
    int global_auto_repeat;
    char auto_repeats[32];
} XKbdFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    XID id;

```



```

    int accelNum;
    int accelDenom;
    int threshold;
} XPtrFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    XID id;
    int resolution;
    int minVal;
    int maxVal;
} XIntegerFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    XID id;
    int max_symbols;
    int num_syms_supported;
    KeySym *syms_supported;
} XStringFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    XID id;
    int percent;
    int pitch;
    int duration;
} XBellFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    XID id;
    int led_values;
    int led_mask;
} XLedFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    XID id;
} XFeedbackControl;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)

```

```

        XID c_class;
#else
        XID class;
#endif
        int length;
        XID id;
        int accelNum;
        int accelDenom;
        int threshold;
} XPtrFeedbackControl;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
        XID c_class;
#else
        XID class;
#endif
        int length;
        XID id;
        int click;
        int percent;
        int pitch;
        int duration;
        int led_mask;
        int led_value;
        int key;
        int auto_repeat_mode;
} XKbdFeedbackControl;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
        XID c_class;
#else
        XID class;
#endif
        int length;
        XID id;
        int num_keysyms;
        KeySym *syms_to_display;
} XStringFeedbackControl;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
        XID c_class;
#else
        XID class;
#endif
        int length;
        XID id;
        int int_to_display;
} XIntegerFeedbackControl;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
        XID c_class;
#else
        XID class;
#endif
        int length;
        XID id;
        int percent;
        int pitch;
        int duration;
} XBellFeedbackControl;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)

```

```

        XID c_class;
#else
        XID class;
#endif
        int length;
        XID id;
        int led_mask;
        int led_values;
    } XLedFeedbackControl;
typedef struct {
    XID control;
    int length;
} XDeviceControl;
typedef struct {
    XID control;
    int length;
    int first_valuator;
    int num_valuators;
    int *resolutions;
} XDeviceResolutionControl;
typedef struct {
    XID control;
    int length;
    int num_valuators;
    int *resolutions;
    int *min_resolutions;
    int *max_resolutions;
} XDeviceResolutionState;
typedef struct _XAnyClassinfo *XAnyClassPtr;
typedef struct _XAnyClassinfo {
#if defined(__cplusplus) || defined(c_plusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
} XAnyClassInfo;
typedef struct _XDeviceInfo *XDeviceInfoPtr;
typedef struct _XDeviceInfo {
    XID id;
    Atom type;
    char *name;
    int num_classes;
    int use;
    XAnyClassPtr inputclassinfo;
} XDeviceInfo;
typedef struct _XKeyInfo *XKeyInfoPtr;
typedef struct _XKeyInfo {
#if defined(__cplusplus) || defined(c_plusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    short unsigned int min_keycode;
    short unsigned int max_keycode;
    short unsigned int num_keys;
} XKeyInfo;
typedef struct _XButtonInfo *XButtonInfoPtr;
typedef struct _XButtonInfo {
#if defined(__cplusplus) || defined(c_plusplus)
    XID c_class;

```

```

#else
    XID class;
#endif
    int length;
    short int num_buttons;
} XButtonInfo;
typedef struct _XAxisInfo *XAxisInfoPtr;
typedef struct _XAxisInfo {
    int resolution;
    int min_value;
    int max_value;
} XAxisInfo;
typedef struct _XValuatorInfo *XValuatorInfoPtr;
typedef struct _XValuatorInfo {
#if defined(__cplusplus) || defined(cplusplus)
    XID c_class;
#else
    XID class;
#endif
    int length;
    unsigned char num_axes;
    unsigned char mode;
    long unsigned int motion_buffer;
    XAxisInfoPtr axes;
} XValuatorInfo;
typedef struct {
    XEventClass event_type;
    XID device;
} XEventList;
typedef struct {
    Time time;
    int *data;
} XDeviceTimeCoord;
typedef struct {
    XID device_id;
    int num_classes;
    XInputClass *data;
} XDeviceState;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
    unsigned c_class;
#else
    unsigned class;
#endif
    unsigned char length;
    unsigned char num_valuators;
    unsigned char mode;
    int *valuators;
} XValuatorState;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
    unsigned c_class;
#else
    unsigned class;
#endif
    unsigned char length;
    short int num_keys;
    char keys[32];
} XKeyState;
typedef struct {
#if defined(__cplusplus) || defined(cplusplus)
    unsigned c_class;

```

```

#else
    unsigned class;
#endif
    unsigned char length;
    short int num_buttons;
    char buttons[32];
} XButtonState;
extern int XAllowDeviceEvents(Display *, XDevice *, int, Time);
extern int XChangeDeviceControl(Display *, XDevice *, int,
                                XDeviceControl *);
extern int XChangeDeviceDontPropagateList(Display *, Window, int,
                                           XEventClass *, int);
extern int XChangeDeviceKeyMapping(Display *, XDevice *, int, int,
                                   KeySym *, int);
extern int XChangeFeedbackControl(Display *, XDevice *, unsigned long int,
                                  XFeedbackControl *);
extern int XChangeKeyboardDevice(Display *, XDevice *);
extern int XChangePointerDevice(Display *, XDevice *, int, int);
extern int XCloseDevice(Display *, XDevice *);
extern int XDeviceBell(Display *, XDevice *, XID, XID, int);
extern void XFreeDeviceControl(XDeviceControl *);
extern void XFreeDeviceList(XDeviceInfo *);
extern void XFreeDeviceMotionEvents(XDeviceTimeCoord *);
extern void XFreeDeviceState(XDeviceState *);
extern void XFreeFeedbackList(XFeedbackState *);
extern int XGetDeviceButtonMapping(Display *, XDevice *, unsigned char *,
                                   unsigned int);
extern XDeviceControl *XGetDeviceControl(Display *, XDevice *, int);
extern XEventClass *XGetDeviceDontPropagateList(Display *, Window, int *);
extern int XGetDeviceFocus(Display *, XDevice *, Window *, int *, Time *);
extern KeySym *XGetDeviceKeyMapping(Display *, XDevice *, unsigned int,
                                    int, int *);
extern XModifierKeymap *XGetDeviceModifierMapping(Display *, XDevice *);
extern XDeviceTimeCoord *XGetDeviceMotionEvents(Display *, XDevice *, Time,
                                                  Time, int *, int *, int *);
extern XExtensionVersion *XGetExtensionVersion(Display *, const char *);
extern XFeedbackState *XGetFeedbackControl(Display *, XDevice *, int *);
extern int XGetSelectedExtensionEvents(Display *, Window, int *,
                                       XEventClass * *, int *,
                                       XEventClass * *);
extern int XGrabDevice(Display *, XDevice *, Window, int, int,
                       XEventClass *, int, int, Time);
extern int XGrabDeviceButton(Display *, XDevice *, unsigned int,
                             unsigned int, XDevice *, Window, int,
                             unsigned int, XEventClass *, int, int);
extern int XGrabDeviceKey(Display *, XDevice *, unsigned int, unsigned int,
                          XDevice *, Window, int, unsigned int,
                          XEventClass *, int, int);
extern XDeviceInfo *XListInputDevices(Display *, int *);
extern XDevice *XOpenDevice(Display *, XID);
extern XDeviceState *XQueryDeviceState(Display *, XDevice *);
extern int XSelectExtensionEvent(Display *, Window, XEventClass *, int);
extern int XSendExtensionEvent(Display *, XDevice *, Window, int, int,
                               XEventClass *, XEvent *);
extern int XSetDeviceButtonMapping(Display *, XDevice *, unsigned char *,
                                   int);
extern int XSetDeviceFocus(Display *, XDevice *, Window, int, Time);
extern int XSetDeviceMode(Display *, XDevice *, int);
extern int XSetDeviceModifierMapping(Display *, XDevice *,
                                     XModifierKeymap *);
extern int XSetDeviceValuators(Display *, XDevice *, int *, int, int);
extern int XUngrabDevice(Display *, XDevice *, Time);

```

```
extern int XUngrabDeviceButton(Display *, XDevice *, unsigned int,
                               unsigned int, XDevice *, Window);
extern int XUngrabDeviceKey(Display *, XDevice *, unsigned int,
                            unsigned int, XDevice *, Window);
```

6.16.3. X11/extensions/Xlproto.h

```
#define XI_DeviceValuator      0
#define InputClassBits      0x3F
#define DEVICE_BITS         0x7F
#define MORE_EVENTS         0x80
#define CLIENT_REQ          1
#define XI_DeviceKeyPress     1
#define X_GetExtensionVersion 1
#define XI_DeviceStateNotify  10
#define X_GetDeviceMotionEvents 10
#define XI_DeviceMappingNotify 11
#define X_ChangeKeyboardDevice 11
#define XI_ChangeDeviceNotify  12
#define X_ChangePointerDevice  12
#define XI_DeviceKeystateNotify 13
#define X_GrabDevice           13
#define XI_DeviceButtonstateNotify 14
#define X_UngrabDevice         14
#define XI_DevicePresenceNotify 15
#define X_GrabDeviceKey        15
#define IEVENTS               16
#define X_UngrabDeviceKey      16
#define X_GrabDeviceButton     17
#define X_UngrabDeviceButton   18
#define X_AllowDeviceEvents    19
#define XI_DeviceKeyRelease    2
#define X_ListInputDevices     2
#define X_GetDeviceFocus       20
#define X_SetDeviceFocus       21
#define X_GetFeedbackControl    22
#define X_ChangeFeedbackControl 23
#define X_GetDeviceKeyMapping   24
#define X_ChangeDeviceKeyMapping 25
#define X_GetDeviceModifierMapping 26
#define X_SetDeviceModifierMapping 27
#define X_GetDeviceButtonMapping 28
#define X_SetDeviceButtonMapping 29
#define XI_DeviceButtonPress   3
#define X_OpenDevice           3
#define X_QueryDeviceState     30
#define X_SendExtensionEvent    31
#define X_DeviceBell           32
#define X_SetDeviceValuators    33
#define X_GetDeviceControl      34
#define X_ChangeDeviceControl    35
#define XI_DeviceButtonRelease  4
#define X_CloseDevice          4
#define IERRORS               5
#define XI_DeviceMotionNotify   5
#define X_SetDeviceMode        5
#define ModeBitsShift         6
#define XI_DeviceFocusIn       6
#define X_SelectExtensionEvent  6
#define XI_DeviceFocusOut      7
#define X_GetSelectedExtensionEvents 7
```

```

#define numInputClasses 7
#define XI_ProximityIn 8
#define X_ChangeDeviceDontPropagateList 8
#define XI_ProximityOut 9
#define X_GetDeviceDontPropagateList 9

typedef struct _XExtEventInfo {
    Mask mask;
    BYTE type;
    BYTE word;
} XExtEventInfo;
typedef unsigned char *Pointer;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD16 nbytes;
    CARD8 pad1;
    CARD8 pad2;
} xGetExtensionVersionReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 major_version;
    CARD16 minor_version;
    BOOL present;
    CARD8 pad1;
    CARD8 pad2;
    CARD8 pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
} xGetExtensionVersionReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
} xListInputDevicesReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 ndevices;
    CARD8 pad1;
    CARD8 pad2;
    CARD8 pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xListInputDevicesReply;
typedef struct _xDeviceInfo *xDeviceInfoPtr;
typedef struct _xAnyClassinfo *xAnyClassPtr;
typedef struct _xAnyClassinfo {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else

```

```

        CARD8 class;
#endif
        CARD8 length;
    } xAnyClassInfo;
typedef struct _xDeviceInfo {
    CARD32 type;
    CARD8 id;
    CARD8 num_classes;
    CARD8 use;
    CARD8 pad1;
} xDeviceInfo;
typedef struct _xKeyInfo *xKeyInfoPtr;
typedef struct _xKeyInfo {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 length;
    CARD8 min_keycode;
    CARD8 max_keycode;
    CARD16 num_keys;
    CARD8 pad1;
    CARD8 pad2;
} xKeyInfo;
typedef struct _xButtonInfo *xButtonInfoPtr;
typedef struct _xButtonInfo {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 length;
    CARD16 num_buttons;
} xButtonInfo;
typedef struct _xValuatorInfo *xValuatorInfoPtr;
typedef struct _xValuatorInfo {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 length;
    CARD8 num_axes;
    CARD8 mode;
    CARD32 motion_buffer_size;
} xValuatorInfo;
typedef struct _xAxisInfo *xAxisInfoPtr;
typedef struct _xAxisInfo {
    CARD32 resolution;
    CARD32 min_value;
    CARD32 max_value;
} xAxisInfo;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xOpenDeviceReq;

```



```

typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 num_classes;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad00;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
} xOpenDeviceReply;
typedef struct {
#ifdef __cplusplus || defined(cplusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 event_type_base;
} xInputClassInfo;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xCloseDeviceReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    CARD8 mode;
    BYTE pad1;
    BYTE pad2;
} xSetDeviceModeReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 status;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xSetDeviceModeReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 window;
    CARD16 count;

```

```

    CARD16 pad00;
} xSelectExtensionEventReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 window;
} xGetSelectedExtensionEventsReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 this_client_count;
    CARD16 all_clients_count;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xGetSelectedExtensionEventsReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 window;
    CARD16 count;
    CARD8 mode;
    BYTE pad;
} xChangeDeviceDontPropagateListReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 window;
} xGetDeviceDontPropagateListReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 count;
    CARD16 pad00;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xGetDeviceDontPropagateListReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 start;
    CARD32 stop;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xGetDeviceMotionEventsReq;
typedef struct {
    CARD8 repType;

```

```

    CARD8 repType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 nEvents;
    CARD8 axes;
    CARD8 mode;
    BYTE pad1;
    BYTE pad2;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
} xGetDeviceMotionEventsReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xChangeKeyboardDeviceReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 status;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xChangeKeyboardDeviceReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 xaxis;
    CARD8 yaxis;
    CARD8 deviceid;
    BYTE pad1;
} xChangePointerDeviceReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 status;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xChangePointerDeviceReply;
typedef struct {

```

```

CARD8 reqType;
CARD8 ReqType;
CARD16 length;
CARD32 grabWindow;
CARD32 time;
CARD16 event_count;
CARD8 this_device_mode;
CARD8 other_devices_mode;
BOOL ownerEvents;
CARD8 deviceid;
CARD16 pad01;
} xGrabDeviceReq;
typedef struct {
    CARD8 repType;
    CARD8 ReqType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 status;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xGrabDeviceReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 time;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xUngrabDeviceReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 grabWindow;
    CARD16 event_count;
    CARD16 modifiers;
    CARD8 modifier_device;
    CARD8 grabbed_device;
    CARD8 key;
    BYTE this_device_mode;
    BYTE other_devices_mode;
    BOOL ownerEvents;
    BYTE pad1;
    BYTE pad2;
} xGrabDeviceKeyReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 grabWindow;
    CARD16 modifiers;
    CARD8 modifier_device;
    CARD8 key;
    CARD8 grabbed_device;

```

```

    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xUngrabDeviceKeyReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 grabWindow;
    CARD8 grabbed_device;
    CARD8 modifier_device;
    CARD16 event_count;
    CARD16 modifiers;
    BYTE this_device_mode;
    BYTE other_devices_mode;
    CARD8 button;
    BOOL ownerEvents;
    BYTE pad1;
    BYTE pad2;
} xGrabDeviceButtonReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 grabWindow;
    CARD16 modifiers;
    CARD8 modifier_device;
    CARD8 button;
    CARD8 grabbed_device;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xUngrabDeviceButtonReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 time;
    CARD8 mode;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
} xAllowDeviceEventsReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xGetDeviceFocusReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD32 focus;
    CARD32 time;
    CARD8 revertTo;
    BYTE pad1;
    BYTE pad2;

```

```

    BYTE pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
} xGetDeviceFocusReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 focus;
    CARD32 time;
    CARD8 revertTo;
    CARD8 device;
    CARD16 pad01;
} xSetDeviceFocusReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xGetFeedbackControlReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD16 num_feedbacks;
    CARD16 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
    CARD32 pad06;
} xGetFeedbackControlReply;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
} xFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    CARD16 pitch;
    CARD16 duration;
    CARD32 led_mask;
    CARD32 led_values;
    BOOL global_auto_repeat;
    CARD8 click;
    CARD8 percent;
    BYTE pad;

```

```

    BYTE auto_repeats[32];
} xKbdFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    CARD8 pad1;
    CARD8 pad2;
    CARD16 accelNum;
    CARD16 accelDenom;
    CARD16 threshold;
} xPtrFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    CARD32 resolution;
    INT32 min_value;
    INT32 max_value;
} xIntegerFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    CARD16 max_symbols;
    CARD16 num_syms_supported;
} xStringFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    CARD8 percent;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD16 pitch;
    CARD16 duration;
} xBellFeedbackState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;

```

```

    CARD32 led_mask;
    CARD32 led_values;
} xLedFeedbackState;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 mask;
    CARD8 deviceid;
    CARD8 feedbackid;
    BYTE pad1;
    BYTE pad2;
} xChangeFeedbackControlReq;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
} xFeedbackCtl;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    CARD8 key;
    CARD8 auto_repeat_mode;
    INT8 click;
    INT8 percent;
    INT16 pitch;
    INT16 duration;
    CARD32 led_mask;
    CARD32 led_values;
} xKbdFeedbackCtl;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    CARD8 pad1;
    CARD8 pad2;
    INT16 num;
    INT16 denom;
    INT16 thresh;
} xPtrFeedbackCtl;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    INT32 int_to_display;

```



```

} xIntegerFeedbackCtl;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    CARD8 pad1;
    CARD8 pad2;
    CARD16 num_keysyms;
} xStringFeedbackCtl;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    INT8 percent;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    INT16 pitch;
    INT16 duration;
} xBellFeedbackCtl;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 id;
    CARD16 length;
    CARD32 led_mask;
    CARD32 led_values;
} xLedFeedbackCtl;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    CARD8 firstKeyCode;
    CARD8 count;
    BYTE pad1;
} xGetDeviceKeyMappingReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 keySymsPerKeyCode;
    CARD8 pad0;
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xGetDeviceKeyMappingReply;

```

```

typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    CARD8 firstKeyCode;
    CARD8 keySymsPerKeyCode;
    CARD8 keyCodes;
} xChangeDeviceKeyMappingReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xGetDeviceModifierMappingReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 numKeyPerModifier;
    CARD8 pad0;
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xGetDeviceModifierMappingReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    CARD8 numKeyPerModifier;
    CARD16 pad1;
} xSetDeviceModifierMappingReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 success;
    CARD8 pad0;
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xSetDeviceModifierMappingReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;

```

```

} xGetDeviceButtonMappingReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 nElts;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xGetDeviceButtonMappingReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    CARD8 map_length;
    BYTE pad1;
    BYTE pad2;
} xSetDeviceButtonMappingReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 status;
    BYTE pad0;
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xSetDeviceButtonMappingReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xQueryDeviceStateReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 num_classes;
    BYTE pad0;
    CARD16 pad1;
    CARD32 pad2;
    CARD32 pad3;
    CARD32 pad4;
    CARD32 pad5;
    CARD32 pad6;
} xQueryDeviceStateReply;

```

```

typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 length;
    CARD8 num_keys;
    BYTE pad1;
    CARD8 keys[32];
} xKeyState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 length;
    CARD8 num_buttons;
    BYTE pad1;
    CARD8 buttons[32];
} xButtonState;
typedef struct {
#if defined(__cplusplus) || defined(c_plusplus)
    CARD8 c_class;
#else
    CARD8 class;
#endif
    CARD8 length;
    CARD8 num_valuators;
    CARD8 mode;
} xValuatorState;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD32 destination;
    CARD8 deviceid;
    BOOL propagate;
    CARD16 count;
    CARD8 num_events;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
} xSendExtensionEventReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    CARD8 feedbackid;
    CARD8 feedbackclass;
    INT8 percent;
} xDeviceBellReq;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD8 deviceid;
    CARD8 first_valuator;
    CARD8 num_valuators;
    BYTE pad1;

```

```

} xSetDeviceValuatorsReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 status;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xSetDeviceValuatorsReply;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD16 control;
    CARD8 deviceid;
    BYTE pad2;
} xGetDeviceControlReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 status;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xGetDeviceControlReply;
typedef struct {
    CARD16 control;
    CARD16 length;
} xDeviceState;
typedef struct {
    CARD16 control;
    CARD16 length;
    CARD32 num_valuators;
} xDeviceResolutionState;
typedef struct {
    CARD8 reqType;
    CARD8 ReqType;
    CARD16 length;
    CARD16 control;
    CARD8 deviceid;
    BYTE pad0;
} xChangeDeviceControlReq;
typedef struct {
    CARD8 repType;
    CARD8 RepType;
    CARD16 sequenceNumber;
    CARD32 length;
    CARD8 status;

```

```

    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
    CARD32 pad05;
} xChangeDeviceControlReply;
typedef struct {
    CARD16 control;
    CARD16 length;
} xDeviceCtl;
typedef struct {
    CARD16 control;
    CARD16 length;
    CARD8 first_valuator;
    CARD8 num_valuators;
    CARD8 pad1;
    CARD8 pad2;
} xDeviceResolutionCtl;
typedef struct {
    BYTE type;
    CARD8 deviceid;
    CARD16 sequenceNumber;
    KeyButMask device_state;
    CARD8 num_valuators;
    CARD8 first_valuator;
    INT32 valuator0;
    INT32 valuator1;
    INT32 valuator2;
    INT32 valuator3;
    INT32 valuator4;
    INT32 valuator5;
} deviceValuator;
typedef struct {
    BYTE type;
    BYTE detail;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD32 root;
    CARD32 event;
    CARD32 child;
    INT16 root_x;
    INT16 root_y;
    INT16 event_x;
    INT16 event_y;
    KeyButMask state;
    BOOL same_screen;
    CARD8 deviceid;
} deviceKeyButtonPointer;
typedef struct {
    BYTE type;
    BYTE detail;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD32 window;
    BYTE mode;
    CARD8 deviceid;
    BYTE pad1;
    BYTE pad2;
    CARD32 pad00;

```

```

    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
} deviceFocus;
typedef struct {
    BYTE type;
    BYTE deviceid;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 num_keys;
    CARD8 num_buttons;
    CARD8 num_valuators;
    CARD8 classes_reported;
    CARD8 buttons[4];
    CARD8 keys[4];
    INT32 valuator0;
    INT32 valuator1;
    INT32 valuator2;
} deviceStateNotify;
typedef struct {
    BYTE type;
    BYTE deviceid;
    CARD16 sequenceNumber;
    CARD8 keys[28];
} deviceKeyStateNotify;
typedef struct {
    BYTE type;
    BYTE deviceid;
    CARD16 sequenceNumber;
    CARD8 buttons[28];
} deviceButtonStateNotify;
typedef struct {
    BYTE type;
    BYTE deviceid;
    CARD16 sequenceNumber;
    CARD8 request;
    CARD8 firstKeyCode;
    CARD8 count;
    BYTE pad1;
    CARD32 time;
    CARD32 pad00;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
} deviceMappingNotify;
typedef struct {
    BYTE type;
    BYTE deviceid;
    CARD16 sequenceNumber;
    CARD32 time;
    CARD8 request;
    BYTE pad1;
    BYTE pad2;
    BYTE pad3;
    CARD32 pad00;
    CARD32 pad01;
    CARD32 pad02;
    CARD32 pad03;
    CARD32 pad04;
} changeDeviceNotify;

```

6.17. Interfaces for libXtst

[Table 6-22](#) defines the library name and shared object name for the libXtst library

Table 6-22. libXtst Definition

Library:	libXtst
SONAME:	libXtst.so.6

The behavior of the interfaces in this library is specified by the following specifications:

[X-test] [XTEST Extension Library](#)

6.17.1. libXtst Interfaces

6.17.1.1. Interfaces for libXtst Interfaces

An LSB conforming implementation shall provide the generic functions for libXtst Interfaces specified in [Table 6-23](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 6-23. libXtst - libXtst Interfaces Function Interfaces

XTestCompareCurrentCursorWithWindow [X-test]	XTestCompareCursorWithWindow [X-test]	XTestDiscard [X-test]	X [X-test]
XTestFakeDeviceButtonEvent [X-test]	XTestFakeDeviceKeyEvent [X-test]	XTestFakeDeviceMotionEvent [X-test]	X [X-test]
XTestFakeMotionEvent [X-test]	XTestFakeProximityEvent [X-test]	XTestFakeRelativeMotionEvent [X-test]	X [X-test]
XTestQueryExtension [X-test]	XTestSetGContextOfGC [X-test]	XTestSetVisualIDOfVisual [X-test]	

6.18. Data Definitions for libXtst

This section defines global identifiers and their values that are associated with interfaces contained in libXtst. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

6.18.1. X11/extensions/XTest.h

```
#define XTestNumberErrors      0
#define XTestNumberEvents     0
#define X_XTestGetVersion      0
#define X_XTestCompareCursor   1
#define XTestMajorVersion      2
#define XTestMinorVersion      2
#define X_XTestFakeInput       2
#define X_XTestGrabControl     3
#define XTestExtensionName     "XTEST"

extern int XTestCompareCurrentCursorWithWindow(Display *, Window);
extern int XTestCompareCursorWithWindow(Display *, Window, Cursor);
extern int XTestDiscard(Display *);
extern int XTestFakeButtonEvent(Display *, unsigned int, int,
                                unsigned long int);
extern int XTestFakeDeviceButtonEvent(Display *, XDevice *, unsigned int,
                                       int, int *, int, unsigned long int);
extern int XTestFakeDeviceKeyEvent(Display *, XDevice *, unsigned int, int,
                                   int *, int, unsigned long int);
extern int XTestFakeDeviceMotionEvent(Display *, XDevice *, int, int,
                                       int *, int, unsigned long int);
extern int XTestFakeKeyEvent(Display *, unsigned int, int,
                             unsigned long int);
extern int XTestFakeMotionEvent(Display *, int, int, int,
                                unsigned long int);
extern int XTestFakeProximityEvent(Display *, XDevice *, int, int *, int,
                                   unsigned long int);
extern int XTestFakeRelativeMotionEvent(Display *, int, int,
                                       unsigned long int);
extern int XTestGrabControl(Display *, int);
extern int XTestQueryExtension(Display *, int *, int *, int *, int *);
extern void XTestSetGContextOfGC(GC, GContext);
extern void XTestSetVisualIDOfVisual(Visual *, VisualID);
```

III. OpenGL Libraries

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Chapter 7. Libraries

7.1. Interfaces for libGL

Table 7-1 defines the library name and shared object name for the libGL library

Table 7-1. libGL Definition

Library:	libGL
SONAME:	libGL.so.1

The behavior of the interfaces in this library is specified by the following specifications:

[GLX] [OpenGL Extensions](#)

[OGL] [OpenGL](#)

[OGL ABI] [OpenGL ABI](#)

7.1.1. GL X interface

7.1.1.1. Interfaces for GL X interface

An LSB conforming implementation shall provide the generic functions for GL X interface specified in Table 7-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 7-2. libGL - GL X interface Function Interfaces

glXChooseFBConfig [GLX]	glXChooseVisual [GLX]	glXCopyContext [GLX]	glXCreateContext [GLX]
glXCreateGLXPixmap [GLX]	glXCreateNewContext [GLX]	glXCreatePbuffer [GLX]	glXCreatePixmap [GLX]
glXCreateWindow [GLX]	glXDestroyContext [GLX]	glXDestroyGLXPixmap [GLX]	glXDestroyPbuffer [GLX]
glXDestroyPixmap [GLX]	glXDestroyWindow [GLX]	glXFreeContextEXT [GLX]	glXGetClientString [GLX]
glXGetConfig [GLX]	glXGetContextIDEXT [GLX]	glXGetCurrentContext [GLX]	glXGetCurrentDisplay [GLX]
glXGetCurrentDrawable [GLX]	glXGetCurrentReadDrawable [GLX]	glXGetFBConfigAttrib [GLX]	glXGetFBConfigs [GLX]
glXGetProcAddressARB [OGL ABI]	glXGetSelectedEvent [GLX]	glXGetVisualFromFBConfig [GLX]	glXImportContextEXT [GLX]
glXIsDirect [GLX]	glXMakeContextCurrent [GLX]	glXMakeCurrent [GLX]	glXQueryContext [GLX]

glXQueryContextInfoEXT [GLX]	glXQueryDrawable [GLX]	glXQueryExtension [GLX]	glXQueryExtensionsString [GLX]
glXQueryServerString [GLX]	glXQueryVersion [GLX]	glXSelectEvent [GLX]	glXSwapBuffers [GLX]
glXUseXFont [GLX]	glXWaitGL [GLX]	glXWaitX [GLX]	

7.1.2. OpenGL

7.1.2.1. Interfaces for OpenGL

An LSB conforming implementation shall provide the generic functions for OpenGL specified in [Table 7-3](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 7-3. libGL - OpenGL Function Interfaces

glAccum [OGL]	glActiveTextureARB [OGL]	glAlphaFunc [OGL]	glAreTexturesResident [OGL]
glArrayElement [OGL]	glBegin [OGL]	glBindTexture [OGL]	glBitmap [OGL]
glBlendColor [OGL]	glBlendEquation [OGL]	glBlendFunc [OGL]	glCallList [OGL]
glCallLists [OGL]	glClear [OGL]	glClearAccum [OGL]	glClearColor [OGL]
glClearDepth [OGL]	glClearIndex [OGL]	glClearStencil [OGL]	glClientActiveTextureA [OGL]
glClipPlane [OGL]	glColor3b [OGL]	glColor3bv [OGL]	glColor3d [OGL]
glColor3dv [OGL]	glColor3f [OGL]	glColor3fv [OGL]	glColor3i [OGL]
glColor3iv [OGL]	glColor3s [OGL]	glColor3sv [OGL]	glColor3ub [OGL]
glColor3ubv [OGL]	glColor3ui [OGL]	glColor3uiv [OGL]	glColor3us [OGL]
glColor3usv [OGL]	glColor4b [OGL]	glColor4bv [OGL]	glColor4d [OGL]
glColor4dv [OGL]	glColor4f [OGL]	glColor4fv [OGL]	glColor4i [OGL]
glColor4iv [OGL]	glColor4s [OGL]	glColor4sv [OGL]	glColor4ub [OGL]
glColor4ubv [OGL]	glColor4ui [OGL]	glColor4uiv [OGL]	glColor4us [OGL]
glColor4usv [OGL]	glColorMask [OGL]	glColorMaterial [OGL]	glColorPointer [OGL]
glColorSubTable [OGL]	glColorTable [OGL]	glColorTableParameterfv [OGL]	glColorTableParameteri [OGL]
glConvolutionFilter1D [OGL]	glConvolutionFilter2D [OGL]	glConvolutionParameterf [OGL]	glConvolutionParameteri [OGL]
glConvolutionParameteri [OGL]	glConvolutionParameteriv [OGL]	glCopyColorSubTable [OGL]	glCopyColorTable [OGL]
		glCopyPixels [OGL]	glCopyTexImage1D [OGL]

glCopyConvolutionFilter1D [OGL]	glCopyConvolutionFilter2D [OGL]		
glCopyTexImage2D [OGL]	glCopyTexSubImage1D [OGL]	glCopyTexSubImage2D [OGL]	glCopyTexSubImage3D [OGL]
glCullFace [OGL]	glDeleteLists [OGL]	glDeleteTextures [OGL]	glDepthFunc [OGL]
glDepthMask [OGL]	glDepthRange [OGL]	glDisable [OGL]	glDisableClientState [OGL]
glDrawArrays [OGL]	glDrawBuffer [OGL]	glDrawElements [OGL]	glDrawPixels [OGL]
glDrawRangeElements [OGL]	glEdgeFlag [OGL]	glEdgeFlagPointer [OGL]	glEdgeFlagv [OGL]
glEnable [OGL]	glEnableClientState [OGL]	glEnd [OGL]	glEndList [OGL]
glEvalCoord1d [OGL]	glEvalCoord1dv [OGL]	glEvalCoord1f [OGL]	glEvalCoord1fv [OGL]
glEvalCoord2d [OGL]	glEvalCoord2dv [OGL]	glEvalCoord2f [OGL]	glEvalCoord2fv [OGL]
glEvalMesh1 [OGL]	glEvalMesh2 [OGL]	glEvalPoint1 [OGL]	glEvalPoint2 [OGL]
glFeedbackBuffer [OGL]	glFinish [OGL]	glFlush [OGL]	glFogf [OGL]
glFogfv [OGL]	glFogi [OGL]	glFogiv [OGL]	glFrontFace [OGL]
glFrustum [OGL]	glGenLists [OGL]	glGenTextures [OGL]	glGetBooleanv [OGL]
glGetClipPlane [OGL]	glGetColorTable [OGL]	glGetColorTableParameterfv [OGL]	glGetColorTableParameteriv [OGL]
glGetConvolutionFilter [OGL]	glGetConvolutionParameterfv [OGL]	glGetConvolutionParameteriv [OGL]	glGetDoublev [OGL]
glGetError [OGL]	glGetFloatv [OGL]	glGetHistogram [OGL]	glGetHistogramParameterfv [OGL]
glGetHistogramParameteriv [OGL]	glGetIntegerv [OGL]	glGetLightfv [OGL]	glGetLightiv [OGL]
glGetMapdv [OGL]	glGetMapfv [OGL]	glGetMapiv [OGL]	glGetMaterialfv [OGL]
glGetMaterialiv [OGL]	glGetMinmax [OGL]	glGetMinmaxParameterfv [OGL]	glGetMinmaxParameteriv [OGL]
glGetPixelMapfv [OGL]	glGetPixelMapuiv [OGL]	glGetPixelMapusv [OGL]	glGetPointerv [OGL]
glGetPolygonStipple [OGL]	glGetSeparableFilter [OGL]	glGetString [OGL]	glGetTexEnvfv [OGL]
glGetTexEnviv [OGL]	glGetTexGendv [OGL]	glGetTexGenfv [OGL]	glGetTexGeniv [OGL]
glGetTexImage [OGL]	glGetTexLevelParameterfv [OGL]	glGetTexLevelParameteriv [OGL]	glGetTexParameterfv [OGL]
glGetTexParameteriv [OGL]	glHint [OGL]	glHistogram [OGL]	glIndexMask [OGL]
glIndexPointer [OGL]	glIndexd [OGL]	glIndextdv [OGL]	glIndexf [OGL]
glIndexfv [OGL]	glIndexi [OGL]	glIndexiv [OGL]	glIndexs [OGL]

glIndexsv [OGL]	glIndexub [OGL]	glIndexubv [OGL]	glInitNames [OGL]
glInterleavedArrays [OGL]	glIsEnabled [OGL]	glIsList [OGL]	glIsTexture [OGL]
glLightModelf [OGL]	glLightModelfv [OGL]	glLightModeli [OGL]	glLightModeliv [OGL]
glLightf [OGL]	glLightfv [OGL]	glLighti [OGL]	glLightiv [OGL]
glLineStipple [OGL]	glLineWidth [OGL]	glListBase [OGL]	glLoadIdentity [OGL]
glLoadMatrixd [OGL]	glLoadMatrixf [OGL]	glLoadName [OGL]	glLogicOp [OGL]
glMap1d [OGL]	glMap1f [OGL]	glMap2d [OGL]	glMap2f [OGL]
glMapGrid1d [OGL]	glMapGrid1f [OGL]	glMapGrid2d [OGL]	glMapGrid2f [OGL]
glMaterialf [OGL]	glMaterialfv [OGL]	glMateriali [OGL]	glMaterialiv [OGL]
glMatrixMode [OGL]	glMinmax [OGL]	glMultMatrixd [OGL]	glMultMatrixf [OGL]
glMultiTexCoord1dARB [OGL]	glMultiTexCoord1dvARB [OGL]	glMultiTexCoord1fARB [OGL]	glMultiTexCoord1fvARB [OGL]
glMultiTexCoord1iARB [OGL]	glMultiTexCoord1ivARB [OGL]	glMultiTexCoord1sARB [OGL]	glMultiTexCoord1svARB [OGL]
glMultiTexCoord2dARB [OGL]	glMultiTexCoord2dvARB [OGL]	glMultiTexCoord2fARB [OGL]	glMultiTexCoord2fvARB [OGL]
glMultiTexCoord2iARB [OGL]	glMultiTexCoord2ivARB [OGL]	glMultiTexCoord2sARB [OGL]	glMultiTexCoord2svARB [OGL]
glMultiTexCoord3dARB [OGL]	glMultiTexCoord3dvARB [OGL]	glMultiTexCoord3fARB [OGL]	glMultiTexCoord3fvARB [OGL]
glMultiTexCoord3iARB [OGL]	glMultiTexCoord3ivARB [OGL]	glMultiTexCoord3sARB [OGL]	glMultiTexCoord3svARB [OGL]
glMultiTexCoord4dARB [OGL]	glMultiTexCoord4dvARB [OGL]	glMultiTexCoord4fARB [OGL]	glMultiTexCoord4fvARB [OGL]
glMultiTexCoord4iARB [OGL]	glMultiTexCoord4ivARB [OGL]	glMultiTexCoord4sARB [OGL]	glMultiTexCoord4svARB [OGL]
glNewList [OGL]	glNormal3b [OGL]	glNormal3bv [OGL]	glNormal3d [OGL]
glNormal3dv [OGL]	glNormal3f [OGL]	glNormal3fv [OGL]	glNormal3i [OGL]
glNormal3iv [OGL]	glNormal3s [OGL]	glNormal3sv [OGL]	glNormalPointer [OGL]
glOrtho [OGL]	glPassThrough [OGL]	glPixelMapfv [OGL]	glPixelMapuiv [OGL]
glPixelMapusv [OGL]	glPixelStoref [OGL]	glPixelStorei [OGL]	glPixelTransferf [OGL]
glPixelTransferi [OGL]	glPixelZoom [OGL]	glPointSize [OGL]	glPolygonMode [OGL]
glPolygonOffset [OGL]	glPolygonStipple [OGL]	glPopAttrib [OGL]	glPopClientAttrib [OGL]
glPopMatrix [OGL]	glPopName [OGL]	glPrioritizeTextures [OGL]	glPushAttrib [OGL]
glPushClientAttrib [OGL]	glPushMatrix [OGL]	glPushName [OGL]	glRasterPos2d [OGL]
glRasterPos2dv [OGL]	glRasterPos2f [OGL]	glRasterPos2fv [OGL]	glRasterPos2i [OGL]

glRasterPos2iv [OGL]	glRasterPos2s [OGL]	glRasterPos2sv [OGL]	glRasterPos3d [OGL]
glRasterPos3dv [OGL]	glRasterPos3f [OGL]	glRasterPos3fv [OGL]	glRasterPos3i [OGL]
glRasterPos3iv [OGL]	glRasterPos3s [OGL]	glRasterPos3sv [OGL]	glRasterPos4d [OGL]
glRasterPos4dv [OGL]	glRasterPos4f [OGL]	glRasterPos4fv [OGL]	glRasterPos4i [OGL]
glRasterPos4iv [OGL]	glRasterPos4s [OGL]	glRasterPos4sv [OGL]	glReadBuffer [OGL]
glReadPixels [OGL]	glRectd [OGL]	glRectdv [OGL]	glRectf [OGL]
glRectfv [OGL]	glRecti [OGL]	glRectiv [OGL]	glRects [OGL]
glRectsv [OGL]	glRenderMode [OGL]	glResetHistogram [OGL]	glResetMinmax [OGL]
glRotated [OGL]	glRotatef [OGL]	glScaled [OGL]	glScalef [OGL]
glScissor [OGL]	glSelectBuffer [OGL]	glSeparableFilter2D [OGL]	glShadeModel [OGL]
glStencilFunc [OGL]	glStencilMask [OGL]	glStencilOp [OGL]	glTexCoord1d [OGL]
glTexCoord1dv [OGL]	glTexCoord1f [OGL]	glTexCoord1fv [OGL]	glTexCoord1i [OGL]
glTexCoord1iv [OGL]	glTexCoord1s [OGL]	glTexCoord1sv [OGL]	glTexCoord2d [OGL]
glTexCoord2dv [OGL]	glTexCoord2f [OGL]	glTexCoord2fv [OGL]	glTexCoord2i [OGL]
glTexCoord2iv [OGL]	glTexCoord2s [OGL]	glTexCoord2sv [OGL]	glTexCoord3d [OGL]
glTexCoord3dv [OGL]	glTexCoord3f [OGL]	glTexCoord3fv [OGL]	glTexCoord3i [OGL]
glTexCoord3iv [OGL]	glTexCoord3s [OGL]	glTexCoord3sv [OGL]	glTexCoord4d [OGL]
glTexCoord4dv [OGL]	glTexCoord4f [OGL]	glTexCoord4fv [OGL]	glTexCoord4i [OGL]
glTexCoord4iv [OGL]	glTexCoord4s [OGL]	glTexCoord4sv [OGL]	glTexCoordPointer [OGL]
glTexEnvf [OGL]	glTexEnvfv [OGL]	glTexEnvi [OGL]	glTexEnviv [OGL]
glTexGend [OGL]	glTexGendv [OGL]	glTexGenf [OGL]	glTexGenfv [OGL]
glTexGeni [OGL]	glTexGeniv [OGL]	glTexImage1D [OGL]	glTexImage2D [OGL]
glTexImage3D [OGL]	glTexParameterf [OGL]	glTexParameterfv [OGL]	glTexParameteri [OGL]
glTexParameteriv [OGL]	glTexSubImage1D [OGL]	glTexSubImage2D [OGL]	glTexSubImage3D [OGL]
glTranslated [OGL]	glTranslatef [OGL]	glVertex2d [OGL]	glVertex2dv [OGL]
glVertex2f [OGL]	glVertex2fv [OGL]	glVertex2i [OGL]	glVertex2iv [OGL]
glVertex2s [OGL]	glVertex2sv [OGL]	glVertex3d [OGL]	glVertex3dv [OGL]
glVertex3f [OGL]	glVertex3fv [OGL]	glVertex3i [OGL]	glVertex3iv [OGL]
glVertex3s [OGL]	glVertex3sv [OGL]	glVertex4d [OGL]	glVertex4dv [OGL]
glVertex4f [OGL]	glVertex4fv [OGL]	glVertex4i [OGL]	glVertex4iv [OGL]
glVertex4s [OGL]	glVertex4sv [OGL]	glVertexPointer [OGL]	glViewport [OGL]

7.2. Data Definitions for libGL

This section defines global identifiers and their values that are associated with interfaces contained in libGL. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the ISO C (1999) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

7.2.1. GL/gl.h

```
#define GL_VERSION_1_1 1
#define GL_VERSION_1_2 1

typedef unsigned int GLenum;
typedef unsigned char GLboolean;
typedef unsigned int GLbitfield;
typedef void GLvoid;
typedef char GLbyte;
typedef short GLshort;
typedef int GLint;
typedef unsigned char GLubyte;
typedef unsigned short GLushort;
typedef unsigned int GLuint;
typedef int GLsizei;
typedef float GLfloat;
typedef float GLclampf;
typedef double GLdouble;
typedef double GLclampd;

#define GL_BYTE 0x1400
#define GL_UNSIGNED_BYTE 0x1401
#define GL_SHORT 0x1402
#define GL_UNSIGNED_SHORT 0x1403
#define GL_INT 0x1404
#define GL_UNSIGNED_INT 0x1405
#define GL_FLOAT 0x1406
#define GL_2_BYTES 0x1407
#define GL_3_BYTES 0x1408
#define GL_4_BYTES 0x1409
#define GL_DOUBLE 0x140A

#define GL_POINTS 0x0000
#define GL_LINES 0x0001
#define GL_LINE_LOOP 0x0002
#define GL_LINE_STRIP 0x0003
#define GL_TRIANGLES 0x0004
#define GL_TRIANGLE_STRIP 0x0005
#define GL_TRIANGLE_FAN 0x0006
#define GL_QUADS 0x0007
```



```

#define GL_QUAD_STRIP      0x0008
#define GL_POLYGON         0x0009

#define GL_V2F      0x2A20
#define GL_V3F      0x2A21
#define GL_C4UB_V2F      0x2A22
#define GL_C4UB_V3F      0x2A23
#define GL_C3F_V3F      0x2A24
#define GL_N3F_V3F      0x2A25
#define GL_C4F_N3F_V3F  0x2A26
#define GL_T2F_V3F      0x2A27
#define GL_T4F_V4F      0x2A28
#define GL_T2F_C4UB_V3F 0x2A29
#define GL_T2F_C3F_V3F  0x2A2A
#define GL_T2F_N3F_V3F  0x2A2B
#define GL_T2F_C4F_N3F_V3F 0x2A2C
#define GL_T4F_C4F_N3F_V4F 0x2A2D
#define GL_VERTEX_ARRAY  0x8074
#define GL_NORMAL_ARRAY  0x8075
#define GL_COLOR_ARRAY   0x8076
#define GL_INDEX_ARRAY   0x8077
#define GL_TEXTURE_COORD_ARRAY 0x8078
#define GL_EDGE_FLAG_ARRAY 0x8079
#define GL_VERTEX_ARRAY_SIZE 0x807A
#define GL_VERTEX_ARRAY_TYPE 0x807B
#define GL_VERTEX_ARRAY_STRIDE 0x807C
#define GL_NORMAL_ARRAY_TYPE 0x807E
#define GL_NORMAL_ARRAY_STRIDE 0x807F
#define GL_COLOR_ARRAY_SIZE 0x8081
#define GL_COLOR_ARRAY_TYPE 0x8082
#define GL_COLOR_ARRAY_STRIDE 0x8083
#define GL_INDEX_ARRAY_TYPE 0x8085
#define GL_INDEX_ARRAY_STRIDE 0x8086
#define GL_TEXTURE_COORD_ARRAY_SIZE 0x8088
#define GL_TEXTURE_COORD_ARRAY_TYPE 0x8089
#define GL_TEXTURE_COORD_ARRAY_STRIDE 0x808A
#define GL_EDGE_FLAG_ARRAY_STRIDE 0x808C
#define GL_VERTEX_ARRAY_POINTER 0x808E
#define GL_NORMAL_ARRAY_POINTER 0x808F
#define GL_COLOR_ARRAY_POINTER 0x8090
#define GL_INDEX_ARRAY_POINTER 0x8091
#define GL_TEXTURE_COORD_ARRAY_POINTER 0x8092
#define GL_EDGE_FLAG_ARRAY_POINTER 0x8093

#define GL_MATRIX_MODE 0x0BA0
#define GL_MODELVIEW 0x1700
#define GL_PROJECTION 0x1701
#define GL_TEXTURE 0x1702

#define GL_POINT_SMOOTH 0x0B10
#define GL_POINT_SIZE 0x0B11
#define GL_POINT_SIZE_RANGE 0x0B12
#define GL_POINT_SIZE_GRANULARITY 0x0B13

#define GL_LINE_SMOOTH 0x0B20
#define GL_LINE_WIDTH 0x0B21
#define GL_LINE_WIDTH_RANGE 0x0B22
#define GL_LINE_WIDTH_GRANULARITY 0x0B23
#define GL_LINE_STIPPLE 0x0B24
#define GL_LINE_STIPPLE_PATTERN 0x0B25
#define GL_LINE_STIPPLE_REPEAT 0x0B26

```

```

#define GL_FRONT          0x0404
#define GL_BACK 0x0405
#define GL_CW      0x0900
#define GL_CCW     0x0901
#define GL_POLYGON_MODE 0x0B40
#define GL_POLYGON_SMOOTH      0x0B41
#define GL_POLYGON_STIPPLE     0x0B42
#define GL_EDGE_FLAG    0x0B43
#define GL_CULL_FACE     0x0B44
#define GL_CULL_FACE_MODE      0x0B45
#define GL_FRONT_FACE    0x0B46
#define GL_POINT         0x1B00
#define GL_LINE 0x1B01
#define GL_FILL 0x1B02
#define GL_POLYGON_OFFSET_UNITS 0x2A00
#define GL_POLYGON_OFFSET_POINT 0x2A01
#define GL_POLYGON_OFFSET_LINE 0x2A02
#define GL_POLYGON_OFFSET_FILL 0x8037
#define GL_POLYGON_OFFSET_FACTOR      0x8038

#define GL_LIST_MODE      0x0B30
#define GL_LIST_BASE      0x0B32
#define GL_LIST_INDEX     0x0B33
#define GL_COMPILE        0x1300
#define GL_COMPILE_AND_EXECUTE 0x1301

#define GL_NEVER          0x0200
#define GL_LESS 0x0201
#define GL_EQUAL         0x0202
#define GL_LEQUAL        0x0203
#define GL_GREATER        0x0204
#define GL_NOTEQUAL       0x0205
#define GL_GEQUAL         0x0206
#define GL_ALWAYS         0x0207
#define GL_DEPTH_RANGE    0x0B70
#define GL_DEPTH_TEST     0x0B71
#define GL_DEPTH_WRITEMASK 0x0B72
#define GL_DEPTH_CLEAR_VALUE 0x0B73
#define GL_DEPTH_FUNC      0x0B74
#define GL_DEPTH_BITS      0x0D56
#define GL_DEPTH_COMPONENT 0x1902

#define GL_FRONT_AND_BACK 0x0408
#define GL_LIGHTING        0x0B50
#define GL_LIGHT_MODEL_LOCAL_VIEWER 0x0B51
#define GL_LIGHT_MODEL_TWO_SIDE 0x0B52
#define GL_LIGHT_MODEL_AMBIENT 0x0B53
#define GL_SHADE_MODEL     0x0B54
#define GL_COLOR_MATERIAL_FACE 0x0B55
#define GL_COLOR_MATERIAL_PARAMETER 0x0B56
#define GL_COLOR_MATERIAL    0x0B57
#define GL_NORMALIZE        0x0BA1
#define GL_AMBIENT          0x1200
#define GL_DIFFUSE          0x1201
#define GL_SPECULAR         0x1202
#define GL_POSITION         0x1203
#define GL_SPOT_DIRECTION   0x1204
#define GL_SPOT_EXPONENT    0x1205
#define GL_SPOT_CUTOFF      0x1206
#define GL_CONSTANT_ATTENUATION 0x1207
#define GL_LINEAR_ATTENUATION 0x1208
#define GL_QUADRATIC_ATTENUATION 0x1209

```

```

#define GL_EMISSION      0x1600
#define GL_SHININESS     0x1601
#define GL_AMBIENT_AND_DIFFUSE 0x1602
#define GL_COLOR_INDEXES 0x1603
#define GL_FLAT 0x1D00
#define GL_SMOOTH        0x1D01
#define GL_LIGHT0         0x4000
#define GL_LIGHT1         0x4001
#define GL_LIGHT2         0x4002
#define GL_LIGHT3         0x4003
#define GL_LIGHT4         0x4004
#define GL_LIGHT5         0x4005
#define GL_LIGHT6         0x4006
#define GL_LIGHT7         0x4007

#define GL_CLIP_PLANE0    0x3000
#define GL_CLIP_PLANE1    0x3001
#define GL_CLIP_PLANE2    0x3002
#define GL_CLIP_PLANE3    0x3003
#define GL_CLIP_PLANE4    0x3004
#define GL_CLIP_PLANE5    0x3005

#define GL_ACCUM           0x0100
#define GL_LOAD 0x0101
#define GL_RETURN          0x0102
#define GL_MULT 0x0103
#define GL_ADD 0x0104
#define GL_ACCUM_CLEAR_VALUE 0x0B80
#define GL_ACCUM_RED_BITS  0x0D58
#define GL_ACCUM_GREEN_BITS 0x0D59
#define GL_ACCUM_BLUE_BITS 0x0D5A
#define GL_ACCUM_ALPHA_BITS 0x0D5B

#define GL_ALPHA_TEST      0x0BC0
#define GL_ALPHA_TEST_FUNC 0x0BC1
#define GL_ALPHA_TEST_REF  0x0BC2

#define GL_ZERO 0x0
#define GL_SRC_COLOR      0x0300
#define GL_ONE_MINUS_SRC_COLOR 0x0301
#define GL_SRC_ALPHA      0x0302
#define GL_ONE_MINUS_SRC_ALPHA 0x0303
#define GL_DST_ALPHA      0x0304
#define GL_ONE_MINUS_DST_ALPHA 0x0305
#define GL_DST_COLOR      0x0306
#define GL_ONE_MINUS_DST_COLOR 0x0307
#define GL_SRC_ALPHA_SATURATE 0x0308
#define GL_BLEND_DST      0x0BE0
#define GL_BLEND_SRC       0x0BE1
#define GL_BLEND           0x0BE2
#define GL_ONE 0x1

#define GL_RENDER          0x1C00
#define GL_FEEDBACK        0x1C01
#define GL_SELECT          0x1C02

#define GL_2D 0x0600
#define GL_3D 0x0601
#define GL_3D_COLOR        0x0602
#define GL_3D_COLOR_TEXTURE 0x0603
#define GL_4D_COLOR_TEXTURE 0x0604
#define GL_PASS_THROUGH_TOKEN 0x0700

```

```

#define GL_POINT_TOKEN    0x0701
#define GL_LINE_TOKEN     0x0702
#define GL_POLYGON_TOKEN  0x0703
#define GL_BITMAP_TOKEN   0x0704
#define GL_DRAW_PIXEL_TOKEN 0x0705
#define GL_COPY_PIXEL_TOKEN 0x0706
#define GL_LINE_RESET_TOKEN 0x0707
#define GL_FEEDBACK_BUFFER_POINTER 0x0DF0
#define GL_FEEDBACK_BUFFER_SIZE 0x0DF1
#define GL_FEEDBACK_BUFFER_TYPE 0x0DF2
#define GL_ALPHA_BLEND_EQUATION_ATI 0x883D
#define GL_ATI_blend_equation_separate 1

#define GL_CURRENT_BIT    0x00000001
#define GL_POINT_BIT     0x00000002
#define GL_LINE_BIT      0x00000004
#define GL_POLYGON_BIT   0x00000008
#define GL_POLYGON_STIPPLE_BIT 0x00000010
#define GL_PIXEL_MODE_BIT 0x00000020
#define GL_LIGHTING_BIT  0x00000040
#define GL_FOG_BIT       0x00000080
#define GL_DEPTH_BUFFER_BIT 0x00000100
#define GL_ACCUM_BUFFER_BIT 0x00000200
#define GL_STENCIL_BUFFER_BIT 0x00000400
#define GL_VIEWPORT_BIT  0x00000800
#define GL_TRANSFORM_BIT 0x00001000
#define GL_ENABLE_BIT    0x00002000
#define GL_COLOR_BUFFER_BIT 0x00004000
#define GL_HINT_BIT      0x00008000
#define GL_EVAL_BIT      0x00010000
#define GL_LIST_BIT      0x00020000
#define GL_TEXTURE_BIT   0x00040000
#define GL_SCISSOR_BIT   0x00080000
#define GL_ALL_ATTRIB_BITS 0x000FFFFF

#define GL_CLIENT_PIXEL_STORE_BIT 0x00000001
#define GL_CLIENT_VERTEX_ARRAY_BIT 0x00000002
#define GL_TEXTURE_INTERNAL_FORMAT 0x1003
#define GL_R3_G3_B2 0x2A10
#define GL_ALPHA4 0x803B
#define GL_ALPHA8 0x803C
#define GL_ALPHA12 0x803D
#define GL_ALPHA16 0x803E
#define GL_LUMINANCE4 0x803F
#define GL_LUMINANCE8 0x8040
#define GL_LUMINANCE12 0x8041
#define GL_LUMINANCE16 0x8042
#define GL_LUMINANCE4_ALPHA4 0x8043
#define GL_LUMINANCE6_ALPHA2 0x8044
#define GL_LUMINANCE8_ALPHA8 0x8045
#define GL_LUMINANCE12_ALPHA4 0x8046
#define GL_LUMINANCE12_ALPHA12 0x8047
#define GL_LUMINANCE16_ALPHA16 0x8048
#define GL_INTENSITY 0x8049
#define GL_INTENSITY4 0x804A
#define GL_INTENSITY8 0x804B
#define GL_INTENSITY12 0x804C
#define GL_INTENSITY16 0x804D
#define GL_RGB4 0x804F
#define GL_RGB5 0x8050
#define GL_RGB8 0x8051
#define GL_RGB10 0x8052

```

```

#define GL_RGB12      0x8053
#define GL_RGB16      0x8054
#define GL_RGBA2      0x8055
#define GL_RGBA4      0x8056
#define GL_RGB5_A1    0x8057
#define GL_RGBA8      0x8058
#define GL_RGB10_A2   0x8059
#define GL_RGBA12     0x805A
#define GL_RGBA16     0x805B
#define GL_PROXY_TEXTURE_1D    0x8063
#define GL_PROXY_TEXTURE_2D    0x8064
#define GL_TEXTURE_PRIORITY    0x8066
#define GL_TEXTURE_RESIDENT    0x8067
#define GL_TEXTURE_BINDING_1D  0x8068
#define GL_TEXTURE_BINDING_2D  0x8069
#define GL_ALL_CLIENT_ATTRIB_BITS      0xFFFFFFFF
#define GL_CLIENT_ALL_ATTRIB_BITS      0xFFFFFFFF

#define GL_SMOOTH_POINT_SIZE_RANGE      0x0B12
#define GL_SMOOTH_POINT_SIZE_GRANULARITY      0x0B13
#define GL_SMOOTH_LINE_WIDTH_RANGE      0x0B22
#define GL_SMOOTH_LINE_WIDTH_GRANULARITY      0x0B23
#define GL_UNSIGNED_BYTE_3_3_2  0x8032
#define GL_UNSIGNED_SHORT_4_4_4_4      0x8033
#define GL_UNSIGNED_SHORT_5_5_5_1      0x8034
#define GL_UNSIGNED_INT_8_8_8_8  0x8035
#define GL_UNSIGNED_INT_10_10_10_2     0x8036
#define GL_RESCALE_NORMAL          0x803A
#define GL_TEXTURE_BINDING_3D       0x806A
#define GL_PACK_SKIP_IMAGES         0x806B
#define GL_PACK_IMAGE_HEIGHT        0x806C
#define GL_UNPACK_SKIP_IMAGES       0x806D
#define GL_UNPACK_IMAGE_HEIGHT      0x806E
#define GL_TEXTURE_3D               0x806F
#define GL_PROXY_TEXTURE_3D         0x8070
#define GL_TEXTURE_DEPTH             0x8071
#define GL_TEXTURE_WRAP_R            0x8072
#define GL_MAX_3D_TEXTURE_SIZE      0x8073
#define GL_BGR                      0x80E0
#define GL_BGRA                     0x80E1
#define GL_MAX_ELEMENTS_VERTICES     0x80E8
#define GL_MAX_ELEMENTS_INDICES     0x80E9
#define GL_CLAMP_TO_EDGE             0x812F
#define GL_TEXTURE_MIN_LOD           0x813A
#define GL_TEXTURE_MAX_LOD           0x813B
#define GL_TEXTURE_BASE_LEVEL        0x813C
#define GL_TEXTURE_MAX_LEVEL         0x813D
#define GL_LIGHT_MODEL_COLOR_CONTROL 0x81F8
#define GL_SINGLE_COLOR              0x81F9
#define GL_SEPARATE_SPECULAR_COLOR   0x81FA
#define GL_UNSIGNED_BYTE_2_3_3_REV   0x8362
#define GL_UNSIGNED_SHORT_5_6_5      0x8363
#define GL_UNSIGNED_SHORT_5_6_5_REV  0x8364
#define GL_UNSIGNED_SHORT_4_4_4_4_REV 0x8365
#define GL_UNSIGNED_SHORT_1_5_5_5_REV 0x8366
#define GL_UNSIGNED_INT_8_8_8_8_REV  0x8367
#define GL_UNSIGNED_INT_2_10_10_10_REV 0x8368
#define GL_ALIASED_POINT_SIZE_RANGE  0x846D
#define GL_ALIASED_LINE_WIDTH_RANGE  0x846E

#define GL_CONSTANT_COLOR             0x8001
#define GL_ONE_MINUS_CONSTANT_COLOR   0x8002

```

```

#define GL_CONSTANT_ALPHA      0x8003
#define GL_ONE_MINUS_CONSTANT_ALPHA 0x8004
#define GL_BLEND_COLOR        0x8005
#define GL_FUNC_ADD            0x8006
#define GL_MIN                 0x8007
#define GL_MAX                 0x8008
#define GL_BLEND_EQUATION      0x8009
#define GL_FUNC_SUBTRACT       0x800A
#define GL_FUNC_REVERSE_SUBTRACT 0x800B
#define GL_CONVOLUTION_1D      0x8010
#define GL_CONVOLUTION_2D      0x8011
#define GL_SEPARABLE_2D        0x8012
#define GL_CONVOLUTION_BORDER_MODE 0x8013
#define GL_CONVOLUTION_FILTER_SCALE 0x8014
#define GL_CONVOLUTION_FILTER_BIAS 0x8015
#define GL_REDUCE              0x8016
#define GL_CONVOLUTION_FORMAT  0x8017
#define GL_CONVOLUTION_WIDTH    0x8018
#define GL_CONVOLUTION_HEIGHT  0x8019
#define GL_MAX_CONVOLUTION_WIDTH 0x801A
#define GL_MAX_CONVOLUTION_HEIGHT 0x801B
#define GL_POST_CONVOLUTION_RED_SCALE 0x801C
#define GL_POST_CONVOLUTION_GREEN_SCALE 0x801D
#define GL_POST_CONVOLUTION_BLUE_SCALE 0x801E
#define GL_POST_CONVOLUTION_ALPHA_SCALE 0x801F
#define GL_POST_CONVOLUTION_RED_BIAS 0x8020
#define GL_POST_CONVOLUTION_GREEN_BIAS 0x8021
#define GL_POST_CONVOLUTION_BLUE_BIAS 0x8022
#define GL_POST_CONVOLUTION_ALPHA_BIAS 0x8023
#define GL_HISTOGRAM           0x8024
#define GL_PROXY_HISTOGRAM     0x8025
#define GL_HISTOGRAM_WIDTH     0x8026
#define GL_HISTOGRAM_FORMAT    0x8027
#define GL_HISTOGRAM_RED_SIZE  0x8028
#define GL_HISTOGRAM_GREEN_SIZE 0x8029
#define GL_HISTOGRAM_BLUE_SIZE 0x802A
#define GL_HISTOGRAM_ALPHA_SIZE 0x802B
#define GL_HISTOGRAM_LUMINANCE_SIZE 0x802C
#define GL_HISTOGRAM_SINK      0x802D
#define GL_MINMAX              0x802E
#define GL_MINMAX_FORMAT       0x802F
#define GL_MINMAX_SINK        0x8030
#define GL_TABLE_TOO_LARGE     0x8031
#define GL_COLOR_MATRIX        0x80B1
#define GL_COLOR_MATRIX_STACK_DEPTH 0x80B2
#define GL_MAX_COLOR_MATRIX_STACK_DEPTH 0x80B3
#define GL_POST_COLOR_MATRIX_RED_SCALE 0x80B4
#define GL_POST_COLOR_MATRIX_GREEN_SCALE 0x80B5
#define GL_POST_COLOR_MATRIX_BLUE_SCALE 0x80B6
#define GL_POST_COLOR_MATRIX_ALPHA_SCALE 0x80B7
#define GL_POST_COLOR_MATRIX_RED_BIAS 0x80B8
#define GL_POST_COLOR_MATRIX_GREEN_BIAS 0x80B9
#define GL_POST_COLOR_MATRIX_BLUE_BIAS 0x80BA
#define GL_POST_COLOR_MATRIX_ALPHA_BIAS 0x80BB
#define GL_COLOR_TABLE         0x80D0
#define GL_POST_CONVOLUTION_COLOR_TABLE 0x80D1
#define GL_POST_COLOR_MATRIX_COLOR_TABLE 0x80D2
#define GL_PROXY_COLOR_TABLE   0x80D3
#define GL_PROXY_POST_CONVOLUTION_COLOR_TABLE 0x80D4
#define GL_PROXY_POST_COLOR_MATRIX_COLOR_TABLE 0x80D5
#define GL_COLOR_TABLE_SCALE    0x80D6
#define GL_COLOR_TABLE_BIAS     0x80D7

```

```

#define GL_COLOR_TABLE_FORMAT      0x80D8
#define GL_COLOR_TABLE_WIDTH      0x80D9
#define GL_COLOR_TABLE_RED_SIZE   0x80DA
#define GL_COLOR_TABLE_GREEN_SIZE 0x80DB
#define GL_COLOR_TABLE_BLUE_SIZE  0x80DC
#define GL_COLOR_TABLE_ALPHA_SIZE 0x80DD
#define GL_COLOR_TABLE_LUMINANCE_SIZE 0x80DE
#define GL_COLOR_TABLE_INTENSITY_SIZE 0x80DF
#define GL_CONSTANT_BORDER        0x8151
#define GL_REPLICATE_BORDER       0x8153
#define GL_CONVOLUTION_BORDER_COLOR 0x8154

#define GL_TEXTURE0               0x84C0
#define GL_TEXTURE1               0x84C1
#define GL_TEXTURE2               0x84C2
#define GL_TEXTURE3               0x84C3
#define GL_TEXTURE4               0x84C4
#define GL_TEXTURE5               0x84C5
#define GL_TEXTURE6               0x84C6
#define GL_TEXTURE7               0x84C7
#define GL_TEXTURE8               0x84C8
#define GL_TEXTURE9               0x84C9
#define GL_TEXTURE10              0x84CA
#define GL_TEXTURE11              0x84CB
#define GL_TEXTURE12              0x84CC
#define GL_TEXTURE13              0x84CD
#define GL_TEXTURE14              0x84CE
#define GL_TEXTURE15              0x84CF
#define GL_TEXTURE16              0x84D0
#define GL_TEXTURE17              0x84D1
#define GL_TEXTURE18              0x84D2
#define GL_TEXTURE19              0x84D3
#define GL_TEXTURE20              0x84D4
#define GL_TEXTURE21              0x84D5
#define GL_TEXTURE22              0x84D6
#define GL_TEXTURE23              0x84D7
#define GL_TEXTURE24              0x84D8
#define GL_TEXTURE25              0x84D9
#define GL_TEXTURE26              0x84DA
#define GL_TEXTURE27              0x84DB
#define GL_TEXTURE28              0x84DC
#define GL_TEXTURE29              0x84DD
#define GL_TEXTURE30              0x84DE
#define GL_TEXTURE31              0x84DF
#define GL_ACTIVE_TEXTURE         0x84E0
#define GL_CLIENT_ACTIVE_TEXTURE  0x84E1
#define GL_MAX_TEXTURE_UNITS      0x84E2

#define GL_NORMAL_MAP             0x8511
#define GL_REFLECTION_MAP         0x8512
#define GL_TEXTURE_CUBE_MAP       0x8513
#define GL_TEXTURE_BINDING_CUBE_MAP 0x8514
#define GL_TEXTURE_CUBE_MAP_POSITIVE_X 0x8515
#define GL_TEXTURE_CUBE_MAP_NEGATIVE_X 0x8516
#define GL_TEXTURE_CUBE_MAP_POSITIVE_Y 0x8517
#define GL_TEXTURE_CUBE_MAP_NEGATIVE_Y 0x8518
#define GL_TEXTURE_CUBE_MAP_POSITIVE_Z 0x8519
#define GL_TEXTURE_CUBE_MAP_NEGATIVE_Z 0x851A
#define GL_PROXY_TEXTURE_CUBE_MAP 0x851B
#define GL_MAX_CUBE_MAP_TEXTURE_SIZE 0x851C

#define GL_COMPRESSED_ALPHA        0x84E9

```

```

#define GL_COMPRESSED_LUMINANCE 0x84EA
#define GL_COMPRESSED_LUMINANCE_ALPHA 0x84EB
#define GL_COMPRESSED_INTENSITY 0x84EC
#define GL_COMPRESSED_RGB 0x84ED
#define GL_COMPRESSED_RGBA 0x84EE
#define GL_TEXTURE_COMPRESSION_HINT 0x84EF
#define GL_TEXTURE_COMPRESSED_IMAGE_SIZE 0x86A0
#define GL_TEXTURE_COMPRESSED 0x86A1
#define GL_NUM_COMPRESSED_TEXTURE_FORMATS 0x86A2
#define GL_COMPRESSED_TEXTURE_FORMATS 0x86A3

#define GL_MULTISAMPLE_BIT 0x20000000
#define GL_MULTISAMPLE 0x809D
#define GL_SAMPLE_ALPHA_TO_COVERAGE 0x809E
#define GL_SAMPLE_ALPHA_TO_ONE 0x809F
#define GL_SAMPLE_COVERAGE 0x80A0
#define GL_SAMPLE_BUFFERS 0x80A8
#define GL_SAMPLES 0x80A9
#define GL_SAMPLE_COVERAGE_VALUE 0x80AA
#define GL_SAMPLE_COVERAGE_INVERT 0x80AB

#define GL_TRANSPOSE_MODELVIEW_MATRIX 0x84E3
#define GL_TRANSPOSE_PROJECTION_MATRIX 0x84E4
#define GL_TRANSPOSE_TEXTURE_MATRIX 0x84E5
#define GL_TRANSPOSE_COLOR_MATRIX 0x84E6

#define GL_SUBTRACT 0x84E7
#define GL_COMBINE 0x8570
#define GL_COMBINE_RGB 0x8571
#define GL_COMBINE_ALPHA 0x8572
#define GL_RGB_SCALE 0x8573
#define GL_ADD_SIGNED 0x8574
#define GL_INTERPOLATE 0x8575
#define GL_CONSTANT 0x8576
#define GL_PRIMARY_COLOR 0x8577
#define GL_PREVIOUS 0x8578
#define GL_SOURCE0_RGB 0x8580
#define GL_SOURCE1_RGB 0x8581
#define GL_SOURCE2_RGB 0x8582
#define GL_SOURCE0_ALPHA 0x8588
#define GL_SOURCE1_ALPHA 0x8589
#define GL_SOURCE2_ALPHA 0x858A
#define GL_OPERAND0_RGB 0x8590
#define GL_OPERAND1_RGB 0x8591
#define GL_OPERAND2_RGB 0x8592
#define GL_OPERAND0_ALPHA 0x8598
#define GL_OPERAND1_ALPHA 0x8599
#define GL_OPERAND2_ALPHA 0x859A

#define GL_DOT3_RGB 0x86AE
#define GL_DOT3_RGBA 0x86AF

#define GL_CLAMP_TO_BORDER 0x812D

#define GL_TEXTURE0_ARB 0x84C0
#define GL_TEXTURE1_ARB 0x84C1
#define GL_TEXTURE2_ARB 0x84C2
#define GL_TEXTURE3_ARB 0x84C3
#define GL_TEXTURE4_ARB 0x84C4
#define GL_TEXTURE5_ARB 0x84C5
#define GL_TEXTURE6_ARB 0x84C6
#define GL_TEXTURE7_ARB 0x84C7

```



```

#define GL_TEXTURE8_ARB 0x84C8
#define GL_TEXTURE9_ARB 0x84C9
#define GL_TEXTURE10_ARB 0x84CA
#define GL_TEXTURE11_ARB 0x84CB
#define GL_TEXTURE12_ARB 0x84CC
#define GL_TEXTURE13_ARB 0x84CD
#define GL_TEXTURE14_ARB 0x84CE
#define GL_TEXTURE15_ARB 0x84CF
#define GL_TEXTURE16_ARB 0x84D0
#define GL_TEXTURE17_ARB 0x84D1
#define GL_TEXTURE18_ARB 0x84D2
#define GL_TEXTURE19_ARB 0x84D3
#define GL_TEXTURE20_ARB 0x84D4
#define GL_TEXTURE21_ARB 0x84D5
#define GL_TEXTURE22_ARB 0x84D6
#define GL_TEXTURE23_ARB 0x84D7
#define GL_TEXTURE24_ARB 0x84D8
#define GL_TEXTURE25_ARB 0x84D9
#define GL_TEXTURE26_ARB 0x84DA
#define GL_TEXTURE27_ARB 0x84DB
#define GL_TEXTURE28_ARB 0x84DC
#define GL_TEXTURE29_ARB 0x84DD
#define GL_TEXTURE30_ARB 0x84DE
#define GL_TEXTURE31_ARB 0x84DF
#define GL_ACTIVE_TEXTURE_ARB 0x84E0
#define GL_CLIENT_ACTIVE_TEXTURE_ARB 0x84E1
#define GL_MAX_TEXTURE_UNITS_ARB 0x84E2
#define GL_ARB_imaging 1
#ifndef GL_ARB_multitexture
#define GL_ARB_multitexture 1
#endif

#define GL_NO_ERROR 0x0
#define GL_INVALID_ENUM 0x0500
#define GL_INVALID_VALUE 0x0501
#define GL_INVALID_OPERATION 0x0502
#define GL_STACK_OVERFLOW 0x0503
#define GL_STACK_UNDERFLOW 0x0504
#define GL_OUT_OF_MEMORY 0x0505

#define GL_VENDOR 0x1F00
#define GL_RENDERER 0x1F01
#define GL_VERSION 0x1F02
#define GL_EXTENSIONS 0x1F03

#define GL_SELECTION_BUFFER_POINTER 0x0DF3
#define GL_SELECTION_BUFFER_SIZE 0x0DF4

#define GL_EXP 0x0800
#define GL_EXP2 0x0801
#define GL_FOG 0x0B60
#define GL_FOG_INDEX 0x0B61
#define GL_FOG_DENSITY 0x0B62
#define GL_FOG_START 0x0B63
#define GL_FOG_END 0x0B64
#define GL_FOG_MODE 0x0B65
#define GL_FOG_COLOR 0x0B66
#define GL_LINEAR 0x2601

#define GL_LOGIC_OP_MODE 0x0BF0
#define GL_INDEX_LOGIC_OP 0x0BF1
#define GL_LOGIC_OP 0x0BF1

```

```

#define GL_COLOR_LOGIC_OP      0x0BF2
#define GL_CLEAR               0x1500
#define GL_AND 0x1501
#define GL_AND_REVERSE 0x1502
#define GL_COPY 0x1503
#define GL_AND_INVERTED 0x1504
#define GL_NOOP 0x1505
#define GL_XOR 0x1506
#define GL_OR 0x1507
#define GL_NOR 0x1508
#define GL_EQUIV 0x1509
#define GL_INVERT 0x150A
#define GL_OR_REVERSE 0x150B
#define GL_COPY_INVERTED 0x150C
#define GL_OR_INVERTED 0x150D
#define GL_NAND 0x150E
#define GL_SET 0x150F

#define GL_STENCIL_TEST 0x0B90
#define GL_STENCIL_CLEAR_VALUE 0x0B91
#define GL_STENCIL_FUNC 0x0B92
#define GL_STENCIL_VALUE_MASK 0x0B93
#define GL_STENCIL_FAIL 0x0B94
#define GL_STENCIL_PASS_DEPTH_FAIL 0x0B95
#define GL_STENCIL_PASS_DEPTH_PASS 0x0B96
#define GL_STENCIL_REF 0x0B97
#define GL_STENCIL_WRITEMASK 0x0B98
#define GL_STENCIL_BITS 0x0D57
#define GL_STENCIL_INDEX 0x1901
#define GL_KEEP 0x1E00
#define GL_REPLACE 0x1E01
#define GL_INCR 0x1E02
#define GL_DECR 0x1E03

#define GL_NONE 0x0
#define GL_FRONT_LEFT 0x0400
#define GL_FRONT_RIGHT 0x0401
#define GL_BACK_LEFT 0x0402
#define GL_BACK_RIGHT 0x0403
#define GL_LEFT 0x0406
#define GL_RIGHT 0x0407
#define GL_AUX0 0x0409
#define GL_AUX1 0x040A
#define GL_AUX2 0x040B
#define GL_AUX3 0x040C
#define GL_DITHER 0x0BD0
#define GL_AUX_BUFFERS 0x0C00
#define GL_DRAW_BUFFER 0x0C01
#define GL_READ_BUFFER 0x0C02
#define GL_DOUBLEBUFFER 0x0C32
#define GL_STEREO 0x0C33
#define GL_SUBPIXEL_BITS 0x0D50
#define GL_INDEX_BITS 0x0D51
#define GL_RED_BITS 0x0D52
#define GL_GREEN_BITS 0x0D53
#define GL_BLUE_BITS 0x0D54
#define GL_ALPHA_BITS 0x0D55
#define GL_COLOR 0x1800
#define GL_DEPTH 0x1801
#define GL_STENCIL 0x1802
#define GL_COLOR_INDEX 0x1900
#define GL_RED 0x1903

```

```

#define GL_GREEN          0x1904
#define GL_BLUE 0x1905
#define GL_ALPHA          0x1906
#define GL_RGB   0x1907
#define GL_RGBA 0x1908
#define GL_LUMINANCE      0x1909
#define GL_LUMINANCE_ALPHA 0x190A
#define GL_BITMAP         0x1A00

#define GL_MAX_LIST_NESTING 0x0B31
#define GL_MAX_EVAL_ORDER  0x0D30
#define GL_MAX_LIGHTS      0x0D31
#define GL_MAX_CLIP_PLANES 0x0D32
#define GL_MAX_TEXTURE_SIZE 0x0D33
#define GL_MAX_PIXEL_MAP_TABLE 0x0D34
#define GL_MAX_ATTRIB_STACK_DEPTH 0x0D35
#define GL_MAX_MODELVIEW_STACK_DEPTH 0x0D36
#define GL_MAX_NAME_STACK_DEPTH 0x0D37
#define GL_MAX_PROJECTION_STACK_DEPTH 0x0D38
#define GL_MAX_TEXTURE_STACK_DEPTH 0x0D39
#define GL_MAX_VIEWPORT_DIMS 0x0D3A
#define GL_MAX_CLIENT_ATTRIB_STACK_DEPTH 0x0D3B

#define GL_CURRENT_COLOR    0x0B00
#define GL_CURRENT_INDEX    0x0B01
#define GL_CURRENT_NORMAL   0x0B02
#define GL_CURRENT_TEXTURE_COORDS 0x0B03
#define GL_CURRENT_RASTER_COLOR 0x0B04
#define GL_CURRENT_RASTER_INDEX 0x0B05
#define GL_CURRENT_RASTER_TEXTURE_COORDS 0x0B06
#define GL_CURRENT_RASTER_POSITION 0x0B07
#define GL_CURRENT_RASTER_POSITION_VALID 0x0B08
#define GL_CURRENT_RASTER_DISTANCE 0x0B09
#define GL_VIEWPORT         0x0BA2
#define GL_MODELVIEW_STACK_DEPTH 0x0BA3
#define GL_PROJECTION_STACK_DEPTH 0x0BA4
#define GL_TEXTURE_STACK_DEPTH 0x0BA5
#define GL_MODELVIEW_MATRIX 0x0BA6
#define GL_PROJECTION_MATRIX 0x0BA7
#define GL_TEXTURE_MATRIX   0x0BA8
#define GL_ATTRIB_STACK_DEPTH 0x0BB0
#define GL_CLIENT_ATTRIB_STACK_DEPTH 0x0BB1
#define GL_INDEX_CLEAR_VALUE 0x0C20
#define GL_INDEX_WRITEMASK  0x0C21
#define GL_COLOR_CLEAR_VALUE 0x0C22
#define GL_COLOR_WRITEMASK  0x0C23
#define GL_INDEX_MODE        0x0C30
#define GL_RGBA_MODE         0x0C31
#define GL_RENDER_MODE       0x0C40
#define GL_NAME_STACK_DEPTH  0x0D70

#define GL_COEFF             0x0A00
#define GL_ORDER             0x0A01
#define GL_DOMAIN            0x0A02
#define GL_AUTO_NORMAL       0x0D80
#define GL_MAP1_COLOR_4      0x0D90
#define GL_MAP1_INDEX        0x0D91
#define GL_MAP1_NORMAL       0x0D92
#define GL_MAP1_TEXTURE_COORD_1 0x0D93
#define GL_MAP1_TEXTURE_COORD_2 0x0D94
#define GL_MAP1_TEXTURE_COORD_3 0x0D95
#define GL_MAP1_TEXTURE_COORD_4 0x0D96

```

```

#define GL_MAP1_VERTEX_3      0x0D97
#define GL_MAP1_VERTEX_4      0x0D98
#define GL_MAP2_COLOR_4       0x0DB0
#define GL_MAP2_INDEX         0x0DB1
#define GL_MAP2_NORMAL        0x0DB2
#define GL_MAP2_TEXTURE_COORD_1 0x0DB3
#define GL_MAP2_TEXTURE_COORD_2 0x0DB4
#define GL_MAP2_TEXTURE_COORD_3 0x0DB5
#define GL_MAP2_TEXTURE_COORD_4 0x0DB6
#define GL_MAP2_VERTEX_3      0x0DB7
#define GL_MAP2_VERTEX_4      0x0DB8
#define GL_MAP1_GRID_DOMAIN    0x0DD0
#define GL_MAP1_GRID_SEGMENTS  0x0DD1
#define GL_MAP2_GRID_DOMAIN    0x0DD2
#define GL_MAP2_GRID_SEGMENTS  0x0DD3

#define GL_PERSPECTIVE_CORRECTION_HINT 0x0C50
#define GL_POINT_SMOOTH_HINT  0x0C51
#define GL_LINE_SMOOTH_HINT   0x0C52
#define GL_POLYGON_SMOOTH_HINT 0x0C53
#define GL_FOG_HINT           0x0C54
#define GL_DONT_CARE           0x1100
#define GL_FASTEST             0x1101
#define GL_NICEST              0x1102

#define GL_SCISSOR_BOX         0x0C10
#define GL_SCISSOR_TEST        0x0C11

#define GL_PIXEL_MAP_I_TO_I    0x0C70
#define GL_PIXEL_MAP_S_TO_S    0x0C71
#define GL_PIXEL_MAP_I_TO_R    0x0C72
#define GL_PIXEL_MAP_I_TO_G    0x0C73
#define GL_PIXEL_MAP_I_TO_B    0x0C74
#define GL_PIXEL_MAP_I_TO_A    0x0C75
#define GL_PIXEL_MAP_R_TO_R    0x0C76
#define GL_PIXEL_MAP_G_TO_G    0x0C77
#define GL_PIXEL_MAP_B_TO_B    0x0C78
#define GL_PIXEL_MAP_A_TO_A    0x0C79
#define GL_PIXEL_MAP_I_TO_I_SIZE 0x0CB0
#define GL_PIXEL_MAP_S_TO_S_SIZE 0x0CB1
#define GL_PIXEL_MAP_I_TO_R_SIZE 0x0CB2
#define GL_PIXEL_MAP_I_TO_G_SIZE 0x0CB3
#define GL_PIXEL_MAP_I_TO_B_SIZE 0x0CB4
#define GL_PIXEL_MAP_I_TO_A_SIZE 0x0CB5
#define GL_PIXEL_MAP_R_TO_R_SIZE 0x0CB6
#define GL_PIXEL_MAP_G_TO_G_SIZE 0x0CB7
#define GL_PIXEL_MAP_B_TO_B_SIZE 0x0CB8
#define GL_PIXEL_MAP_A_TO_A_SIZE 0x0CB9
#define GL_UNPACK_SWAP_BYTES    0x0CF0
#define GL_UNPACK_LSB_FIRST     0x0CF1
#define GL_UNPACK_ROW_LENGTH    0x0CF2
#define GL_UNPACK_SKIP_ROWS     0x0CF3
#define GL_UNPACK_SKIP_PIXELS   0x0CF4
#define GL_UNPACK_ALIGNMENT     0x0CF5
#define GL_PACK_SWAP_BYTES      0x0D00
#define GL_PACK_LSB_FIRST       0x0D01
#define GL_PACK_ROW_LENGTH      0x0D02
#define GL_PACK_SKIP_ROWS       0x0D03
#define GL_PACK_SKIP_PIXELS     0x0D04
#define GL_PACK_ALIGNMENT       0x0D05
#define GL_MAP_COLOR            0x0D10
#define GL_MAP_STENCIL          0x0D11

```

```

#define GL_INDEX_SHIFT    0x0D12
#define GL_INDEX_OFFSET   0x0D13
#define GL_RED_SCALE      0x0D14
#define GL_RED_BIAS       0x0D15
#define GL_ZOOM_X         0x0D16
#define GL_ZOOM_Y         0x0D17
#define GL_GREEN_SCALE    0x0D18
#define GL_GREEN_BIAS     0x0D19
#define GL_BLUE_SCALE     0x0D1A
#define GL_BLUE_BIAS      0x0D1B
#define GL_ALPHA_SCALE    0x0D1C
#define GL_ALPHA_BIAS     0x0D1D
#define GL_DEPTH_SCALE    0x0D1E
#define GL_DEPTH_BIAS     0x0D1F

#define GL_TEXTURE_GEN_S      0x0C60
#define GL_TEXTURE_GEN_T      0x0C61
#define GL_TEXTURE_GEN_R      0x0C62
#define GL_TEXTURE_GEN_Q      0x0C63
#define GL_TEXTURE_1D         0x0DE0
#define GL_TEXTURE_2D         0x0DE1
#define GL_TEXTURE_WIDTH      0x1000
#define GL_TEXTURE_HEIGHT     0x1001
#define GL_TEXTURE_COMPONENTS 0x1003
#define GL_TEXTURE_BORDER_COLOR 0x1004
#define GL_TEXTURE_BORDER     0x1005
#define GL_S      0x2000
#define GL_T      0x2001
#define GL_R      0x2002
#define GL_Q      0x2003
#define GL_MODULATE      0x2100
#define GL_DECAL          0x2101
#define GL_TEXTURE_ENV_MODE 0x2200
#define GL_TEXTURE_ENV_COLOR 0x2201
#define GL_TEXTURE_ENV    0x2300
#define GL_EYE_LINEAR      0x2400
#define GL_OBJECT_LINEAR   0x2401
#define GL_SPHERE_MAP      0x2402
#define GL_TEXTURE_GEN_MODE 0x2500
#define GL_OBJECT_PLANE    0x2501
#define GL_EYE_PLANE       0x2502
#define GL_NEAREST         0x2600
#define GL_NEAREST_MIPMAP_NEAREST 0x2700
#define GL_LINEAR_MIPMAP_NEAREST 0x2701
#define GL_NEAREST_MIPMAP_LINEAR 0x2702
#define GL_LINEAR_MIPMAP_LINEAR 0x2703
#define GL_TEXTURE_MAG_FILTER 0x2800
#define GL_TEXTURE_MIN_FILTER 0x2801
#define GL_TEXTURE_WRAP_S    0x2802
#define GL_TEXTURE_WRAP_T    0x2803
#define GL_CLAMP            0x2900
#define GL_REPEAT           0x2901
#define GL_TEXTURE_RED_SIZE  0x805C
#define GL_TEXTURE_GREEN_SIZE 0x805D
#define GL_TEXTURE_BLUE_SIZE 0x805E
#define GL_TEXTURE_ALPHA_SIZE 0x805F
#define GL_TEXTURE_LUMINANCE_SIZE 0x8060
#define GL_TEXTURE_INTENSITY_SIZE 0x8061

#define GL_FALSE      0x0
#define GL_TRUE       0x1

```

```

extern void glAccum(GLenum op, GLfloat value);
extern void glActiveTextureARB(GLenum texture);
extern void glAlphaFunc(GLenum func, GLclampf ref);
extern GLboolean glAreTexturesResident(GLsizei n, const GLuint * textures,
                                       GLboolean * residences);

extern void glArrayElement(GLint i);
extern void glBegin(GLenum mode);
extern void glBindTexture(GLenum target, GLuint texture);
extern void glBitmap(GLsizei width, GLsizei height, GLfloat xorig,
                    GLfloat yorig, GLfloat xmove, GLfloat ymove,
                    const GLubyte * bitmap);
extern void glBlendColor(GLclampf red, GLclampf green, GLclampf blue,
                        GLclampf alpha);
extern void glBlendEquation(GLenum mode);
extern void glBlendFunc(GLenum sfactor, GLenum dfactor);
extern void glCallList(GLuint list);
extern void glCallLists(GLsizei n, GLenum type, const GLvoid * lists);
extern void glClear(GLbitfield mask);
extern void glClearAccum(GLfloat red, GLfloat green, GLfloat blue,
                        GLfloat alpha);
extern void glClearColor(GLclampf red, GLclampf green, GLclampf blue,
                        GLclampf alpha);
extern void glClearDepth(GLclampd depth);
extern void glClearIndex(GLfloat c);
extern void glClearStencil(GLint s);
extern void glClientActiveTextureARB(GLenum texture);
extern void glClipPlane(GLenum plane, const GLdouble * equation);
extern void glColor3b(GLbyte red, GLbyte green, GLbyte blue);
extern void glColor3bv(const GLbyte * v);
extern void glColor3d(GLdouble red, GLdouble green, GLdouble blue);
extern void glColor3dv(const GLdouble * v);
extern void glColor3f(GLfloat red, GLfloat green, GLfloat blue);
extern void glColor3fv(const GLfloat * v);
extern void glColor3i(GLint red, GLint green, GLint blue);
extern void glColor3iv(const GLint * v);
extern void glColor3s(GLshort red, GLshort green, GLshort blue);
extern void glColor3sv(const GLshort * v);
extern void glColor3ub(GLubyte red, GLubyte green, GLubyte blue);
extern void glColor3ubv(const GLubyte * v);
extern void glColor3ui(GLuint red, GLuint green, GLuint blue);
extern void glColor3uiv(const GLuint * v);
extern void glColor3us(GLushort red, GLushort green, GLushort blue);
extern void glColor3usv(const GLushort * v);
extern void glColor4b(GLbyte red, GLbyte green, GLbyte blue, GLbyte alpha);
extern void glColor4bv(const GLbyte * v);
extern void glColor4d(GLdouble red, GLdouble green, GLdouble blue,
                    GLdouble alpha);
extern void glColor4dv(const GLdouble * v);
extern void glColor4f(GLfloat red, GLfloat green, GLfloat blue,
                    GLfloat alpha);
extern void glColor4fv(const GLfloat * v);
extern void glColor4i(GLint red, GLint green, GLint blue, GLint alpha);
extern void glColor4iv(const GLint * v);
extern void glColor4s(GLshort red, GLshort green, GLshort blue,
                    GLshort alpha);
extern void glColor4sv(const GLshort * v);
extern void glColor4ub(GLubyte red, GLubyte green, GLubyte blue,
                    GLubyte alpha);
extern void glColor4ubv(const GLubyte * v);
extern void glColor4ui(GLuint red, GLuint green, GLuint blue,
                    GLuint alpha);
extern void glColor4uiv(const GLuint * v);

```

```

extern void glColor4us(GLushort red, GLushort green, GLushort blue,
                      GLushort alpha);
extern void glColor4usv(const GLushort * v);
extern void glColorMask(GLboolean red, GLboolean green, GLboolean blue,
                      GLboolean alpha);
extern void glColorMaterial(GGLenum face, GGLenum mode);
extern void glColorPointer(GLint size, GGLenum type, GLsizei stride,
                      const GLvoid * pointer);
extern void glColorSubTable(GGLenum target, GLsizei start, GLsizei count,
                      GGLenum format, GGLenum type,
                      const GLvoid * data);
extern void glColorTable(GGLenum target, GGLenum internalformat,
                      GLsizei width, GGLenum format, GGLenum type,
                      const GLvoid * table);
extern void glColorTableParameterfv(GGLenum target, GGLenum pname,
                      const GLfloat * params);
extern void glColorTableParameteriv(GGLenum target, GGLenum pname,
                      const GLint * params);
extern void glConvolutionFilter1D(GGLenum target, GGLenum internalformat,
                      GLsizei width, GGLenum format,
                      GGLenum type, const GLvoid * image);
extern void glConvolutionFilter2D(GGLenum target, GGLenum internalformat,
                      GLsizei width, GLsizei height,
                      GGLenum format, GGLenum type,
                      const GLvoid * image);
extern void glConvolutionParameterf(GGLenum target, GGLenum pname,
                      GLfloat params);
extern void glConvolutionParameterfv(GGLenum target, GGLenum pname,
                      const GLfloat * params);
extern void glConvolutionParameteri(GGLenum target, GGLenum pname,
                      GLint params);
extern void glConvolutionParameteriv(GGLenum target, GGLenum pname,
                      const GLint * params);
extern void glCopyColorSubTable(GGLenum target, GLsizei start, GLint x,
                      GLint y, GLsizei width);
extern void glCopyColorTable(GGLenum target, GGLenum internalformat, GLint x,
                      GLint y, GLsizei width);
extern void glCopyConvolutionFilter1D(GGLenum target, GGLenum internalformat,
                      GLint x, GLint y, GLsizei width);
extern void glCopyConvolutionFilter2D(GGLenum target, GGLenum internalformat,
                      GLint x, GLint y, GLsizei width,
                      GLsizei height);
extern void glCopyPixels(GLint x, GLint y, GLsizei width, GLsizei height,
                      GGLenum type);
extern void glCopyTexImage1D(GGLenum target, GLint level,
                      GGLenum internalFormat, GLint x, GLint y,
                      GLsizei width, GLint border);
extern void glCopyTexImage2D(GGLenum target, GLint level,
                      GGLenum internalFormat, GLint x, GLint y,
                      GLsizei width, GLsizei height, GLint border);
extern void glCopyTexSubImage1D(GGLenum target, GLint level, GLint xoffset,
                      GLint x, GLint y, GLsizei width);
extern void glCopyTexSubImage2D(GGLenum target, GLint level, GLint xoffset,
                      GLint yoffset, GLint x, GLint y,
                      GLsizei width, GLsizei height);
extern void glCopyTexSubImage3D(GGLenum target, GLint level, GLint xoffset,
                      GLint yoffset, GLint zoffset, GLint x,
                      GLint y, GLsizei width, GLsizei height);
extern void glCullFace(GGLenum mode);
extern void glDeleteLists(GLuint list, GLsizei range);
extern void glDeleteTextures(GLsizei n, const GLuint * textures);
extern void glDepthFunc(GGLenum func);

```

```

extern void glDepthMask(GLboolean flag);
extern void glDepthRange(GLclampd zNear, GLclampd zFar);
extern void glDisable(GLenum cap);
extern void glDisableClientState(GLenum array);
extern void glDrawArrays(GLenum mode, GLint first, GLsizei count);
extern void glDrawBuffer(GLenum mode);
extern void glDrawElements(GLenum mode, GLsizei count, GLenum type,
                           const GLvoid * indices);
extern void glDrawPixels(GLsizei width, GLsizei height, GLenum format,
                        GLenum type, const GLvoid * pixels);
extern void glDrawRangeElements(GLenum mode, GLuint start, GLuint end,
                                GLsizei count, GLenum type,
                                const GLvoid * indices);
extern void glEdgeFlag(GLboolean flag);
extern void glEdgeFlagPointer(GLsizei stride, const GLvoid * pointer);
extern void glEdgeFlagv(const GLboolean * flag);
extern void glEnable(GLenum cap);
extern void glEnableClientState(GLenum array);
extern void glEnd(void);
extern void glEndList(void);
extern void glEvalCoord1d(GLdouble u);
extern void glEvalCoord1dv(const GLdouble * u);
extern void glEvalCoord1f(GLfloat u);
extern void glEvalCoord1fv(const GLfloat * u);
extern void glEvalCoord2d(GLdouble u, GLdouble v);
extern void glEvalCoord2dv(const GLdouble * u);
extern void glEvalCoord2f(GLfloat u, GLfloat v);
extern void glEvalCoord2fv(const GLfloat * u);
extern void glEvalMesh1(GLenum mode, GLint i1, GLint i2);
extern void glEvalMesh2(GLenum mode, GLint i1, GLint i2, GLint j1,
                        GLint j2);
extern void glEvalPoint1(GLint i);
extern void glEvalPoint2(GLint i, GLint j);
extern void glFeedbackBuffer(GLsizei size, GLenum type, GLfloat * buffer);
extern void glFinish(void);
extern void glFlush(void);
extern void glFogf(GLenum pname, GLfloat param);
extern void glFogfv(GLenum pname, const GLfloat * params);
extern void glFogi(GLenum pname, GLint param);
extern void glFogiv(GLenum pname, const GLint * params);
extern void glFrontFace(GLenum mode);
extern void glFrustum(GLdouble left, GLdouble right, GLdouble bottom,
                     GLdouble top, GLdouble zNear, GLdouble zFar);
extern GLuint glGenLists(GLsizei range);
extern void glGenTextures(GLsizei n, GLuint * textures);
extern void glGetBooleanv(GLenum pname, GLboolean * params);
extern void glGetClipPlane(GLenum plane, GLdouble * equation);
extern void glGetColorTable(GLenum target, GLenum format, GLenum type,
                           GLvoid * table);
extern void glGetColorTableParameterfv(GLenum target, GLenum pname,
                                       GLfloat * params);
extern void glGetColorTableParameteriv(GLenum target, GLenum pname,
                                       GLint * params);
extern void glGetConvolutionFilter(GLenum target, GLenum format,
                                   GLenum type, GLvoid * image);
extern void glGetConvolutionParameterfv(GLenum target, GLenum pname,
                                       GLfloat * params);
extern void glGetConvolutionParameteriv(GLenum target, GLenum pname,
                                       GLint * params);
extern void glGetDoublev(GLenum pname, GLdouble * params);
extern GLenum glGetError(void);
extern void glGetFloatv(GLenum pname, GLfloat * params);

```



```

extern void glGetHistogram(GLenum target, GLboolean reset, GLenum format,
                           GLenum type, GLvoid * values);
extern void glGetHistogramParameterfv(GLenum target, GLenum pname,
                                       GLfloat * params);
extern void glGetHistogramParameteriv(GLenum target, GLenum pname,
                                       GLint * params);
extern void glGetIntegerv(GLenum pname, GLint * params);
extern void glGetLightfv(GLenum light, GLenum pname, GLfloat * params);
extern void glGetLightiv(GLenum light, GLenum pname, GLint * params);
extern void glGetMapdv(GLenum target, GLenum query, GLdouble * v);
extern void glGetMapfv(GLenum target, GLenum query, GLfloat * v);
extern void glGetMapiv(GLenum target, GLenum query, GLint * v);
extern void glGetMaterialfv(GLenum face, GLenum pname, GLfloat * params);
extern void glGetMaterialiv(GLenum face, GLenum pname, GLint * params);
extern void glGetMinmax(GLenum target, GLboolean reset, GLenum format,
                        GLenum types, GLvoid * values);
extern void glGetMinmaxParameterfv(GLenum target, GLenum pname,
                                    GLfloat * params);
extern void glGetMinmaxParameteriv(GLenum target, GLenum pname,
                                    GLint * params);
extern void glGetPixelMapfv(GLenum map, GLfloat * values);
extern void glGetPixelMapuiv(GLenum map, GLuint * values);
extern void glGetPixelMapusv(GLenum map, GLushort * values);
extern void glGetPointerv(GLenum pname, void **params);
extern void glGetPolygonStipple(GLubyte * mask);
extern void glGetSeparableFilter(GLenum target, GLenum format, GLenum type,
                                GLvoid * row, GLvoid * column,
                                GLvoid * span);
extern const GLubyte *glGetString(GLenum name);
extern void glGetTexEnvfv(GLenum target, GLenum pname, GLfloat * params);
extern void glGetTexEnviv(GLenum target, GLenum pname, GLint * params);
extern void glGetTexGendv(GLenum coord, GLenum pname, GLdouble * params);
extern void glGetTexGenfv(GLenum coord, GLenum pname, GLfloat * params);
extern void glGetTexGeniv(GLenum coord, GLenum pname, GLint * params);
extern void glGetTexImage(GLenum target, GLint level, GLenum format,
                          GLenum type, GLvoid * pixels);
extern void glGetTexLevelParameterfv(GLenum target, GLint level,
                                      GLenum pname, GLfloat * params);
extern void glGetTexLevelParameteriv(GLenum target, GLint level,
                                      GLenum pname, GLint * params);
extern void glGetTexParameterfv(GLenum target, GLenum pname,
                                GLfloat * params);
extern void glGetTexParameteriv(GLenum target, GLenum pname,
                                GLint * params);
extern void glHint(GLenum target, GLenum mode);
extern void glHistogram(GLenum target, GLsizei width,
                        GLenum internalformat, GLboolean sink);
extern void glIndexMask(GLuint mask);
extern void glIndexPointer(GLenum type, GLsizei stride,
                           const GLvoid * pointer);
extern void glIndexd(GLdouble c);
extern void glIndexdv(const GLdouble * c);
extern void glIndexf(GLfloat c);
extern void glIndexfv(const GLfloat * c);
extern void glIndexi(GLint c);
extern void glIndexiv(const GLint * c);
extern void glIndexs(GLshort c);
extern void glIndexsv(const GLshort * c);
extern void glIndexub(GLubyte c);
extern void glIndexubv(const GLubyte * c);
extern void glInitNames(void);
extern void glInterleavedArrays(GLenum format, GLsizei stride,

```

```

        const GLvoid * pointer);
extern GLboolean glIsEnabled(GLenum cap);
extern GLboolean glIsList(GLuint list);
extern GLboolean glIsTexture(GLuint texture);
extern void glLightModelf(GLenum pname, GLfloat param);
extern void glLightModelfv(GLenum pname, const GLfloat * params);
extern void glLightModeli(GLenum pname, GLint param);
extern void glLightModeliv(GLenum pname, const GLint * params);
extern void glLightf(GLenum light, GLenum pname, GLfloat param);
extern void glLightfv(GLenum light, GLenum pname, const GLfloat * params);
extern void glLighti(GLenum light, GLenum pname, GLint param);
extern void glLightiv(GLenum light, GLenum pname, const GLint * params);
extern void glLineStipple(GLint factor, GLushort pattern);
extern void glLineWidth(GLfloat width);
extern void glListBase(GLuint base);
extern void glLoadIdentity(void);
extern void glLoadMatrixd(const GLdouble * m);
extern void glLoadMatrixf(const GLfloat * m);
extern void glLoadName(GLuint name);
extern void glLogicOp(GLenum opcode);
extern void glMap1d(GLenum target, GLdouble u1, GLdouble u2, GLint stride,
        GLint order, const GLdouble * points);
extern void glMap1f(GLenum target, GLfloat u1, GLfloat u2, GLint stride,
        GLint order, const GLfloat * points);
extern void glMap2d(GLenum target, GLdouble u1, GLdouble u2, GLint ustride,
        GLint uorder, GLdouble v1, GLdouble v2, GLint vstride,
        GLint vorder, const GLdouble * points);
extern void glMap2f(GLenum target, GLfloat u1, GLfloat u2, GLint ustride,
        GLint uorder, GLfloat v1, GLfloat v2, GLint vstride,
        GLint vorder, const GLfloat * points);
extern void glMapGrid1d(GLint un, GLdouble u1, GLdouble u2);
extern void glMapGrid1f(GLint un, GLfloat u1, GLfloat u2);
extern void glMapGrid2d(GLint un, GLdouble u1, GLdouble u2, GLint vn,
        GLdouble v1, GLdouble v2);
extern void glMapGrid2f(GLint un, GLfloat u1, GLfloat u2, GLint vn,
        GLfloat v1, GLfloat v2);
extern void glMaterialf(GLenum face, GLenum pname, GLfloat param);
extern void glMaterialfv(GLenum face, GLenum pname,
        const GLfloat * params);
extern void glMateriali(GLenum face, GLenum pname, GLint param);
extern void glMaterialiv(GLenum face, GLenum pname, const GLint * params);
extern void glMatrixMode(GLenum mode);
extern void glMinmax(GLenum target, GLenum internalformat, GLboolean sink);
extern void glMultMatrixd(const GLdouble * m);
extern void glMultMatrixf(const GLfloat * m);
extern void glMultiTexCoord1dARB(GLenum target, GLdouble s);
extern void glMultiTexCoord1dvARB(GLenum target, const GLdouble * v);
extern void glMultiTexCoord1fARB(GLenum target, GLfloat s);
extern void glMultiTexCoord1fvARB(GLenum target, const GLfloat * v);
extern void glMultiTexCoord1iARB(GLenum target, GLint s);
extern void glMultiTexCoord1ivARB(GLenum target, const GLint * v);
extern void glMultiTexCoord1sARB(GLenum target, GLshort s);
extern void glMultiTexCoord1svARB(GLenum target, const GLshort * v);
extern void glMultiTexCoord2dARB(GLenum target, GLdouble s, GLdouble t);
extern void glMultiTexCoord2dvARB(GLenum target, const GLdouble * v);
extern void glMultiTexCoord2fARB(GLenum target, GLfloat s, GLfloat t);
extern void glMultiTexCoord2fvARB(GLenum target, const GLfloat * v);
extern void glMultiTexCoord2iARB(GLenum target, GLint s, GLint t);
extern void glMultiTexCoord2ivARB(GLenum target, const GLint * v);
extern void glMultiTexCoord2sARB(GLenum target, GLshort s, GLshort t);
extern void glMultiTexCoord2svARB(GLenum target, const GLshort * v);
extern void glMultiTexCoord3dARB(GLenum target, GLdouble s, GLdouble t,

```

```

        GLdouble r);
extern void glMultiTexCoord3dvARB(GLenum target, const GLdouble * v);
extern void glMultiTexCoord3fARB(GLenum target, GLfloat s, GLfloat t,
        GLfloat r);
extern void glMultiTexCoord3fvARB(GLenum target, const GLfloat * v);
extern void glMultiTexCoord3iARB(GLenum target, GLint s, GLint t, GLint r);
extern void glMultiTexCoord3ivARB(GLenum target, const GLint * v);
extern void glMultiTexCoord3sARB(GLenum target, GLshort s, GLshort t,
        GLshort r);
extern void glMultiTexCoord3svARB(GLenum target, const GLshort * v);
extern void glMultiTexCoord4dARB(GLenum target, GLdouble s, GLdouble t,
        GLdouble r, GLdouble q);
extern void glMultiTexCoord4dvARB(GLenum target, const GLdouble * v);
extern void glMultiTexCoord4fARB(GLenum target, GLfloat s, GLfloat t,
        GLfloat r, GLfloat q);
extern void glMultiTexCoord4fvARB(GLenum target, const GLfloat * v);
extern void glMultiTexCoord4iARB(GLenum target, GLint s, GLint t, GLint r,
        GLint q);
extern void glMultiTexCoord4ivARB(GLenum target, const GLint * v);
extern void glMultiTexCoord4sARB(GLenum target, GLshort s, GLshort t,
        GLshort r, GLshort q);
extern void glMultiTexCoord4svARB(GLenum target, const GLshort * v);
extern void glNewList(GLuint list, GLenum mode);
extern void glNormal3b(GLbyte nx, GLbyte ny, GLbyte nz);
extern void glNormal3bv(const GLbyte * v);
extern void glNormal3d(GLdouble nx, GLdouble ny, GLdouble nz);
extern void glNormal3dv(const GLdouble * v);
extern void glNormal3f(GLfloat nx, GLfloat ny, GLfloat nz);
extern void glNormal3fv(const GLfloat * v);
extern void glNormal3i(GLint nx, GLint ny, GLint nz);
extern void glNormal3iv(const GLint * v);
extern void glNormal3s(GLshort nx, GLshort ny, GLshort nz);
extern void glNormal3sv(const GLshort * v);
extern void glNormalPointer(GLenum type, GLsizei stride,
        const GLvoid * pointer);
extern void glOrtho(GLdouble left, GLdouble right, GLdouble bottom,
        GLdouble top, GLdouble zNear, GLdouble zFar);
extern void glPassThrough(GLfloat token);
extern void glPixelMapfv(GLenum map, GLint mapsize,
        const GLfloat * values);
extern void glPixelMapuiv(GLenum map, GLint mapsize,
        const GLuint * values);
extern void glPixelMapusv(GLenum map, GLint mapsize,
        const GLushort * values);
extern void glPixelStoref(GLenum pname, GLfloat param);
extern void glPixelStorei(GLenum pname, GLint param);
extern void glPixelTransferf(GLenum pname, GLfloat param);
extern void glPixelTransferi(GLenum pname, GLint param);
extern void glPixelZoom(GLfloat xfactor, GLfloat yfactor);
extern void glPointSize(GLfloat size);
extern void glPolygonMode(GLenum face, GLenum mode);
extern void glPolygonOffset(GLfloat factor, GLfloat units);
extern void glPolygonStipple(const GLubyte * mask);
extern void glPopAttrib(void);
extern void glPopClientAttrib(void);
extern void glPopMatrix(void);
extern void glPopName(void);
extern void glPrioritizeTextures(GLsizei n, const GLuint * textures,
        const GLclampf * priorities);
extern void glPushAttrib(GLbitfield mask);
extern void glPushClientAttrib(GLbitfield mask);
extern void glPushMatrix(void);

```

```

extern void glPushName(GLuint name);
extern void glRasterPos2d(GLdouble x, GLdouble y);
extern void glRasterPos2dv(const GLdouble * v);
extern void glRasterPos2f(GLfloat x, GLfloat y);
extern void glRasterPos2fv(const GLfloat * v);
extern void glRasterPos2i(GLint x, GLint y);
extern void glRasterPos2iv(const GLint * v);
extern void glRasterPos2s(GLshort x, GLshort y);
extern void glRasterPos2sv(const GLshort * v);
extern void glRasterPos3d(GLdouble x, GLdouble y, GLdouble z);
extern void glRasterPos3dv(const GLdouble * v);
extern void glRasterPos3f(GLfloat x, GLfloat y, GLfloat z);
extern void glRasterPos3fv(const GLfloat * v);
extern void glRasterPos3i(GLint x, GLint y, GLint z);
extern void glRasterPos3iv(const GLint * v);
extern void glRasterPos3s(GLshort x, GLshort y, GLshort z);
extern void glRasterPos3sv(const GLshort * v);
extern void glRasterPos4d(GLdouble x, GLdouble y, GLdouble z, GLdouble w);
extern void glRasterPos4dv(const GLdouble * v);
extern void glRasterPos4f(GLfloat x, GLfloat y, GLfloat z, GLfloat w);
extern void glRasterPos4fv(const GLfloat * v);
extern void glRasterPos4i(GLint x, GLint y, GLint z, GLint w);
extern void glRasterPos4iv(const GLint * v);
extern void glRasterPos4s(GLshort x, GLshort y, GLshort z, GLshort w);
extern void glRasterPos4sv(const GLshort * v);
extern void glReadBuffer(GLenum mode);
extern void glReadPixels(GLint x, GLint y, GLsizei width, GLsizei height,
                        GLenum format, GLenum type, GLvoid * pixels);
extern void glRectd(GLdouble x1, GLdouble y1, GLdouble x2, GLdouble y2);
extern void glRectdv(const GLdouble * v1, const GLdouble * v2);
extern void glRectf(GLfloat x1, GLfloat y1, GLfloat x2, GLfloat y2);
extern void glRectfv(const GLfloat * v1, const GLfloat * v2);
extern void glRecti(GLint x1, GLint y1, GLint x2, GLint y2);
extern void glRectiv(const GLint * v1, const GLint * v2);
extern void glRects(GLshort x1, GLshort y1, GLshort x2, GLshort y2);
extern void glRectsv(const GLshort * v1, const GLshort * v2);
extern GLint glRenderMode(GLenum mode);
extern void glResetHistogram(GLenum target);
extern void glResetMinmax(GLenum target);
extern void glRotated(GLdouble angle, GLdouble x, GLdouble y, GLdouble z);
extern void glRotatef(GLfloat angle, GLfloat x, GLfloat y, GLfloat z);
extern void glScaled(GLdouble x, GLdouble y, GLdouble z);
extern void glScalef(GLfloat x, GLfloat y, GLfloat z);
extern void glScissor(GLint x, GLint y, GLsizei width, GLsizei height);
extern void glSelectBuffer(GLsizei size, GLuint * buffer);
extern void glSeparableFilter2D(GLenum target, GLenum internalformat,
                                GLsizei width, GLsizei height,
                                GLenum format, GLenum type,
                                const GLvoid * row, const GLvoid * column);
extern void glShadeModel(GLenum mode);
extern void glStencilFunc(GLenum func, GLint ref, GLuint mask);
extern void glStencilMask(GLuint mask);
extern void glStencilOp(GLenum fail, GLenum zfail, GLenum zpass);
extern void glTexCoord1d(GLdouble s);
extern void glTexCoord1dv(const GLdouble * v);
extern void glTexCoord1f(GLfloat s);
extern void glTexCoord1fv(const GLfloat * v);
extern void glTexCoord1i(GLint s);
extern void glTexCoord1iv(const GLint * v);
extern void glTexCoord1s(GLshort s);
extern void glTexCoord1sv(const GLshort * v);
extern void glTexCoord2d(GLdouble s, GLdouble t);

```

```

extern void glTexCoord2dv(const GLdouble * v);
extern void glTexCoord2f(GLfloat s, GLfloat t);
extern void glTexCoord2fv(const GLfloat * v);
extern void glTexCoord2i(GLint s, GLint t);
extern void glTexCoord2iv(const GLint * v);
extern void glTexCoord2s(GLshort s, GLshort t);
extern void glTexCoord2sv(const GLshort * v);
extern void glTexCoord3d(GLdouble s, GLdouble t, GLdouble r);
extern void glTexCoord3dv(const GLdouble * v);
extern void glTexCoord3f(GLfloat s, GLfloat t, GLfloat r);
extern void glTexCoord3fv(const GLfloat * v);
extern void glTexCoord3i(GLint s, GLint t, GLint r);
extern void glTexCoord3iv(const GLint * v);
extern void glTexCoord3s(GLshort s, GLshort t, GLshort r);
extern void glTexCoord3sv(const GLshort * v);
extern void glTexCoord4d(GLdouble s, GLdouble t, GLdouble r, GLdouble q);
extern void glTexCoord4dv(const GLdouble * v);
extern void glTexCoord4f(GLfloat s, GLfloat t, GLfloat r, GLfloat q);
extern void glTexCoord4fv(const GLfloat * v);
extern void glTexCoord4i(GLint s, GLint t, GLint r, GLint q);
extern void glTexCoord4iv(const GLint * v);
extern void glTexCoord4s(GLshort s, GLshort t, GLshort r, GLshort q);
extern void glTexCoord4sv(const GLshort * v);
extern void glTexCoordPointer(GLint size, GLenum type, GLsizei stride,
                             const GLvoid * pointer);
extern void glTexEnvf(GLenum target, GLenum pname, GLfloat param);
extern void glTexEnvfv(GLenum target, GLenum pname,
                      const GLfloat * params);
extern void glTexEnvi(GLenum target, GLenum pname, GLint param);
extern void glTexEnviv(GLenum target, GLenum pname, const GLint * params);
extern void glTexGend(GLenum coord, GLenum pname, GLdouble param);
extern void glTexGendv(GLenum coord, GLenum pname,
                      const GLdouble * params);
extern void glTexGenf(GLenum coord, GLenum pname, GLfloat param);
extern void glTexGenfv(GLenum coord, GLenum pname, const GLfloat * params);
extern void glTexGeni(GLenum coord, GLenum pname, GLint param);
extern void glTexGeniv(GLenum coord, GLenum pname, const GLint * params);
extern void glTexImage1D(GLenum target, GLint level, GLint internalformat,
                        GLsizei width, GLint border, GLenum format,
                        GLenum type, const GLvoid * pixels);
extern void glTexImage2D(GLenum target, GLint level, GLint internalformat,
                        GLsizei width, GLsizei height, GLint border,
                        GLenum format, GLenum type,
                        const GLvoid * pixels);
extern void glTexImage3D(GLenum target, GLint level, GLint internalFormat,
                        GLsizei width, GLsizei height, GLsizei depth,
                        GLint border, GLenum format, GLenum type,
                        const GLvoid * pixels);
extern void glTexParameterf(GLenum target, GLenum pname, GLfloat param);
extern void glTexParameterfv(GLenum target, GLenum pname,
                             const GLfloat * params);
extern void glTexParameteri(GLenum target, GLenum pname, GLint param);
extern void glTexParameteriv(GLenum target, GLenum pname,
                             const GLint * params);
extern void glTexSubImage1D(GLenum target, GLint level, GLint xoffset,
                           GLsizei width, GLenum format, GLenum type,
                           const GLvoid * pixels);
extern void glTexSubImage2D(GLenum target, GLint level, GLint xoffset,
                           GLint yoffset, GLsizei width, GLsizei height,
                           GLenum format, GLenum type,
                           const GLvoid * pixels);
extern void glTexSubImage3D(GLenum target, GLint level, GLint xoffset,

```

```

                                GLint yoffset, GLint zoffset, GLsizei width,
                                GLsizei height, GLsizei depth, GLenum format,
                                GLenum type, const GLvoid * pixels);
extern void glTranslated(GLdouble x, GLdouble y, GLdouble z);
extern void glTranslatef(GLfloat x, GLfloat y, GLfloat z);
extern void glVertex2d(GLdouble x, GLdouble y);
extern void glVertex2dv(const GLdouble * v);
extern void glVertex2f(GLfloat x, GLfloat y);
extern void glVertex2fv(const GLfloat * v);
extern void glVertex2i(GLint x, GLint y);
extern void glVertex2iv(const GLint * v);
extern void glVertex2s(GLshort x, GLshort y);
extern void glVertex2sv(const GLshort * v);
extern void glVertex3d(GLdouble x, GLdouble y, GLdouble z);
extern void glVertex3dv(const GLdouble * v);
extern void glVertex3f(GLfloat x, GLfloat y, GLfloat z);
extern void glVertex3fv(const GLfloat * v);
extern void glVertex3i(GLint x, GLint y, GLint z);
extern void glVertex3iv(const GLint * v);
extern void glVertex3s(GLshort x, GLshort y, GLshort z);
extern void glVertex3sv(const GLshort * v);
extern void glVertex4d(GLdouble x, GLdouble y, GLdouble z, GLdouble w);
extern void glVertex4dv(const GLdouble * v);
extern void glVertex4f(GLfloat x, GLfloat y, GLfloat z, GLfloat w);
extern void glVertex4fv(const GLfloat * v);
extern void glVertex4i(GLint x, GLint y, GLint z, GLint w);
extern void glVertex4iv(const GLint * v);
extern void glVertex4s(GLshort x, GLshort y, GLshort z, GLshort w);
extern void glVertex4sv(const GLshort * v);
extern void glVertexPointer(GLint size, GLenum type, GLsizei stride,
                            const GLvoid * pointer);
extern void glViewport(GLint x, GLint y, GLsizei width, GLsizei height);

```

7.2.2. GL/glext.h

```

#define GLEXT_64_TYPES_DEFINED
#define GL_2X_BIT_ATI      0x00000001
#define GL_RED_BIT_ATI    0x00000001
#define GL_4X_BIT_ATI      0x00000002
#define GL_COMP_BIT_ATI   0x00000002
#define GL_GREEN_BIT_ATI   0x00000002
#define GL_8X_BIT_ATI      0x00000004
#define GL_BLUE_BIT_ATI    0x00000004
#define GL_NEGATE_BIT_ATI  0x00000004
#define GL_VERTEX23_BIT_PGI 0x00000004
#define GL_BIAS_BIT_ATI    0x00000008
#define GL_HALF_BIT_ATI    0x00000008
#define GL_VERTEX4_BIT_PGI 0x00000008
#define GL_QUARTER_BIT_ATI 0x00000010
#define GL_EIGHTH_BIT_ATI  0x00000020
#define GL_SATURATE_BIT_ATI 0x00000040
#define GL_RESTART_SUN     0x0001
#define GL_COLOR3_BIT_PGI   0x00010000
#define GL_REPLACE_MIDDLE_SUN 0x0002
#define GL_COLOR4_BIT_PGI   0x00020000
#define GL_REPLACE_OLDEST_SUN 0x0003
#define GL_EDGEFLAG_BIT_PGI 0x00040000
#define GL_INDEX_BIT_PGI    0x00080000
#define GL_MAT_AMBIENT_BIT_PGI 0x00100000
#define GL_MAT_AMBIENT_AND_DIFFUSE_BIT_PGI 0x00200000
#define GL_MAT_DIFFUSE_BIT_PGI 0x00400000

```

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```
#define GL_MAT_EMISSION_BIT_PGI 0x00800000
#define GL_MAT_COLOR_INDEXES_BIT_PGI 0x01000000
#define GL_MAT_SHININESS_BIT_PGI 0x02000000
#define GL_MAT_SPECULAR_BIT_PGI 0x04000000
#define GL_INVALID_FRAMEBUFFER_OPERATION_EXT 0x0506
#define GL_NORMAL_BIT_PGI 0x08000000
#define GL_TEXCOORD1_BIT_PGI 0x10000000
#define GL_HALF_FLOAT_ARB 0x140B
#define GL_MODELVIEW0_ARB 0x1700
#define GL_RASTER_POSITION_UNCLIPPED_IBM 0x19262
#define GL_PREFER_DOUBLEBUFFER_HINT_PGI 0x1A1F8
#define GL_CONSERVE_MEMORY_HINT_PGI 0x1A1FD
#define GL_RECLAIM_MEMORY_HINT_PGI 0x1A1FE
#define GL_NATIVE_GRAPHICS_HANDLE_PGI 0x1A202
#define GL_NATIVE_GRAPHICS_BEGIN_HINT_PGI 0x1A203
#define GL_NATIVE_GRAPHICS_END_HINT_PGI 0x1A204
#define GL_ALWAYS_FAST_HINT_PGI 0x1A20C
#define GL_ALWAYS_SOFT_HINT_PGI 0x1A20D
#define GL_ALLOW_DRAW_OBJ_HINT_PGI 0x1A20E
#define GL_ALLOW_DRAW_WIN_HINT_PGI 0x1A20F
#define GL_ALLOW_DRAW_FRG_HINT_PGI 0x1A210
#define GL_ALLOW_DRAW_MEM_HINT_PGI 0x1A211
#define GL_STRICT_DEPTHFUNC_HINT_PGI 0x1A216
#define GL_STRICT_LIGHTING_HINT_PGI 0x1A217
#define GL_STRICT_SCISSOR_HINT_PGI 0x1A218
#define GL_FULL_STIPPLE_HINT_PGI 0x1A219
#define GL_CLIP_NEAR_HINT_PGI 0x1A220
#define GL_CLIP_FAR_HINT_PGI 0x1A221
#define GL_WIDE_LINE_HINT_PGI 0x1A222
#define GL_BACK_NORMALS_HINT_PGI 0x1A223
#define GL_VERTEX_DATA_HINT_PGI 0x1A22A
#define GL_VERTEX_CONSISTENT_HINT_PGI 0x1A22B
#define GL_MATERIAL_SIDE_HINT_PGI 0x1A22C
#define GL_MAX_VERTEX_HINT_PGI 0x1A22D
#define GL_MULTISAMPLE_BIT_3DFX 0x20000000
#define GL_MULTISAMPLE_BIT_ARB 0x20000000
#define GL_MULTISAMPLE_BIT_EXT 0x20000000
#define GL_TEXCOORD2_BIT_PGI 0x20000000
#define GL_TEXCOORD3_BIT_PGI 0x40000000
#define GL_ABGR_EXT 0x8000
#define GL_TEXCOORD4_BIT_PGI 0x80000000
#define GL_CONSTANT_COLOR_EXT 0x8001
#define GL_ONE_MINUS_CONSTANT_COLOR_EXT 0x8002
#define GL_CONSTANT_ALPHA_EXT 0x8003
#define GL_ONE_MINUS_CONSTANT_ALPHA_EXT 0x8004
#define GL_BLEND_COLOR_EXT 0x8005
#define GL_FUNC_ADD_EXT 0x8006
#define GL_MIN_EXT 0x8007
#define GL_MAX_EXT 0x8008
#define GL_BLEND_EQUATION_EXT 0x8009
#define GL_FUNC_SUBTRACT_EXT 0x800A
#define GL_FUNC_REVERSE_SUBTRACT_EXT 0x800B
#define GL_CMYK_EXT 0x800C
#define GL_CMYKA_EXT 0x800D
#define GL_PACK_CMYK_HINT_EXT 0x800E
#define GL_UNPACK_CMYK_HINT_EXT 0x800F
#define GL_CONVOLUTION_1D_EXT 0x8010
#define GL_CONVOLUTION_2D_EXT 0x8011
#define GL_SEPARABLE_2D_EXT 0x8012
#define GL_CONVOLUTION_BORDER_MODE_EXT 0x8013
#define GL_CONVOLUTION_FILTER_SCALE_EXT 0x8014
#define GL_CONVOLUTION_FILTER_BIAS_EXT 0x8015
```

```

#define GL_REDUCE_EXT      0x8016
#define GL_CONVOLUTION_FORMAT_EXT      0x8017
#define GL_CONVOLUTION_WIDTH_EXT      0x8018
#define GL_CONVOLUTION_HEIGHT_EXT      0x8019
#define GL_MAX_CONVOLUTION_WIDTH_EXT      0x801A
#define GL_MAX_CONVOLUTION_HEIGHT_EXT      0x801B
#define GL_POST_CONVOLUTION_RED_SCALE_EXT      0x801C
#define GL_POST_CONVOLUTION_GREEN_SCALE_EXT      0x801D
#define GL_POST_CONVOLUTION_BLUE_SCALE_EXT      0x801E
#define GL_POST_CONVOLUTION_ALPHA_SCALE_EXT      0x801F
#define GL_POST_CONVOLUTION_RED_BIAS_EXT      0x8020
#define GL_POST_CONVOLUTION_GREEN_BIAS_EXT      0x8021
#define GL_POST_CONVOLUTION_BLUE_BIAS_EXT      0x8022
#define GL_POST_CONVOLUTION_ALPHA_BIAS_EXT      0x8023
#define GL_HISTOGRAM_EXT      0x8024
#define GL_PROXY_HISTOGRAM_EXT      0x8025
#define GL_HISTOGRAM_WIDTH_EXT      0x8026
#define GL_HISTOGRAM_FORMAT_EXT      0x8027
#define GL_HISTOGRAM_RED_SIZE_EXT      0x8028
#define GL_HISTOGRAM_GREEN_SIZE_EXT      0x8029
#define GL_HISTOGRAM_BLUE_SIZE_EXT      0x802A
#define GL_HISTOGRAM_ALPHA_SIZE_EXT      0x802B
#define GL_HISTOGRAM_LUMINANCE_SIZE_EXT      0x802C
#define GL_HISTOGRAM_SINK_EXT      0x802D
#define GL_MINMAX_EXT      0x802E
#define GL_MINMAX_FORMAT_EXT      0x802F
#define GL_MINMAX_SINK_EXT      0x8030
#define GL_TABLE_TOO_LARGE_EXT      0x8031
#define GL_UNSIGNED_BYTE_3_3_2_EXT      0x8032
#define GL_UNSIGNED_SHORT_4_4_4_4_EXT      0x8033
#define GL_UNSIGNED_SHORT_5_5_5_1_EXT      0x8034
#define GL_UNSIGNED_INT_8_8_8_8_EXT      0x8035
#define GL_UNSIGNED_INT_10_10_10_2_EXT      0x8036
#define GL_POLYGON_OFFSET_EXT      0x8037
#define GL_POLYGON_OFFSET_FACTOR_EXT      0x8038
#define GL_POLYGON_OFFSET_BIAS_EXT      0x8039
#define GL_RESCALE_NORMAL_EXT      0x803A
#define GL_ALPHA4_EXT      0x803B
#define GL_ALPHA8_EXT      0x803C
#define GL_ALPHA12_EXT      0x803D
#define GL_ALPHA16_EXT      0x803E
#define GL_LUMINANCE4_EXT      0x803F
#define GL_LUMINANCE8_EXT      0x8040
#define GL_LUMINANCE12_EXT      0x8041
#define GL_LUMINANCE16_EXT      0x8042
#define GL_LUMINANCE4_ALPHA4_EXT      0x8043
#define GL_LUMINANCE6_ALPHA2_EXT      0x8044
#define GL_LUMINANCE8_ALPHA8_EXT      0x8045
#define GL_LUMINANCE12_ALPHA4_EXT      0x8046
#define GL_LUMINANCE12_ALPHA12_EXT      0x8047
#define GL_LUMINANCE16_ALPHA16_EXT      0x8048
#define GL_INTENSITY_EXT      0x8049
#define GL_INTENSITY4_EXT      0x804A
#define GL_INTENSITY8_EXT      0x804B
#define GL_INTENSITY12_EXT      0x804C
#define GL_INTENSITY16_EXT      0x804D
#define GL_RGB2_EXT      0x804E
#define GL_RGB4_EXT      0x804F
#define GL_RGB5_EXT      0x8050
#define GL_RGB8_EXT      0x8051
#define GL_RGB10_EXT      0x8052
#define GL_RGB12_EXT      0x8053

```



```

#define GL_RGB16_EXT      0x8054
#define GL_RGBA2_EXT      0x8055
#define GL_RGBA4_EXT      0x8056
#define GL_RGB5_A1_EXT    0x8057
#define GL_RGBA8_EXT      0x8058
#define GL_RGB10_A2_EXT   0x8059
#define GL_RGBA12_EXT     0x805A
#define GL_RGBA16_EXT     0x805B
#define GL_TEXTURE_RED_SIZE_EXT 0x805C
#define GL_TEXTURE_GREEN_SIZE_EXT 0x805D
#define GL_TEXTURE_BLUE_SIZE_EXT 0x805E
#define GL_TEXTURE_ALPHA_SIZE_EXT 0x805F
#define GL_TEXTURE_LUMINANCE_SIZE_EXT 0x8060
#define GL_TEXTURE_INTENSITY_SIZE_EXT 0x8061
#define GL_REPLACE_EXT    0x8062
#define GL_PROXY_TEXTURE_1D_EXT 0x8063
#define GL_PROXY_TEXTURE_2D_EXT 0x8064
#define GL_TEXTURE_TOO_LARGE_EXT 0x8065
#define GL_TEXTURE_PRIORITY_EXT 0x8066
#define GL_TEXTURE_RESIDENT_EXT 0x8067
#define GL_TEXTURE_1D_BINDING_EXT 0x8068
#define GL_TEXTURE_2D_BINDING_EXT 0x8069
#define GL_TEXTURE_3D_BINDING_EXT 0x806A
#define GL_PACK_SKIP_IMAGES_EXT 0x806B
#define GL_PACK_IMAGE_HEIGHT_EXT 0x806C
#define GL_UNPACK_SKIP_IMAGES_EXT 0x806D
#define GL_UNPACK_IMAGE_HEIGHT_EXT 0x806E
#define GL_TEXTURE_3D_EXT    0x806F
#define GL_PROXY_TEXTURE_3D_EXT 0x8070
#define GL_TEXTURE_DEPTH_EXT 0x8071
#define GL_TEXTURE_WRAP_R_EXT 0x8072
#define GL_MAX_3D_TEXTURE_SIZE_EXT 0x8073
#define GL_VERTEX_ARRAY_EXT 0x8074
#define GL_NORMAL_ARRAY_EXT 0x8075
#define GL_COLOR_ARRAY_EXT 0x8076
#define GL_INDEX_ARRAY_EXT 0x8077
#define GL_TEXTURE_COORD_ARRAY_EXT 0x8078
#define GL_EDGE_FLAG_ARRAY_EXT 0x8079
#define GL_VERTEX_ARRAY_SIZE_EXT 0x807A
#define GL_VERTEX_ARRAY_TYPE_EXT 0x807B
#define GL_VERTEX_ARRAY_STRIDE_EXT 0x807C
#define GL_VERTEX_ARRAY_COUNT_EXT 0x807D
#define GL_NORMAL_ARRAY_TYPE_EXT 0x807E
#define GL_NORMAL_ARRAY_STRIDE_EXT 0x807F
#define GL_NORMAL_ARRAY_COUNT_EXT 0x8080
#define GL_COLOR_ARRAY_SIZE_EXT 0x8081
#define GL_COLOR_ARRAY_TYPE_EXT 0x8082
#define GL_COLOR_ARRAY_STRIDE_EXT 0x8083
#define GL_COLOR_ARRAY_COUNT_EXT 0x8084
#define GL_INDEX_ARRAY_TYPE_EXT 0x8085
#define GL_INDEX_ARRAY_STRIDE_EXT 0x8086
#define GL_INDEX_ARRAY_COUNT_EXT 0x8087
#define GL_TEXTURE_COORD_ARRAY_SIZE_EXT 0x8088
#define GL_TEXTURE_COORD_ARRAY_TYPE_EXT 0x8089
#define GL_TEXTURE_COORD_ARRAY_STRIDE_EXT 0x808A
#define GL_TEXTURE_COORD_ARRAY_COUNT_EXT 0x808B
#define GL_EDGE_FLAG_ARRAY_STRIDE_EXT 0x808C
#define GL_EDGE_FLAG_ARRAY_COUNT_EXT 0x808D
#define GL_VERTEX_ARRAY_POINTER_EXT 0x808E
#define GL_NORMAL_ARRAY_POINTER_EXT 0x808F
#define GL_COLOR_ARRAY_POINTER_EXT 0x8090
#define GL_INDEX_ARRAY_POINTER_EXT 0x8091

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```
#define GL_TEXTURE_COORD_ARRAY_POINTER_EXT      0x8092
#define GL_EDGE_FLAG_ARRAY_POINTER_EXT      0x8093
#define GL_MULTISAMPLE_ARB      0x809D
#define GL_MULTISAMPLE_EXT      0x809D
#define GL_SAMPLE_ALPHA_TO_COVERAGE_ARB 0x809E
#define GL_SAMPLE_ALPHA_TO_MASK_EXT      0x809E
#define GL_SAMPLE_ALPHA_TO_ONE_ARB      0x809F
#define GL_SAMPLE_ALPHA_TO_ONE_EXT      0x809F
#define GL_SAMPLE_COVERAGE_ARB      0x80A0
#define GL_SAMPLE_MASK_EXT      0x80A0
#define GL_1PASS_EXT      0x80A1
#define GL_2PASS_0_EXT      0x80A2
#define GL_2PASS_1_EXT      0x80A3
#define GL_4PASS_0_EXT      0x80A4
#define GL_4PASS_1_EXT      0x80A5
#define GL_4PASS_2_EXT      0x80A6
#define GL_4PASS_3_EXT      0x80A7
#define GL_SAMPLE_BUFFERS_ARB      0x80A8
#define GL_SAMPLE_BUFFERS_EXT      0x80A8
#define GL_SAMPLES_ARB      0x80A9
#define GL_SAMPLES_EXT      0x80A9
#define GL_SAMPLE_COVERAGE_VALUE_ARB      0x80AA
#define GL_SAMPLE_MASK_VALUE_EXT      0x80AA
#define GL_SAMPLE_COVERAGE_INVERT_ARB      0x80AB
#define GL_SAMPLE_MASK_INVERT_EXT      0x80AB
#define GL_SAMPLE_PATTERN_EXT      0x80AC
#define GL_TEXTURE_COMPARE_FAIL_VALUE_ARB      0x80BF
#define GL_BLEND_DST_RGB      0x80C8
#define GL_BLEND_DST_RGB_EXT      0x80C8
#define GL_BLEND_SRC_RGB      0x80C9
#define GL_BLEND_SRC_RGB_EXT      0x80C9
#define GL_BLEND_DST_ALPHA      0x80CA
#define GL_BLEND_DST_ALPHA_EXT      0x80CA
#define GL_BLEND_SRC_ALPHA      0x80CB
#define GL_BLEND_SRC_ALPHA_EXT      0x80CB
#define GL_422_EXT      0x80CC
#define GL_422_REV_EXT      0x80CD
#define GL_422_AVERAGE_EXT      0x80CE
#define GL_422_REV_AVERAGE_EXT      0x80CF
#define GL_BGR_EXT      0x80E0
#define GL_BGRA_EXT      0x80E1
#define GL_COLOR_INDEX1_EXT      0x80E2
#define GL_COLOR_INDEX2_EXT      0x80E3
#define GL_COLOR_INDEX4_EXT      0x80E4
#define GL_COLOR_INDEX8_EXT      0x80E5
#define GL_COLOR_INDEX12_EXT      0x80E6
#define GL_COLOR_INDEX16_EXT      0x80E7
#define GL_MAX_ELEMENTS_VERTICES_EXT      0x80E8
#define GL_MAX_ELEMENTS_INDICES_EXT      0x80E9
#define GL_PHONG_WIN      0x80EA
#define GL_PHONG_HINT_WIN      0x80EB
#define GL_FOG_SPECULAR_TEXTURE_WIN      0x80EC
#define GL_TEXTURE_INDEX_SIZE_EXT      0x80ED
#define GL_CLIP_VOLUME_CLIPPING_HINT_EXT      0x80F0
#define GL_POINT_SIZE_MIN      0x8126
#define GL_POINT_SIZE_MIN_ARB      0x8126
#define GL_POINT_SIZE_MIN_EXT      0x8126
#define GL_POINT_SIZE_MAX      0x8127
#define GL_POINT_SIZE_MAX_ARB      0x8127
#define GL_POINT_SIZE_MAX_EXT      0x8127
#define GL_POINT_FADE_THRESHOLD_SIZE      0x8128
#define GL_POINT_FADE_THRESHOLD_SIZE_ARB      0x8128
```

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```
#define GL_POINT_FADE_THRESHOLD_SIZE_EXT      0x8128
#define GL_DISTANCE_ATTENUATION_EXT           0x8129
#define GL_POINT_DISTANCE_ATTENUATION         0x8129
#define GL_POINT_DISTANCE_ATTENUATION_ARB     0x8129
#define GL_CLAMP_TO_BORDER_ARB                0x812D
#define GL_IGNORE_BORDER_HP                   0x8150
#define GL_CONSTANT_BORDER_HP                 0x8151
#define GL_REPLICATE_BORDER_HP                0x8153
#define GL_CONVOLUTION_BORDER_COLOR_HP        0x8154
#define GL_IMAGE_SCALE_X_HP                   0x8155
#define GL_IMAGE_SCALE_Y_HP                   0x8156
#define GL_IMAGE_TRANSLATE_X_HP                0x8157
#define GL_IMAGE_TRANSLATE_Y_HP                0x8158
#define GL_IMAGE_ROTATE_ANGLE_HP              0x8159
#define GL_IMAGE_ROTATE_ORIGIN_X_HP           0x815A
#define GL_IMAGE_ROTATE_ORIGIN_Y_HP           0x815B
#define GL_IMAGE_MAG_FILTER_HP                 0x815C
#define GL_IMAGE_MIN_FILTER_HP                0x815D
#define GL_IMAGE_CUBIC_WEIGHT_HP              0x815E
#define GL_CUBIC_HP                           0x815F
#define GL_AVERAGE_HP                         0x8160
#define GL_IMAGE_TRANSFORM_2D_HP               0x8161
#define GL_POST_IMAGE_TRANSFORM_COLOR_TABLE_HP 0x8162
#define GL_PROXY_POST_IMAGE_TRANSFORM_COLOR_TABLE_HP 0x8163
#define GL_OCCLUSION_TEST_HP                  0x8165
#define GL_OCCLUSION_TEST_RESULT_HP           0x8166
#define GL_TEXTURE_LIGHTING_MODE_HP           0x8167
#define GL_TEXTURE_POST_SPECULAR_HP           0x8168
#define GL_TEXTURE_PRE_SPECULAR_HP            0x8169
#define GL_GENERATE_MIPMAP                     0x8191
#define GL_GENERATE_MIPMAP_HINT                0x8192
#define GL_DEPTH_COMPONENT16                   0x81A5
#define GL_DEPTH_COMPONENT16_ARB               0x81A5
#define GL_DEPTH_COMPONENT24                   0x81A6
#define GL_DEPTH_COMPONENT24_ARB               0x81A6
#define GL_DEPTH_COMPONENT32                   0x81A7
#define GL_DEPTH_COMPONENT32_ARB               0x81A7
#define GL_ARRAY_ELEMENT_LOCK_FIRST_EXT        0x81A8
#define GL_ARRAY_ELEMENT_LOCK_COUNT_EXT        0x81A9
#define GL_CULL_VERTEX_EXT                     0x81AA
#define GL_CULL_VERTEX_EYE_POSITION_EXT        0x81AB
#define GL_CULL_VERTEX_OBJECT_POSITION_EXT     0x81AC
#define GL_IUI_V2F_EXT                         0x81AD
#define GL_IUI_V3F_EXT                         0x81AE
#define GL_IUI_N3F_V2F_EXT                     0x81AF
#define GL_IUI_N3F_V3F_EXT                     0x81B0
#define GL_T2F_IUI_V2F_EXT                     0x81B1
#define GL_T2F_IUI_V3F_EXT                     0x81B2
#define GL_T2F_IUI_N3F_V2F_EXT                 0x81B3
#define GL_T2F_IUI_N3F_V3F_EXT                 0x81B4
#define GL_INDEX_TEST_EXT                      0x81B5
#define GL_INDEX_TEST_FUNC_EXT                 0x81B6
#define GL_INDEX_TEST_REF_EXT                  0x81B7
#define GL_INDEX_MATERIAL_EXT                  0x81B8
#define GL_INDEX_MATERIAL_PARAMETER_EXT        0x81B9
#define GL_INDEX_MATERIAL_FACE_EXT             0x81BA
#define GL_WRAP_BORDER_SUN                     0x81D4
#define GL_UNPACK_CONSTANT_DATA_SUNX           0x81D5
#define GL_TEXTURE_CONSTANT_DATA_SUNX         0x81D6
#define GL_TRIANGLE_LIST_SUN                   0x81D7
#define GL_REPLACEMENT_CODE_SUN                0x81D8
#define GL_GLOBAL_ALPHA_SUN                    0x81D9
```

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```
#define GL_GLOBAL_ALPHA_FACTOR_SUN      0x81DA
#define GL_LIGHT_MODEL_COLOR_CONTROL_EXT 0x81F8
#define GL_SINGLE_COLOR_EXT             0x81F9
#define GL_SEPARATE_SPECULAR_COLOR_EXT  0x81FA
#define GL_SHARED_TEXTURE_PALETTE_EXT    0x81FB
#define GL_TEXT_FRAGMENT_SHADER_ATI     0x8200
#define GL_PIXEL_TRANSFORM_2D_EXT        0x8330
#define GL_PIXEL_MAG_FILTER_EXT          0x8331
#define GL_PIXEL_MIN_FILTER_EXT          0x8332
#define GL_PIXEL_CUBIC_WEIGHT_EXT        0x8333
#define GL_CUBIC_EXT                     0x8334
#define GL_AVERAGE_EXT                   0x8335
#define GL_PIXEL_TRANSFORM_2D_STACK_DEPTH_EXT 0x8336
#define GL_MAX_PIXEL_TRANSFORM_2D_STACK_DEPTH_EXT 0x8337
#define GL_PIXEL_TRANSFORM_2D_MATRIX_EXT 0x8338
#define GL_FRAGMENT_MATERIAL_EXT         0x8349
#define GL_FRAGMENT_NORMAL_EXT           0x834A
#define GL_FRAGMENT_COLOR_EXT            0x834C
#define GL_ATTENUATION_EXT                0x834D
#define GL_SHADOW_ATTENUATION_EXT        0x834E
#define GL_TEXTURE_APPLICATION_MODE_EXT  0x834F
#define GL_TEXTURE_LIGHT_EXT             0x8350
#define GL_TEXTURE_MATERIAL_FACE_EXT     0x8351
#define GL_TEXTURE_MATERIAL_PARAMETER_EXT 0x8352
#define GL_MIRRORED_REPEAT                0x8370
#define GL_MIRRORED_REPEAT_ARB           0x8370
#define GL_MIRRORED_REPEAT_IBM           0x8370
#define GL_RGB_S3TC                       0x83A0
#define GL_RGBA_S3TC                     0x83A1
#define GL_RGBA_S3TC                     0x83A2
#define GL_RGBA4_S3TC                    0x83A3
#define GL_COMPRESSED_RGB_S3TC_DXT1_EXT  0x83F0
#define GL_COMPRESSED_RGBA_S3TC_DXT1_EXT 0x83F1
#define GL_COMPRESSED_RGBA_S3TC_DXT3_EXT 0x83F2
#define GL_COMPRESSED_RGBA_S3TC_DXT5_EXT 0x83F3
#define GL_PARALLEL_ARRAYS_INTEL          0x83F4
#define GL_VERTEX_ARRAY_PARALLEL_POINTERS_INTEL 0x83F5
#define GL_NORMAL_ARRAY_PARALLEL_POINTERS_INTEL 0x83F6
#define GL_COLOR_ARRAY_PARALLEL_POINTERS_INTEL 0x83F7
#define GL_TEXTURE_COORD_ARRAY_PARALLEL_POINTERS_INTEL 0x83F8
#define GL_TANGENT_ARRAY_EXT              0x8439
#define GL_BINORMAL_ARRAY_EXT             0x843A
#define GL_CURRENT_TANGENT_EXT            0x843B
#define GL_CURRENT_BINORMAL_EXT           0x843C
#define GL_TANGENT_ARRAY_TYPE_EXT         0x843E
#define GL_TANGENT_ARRAY_STRIDE_EXT       0x843F
#define GL_BINORMAL_ARRAY_TYPE_EXT        0x8440
#define GL_BINORMAL_ARRAY_STRIDE_EXT      0x8441
#define GL_TANGENT_ARRAY_POINTER_EXT       0x8442
#define GL_BINORMAL_ARRAY_POINTER_EXT     0x8443
#define GL_MAP1_TANGENT_EXT               0x8444
#define GL_MAP2_TANGENT_EXT               0x8445
#define GL_MAP1_BINORMAL_EXT              0x8446
#define GL_MAP2_BINORMAL_EXT              0x8447
#define GL_FOG_COORDINATE_SOURCE          0x8450
#define GL_FOG_COORDINATE_SOURCE_EXT      0x8450
#define GL_FOG_COORDINATE                0x8451
#define GL_FOG_COORDINATE_EXT            0x8451
#define GL_FRAGMENT_DEPTH                 0x8452
#define GL_FRAGMENT_DEPTH_EXT             0x8452
#define GL_CURRENT_FOG_COORDINATE         0x8453
#define GL_CURRENT_FOG_COORDINATE_EXT     0x8453
```

```

#define GL_FOG_COORDINATE_ARRAY_TYPE      0x8454
#define GL_FOG_COORDINATE_ARRAY_TYPE_EXT  0x8454
#define GL_FOG_COORDINATE_ARRAY_STRIDE    0x8455
#define GL_FOG_COORDINATE_ARRAY_STRIDE_EXT 0x8455
#define GL_FOG_COORDINATE_ARRAY_POINTER   0x8456
#define GL_FOG_COORDINATE_ARRAY_POINTER_EXT 0x8456
#define GL_FOG_COORDINATE_ARRAY          0x8457
#define GL_FOG_COORDINATE_ARRAY_EXT      0x8457
#define GL_COLOR_SUM                      0x8458
#define GL_COLOR_SUM_ARB                  0x8458
#define GL_COLOR_SUM_EXT                  0x8458
#define GL_CURRENT_SECONDARY_COLOR         0x8459
#define GL_CURRENT_SECONDARY_COLOR_EXT    0x8459
#define GL_SECONDARY_COLOR_ARRAY_SIZE      0x845A
#define GL_SECONDARY_COLOR_ARRAY_SIZE_EXT  0x845A
#define GL_SECONDARY_COLOR_ARRAY_TYPE      0x845B
#define GL_SECONDARY_COLOR_ARRAY_TYPE_EXT  0x845B
#define GL_SECONDARY_COLOR_ARRAY_STRIDE    0x845C
#define GL_SECONDARY_COLOR_ARRAY_STRIDE_EXT 0x845C
#define GL_SECONDARY_COLOR_ARRAY_POINTER   0x845D
#define GL_SECONDARY_COLOR_ARRAY_POINTER_EXT 0x845D
#define GL_SECONDARY_COLOR_ARRAY          0x845E
#define GL_SECONDARY_COLOR_ARRAY_EXT      0x845E
#define GL_SCREEN_COORDINATES_REND        0x8490
#define GL_INVERTED_SCREEN_W_REND         0x8491
#define GL_TRANSPOSE_MODELVIEW_MATRIX_ARB 0x84E3
#define GL_TRANSPOSE_PROJECTION_MATRIX_ARB 0x84E4
#define GL_TRANSPOSE_TEXTURE_MATRIX_ARB   0x84E5
#define GL_TRANSPOSE_COLOR_MATRIX_ARB     0x84E6
#define GL_SUBTRACT_ARB                    0x84E7
#define GL_MAX_RENDERBUFFER_SIZE_EXT       0x84E8
#define GL_COMPRESSED_ALPHA_ARB             0x84E9
#define GL_COMPRESSED_LUMINANCE_ARB         0x84EA
#define GL_COMPRESSED_LUMINANCE_ALPHA_ARB   0x84EB
#define GL_COMPRESSED_INTENSITY_ARB         0x84EC
#define GL_COMPRESSED_RGB_ARB               0x84ED
#define GL_COMPRESSED_RGBA_ARB              0x84EE
#define GL_TEXTURE_COMPRESSION_HINT_ARB     0x84EF
#define GL_TEXTURE_RECTANGLE_ARB            0x84F5
#define GL_TEXTURE_BINDING_RECTANGLE_ARB    0x84F6
#define GL_PROXY_TEXTURE_RECTANGLE_ARB      0x84F7
#define GL_MAX_RECTANGLE_TEXTURE_SIZE_ARB   0x84F8
#define GL_MAX_TEXTURE_LOD_BIAS             0x84FD
#define GL_MAX_TEXTURE_LOD_BIAS_EXT         0x84FD
#define GL_TEXTURE_MAX_ANISOTROPY_EXT       0x84FE
#define GL_MAX_TEXTURE_MAX_ANISOTROPY_EXT   0x84FF
#define GL_TEXTURE_FILTER_CONTROL           0x8500
#define GL_TEXTURE_FILTER_CONTROL_EXT       0x8500
#define GL_TEXTURE_LOD_BIAS                 0x8501
#define GL_TEXTURE_LOD_BIAS_EXT             0x8501
#define GL_MODELVIEW1_STACK_DEPTH_EXT       0x8502
#define GL_MODELVIEW1_MATRIX_EXT            0x8506
#define GL_INCR_WRAP                        0x8507
#define GL_INCR_WRAP_EXT                    0x8507
#define GL DECR_WRAP                        0x8508
#define GL DECR_WRAP_EXT                    0x8508
#define GL_VERTEX_WEIGHTING_EXT             0x8509
#define GL_MODELVIEW1_ARB                   0x850A
#define GL_MODELVIEW1_EXT                   0x850A
#define GL_CURRENT_VERTEX_WEIGHT_EXT        0x850B
#define GL_VERTEX_WEIGHT_ARRAY_EXT          0x850C
#define GL_VERTEX_WEIGHT_ARRAY_SIZE_EXT     0x850D

```

```

#define GL_VERTEX_WEIGHT_ARRAY_TYPE_EXT 0x850E
#define GL_VERTEX_WEIGHT_ARRAY_STRIDE_EXT 0x850F
#define GL_VERTEX_WEIGHT_ARRAY_POINTER_EXT 0x8510
#define GL_NORMAL_MAP_ARB 0x8511
#define GL_NORMAL_MAP_EXT 0x8511
#define GL_REFLECTION_MAP_ARB 0x8512
#define GL_REFLECTION_MAP_EXT 0x8512
#define GL_TEXTURE_CUBE_MAP_ARB 0x8513
#define GL_TEXTURE_CUBE_MAP_EXT 0x8513
#define GL_TEXTURE_BINDING_CUBE_MAP_ARB 0x8514
#define GL_TEXTURE_BINDING_CUBE_MAP_EXT 0x8514
#define GL_TEXTURE_CUBE_MAP_POSITIVE_X_ARB 0x8515
#define GL_TEXTURE_CUBE_MAP_POSITIVE_X_EXT 0x8515
#define GL_TEXTURE_CUBE_MAP_NEGATIVE_X_ARB 0x8516
#define GL_TEXTURE_CUBE_MAP_NEGATIVE_X_EXT 0x8516
#define GL_TEXTURE_CUBE_MAP_POSITIVE_Y_ARB 0x8517
#define GL_TEXTURE_CUBE_MAP_POSITIVE_Y_EXT 0x8517
#define GL_TEXTURE_CUBE_MAP_NEGATIVE_Y_ARB 0x8518
#define GL_TEXTURE_CUBE_MAP_NEGATIVE_Y_EXT 0x8518
#define GL_TEXTURE_CUBE_MAP_POSITIVE_Z_ARB 0x8519
#define GL_TEXTURE_CUBE_MAP_POSITIVE_Z_EXT 0x8519
#define GL_TEXTURE_CUBE_MAP_NEGATIVE_Z_ARB 0x851A
#define GL_TEXTURE_CUBE_MAP_NEGATIVE_Z_EXT 0x851A
#define GL_PROXY_TEXTURE_CUBE_MAP_ARB 0x851B
#define GL_PROXY_TEXTURE_CUBE_MAP_EXT 0x851B
#define GL_MAX_CUBE_MAP_TEXTURE_SIZE_ARB 0x851C
#define GL_MAX_CUBE_MAP_TEXTURE_SIZE_EXT 0x851C
#define GL_RED_MIN_CLAMP_INGR 0x8560
#define GL_GREEN_MIN_CLAMP_INGR 0x8561
#define GL_BLUE_MIN_CLAMP_INGR 0x8562
#define GL_ALPHA_MIN_CLAMP_INGR 0x8563
#define GL_RED_MAX_CLAMP_INGR 0x8564
#define GL_GREEN_MAX_CLAMP_INGR 0x8565
#define GL_BLUE_MAX_CLAMP_INGR 0x8566
#define GL_ALPHA_MAX_CLAMP_INGR 0x8567
#define GL_INTERLACE_READ_INGR 0x8568
#define GL_COMBINE_ARB 0x8570
#define GL_COMBINE_EXT 0x8570
#define GL_COMBINE_RGB_ARB 0x8571
#define GL_COMBINE_RGB_EXT 0x8571
#define GL_COMBINE_ALPHA_ARB 0x8572
#define GL_COMBINE_ALPHA_EXT 0x8572
#define GL_RGB_SCALE_ARB 0x8573
#define GL_RGB_SCALE_EXT 0x8573
#define GL_ADD_SIGNED_ARB 0x8574
#define GL_ADD_SIGNED_EXT 0x8574
#define GL_INTERPOLATE_ARB 0x8575
#define GL_INTERPOLATE_EXT 0x8575
#define GL_CONSTANT_ARB 0x8576
#define GL_CONSTANT_EXT 0x8576
#define GL_PRIMARY_COLOR_ARB 0x8577
#define GL_PRIMARY_COLOR_EXT 0x8577
#define GL_PREVIOUS_ARB 0x8578
#define GL_PREVIOUS_EXT 0x8578
#define GL_SOURCE0_RGB_ARB 0x8580
#define GL_SOURCE0_RGB_EXT 0x8580
#define GL_SOURCE1_RGB_ARB 0x8581
#define GL_SOURCE1_RGB_EXT 0x8581
#define GL_SOURCE2_RGB_ARB 0x8582
#define GL_SOURCE2_RGB_EXT 0x8582
#define GL_SOURCE0_ALPHA_ARB 0x8588
#define GL_SOURCE0_ALPHA_EXT 0x8588

```

```

#define GL_SOURCE1_ALPHA_ARB 0x8589
#define GL_SOURCE1_ALPHA_EXT 0x8589
#define GL_SOURCE2_ALPHA_ARB 0x858A
#define GL_SOURCE2_ALPHA_EXT 0x858A
#define GL_OPERAND0_RGB_ARB 0x8590
#define GL_OPERAND0_RGB_EXT 0x8590
#define GL_OPERAND1_RGB_ARB 0x8591
#define GL_OPERAND1_RGB_EXT 0x8591
#define GL_OPERAND2_RGB_ARB 0x8592
#define GL_OPERAND2_RGB_EXT 0x8592
#define GL_OPERAND0_ALPHA_ARB 0x8598
#define GL_OPERAND0_ALPHA_EXT 0x8598
#define GL_OPERAND1_ALPHA_ARB 0x8599
#define GL_OPERAND1_ALPHA_EXT 0x8599
#define GL_OPERAND2_ALPHA_ARB 0x859A
#define GL_OPERAND2_ALPHA_EXT 0x859A
#define GL_PERTURB_EXT 0x85AE
#define GL_TEXTURE_NORMAL_EXT 0x85AF
#define GL_REPLACEMENT_CODE_ARRAY_SUN 0x85C0
#define GL_REPLACEMENT_CODE_ARRAY_TYPE_SUN 0x85C1
#define GL_REPLACEMENT_CODE_ARRAY_STRIDE_SUN 0x85C2
#define GL_REPLACEMENT_CODE_ARRAY_POINTER_SUN 0x85C3
#define GL_R1UI_V3F_SUN 0x85C4
#define GL_R1UI_C4UB_V3F_SUN 0x85C5
#define GL_R1UI_C3F_V3F_SUN 0x85C6
#define GL_R1UI_N3F_V3F_SUN 0x85C7
#define GL_R1UI_C4F_N3F_V3F_SUN 0x85C8
#define GL_R1UI_T2F_V3F_SUN 0x85C9
#define GL_R1UI_T2F_N3F_V3F_SUN 0x85CA
#define GL_R1UI_T2F_C4F_N3F_V3F_SUN 0x85CB
#define GL_SLICE_ACCUM_SUN 0x85CC
#define GL_QUAD_MESH_SUN 0x8614
#define GL_TRIANGLE_MESH_SUN 0x8615
#define GL_VERTEX_PROGRAM_ARB 0x8620
#define GL_VERTEX_ATTRIB_ARRAY_ENABLED 0x8622
#define GL_VERTEX_ATTRIB_ARRAY_ENABLED_ARB 0x8622
#define GL_VERTEX_ATTRIB_ARRAY_SIZE 0x8623
#define GL_VERTEX_ATTRIB_ARRAY_SIZE_ARB 0x8623
#define GL_VERTEX_ATTRIB_ARRAY_STRIDE 0x8624
#define GL_VERTEX_ATTRIB_ARRAY_STRIDE_ARB 0x8624
#define GL_VERTEX_ATTRIB_ARRAY_TYPE 0x8625
#define GL_VERTEX_ATTRIB_ARRAY_TYPE_ARB 0x8625
#define GL_CURRENT_VERTEX_ATTRIB 0x8626
#define GL_CURRENT_VERTEX_ATTRIB_ARB 0x8626
#define GL_PROGRAM_LENGTH_ARB 0x8627
#define GL_PROGRAM_STRING_ARB 0x8628
#define GL_MAX_PROGRAM_MATRIX_STACK_DEPTH_ARB 0x862E
#define GL_MAX_PROGRAM_MATRICES_ARB 0x862F
#define GL_CURRENT_MATRIX_STACK_DEPTH_ARB 0x8640
#define GL_CURRENT_MATRIX_ARB 0x8641
#define GL_VERTEX_PROGRAM_POINT_SIZE 0x8642
#define GL_VERTEX_PROGRAM_POINT_SIZE_ARB 0x8642
#define GL_VERTEX_PROGRAM_TWO_SIDE 0x8643
#define GL_VERTEX_PROGRAM_TWO_SIDE_ARB 0x8643
#define GL_VERTEX_ATTRIB_ARRAY_POINTER 0x8645
#define GL_VERTEX_ATTRIB_ARRAY_POINTER_ARB 0x8645
#define GL_PROGRAM_ERROR_POSITION_ARB 0x864B
#define GL_PROGRAM_BINDING_ARB 0x8677
#define GL_TEXTURE_COMPRESSED_IMAGE_SIZE_ARB 0x86A0
#define GL_TEXTURE_COMPRESSED_ARB 0x86A1
#define GL_NUM_COMPRESSED_TEXTURE_FORMATS_ARB 0x86A2
#define GL_COMPRESSED_TEXTURE_FORMATS_ARB 0x86A3

```

```

#define GL_MAX_VERTEX_UNITS_ARB 0x86A4
#define GL_ACTIVE_VERTEX_UNITS_ARB 0x86A5
#define GL_WEIGHT_SUM_UNITY_ARB 0x86A6
#define GL_VERTEX_BLEND_ARB 0x86A7
#define GL_CURRENT_WEIGHT_ARB 0x86A8
#define GL_WEIGHT_ARRAY_TYPE_ARB 0x86A9
#define GL_WEIGHT_ARRAY_STRIDE_ARB 0x86AA
#define GL_WEIGHT_ARRAY_SIZE_ARB 0x86AB
#define GL_WEIGHT_ARRAY_POINTER_ARB 0x86AC
#define GL_WEIGHT_ARRAY_ARB 0x86AD
#define GL_DOT3_RGB_ARB 0x86AE
#define GL_DOT3_RGBA_ARB 0x86AF
#define GL_COMPRESSED_RGB_FXT1_3DFX 0x86B0
#define GL_COMPRESSED_RGBA_FXT1_3DFX 0x86B1
#define GL_MULTISAMPLE_3DFX 0x86B2
#define GL_SAMPLE_BUFFERS_3DFX 0x86B3
#define GL_SAMPLES_3DFX 0x86B4
#define GL_MODELVIEW2_ARB 0x8722
#define GL_MODELVIEW3_ARB 0x8723
#define GL_MODELVIEW4_ARB 0x8724
#define GL_MODELVIEW5_ARB 0x8725
#define GL_MODELVIEW6_ARB 0x8726
#define GL_MODELVIEW7_ARB 0x8727
#define GL_MODELVIEW8_ARB 0x8728
#define GL_MODELVIEW9_ARB 0x8729
#define GL_MODELVIEW10_ARB 0x872A
#define GL_MODELVIEW11_ARB 0x872B
#define GL_MODELVIEW12_ARB 0x872C
#define GL_MODELVIEW13_ARB 0x872D
#define GL_MODELVIEW14_ARB 0x872E
#define GL_MODELVIEW15_ARB 0x872F
#define GL_MODELVIEW16_ARB 0x8730
#define GL_MODELVIEW17_ARB 0x8731
#define GL_MODELVIEW18_ARB 0x8732
#define GL_MODELVIEW19_ARB 0x8733
#define GL_MODELVIEW20_ARB 0x8734
#define GL_MODELVIEW21_ARB 0x8735
#define GL_MODELVIEW22_ARB 0x8736
#define GL_MODELVIEW23_ARB 0x8737
#define GL_MODELVIEW24_ARB 0x8738
#define GL_MODELVIEW25_ARB 0x8739
#define GL_MODELVIEW26_ARB 0x873A
#define GL_MODELVIEW27_ARB 0x873B
#define GL_MODELVIEW28_ARB 0x873C
#define GL_MODELVIEW29_ARB 0x873D
#define GL_MODELVIEW30_ARB 0x873E
#define GL_MODELVIEW31_ARB 0x873F
#define GL_DOT3_RGB_EXT 0x8740
#define GL_DOT3_RGBA_EXT 0x8741
#define GL_MIRROR_CLAMP_ATI 0x8742
#define GL_MIRROR_CLAMP_EXT 0x8742
#define GL_MIRROR_CLAMP_TO_EDGE_ATI 0x8743
#define GL_MIRROR_CLAMP_TO_EDGE_EXT 0x8743
#define GL_MODULATE_ADD_ATI 0x8744
#define GL_MODULATE_SIGNED_ADD_ATI 0x8745
#define GL_MODULATE_SUBTRACT_ATI 0x8746
#define GL_STATIC_ATI 0x8760
#define GL_DYNAMIC_ATI 0x8761
#define GL_PRESERVE_ATI 0x8762
#define GL_DISCARD_ATI 0x8763
#define GL_BUFFER_SIZE 0x8764
#define GL_BUFFER_SIZE_ARB 0x8764

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#define GL_OBJECT_BUFFER_SIZE_ATI          0x8764
#define GL_BUFFER_USAGE 0x8765
#define GL_BUFFER_USAGE_ARB              0x8765
#define GL_OBJECT_BUFFER_USAGE_ATI        0x8765
#define GL_ARRAY_OBJECT_BUFFER_ATI        0x8766
#define GL_ARRAY_OBJECT_OFFSET_ATI        0x8767
#define GL_ELEMENT_ARRAY_ATI              0x8768
#define GL_ELEMENT_ARRAY_TYPE_ATI         0x8769
#define GL_ELEMENT_ARRAY_POINTER_ATI      0x876A
#define GL_MAX_VERTEX_STREAMS_ATI         0x876B
#define GL_VERTEX_STREAM0_ATI             0x876C
#define GL_VERTEX_STREAM1_ATI             0x876D
#define GL_VERTEX_STREAM2_ATI             0x876E
#define GL_VERTEX_STREAM3_ATI             0x876F
#define GL_VERTEX_STREAM4_ATI             0x8770
#define GL_VERTEX_STREAM5_ATI             0x8771
#define GL_VERTEX_STREAM6_ATI             0x8772
#define GL_VERTEX_STREAM7_ATI             0x8773
#define GL_VERTEX_SOURCE_ATI              0x8774
#define GL_BUMP_ROT_MATRIX_ATI            0x8775
#define GL_BUMP_ROT_MATRIX_SIZE_ATI       0x8776
#define GL_BUMP_NUM_TEX_UNITS_ATI         0x8777
#define GL_BUMP_TEX_UNITS_ATI             0x8778
#define GL_DUDV_ATI                       0x8779
#define GL_DU8DV8_ATI                    0x877A
#define GL_BUMP_ENVMAP_ATI                0x877B
#define GL_BUMP_TARGET_ATI               0x877C
#define GL_VERTEX_SHADER_EXT              0x8780
#define GL_VERTEX_SHADER_BINDING_EXT      0x8781
#define GL_OP_INDEX_EXT 0x8782
#define GL_OP_NEGATE_EXT                  0x8783
#define GL_OP_DOT3_EXT 0x8784
#define GL_OP_DOT4_EXT 0x8785
#define GL_OP_MUL_EXT 0x8786
#define GL_OP_ADD_EXT 0x8787
#define GL_OP_MADD_EXT 0x8788
#define GL_OP_FRAC_EXT 0x8789
#define GL_OP_MAX_EXT 0x878A
#define GL_OP_MIN_EXT 0x878B
#define GL_OP_SET_GE_EXT                  0x878C
#define GL_OP_SET_LT_EXT                  0x878D
#define GL_OP_CLAMP_EXT 0x878E
#define GL_OP_FLOOR_EXT 0x878F
#define GL_OP_ROUND_EXT 0x8790
#define GL_OP_EXP_BASE_2_EXT              0x8791
#define GL_OP_LOG_BASE_2_EXT              0x8792
#define GL_OP_POWER_EXT 0x8793
#define GL_OP_RECIP_EXT 0x8794
#define GL_OP_RECIP_SQRT_EXT              0x8795
#define GL_OP_SUB_EXT 0x8796
#define GL_OP_CROSS_PRODUCT_EXT            0x8797
#define GL_OP_MULTIPLY_MATRIX_EXT         0x8798
#define GL_OP_MOV_EXT 0x8799
#define GL_OUTPUT_VERTEX_EXT              0x879A
#define GL_OUTPUT_COLOR0_EXT              0x879B
#define GL_OUTPUT_COLOR1_EXT              0x879C
#define GL_OUTPUT_TEXTURE_COORD0_EXT      0x879D
#define GL_OUTPUT_TEXTURE_COORD1_EXT      0x879E
#define GL_OUTPUT_TEXTURE_COORD2_EXT      0x879F
#define GL_OUTPUT_TEXTURE_COORD3_EXT      0x87A0
#define GL_OUTPUT_TEXTURE_COORD4_EXT      0x87A1
#define GL_OUTPUT_TEXTURE_COORD5_EXT      0x87A2

```

```

#define GL_OUTPUT_TEXTURE_COORD6_EXT      0x87A3
#define GL_OUTPUT_TEXTURE_COORD7_EXT      0x87A4
#define GL_OUTPUT_TEXTURE_COORD8_EXT      0x87A5
#define GL_OUTPUT_TEXTURE_COORD9_EXT      0x87A6
#define GL_OUTPUT_TEXTURE_COORD10_EXT     0x87A7
#define GL_OUTPUT_TEXTURE_COORD11_EXT     0x87A8
#define GL_OUTPUT_TEXTURE_COORD12_EXT     0x87A9
#define GL_OUTPUT_TEXTURE_COORD13_EXT     0x87AA
#define GL_OUTPUT_TEXTURE_COORD14_EXT     0x87AB
#define GL_OUTPUT_TEXTURE_COORD15_EXT     0x87AC
#define GL_OUTPUT_TEXTURE_COORD16_EXT     0x87AD
#define GL_OUTPUT_TEXTURE_COORD17_EXT     0x87AE
#define GL_OUTPUT_TEXTURE_COORD18_EXT     0x87AF
#define GL_OUTPUT_TEXTURE_COORD19_EXT     0x87B0
#define GL_OUTPUT_TEXTURE_COORD20_EXT     0x87B1
#define GL_OUTPUT_TEXTURE_COORD21_EXT     0x87B2
#define GL_OUTPUT_TEXTURE_COORD22_EXT     0x87B3
#define GL_OUTPUT_TEXTURE_COORD23_EXT     0x87B4
#define GL_OUTPUT_TEXTURE_COORD24_EXT     0x87B5
#define GL_OUTPUT_TEXTURE_COORD25_EXT     0x87B6
#define GL_OUTPUT_TEXTURE_COORD26_EXT     0x87B7
#define GL_OUTPUT_TEXTURE_COORD27_EXT     0x87B8
#define GL_OUTPUT_TEXTURE_COORD28_EXT     0x87B9
#define GL_OUTPUT_TEXTURE_COORD29_EXT     0x87BA
#define GL_OUTPUT_TEXTURE_COORD30_EXT     0x87BB
#define GL_OUTPUT_TEXTURE_COORD31_EXT     0x87BC
#define GL_OUTPUT_FOG_EXT                  0x87BD
#define GL_SCALAR_EXT                      0x87BE
#define GL_VECTOR_EXT                      0x87BF
#define GL_MATRIX_EXT                      0x87C0
#define GL_VARIANT_EXT                     0x87C1
#define GL_INVARIANT_EXT                   0x87C2
#define GL_LOCAL_CONSTANT_EXT              0x87C3
#define GL_LOCAL_EXT                       0x87C4
#define GL_MAX_VERTEX_SHADER_INSTRUCTIONS_EXT 0x87C5
#define GL_MAX_VERTEX_SHADER_VARIANTS_EXT 0x87C6
#define GL_MAX_VERTEX_SHADER_INVARIANTS_EXT 0x87C7
#define GL_MAX_VERTEX_SHADER_LOCAL_CONSTANTS_EXT 0x87C8
#define GL_MAX_VERTEX_SHADER_LOCALS_EXT    0x87C9
#define GL_MAX_OPTIMIZED_VERTEX_SHADER_INSTRUCTIONS_EXT 0x87CA
#define GL_MAX_OPTIMIZED_VERTEX_SHADER_VARIANTS_EXT 0x87CB
#define GL_MAX_OPTIMIZED_VERTEX_SHADER_LOCAL_CONSTANTS_EXT 0x87CC
#define GL_MAX_OPTIMIZED_VERTEX_SHADER_INVARIANTS_EXT 0x87CD
#define GL_MAX_OPTIMIZED_VERTEX_SHADER_LOCALS_EXT 0x87CE
#define GL_VERTEX_SHADER_INSTRUCTIONS_EXT 0x87CF
#define GL_VERTEX_SHADER_VARIANTS_EXT      0x87D0
#define GL_VERTEX_SHADER_INVARIANTS_EXT    0x87D1
#define GL_VERTEX_SHADER_LOCAL_CONSTANTS_EXT 0x87D2
#define GL_VERTEX_SHADER_LOCALS_EXT        0x87D3
#define GL_VERTEX_SHADER_OPTIMIZED_EXT     0x87D4
#define GL_X_EXT                           0x87D5
#define GL_Y_EXT                           0x87D6
#define GL_Z_EXT                           0x87D7
#define GL_W_EXT                           0x87D8
#define GL_NEGATIVE_X_EXT                   0x87D9
#define GL_NEGATIVE_Y_EXT                   0x87DA
#define GL_NEGATIVE_Z_EXT                   0x87DB
#define GL_NEGATIVE_W_EXT                   0x87DC
#define GL_ZERO_EXT                         0x87DD
#define GL_ONE_EXT                         0x87DE
#define GL_NEGATIVE_ONE_EXT                 0x87DF
#define GL_NORMALIZED_RANGE_EXT             0x87E0

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```

#define GL_FULL_RANGE_EXT      0x87E1
#define GL_CURRENT_VERTEX_EXT  0x87E2
#define GL_MVP_MATRIX_EXT      0x87E3
#define GL_VARIANT_VALUE_EXT   0x87E4
#define GL_VARIANT_DATATYPE_EXT 0x87E5
#define GL_VARIANT_ARRAY_STRIDE_EXT 0x87E6
#define GL_VARIANT_ARRAY_TYPE_EXT 0x87E7
#define GL_VARIANT_ARRAY_EXT    0x87E8
#define GL_VARIANT_ARRAY_POINTER_EXT 0x87E9
#define GL_INVARIANT_VALUE_EXT  0x87EA
#define GL_INVARIANT_DATATYPE_EXT 0x87EB
#define GL_LOCAL_CONSTANT_VALUE_EXT 0x87EC
#define GL_LOCAL_CONSTANT_DATATYPE_EXT 0x87ED
#define GL_PN_TRIANGLES_ATI     0x87F0
#define GL_MAX_PN_TRIANGLES_TESSELATION_LEVEL_ATI 0x87F1
#define GL_PN_TRIANGLES_POINT_MODE_ATI 0x87F2
#define GL_PN_TRIANGLES_NORMAL_MODE_ATI 0x87F3
#define GL_PN_TRIANGLES_TESSELATION_LEVEL_ATI 0x87F4
#define GL_PN_TRIANGLES_POINT_MODE_LINEAR_ATI 0x87F5
#define GL_PN_TRIANGLES_POINT_MODE_CUBIC_ATI 0x87F6
#define GL_PN_TRIANGLES_NORMAL_MODE_LINEAR_ATI 0x87F7
#define GL_PN_TRIANGLES_NORMAL_MODE_QUADRATIC_ATI 0x87F8
#define GL_STENCIL_BACK_FUNC     0x8800
#define GL_STENCIL_BACK_FUNC_ATI 0x8800
#define GL_STENCIL_BACK_FAIL     0x8801
#define GL_STENCIL_BACK_FAIL_ATI 0x8801
#define GL_STENCIL_BACK_PASS_DEPTH_FAIL 0x8802
#define GL_STENCIL_BACK_PASS_DEPTH_FAIL_ATI 0x8802
#define GL_STENCIL_BACK_PASS_DEPTH_PASS 0x8803
#define GL_STENCIL_BACK_PASS_DEPTH_PASS_ATI 0x8803
#define GL_FRAGMENT_PROGRAM_ARB  0x8804
#define GL_PROGRAM_ALU_INSTRUCTIONS_ARB 0x8805
#define GL_PROGRAM_TEX_INSTRUCTIONS_ARB 0x8806
#define GL_PROGRAM_TEX_INDIRECTIONS_ARB 0x8807
#define GL_PROGRAM_NATIVE_ALU_INSTRUCTIONS_ARB 0x8808
#define GL_PROGRAM_NATIVE_TEX_INSTRUCTIONS_ARB 0x8809
#define GL_PROGRAM_NATIVE_TEX_INDIRECTIONS_ARB 0x880A
#define GL_MAX_PROGRAM_ALU_INSTRUCTIONS_ARB 0x880B
#define GL_MAX_PROGRAM_TEX_INSTRUCTIONS_ARB 0x880C
#define GL_MAX_PROGRAM_TEX_INDIRECTIONS_ARB 0x880D
#define GL_MAX_PROGRAM_NATIVE_ALU_INSTRUCTIONS_ARB 0x880E
#define GL_MAX_PROGRAM_NATIVE_TEX_INSTRUCTIONS_ARB 0x880F
#define GL_MAX_PROGRAM_NATIVE_TEX_INDIRECTIONS_ARB 0x8810
#define GL_RGBA32F_ARB           0x8814
#define GL_RGBA_FLOAT32_ATI      0x8814
#define GL_RGB32F_ARB            0x8815
#define GL_RGB_FLOAT32_ATI       0x8815
#define GL_ALPHA32F_ARB          0x8816
#define GL_ALPHA_FLOAT32_ATI     0x8816
#define GL_INTENSITY32F_ARB      0x8817
#define GL_INTENSITY_FLOAT32_ATI 0x8817
#define GL_LUMINANCE32F_ARB      0x8818
#define GL_LUMINANCE_FLOAT32_ATI 0x8818
#define GL_LUMINANCE_ALPHA32F_ARB 0x8819
#define GL_LUMINANCE_ALPHA_FLOAT32_ATI 0x8819
#define GL_RGBA16F_ARB           0x881A
#define GL_RGBA_FLOAT16_ATI      0x881A
#define GL_RGB16F_ARB            0x881B
#define GL_RGB_FLOAT16_ATI       0x881B
#define GL_ALPHA16F_ARB          0x881C
#define GL_ALPHA_FLOAT16_ATI     0x881C
#define GL_INTENSITY16F_ARB      0x881D

```

```

#define GL_INTENSITY_FLOAT16_ATI          0x881D
#define GL_LUMINANCE16F_ARB              0x881E
#define GL_LUMINANCE_FLOAT16_ATI         0x881E
#define GL_LUMINANCE_ALPHA16F_ARB        0x881F
#define GL_LUMINANCE_ALPHA_FLOAT16_ATI   0x881F
#define GL_RGBA_FLOAT_MODE_ARB           0x8820
#define GL_TYPE_RGBA_FLOAT_ATI           0x8820
#define GL_MAX_DRAW_BUFFERS              0x8824
#define GL_MAX_DRAW_BUFFERS_ARB          0x8824
#define GL_MAX_DRAW_BUFFERS_ATI          0x8824
#define GL_DRAW_BUFFER0                   0x8825
#define GL_DRAW_BUFFER0_ARB              0x8825
#define GL_DRAW_BUFFER0_ATI              0x8825
#define GL_DRAW_BUFFER1                   0x8826
#define GL_DRAW_BUFFER1_ARB              0x8826
#define GL_DRAW_BUFFER1_ATI              0x8826
#define GL_DRAW_BUFFER2                   0x8827
#define GL_DRAW_BUFFER2_ARB              0x8827
#define GL_DRAW_BUFFER2_ATI              0x8827
#define GL_DRAW_BUFFER3                   0x8828
#define GL_DRAW_BUFFER3_ARB              0x8828
#define GL_DRAW_BUFFER3_ATI              0x8828
#define GL_DRAW_BUFFER4                   0x8829
#define GL_DRAW_BUFFER4_ARB              0x8829
#define GL_DRAW_BUFFER4_ATI              0x8829
#define GL_DRAW_BUFFER5                   0x882A
#define GL_DRAW_BUFFER5_ARB              0x882A
#define GL_DRAW_BUFFER5_ATI              0x882A
#define GL_DRAW_BUFFER6                   0x882B
#define GL_DRAW_BUFFER6_ARB              0x882B
#define GL_DRAW_BUFFER6_ATI              0x882B
#define GL_DRAW_BUFFER7                   0x882C
#define GL_DRAW_BUFFER7_ARB              0x882C
#define GL_DRAW_BUFFER7_ATI              0x882C
#define GL_DRAW_BUFFER8                   0x882D
#define GL_DRAW_BUFFER8_ARB              0x882D
#define GL_DRAW_BUFFER8_ATI              0x882D
#define GL_DRAW_BUFFER9                   0x882E
#define GL_DRAW_BUFFER9_ARB              0x882E
#define GL_DRAW_BUFFER9_ATI              0x882E
#define GL_DRAW_BUFFER10                  0x882F
#define GL_DRAW_BUFFER10_ARB              0x882F
#define GL_DRAW_BUFFER10_ATI              0x882F
#define GL_DRAW_BUFFER11                  0x8830
#define GL_DRAW_BUFFER11_ARB              0x8830
#define GL_DRAW_BUFFER11_ATI              0x8830
#define GL_DRAW_BUFFER12                  0x8831
#define GL_DRAW_BUFFER12_ARB              0x8831
#define GL_DRAW_BUFFER12_ATI              0x8831
#define GL_DRAW_BUFFER13                  0x8832
#define GL_DRAW_BUFFER13_ARB              0x8832
#define GL_DRAW_BUFFER13_ATI              0x8832
#define GL_DRAW_BUFFER14                  0x8833
#define GL_DRAW_BUFFER14_ARB              0x8833
#define GL_DRAW_BUFFER14_ATI              0x8833
#define GL_DRAW_BUFFER15                  0x8834
#define GL_DRAW_BUFFER15_ARB              0x8834
#define GL_DRAW_BUFFER15_ATI              0x8834
#define GL_COLOR_CLEAR_UNCLAMPED_VALUE_ATI 0x8835
#define GL_BLEND_EQUATION_ALPHA           0x883D
#define GL_BLEND_EQUATION_ALPHA_EXT       0x883D
#define GL_MATRIX_PALETTE_ARB             0x8840

```

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```
#define GL_MAX_MATRIX_PALETTE_STACK_DEPTH_ARB 0x8841
#define GL_MAX_PALETTE_MATRICES_ARB 0x8842
#define GL_CURRENT_PALETTE_MATRIX_ARB 0x8843
#define GL_MATRIX_INDEX_ARRAY_ARB 0x8844
#define GL_CURRENT_MATRIX_INDEX_ARB 0x8845
#define GL_MATRIX_INDEX_ARRAY_SIZE_ARB 0x8846
#define GL_MATRIX_INDEX_ARRAY_TYPE_ARB 0x8847
#define GL_MATRIX_INDEX_ARRAY_STRIDE_ARB 0x8848
#define GL_MATRIX_INDEX_ARRAY_POINTER_ARB 0x8849
#define GL_TEXTURE_DEPTH_SIZE 0x884A
#define GL_TEXTURE_DEPTH_SIZE_ARB 0x884A
#define GL_DEPTH_TEXTURE_MODE 0x884B
#define GL_DEPTH_TEXTURE_MODE_ARB 0x884B
#define GL_TEXTURE_COMPARE_MODE 0x884C
#define GL_TEXTURE_COMPARE_MODE_ARB 0x884C
#define GL_TEXTURE_COMPARE_FUNC 0x884D
#define GL_TEXTURE_COMPARE_FUNC_ARB 0x884D
#define GL_COMPARE_R_TO_TEXTURE 0x884E
#define GL_COMPARE_R_TO_TEXTURE_ARB 0x884E
#define GL_POINT_SPRITE 0x8861
#define GL_POINT_SPRITE_ARB 0x8861
#define GL_COORD_REPLACE 0x8862
#define GL_COORD_REPLACE_ARB 0x8862
#define GL_QUERY_COUNTER_BITS 0x8864
#define GL_QUERY_COUNTER_BITS_ARB 0x8864
#define GL_CURRENT_QUERY 0x8865
#define GL_CURRENT_QUERY_ARB 0x8865
#define GL_QUERY_RESULT 0x8866
#define GL_QUERY_RESULT_ARB 0x8866
#define GL_QUERY_RESULT_AVAILABLE 0x8867
#define GL_QUERY_RESULT_AVAILABLE_ARB 0x8867
#define GL_MAX_VERTEX_ATTRIBS 0x8869
#define GL_MAX_VERTEX_ATTRIBS_ARB 0x8869
#define GL_VERTEX_ATTRIB_ARRAY_NORMALIZED 0x886A
#define GL_VERTEX_ATTRIB_ARRAY_NORMALIZED_ARB 0x886A
#define GL_MAX_TEXTURE_COORDS 0x8871
#define GL_MAX_TEXTURE_COORDS_ARB 0x8871
#define GL_MAX_TEXTURE_IMAGE_UNITS 0x8872
#define GL_MAX_TEXTURE_IMAGE_UNITS_ARB 0x8872
#define GL_PROGRAM_ERROR_STRING_ARB 0x8874
#define GL_PROGRAM_FORMAT_ASCII_ARB 0x8875
#define GL_PROGRAM_FORMAT_ARB 0x8876
#define GL_DEPTH_BOUNDS_TEST_EXT 0x8890
#define GL_DEPTH_BOUNDS_EXT 0x8891
#define GL_ARRAY_BUFFER 0x8892
#define GL_ARRAY_BUFFER_ARB 0x8892
#define GL_ELEMENT_ARRAY_BUFFER 0x8893
#define GL_ELEMENT_ARRAY_BUFFER_ARB 0x8893
#define GL_ARRAY_BUFFER_BINDING 0x8894
#define GL_ARRAY_BUFFER_BINDING_ARB 0x8894
#define GL_ELEMENT_ARRAY_BUFFER_BINDING 0x8895
#define GL_ELEMENT_ARRAY_BUFFER_BINDING_ARB 0x8895
#define GL_VERTEX_ARRAY_BUFFER_BINDING 0x8896
#define GL_VERTEX_ARRAY_BUFFER_BINDING_ARB 0x8896
#define GL_NORMAL_ARRAY_BUFFER_BINDING 0x8897
#define GL_NORMAL_ARRAY_BUFFER_BINDING_ARB 0x8897
#define GL_COLOR_ARRAY_BUFFER_BINDING 0x8898
#define GL_COLOR_ARRAY_BUFFER_BINDING_ARB 0x8898
#define GL_INDEX_ARRAY_BUFFER_BINDING 0x8899
#define GL_INDEX_ARRAY_BUFFER_BINDING_ARB 0x8899
#define GL_TEXTURE_COORD_ARRAY_BUFFER_BINDING 0x889A
#define GL_TEXTURE_COORD_ARRAY_BUFFER_BINDING_ARB 0x889A
```

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```
#define GL_EDGE_FLAG_ARRAY_BUFFER_BINDING      0x889B
#define GL_EDGE_FLAG_ARRAY_BUFFER_BINDING_ARB  0x889B
#define GL_SECONDARY_COLOR_ARRAY_BUFFER_BINDING 0x889C
#define GL_SECONDARY_COLOR_ARRAY_BUFFER_BINDING_ARB 0x889C
#define GL_FOG_COORDINATE_ARRAY_BUFFER_BINDING 0x889D
#define GL_FOG_COORDINATE_ARRAY_BUFFER_BINDING_ARB 0x889D
#define GL_WEIGHT_ARRAY_BUFFER_BINDING 0x889E
#define GL_WEIGHT_ARRAY_BUFFER_BINDING_ARB 0x889E
#define GL_VERTEX_ATTRIB_ARRAY_BUFFER_BINDING 0x889F
#define GL_VERTEX_ATTRIB_ARRAY_BUFFER_BINDING_ARB 0x889F
#define GL_PROGRAM_INSTRUCTIONS_ARB 0x88A0
#define GL_MAX_PROGRAM_INSTRUCTIONS_ARB 0x88A1
#define GL_PROGRAM_NATIVE_INSTRUCTIONS_ARB 0x88A2
#define GL_MAX_PROGRAM_NATIVE_INSTRUCTIONS_ARB 0x88A3
#define GL_PROGRAM_TEMPORARIES_ARB 0x88A4
#define GL_MAX_PROGRAM_TEMPORARIES_ARB 0x88A5
#define GL_PROGRAM_NATIVE_TEMPORARIES_ARB 0x88A6
#define GL_MAX_PROGRAM_NATIVE_TEMPORARIES_ARB 0x88A7
#define GL_PROGRAM_PARAMETERS_ARB 0x88A8
#define GL_MAX_PROGRAM_PARAMETERS_ARB 0x88A9
#define GL_PROGRAM_NATIVE_PARAMETERS_ARB 0x88AA
#define GL_MAX_PROGRAM_NATIVE_PARAMETERS_ARB 0x88AB
#define GL_PROGRAM_ATTRIBS_ARB 0x88AC
#define GL_MAX_PROGRAM_ATTRIBS_ARB 0x88AD
#define GL_PROGRAM_NATIVE_ATTRIBS_ARB 0x88AE
#define GL_MAX_PROGRAM_NATIVE_ATTRIBS_ARB 0x88AF
#define GL_PROGRAM_ADDRESS_REGISTERS_ARB 0x88B0
#define GL_MAX_PROGRAM_ADDRESS_REGISTERS_ARB 0x88B1
#define GL_PROGRAM_NATIVE_ADDRESS_REGISTERS_ARB 0x88B2
#define GL_MAX_PROGRAM_NATIVE_ADDRESS_REGISTERS_ARB 0x88B3
#define GL_MAX_PROGRAM_LOCAL_PARAMETERS_ARB 0x88B4
#define GL_MAX_PROGRAM_ENV_PARAMETERS_ARB 0x88B5
#define GL_PROGRAM_UNDER_NATIVE_LIMITS_ARB 0x88B6
#define GL_TRANSPOSE_CURRENT_MATRIX_ARB 0x88B7
#define GL_READ_ONLY 0x88B8
#define GL_READ_ONLY_ARB 0x88B8
#define GL_WRITE_ONLY 0x88B9
#define GL_WRITE_ONLY_ARB 0x88B9
#define GL_READ_WRITE 0x88BA
#define GL_READ_WRITE_ARB 0x88BA
#define GL_BUFFER_ACCESS 0x88BB
#define GL_BUFFER_ACCESS_ARB 0x88BB
#define GL_BUFFER_MAPPED 0x88BC
#define GL_BUFFER_MAPPED_ARB 0x88BC
#define GL_BUFFER_MAP_POINTER 0x88BD
#define GL_BUFFER_MAP_POINTER_ARB 0x88BD
#define GL_MATRIX0_ARB 0x88C0
#define GL_MATRIX1_ARB 0x88C1
#define GL_MATRIX2_ARB 0x88C2
#define GL_MATRIX3_ARB 0x88C3
#define GL_MATRIX4_ARB 0x88C4
#define GL_MATRIX5_ARB 0x88C5
#define GL_MATRIX6_ARB 0x88C6
#define GL_MATRIX7_ARB 0x88C7
#define GL_MATRIX8_ARB 0x88C8
#define GL_MATRIX9_ARB 0x88C9
#define GL_MATRIX10_ARB 0x88CA
#define GL_MATRIX11_ARB 0x88CB
#define GL_MATRIX12_ARB 0x88CC
#define GL_MATRIX13_ARB 0x88CD
#define GL_MATRIX14_ARB 0x88CE
#define GL_MATRIX15_ARB 0x88CF
```

```

#define GL_MATRIX16_ARB 0x88D0
#define GL_MATRIX17_ARB 0x88D1
#define GL_MATRIX18_ARB 0x88D2
#define GL_MATRIX19_ARB 0x88D3
#define GL_MATRIX20_ARB 0x88D4
#define GL_MATRIX21_ARB 0x88D5
#define GL_MATRIX22_ARB 0x88D6
#define GL_MATRIX23_ARB 0x88D7
#define GL_MATRIX24_ARB 0x88D8
#define GL_MATRIX25_ARB 0x88D9
#define GL_MATRIX26_ARB 0x88DA
#define GL_MATRIX27_ARB 0x88DB
#define GL_MATRIX28_ARB 0x88DC
#define GL_MATRIX29_ARB 0x88DD
#define GL_MATRIX30_ARB 0x88DE
#define GL_MATRIX31_ARB 0x88DF
#define GL_STREAM_DRAW 0x88E0
#define GL_STREAM_DRAW_ARB 0x88E0
#define GL_STREAM_READ 0x88E1
#define GL_STREAM_READ_ARB 0x88E1
#define GL_STREAM_COPY 0x88E2
#define GL_STREAM_COPY_ARB 0x88E2
#define GL_STATIC_DRAW 0x88E4
#define GL_STATIC_DRAW_ARB 0x88E4
#define GL_STATIC_READ 0x88E5
#define GL_STATIC_READ_ARB 0x88E5
#define GL_STATIC_COPY 0x88E6
#define GL_STATIC_COPY_ARB 0x88E6
#define GL_DYNAMIC_DRAW 0x88E8
#define GL_DYNAMIC_DRAW_ARB 0x88E8
#define GL_DYNAMIC_READ 0x88E9
#define GL_DYNAMIC_READ_ARB 0x88E9
#define GL_DYNAMIC_COPY 0x88EA
#define GL_DYNAMIC_COPY_ARB 0x88EA
#define GL_PIXEL_PACK_BUFFER_ARB 0x88EB
#define GL_PIXEL_PACK_BUFFER_EXT 0x88EB
#define GL_PIXEL_UNPACK_BUFFER_ARB 0x88EC
#define GL_PIXEL_UNPACK_BUFFER_EXT 0x88EC
#define GL_PIXEL_PACK_BUFFER_BINDING_ARB 0x88ED
#define GL_PIXEL_PACK_BUFFER_BINDING_EXT 0x88ED
#define GL_PIXEL_UNPACK_BUFFER_BINDING_ARB 0x88EF
#define GL_PIXEL_UNPACK_BUFFER_BINDING_EXT 0x88EF
#define GL_STENCIL_TEST_TWO_SIDE_EXT 0x8910
#define GL_ACTIVE_STENCIL_FACE_EXT 0x8911
#define GL_MIRROR_CLAMP_TO_BORDER_EXT 0x8912
#define GL_SAMPLES_PASSED 0x8914
#define GL_SAMPLES_PASSED_ARB 0x8914
#define GL_CLAMP_VERTEX_COLOR_ARB 0x891A
#define GL_CLAMP_FRAGMENT_COLOR_ARB 0x891B
#define GL_CLAMP_READ_COLOR_ARB 0x891C
#define GL_FIXED_ONLY_ARB 0x891D
#define GL_FRAGMENT_SHADER_ATI 0x8920
#define GL_REG_0_ATI 0x8921
#define GL_REG_1_ATI 0x8922
#define GL_REG_2_ATI 0x8923
#define GL_REG_3_ATI 0x8924
#define GL_REG_4_ATI 0x8925
#define GL_REG_5_ATI 0x8926
#define GL_REG_6_ATI 0x8927
#define GL_REG_7_ATI 0x8928
#define GL_REG_8_ATI 0x8929
#define GL_REG_9_ATI 0x892A

```

```

#define GL_REG_10_ATI 0x892B
#define GL_REG_11_ATI 0x892C
#define GL_REG_12_ATI 0x892D
#define GL_REG_13_ATI 0x892E
#define GL_REG_14_ATI 0x892F
#define GL_REG_15_ATI 0x8930
#define GL_REG_16_ATI 0x8931
#define GL_REG_17_ATI 0x8932
#define GL_REG_18_ATI 0x8933
#define GL_REG_19_ATI 0x8934
#define GL_REG_20_ATI 0x8935
#define GL_REG_21_ATI 0x8936
#define GL_REG_22_ATI 0x8937
#define GL_REG_23_ATI 0x8938
#define GL_REG_24_ATI 0x8939
#define GL_REG_25_ATI 0x893A
#define GL_REG_26_ATI 0x893B
#define GL_REG_27_ATI 0x893C
#define GL_REG_28_ATI 0x893D
#define GL_REG_29_ATI 0x893E
#define GL_REG_30_ATI 0x893F
#define GL_REG_31_ATI 0x8940
#define GL_CON_0_ATI 0x8941
#define GL_CON_1_ATI 0x8942
#define GL_CON_2_ATI 0x8943
#define GL_CON_3_ATI 0x8944
#define GL_CON_4_ATI 0x8945
#define GL_CON_5_ATI 0x8946
#define GL_CON_6_ATI 0x8947
#define GL_CON_7_ATI 0x8948
#define GL_CON_8_ATI 0x8949
#define GL_CON_9_ATI 0x894A
#define GL_CON_10_ATI 0x894B
#define GL_CON_11_ATI 0x894C
#define GL_CON_12_ATI 0x894D
#define GL_CON_13_ATI 0x894E
#define GL_CON_14_ATI 0x894F
#define GL_CON_15_ATI 0x8950
#define GL_CON_16_ATI 0x8951
#define GL_CON_17_ATI 0x8952
#define GL_CON_18_ATI 0x8953
#define GL_CON_19_ATI 0x8954
#define GL_CON_20_ATI 0x8955
#define GL_CON_21_ATI 0x8956
#define GL_CON_22_ATI 0x8957
#define GL_CON_23_ATI 0x8958
#define GL_CON_24_ATI 0x8959
#define GL_CON_25_ATI 0x895A
#define GL_CON_26_ATI 0x895B
#define GL_CON_27_ATI 0x895C
#define GL_CON_28_ATI 0x895D
#define GL_CON_29_ATI 0x895E
#define GL_CON_30_ATI 0x895F
#define GL_CON_31_ATI 0x8960
#define GL_MOV_ATI 0x8961
#define GL_ADD_ATI 0x8963
#define GL_MUL_ATI 0x8964
#define GL_SUB_ATI 0x8965
#define GL_DOT3_ATI 0x8966
#define GL_DOT4_ATI 0x8967
#define GL_MAD_ATI 0x8968
#define GL_LERP_ATI 0x8969

```



```

#define GL_CND_ATI 0x896A
#define GL_CND0_ATI 0x896B
#define GL_DOT2_ADD_ATI 0x896C
#define GL_SECONDARY_INTERPOLATOR_ATI 0x896D
#define GL_NUM_FRAGMENT_REGISTERS_ATI 0x896E
#define GL_NUM_FRAGMENT_CONSTANTS_ATI 0x896F
#define GL_NUM_PASSES_ATI 0x8970
#define GL_NUM_INSTRUCTIONS_PER_PASS_ATI 0x8971
#define GL_NUM_INSTRUCTIONS_TOTAL_ATI 0x8972
#define GL_NUM_INPUT_INTERPOLATOR_COMPONENTS_ATI 0x8973
#define GL_NUM_LOOPBACK_COMPONENTS_ATI 0x8974
#define GL_COLOR_ALPHA_PAIRING_ATI 0x8975
#define GL_SWIZZLE_STR_ATI 0x8976
#define GL_SWIZZLE_STQ_ATI 0x8977
#define GL_SWIZZLE_STR_DR_ATI 0x8978
#define GL_SWIZZLE_STQ_DQ_ATI 0x8979
#define GL_SWIZZLE_STRQ_ATI 0x897A
#define GL_SWIZZLE_STRQ_DQ_ATI 0x897B
#define GL_FRAGMENT_SHADER 0x8B30
#define GL_FRAGMENT_SHADER_ARB 0x8B30
#define GL_VERTEX_SHADER 0x8B31
#define GL_VERTEX_SHADER_ARB 0x8B31
#define GL_PROGRAM_OBJECT_ARB 0x8B40
#define GL_SHADER_OBJECT_ARB 0x8B48
#define GL_MAX_FRAGMENT_UNIFORM_COMPONENTS 0x8B49
#define GL_MAX_FRAGMENT_UNIFORM_COMPONENTS_ARB 0x8B49
#define GL_MAX_VERTEX_UNIFORM_COMPONENTS 0x8B4A
#define GL_MAX_VERTEX_UNIFORM_COMPONENTS_ARB 0x8B4A
#define GL_MAX_VARYING_FLOATS 0x8B4B
#define GL_MAX_VARYING_FLOATS_ARB 0x8B4B
#define GL_MAX_VERTEX_TEXTURE_IMAGE_UNITS 0x8B4C
#define GL_MAX_VERTEX_TEXTURE_IMAGE_UNITS_ARB 0x8B4C
#define GL_MAX_COMBINED_TEXTURE_IMAGE_UNITS 0x8B4D
#define GL_MAX_COMBINED_TEXTURE_IMAGE_UNITS_ARB 0x8B4D
#define GL_OBJECT_TYPE_ARB 0x8B4E
#define GL_OBJECT_SUBTYPE_ARB 0x8B4F
#define GL_SHADER_TYPE 0x8B4F
#define GL_FLOAT_VEC2 0x8B50
#define GL_FLOAT_VEC2_ARB 0x8B50
#define GL_FLOAT_VEC3 0x8B51
#define GL_FLOAT_VEC3_ARB 0x8B51
#define GL_FLOAT_VEC4 0x8B52
#define GL_FLOAT_VEC4_ARB 0x8B52
#define GL_INT_VEC2 0x8B53
#define GL_INT_VEC2_ARB 0x8B53
#define GL_INT_VEC3 0x8B54
#define GL_INT_VEC3_ARB 0x8B54
#define GL_INT_VEC4 0x8B55
#define GL_INT_VEC4_ARB 0x8B55
#define GL_BOOL 0x8B56
#define GL_BOOL_ARB 0x8B56
#define GL_BOOL_VEC2 0x8B57
#define GL_BOOL_VEC2_ARB 0x8B57
#define GL_BOOL_VEC3 0x8B58
#define GL_BOOL_VEC3_ARB 0x8B58
#define GL_BOOL_VEC4 0x8B59
#define GL_BOOL_VEC4_ARB 0x8B59
#define GL_FLOAT_MAT2 0x8B5A
#define GL_FLOAT_MAT2_ARB 0x8B5A
#define GL_FLOAT_MAT3 0x8B5B
#define GL_FLOAT_MAT3_ARB 0x8B5B
#define GL_FLOAT_MAT4 0x8B5C

```

```

#define GL_FLOAT_MAT4_ARB          0x8B5C
#define GL_SAMPLER_1D              0x8B5D
#define GL_SAMPLER_1D_ARB          0x8B5D
#define GL_SAMPLER_2D              0x8B5E
#define GL_SAMPLER_2D_ARB          0x8B5E
#define GL_SAMPLER_3D              0x8B5F
#define GL_SAMPLER_3D_ARB          0x8B5F
#define GL_SAMPLER_CUBE            0x8B60
#define GL_SAMPLER_CUBE_ARB        0x8B60
#define GL_SAMPLER_1D_SHADOW       0x8B61
#define GL_SAMPLER_1D_SHADOW_ARB   0x8B61
#define GL_SAMPLER_2D_SHADOW       0x8B62
#define GL_SAMPLER_2D_SHADOW_ARB   0x8B62
#define GL_SAMPLER_2D_RECT_ARB     0x8B63
#define GL_SAMPLER_2D_RECT_SHADOW_ARB 0x8B64
#define GL_DELETE_STATUS           0x8B80
#define GL_OBJECT_DELETE_STATUS_ARB 0x8B80
#define GL_COMPILE_STATUS          0x8B81
#define GL_OBJECT_COMPILE_STATUS_ARB 0x8B81
#define GL_LINK_STATUS             0x8B82
#define GL_OBJECT_LINK_STATUS_ARB   0x8B82
#define GL_OBJECT_VALIDATE_STATUS_ARB 0x8B83
#define GL_VALIDATE_STATUS         0x8B83
#define GL_INFO_LOG_LENGTH         0x8B84
#define GL_OBJECT_INFO_LOG_LENGTH_ARB 0x8B84
#define GL_ATTACHED_SHADERS        0x8B85
#define GL_OBJECT_ATTACHED_OBJECTS_ARB 0x8B85
#define GL_ACTIVE_UNIFORMS         0x8B86
#define GL_OBJECT_ACTIVE_UNIFORMS_ARB 0x8B86
#define GL_ACTIVE_UNIFORM_MAX_LENGTH 0x8B87
#define GL_OBJECT_ACTIVE_UNIFORM_MAX_LENGTH_ARB 0x8B87
#define GL_OBJECT_SHADER_SOURCE_LENGTH_ARB 0x8B88
#define GL_SHADER_SOURCE_LENGTH    0x8B88
#define GL_ACTIVE_ATTRIBUTES        0x8B89
#define GL_OBJECT_ACTIVE_ATTRIBUTES_ARB 0x8B89
#define GL_ACTIVE_ATTRIBUTE_MAX_LENGTH 0x8B8A
#define GL_OBJECT_ACTIVE_ATTRIBUTE_MAX_LENGTH_ARB 0x8B8A
#define GL_FRAGMENT_SHADER_DERIVATIVE_HINT 0x8B8B
#define GL_FRAGMENT_SHADER_DERIVATIVE_HINT_ARB 0x8B8B
#define GL_SHADING_LANGUAGE_VERSION 0x8B8C
#define GL_SHADING_LANGUAGE_VERSION_ARB 0x8B8C
#define GL_CURRENT_PROGRAM          0x8B8D
#define GL_IMPLEMENTATION_COLOR_READ_TYPE_OES 0x8B9A
#define GL_IMPLEMENTATION_COLOR_READ_FORMAT_OES 0x8B9B
#define GL_TEXTURE_RED_TYPE_ARB     0x8C10
#define GL_TEXTURE_GREEN_TYPE_ARB   0x8C11
#define GL_TEXTURE_BLUE_TYPE_ARB    0x8C12
#define GL_TEXTURE_ALPHA_TYPE_ARB   0x8C13
#define GL_TEXTURE_LUMINANCE_TYPE_ARB 0x8C14
#define GL_TEXTURE_INTENSITY_TYPE_ARB 0x8C15
#define GL_TEXTURE_DEPTH_TYPE_ARB   0x8C16
#define GL_UNSIGNED_NORMALIZED_ARB  0x8C17
#define GL_POINT_SPRITE_COORD_ORIGIN 0x8CA0
#define GL_LOWER_LEFT              0x8CA1
#define GL_UPPER_LEFT              0x8CA2
#define GL_STENCIL_BACK_REF         0x8CA3
#define GL_STENCIL_BACK_VALUE_MASK  0x8CA4
#define GL_STENCIL_BACK_WRITEMASK    0x8CA5
#define GL_FRAMEBUFFER_BINDING_EXT  0x8CA6
#define GL_RENDERBUFFER_BINDING_EXT 0x8CA7
#define GL_FRAMEBUFFER_ATTACHMENT_OBJECT_TYPE_EXT 0x8CD0
#define GL_FRAMEBUFFER_ATTACHMENT_OBJECT_NAME_EXT 0x8CD1

```

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```
#define GL_FRAMEBUFFER_ATTACHMENT_TEXTURE_LEVEL_EXT      0x8CD2
#define GL_FRAMEBUFFER_ATTACHMENT_TEXTURE_CUBE_MAP_FACE_EXT 0x8CD3
#define GL_FRAMEBUFFER_ATTACHMENT_TEXTURE_3D_ZOFFSET_EXT 0x8CD4
#define GL_FRAMEBUFFER_COMPLETE_EXT      0x8CD5
#define GL_FRAMEBUFFER_INCOMPLETE_ATTACHMENT_EXT      0x8CD6
#define GL_FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT_EXT 0x8CD7
#define GL_FRAMEBUFFER_INCOMPLETE_DIMENSIONS_EXT      0x8CD9
#define GL_FRAMEBUFFER_INCOMPLETE_FORMATS_EXT      0x8CDA
#define GL_FRAMEBUFFER_INCOMPLETE_DRAW_BUFFER_EXT     0x8CDB
#define GL_FRAMEBUFFER_INCOMPLETE_READ_BUFFER_EXT     0x8CDC
#define GL_FRAMEBUFFER_UNSUPPORTED_EXT  0x8CDD
#define GL_MAX_COLOR_ATTACHMENTS_EXT    0x8CDF
#define GL_COLOR_ATTACHMENT0_EXT        0x8CE0
#define GL_COLOR_ATTACHMENT1_EXT        0x8CE1
#define GL_COLOR_ATTACHMENT2_EXT        0x8CE2
#define GL_COLOR_ATTACHMENT3_EXT        0x8CE3
#define GL_COLOR_ATTACHMENT4_EXT        0x8CE4
#define GL_COLOR_ATTACHMENT5_EXT        0x8CE5
#define GL_COLOR_ATTACHMENT6_EXT        0x8CE6
#define GL_COLOR_ATTACHMENT7_EXT        0x8CE7
#define GL_COLOR_ATTACHMENT8_EXT        0x8CE8
#define GL_COLOR_ATTACHMENT9_EXT        0x8CE9
#define GL_COLOR_ATTACHMENT10_EXT       0x8CEA
#define GL_COLOR_ATTACHMENT11_EXT       0x8CEB
#define GL_COLOR_ATTACHMENT12_EXT       0x8CEC
#define GL_COLOR_ATTACHMENT13_EXT       0x8CED
#define GL_COLOR_ATTACHMENT14_EXT       0x8CEE
#define GL_COLOR_ATTACHMENT15_EXT       0x8CEF
#define GL_DEPTH_ATTACHMENT_EXT 0x8D00
#define GL_STENCIL_ATTACHMENT_EXT      0x8D20
#define GL_FRAMEBUFFER_EXT             0x8D40
#define GL_RENDERBUFFER_EXT            0x8D41
#define GL_RENDERBUFFER_WIDTH_EXT      0x8D42
#define GL_RENDERBUFFER_HEIGHT_EXT     0x8D43
#define GL_RENDERBUFFER_INTERNAL_FORMAT_EXT 0x8D44
#define GL_STENCIL_INDEX1_EXT          0x8D46
#define GL_STENCIL_INDEX4_EXT          0x8D47
#define GL_STENCIL_INDEX8_EXT          0x8D48
#define GL_STENCIL_INDEX16_EXT         0x8D49
#define GL_RENDERBUFFER_RED_SIZE_EXT   0x8D50
#define GL_RENDERBUFFER_GREEN_SIZE_EXT 0x8D51
#define GL_RENDERBUFFER_BLUE_SIZE_EXT  0x8D52
#define GL_RENDERBUFFER_ALPHA_SIZE_EXT 0x8D53
#define GL_RENDERBUFFER_DEPTH_SIZE_EXT 0x8D54
#define GL_RENDERBUFFER_STENCIL_SIZE_EXT 0x8D55
#define GL_3DFX_multisample            1
#define GL_3DFX_tbuffer                 1
#define GL_3DFX_texture_compression_FXT1 1
#define GL_ARB_color_buffer_float       1
#define GL_ARB_depth_texture            1
#define GL_ARB_draw_buffers             1
#define GL_ARB_fragment_program         1
#define GL_ARB_fragment_program_shadow  1
#define GL_ARB_fragment_shader          1
#define GL_ARB_half_float_pixel         1
#define GL_ARB_matrix_palette           1
#define GL_ARB_multisample              1
#define GL_ARB_occlusion_query           1
#define GL_ARB_pixel_buffer_object      1
#define GL_ARB_point_parameters         1
#define GL_ARB_point_sprite             1
#define GL_ARB_shader_objects           1
```

```

#define GL_ARB_shading_language_100      1
#define GL_ARB_shadow                     1
#define GL_ARB_shadow_ambient             1
#define GL_ARB_texture_border_clamp       1
#define GL_ARB_texture_compression        1
#define GL_ARB_texture_cube_map           1
#define GL_ARB_texture_env_add             1
#define GL_ARB_texture_env_combine        1
#define GL_ARB_texture_env_crossbar       1
#define GL_ARB_texture_env_dot3           1
#define GL_ARB_texture_float               1
#define GL_ARB_texture_mirrored_repeat    1
#define GL_ARB_texture_non_power_of_two   1
#define GL_ARB_texture_rectangle           1
#define GL_ARB_transpose_matrix            1
#define GL_ARB_vertex_blend                1
#define GL_ARB_vertex_buffer_object       1
#define GL_ARB_vertex_shader              1
#define GL_ARB_window_pos                  1
#define GL_ATI_draw_buffers                1
#define GL_ATI_element_array              1
#define GL_ATI_envmap_bumpmap              1
#define GL_ATI_fragment_shader            1
#define GL_ATI_map_object_buffer           1
#define GL_ATI_pixel_format_float          1
#define GL_ATI_pn_triangles                1
#define GL_ATI_separate_stencil            1
#define GL_ATI_text_fragment_shader        1
#define GL_ATI_texture_env_combine3        1
#define GL_ATI_texture_float               1
#define GL_ATI_texture_mirror_once         1
#define GL_ATI_vertex_array_object         1
#define GL_ATI_vertex_attrib_array_object  1
#define GL_ATI_vertex_streams              1
#define GL_EXT_422_pixels                  1
#define GL_EXT_abgr                        1
#define GL_EXT_bgra                        1
#define GL_EXT_blend_color                 1
#define GL_EXT_blend_equation_separate     1
#define GL_EXT_blend_func_separate         1
#define GL_EXT_blend_logic_op              1
#define GL_EXT_blend_minmax                1
#define GL_EXT_blend_subtract              1
#define GL_EXT_clip_volume_hint            1
#define GL_EXT_cmyka                       1
#define GL_EXT_color_subtable              1
#define GL_EXT_compiled_vertex_array       1
#define GL_EXT_convolution                 1
#define GL_EXT_coordinate_frame            1
#define GL_EXT_copy_texture                1
#define GL_EXT_cull_vertex                 1
#define GL_EXT_depth_bounds_test           1
#define GL_EXT_draw_range_elements         1
#define GL_EXT_fog_coord                   1
#define GL_EXT_histogram                   1
#define GL_EXT_index_array_formats         1
#define GL_EXT_index_func                  1
#define GL_EXT_index_material              1
#define GL_EXT_index_texture               1
#define GL_EXT_light_texture               1
#define GL_EXT_misc_attribute              1
#define GL_EXT_multi_draw_arrays           1

```

```

#define GL_EXT_multisample 1
#define GL_EXT_packed_pixels 1
#define GL_EXT_paletted_texture 1
#define GL_EXT_pixel_buffer_object 1
#define GL_EXT_pixel_transform 1
#define GL_EXT_pixel_transform_color_table 1
#define GL_EXT_point_parameters 1
#define GL_EXT_polygon_offset 1
#define GL_EXT_rescale_normal 1
#define GL_EXT_secondary_color 1
#define GL_EXT_separate_specular_color 1
#define GL_EXT_shadow_funcs 1
#define GL_EXT_shared_texture_palette 1
#define GL_EXT_stencil_two_side 1
#define GL_EXT_stencil_wrap 1
#define GL_EXT_subtexture 1
#define GL_EXT_texture 1
#define GL_EXT_texture3D 1
#define GL_EXT_texture_env_add 1
#define GL_EXT_texture_env_combine 1
#define GL_EXT_texture_env_dot3 1
#define GL_EXT_texture_filter_anisotropic 1
#define GL_EXT_texture_lod_bias 1
#define GL_EXT_texture_mirror_clamp 1
#define GL_EXT_texture_object 1
#define GL_EXT_texture_perturb_normal 1
#define GL_EXT_vertex_array 1
#define GL_EXT_vertex_shader 1
#define GL_EXT_vertex_weighting 1
#define GL_GREMEDY_string_marker 1
#define GL_HP_convolution_border_modes 1
#define GL_HP_image_transform 1
#define GL_HP_occlusion_test 1
#define GL_HP_texture_lighting 1
#define GL_IBM_cull_vertex 1
#define GL_IBM_multimode_draw_arrays 1
#define GL_IBM_rasterpos_clip 1
#define GL_IBM_vertex_array_lists 1
#define GL_INGR_blend_func_separate 1
#define GL_INGR_color_clamp 1
#define GL_INGR_interlace_read 1
#define GL_INTEL_parallel_arrays 1
#define GL_OES_read_format 1
#define GL_PGI_misc_hints 1
#define GL_PGI_vertex_hints 1
#define GL_REND_screen_coordinates 1
#define GL_S3_s3tc 1
#define GL_SUNX_constant_data 1
#define GL_SUN_convolution_border_modes 1
#define GL_SUN_global_alpha 1
#define GL_SUN_mesh_array 1
#define GL_SUN_slice_accum 1
#define GL_SUN_triangle_list 1
#define GL_SUN_vertex 1
#define GL_WIN_phong_shading 1
#define GL_WIN_specular_fog 1
#define GL_CULL_VERTEX_IBM 103050
#define GL_VERTEX_ARRAY_LIST_IBM 103070
#define GL_NORMAL_ARRAY_LIST_IBM 103071
#define GL_COLOR_ARRAY_LIST_IBM 103072
#define GL_INDEX_ARRAY_LIST_IBM 103073
#define GL_TEXTURE_COORD_ARRAY_LIST_IBM 103074

```

```

#define GL_EDGE_FLAG_ARRAY_LIST_IBM      103075
#define GL_FOG_COORDINATE_ARRAY_LIST_IBM 103076
#define GL_SECONDARY_COLOR_ARRAY_LIST_IBM 103077
#define GL_VERTEX_ARRAY_LIST_STRIDE_IBM 103080
#define GL_NORMAL_ARRAY_LIST_STRIDE_IBM 103081
#define GL_COLOR_ARRAY_LIST_STRIDE_IBM 103082
#define GL_INDEX_ARRAY_LIST_STRIDE_IBM 103083
#define GL_TEXTURE_COORD_ARRAY_LIST_STRIDE_IBM 103084
#define GL_EDGE_FLAG_ARRAY_LIST_STRIDE_IBM 103085
#define GL_FOG_COORDINATE_ARRAY_LIST_STRIDE_IBM 103086
#define GL_SECONDARY_COLOR_ARRAY_LIST_STRIDE_IBM 103087
#define GL_MODELVIEW0_EXT      GL_MODELVIEW
#define GL_MODELVIEW0_MATRIX_EXT      GL_MODELVIEW_MATRIX
#define GL_MODELVIEW0_STACK_DEPTH_EXT GL_MODELVIEW_STACK_DEPTH

typedef unsigned int GLhandleARB;
typedef ptrdiff_t GLintptr;
typedef char GLchar;
typedef char GLcharARB;
typedef ptrdiff_t GLsizeiptr;
typedef ptrdiff_t GLsizeiptrARB;
typedef long int GLintptrARB;

```

7.2.3. GL/glx.h

```

#define GLX_EXTENSION_NAME      "GLX"
#define GLX_FRONT_LEFT_BUFFER_BIT 0x00000001
#define GLX_RGBA_BIT 0x00000001
#define GLX_WINDOW_BIT 0x00000001
#define GLX_COLOR_INDEX_BIT 0x00000002
#define GLX_FRONT_RIGHT_BUFFER_BIT 0x00000002
#define GLX_PIXMAP_BIT 0x00000002
#define GLX_BACK_LEFT_BUFFER_BIT 0x00000004
#define GLX_PBUFFER_BIT 0x00000004
#define GLX_BACK_RIGHT_BUFFER_BIT 0x00000008
#define GLX_AUX_BUFFERS_BIT 0x00000010
#define GLX_DEPTH_BUFFER_BIT 0x00000020
#define GLX_STENCIL_BUFFER_BIT 0x00000040
#define GLX_ACCUM_BUFFER_BIT 0x00000080
#define GLX_PBUFFER_CLOBBER_MASK 0x08000000
#define GLX_SAMPLE_BUFFERS 0x186a0
#define GLX_SAMPLES 0x186a1
#define GLX_CONFIG_CAVEAT 0x20
#define GLX_X_VISUAL_TYPE 0x22
#define GLX_TRANSPARENT_TYPE 0x23
#define GLX_TRANSPARENT_INDEX_VALUE 0x24
#define GLX_TRANSPARENT_RED_VALUE 0x25
#define GLX_TRANSPARENT_GREEN_VALUE 0x26
#define GLX_TRANSPARENT_BLUE_VALUE 0x27
#define GLX_TRANSPARENT_ALPHA_VALUE 0x28
#define GLX_NONE 0x8000
#define GLX_SLOW_CONFIG 0x8001
#define GLX_TRUE_COLOR 0x8002
#define GLX_DIRECT_COLOR 0x8003
#define GLX_PSEUDO_COLOR 0x8004
#define GLX_STATIC_COLOR 0x8005
#define GLX_GRAY_SCALE 0x8006
#define GLX_STATIC_GRAY 0x8007
#define GLX_TRANSPARENT_RGB 0x8008
#define GLX_TRANSPARENT_INDEX 0x8009
#define GLX_VISUAL_ID 0x800B

```

```

#define GLX_SCREEN          0x800C
#define GLX_NON_CONFORMANT_CONFIG      0x800D
#define GLX_DRAWABLE_TYPE      0x8010
#define GLX_RENDER_TYPE 0x8011
#define GLX_X_RENDERABLE      0x8012
#define GLX_FBCONFIG_ID 0x8013
#define GLX_RGBA_TYPE      0x8014
#define GLX_COLOR_INDEX_TYPE      0x8015
#define GLX_MAX_PBUFFER_WIDTH      0x8016
#define GLX_MAX_PBUFFER_HEIGHT      0x8017
#define GLX_MAX_PBUFFER_PIXELS      0x8018
#define GLX_PRESERVED_CONTENTS      0x801B
#define GLX_LARGEST_PBUFFER      0x801C
#define GLX_WIDTH          0x801D
#define GLX_HEIGHT          0x801E
#define GLX_EVENT_MASK      0x801F
#define GLX_DAMAGED          0x8020
#define GLX_SAVED          0x8021
#define GLX_WINDOW          0x8022
#define GLX_PBUFFER          0x8023
#define GLX_PBUFFER_HEIGHT      0x8040
#define GLX_PBUFFER_WIDTH      0x8041
#define GLX_DONT_CARE      0xFFFFFFFF
#define GLX_ARB_get_proc_address      1
#define GLX_ARB_render_texture      1
#define GLX_BAD_SCREEN      1
#define GLX_EXT_texture_from_pixmap      1
#define GLX_USE_GL          1
#define GLX_VENDOR          1
#define GLX_VERSION_1_1      1
#define GLX_VERSION_1_2      1
#define GLX_VERSION_1_3      1
#define GLX_VERSION_1_4      1
#define GLX_BLUE_SIZE      10
#define GLX_ALPHA_SIZE      11
#define GLX_DEPTH_SIZE      12
#define GLX_STENCIL_SIZE      13
#define GLX_ACCUM_RED_SIZE      14
#define GLX_ACCUM_GREEN_SIZE      15
#define GLX_ACCUM_BLUE_SIZE      16
#define GLX_ACCUM_ALPHA_SIZE      17
#define GLX_BAD_ATTRIBUTE      2
#define GLX_BUFFER_SIZE      2
#define GLX_VERSION          2
#define GLX_EXTENSIONS      3
#define GLX_LEVEL          3
#define GLX_NO_EXTENSION      3
#define GLX_BAD_VISUAL      4
#define GLX_RGBA          4
#define GLX_BAD_CONTEXT      5
#define GLX_DOUBLEBUFFER      5
#define GLX_BAD_VALUE      6
#define GLX_GLXEXT_VERSION      6
#define GLX_STEREO          6
#define GLX_AUX_BUFFERS      7
#define GLX_BAD_ENUM          7
#define GLX_RED_SIZE          8
#define GLX_GREEN_SIZE          9

typedef struct __GLXcontextRec *GLXContext;
typedef struct __GLXFBConfigRec *GLXFBConfig;
typedef XID GLXDrawable;

```

```

typedef union __GLXEvent {
    GLXPbufferClobberEvent glxpbufferclobber;
    long int pad;
} GLXEvent;
typedef XID GLXContextID;
typedef XID GLXPixmap;
typedef struct {
    int event_type;
    int draw_type;
    unsigned long int serial;
    int send_event;
    Display *display;
    GLXDrawable drawable;
    unsigned int buffer_mask;
    unsigned int aux_buffer;
    int x;
    int y;
    int width;
    int height;
    int count;
} GLXPbufferClobberEvent;
typedef XID GLXPbuffer;
typedef XID GLXWindow;
typedef XID GLXFBConfigID;
typedef void (*__GLXextFuncPtr) (void);
extern GLXFBConfig *glXChooseFBConfig(Display * dpy, int screen,
                                     const int *attribList, int *nitems);
extern XVisualInfo *glXChooseVisual(Display * dpy, int screen,
                                    int *attribList);
extern void glXCopyContext(Display * dpy, struct __GLXcontextRec *src,
                           struct __GLXcontextRec *dst,
                           long unsigned int mask);
extern GLXContext glXCreateContext(Display * dpy, XVisualInfo * vis,
                                   struct __GLXcontextRec *shareList,
                                   int direct);
extern GLXPixmap glXCreateGLXPixmap(Display * dpy, XVisualInfo * vis,
                                    Pixmap pixmap);
extern GLXContext glXCreateNewContext(Display * dpy,
                                      struct __GLXFBConfigRec *config,
                                      int renderType,
                                      struct __GLXcontextRec *shareList,
                                      int direct);
extern GLXPbuffer glXCreatePbuffer(Display * dpy,
                                    struct __GLXFBConfigRec *config,
                                    const int *attribList);
extern GLXPixmap glXCreatePixmap(Display * dpy,
                                 struct __GLXFBConfigRec *config,
                                 Pixmap pixmap, const int *attribList);
extern GLXWindow glXCreateWindow(Display * dpy,
                                 struct __GLXFBConfigRec *config,
                                 Window win, const int *attribList);
extern void glXDestroyContext(Display * dpy, struct __GLXcontextRec *ctx);
extern void glXDestroyGLXPixmap(Display * dpy, GLXPixmap pix);
extern void glXDestroyPbuffer(Display * dpy, GLXPbuffer pbuf);
extern void glXDestroyPixmap(Display * dpy, GLXPixmap pixmap);
extern void glXDestroyWindow(Display * dpy, GLXWindow window);
extern const char *glXGetClientString(Display * dpy, int name);
extern int glXGetConfig(Display * dpy, XVisualInfo * vis, int attrib,
                       int *value);
extern GLXContext glXGetCurrentContext(void);
extern Display *glXGetCurrentDisplay(void);
extern GLXDrawable glXGetCurrentDrawable(void);

```



```

extern GLXDrawable glXGetCurrentReadDrawable(void);
extern int glXGetFBConfigAttrib(Display * dpy, GLXFBConfig config,
                                int attribute, int *value);
extern GLXFBConfig *glXGetFBConfigs(Display * dpy, int screen,
                                     int *nelements);
extern void glXGetSelectedEvent(Display * dpy, GLXDrawable drawable,
                                unsigned long int *mask);
extern XVisualInfo *glXGetVisualFromFBConfig(Display * dpy,
                                             GLXFBConfig config);
extern int glXIsDirect(Display * dpy, struct __GLXcontextRec *ctx);
extern int glXMakeContextCurrent(Display * dpy, GLXDrawable draw,
                                 GLXDrawable read, GLXContext ctx);
extern int glXMakeCurrent(Display * dpy, GLXDrawable drawable,
                           struct __GLXcontextRec *ctx);
extern int glXQueryContext(Display * dpy, GLXContext ctx, int attribute,
                            int *value);
extern void glXQueryDrawable(Display * dpy, GLXDrawable draw,
                              int attribute, unsigned int *value);
extern int glXQueryExtension(Display * dpy, int *errorBase,
                              int *eventBase);
extern const char *glXQueryExtensionsString(Display * dpy, int screen);
extern const char *glXQueryServerString(Display * dpy, int screen,
                                         int name);
extern int glXQueryVersion(Display * dpy, int *major, int *minor);
extern void glXSelectEvent(Display * dpy, GLXDrawable drawable,
                            long unsigned int mask);
extern void glXSwapBuffers(Display * dpy, GLXDrawable drawable);
extern void glXUseXFont(Font font, int first, int count, int listBase);
extern void glXWaitGL(void);
extern void glXWaitX(void);

```

7.2.4. GL/glxext.h

```

#define GLX_VISUAL_CAVEAT_EXT      0x20
#define GLX_X_VISUAL_TYPE_EXT      0x22
#define GLX_TRANSPARENT_TYPE_EXT   0x23
#define GLX_TRANSPARENT_INDEX_VALUE_EXT 0x24
#define GLX_TRANSPARENT_RED_VALUE_EXT 0x25
#define GLX_TRANSPARENT_GREEN_VALUE_EXT 0x26
#define GLX_TRANSPARENT_BLUE_VALUE_EXT 0x27
#define GLX_TRANSPARENT_ALPHA_VALUE_EXT 0x28
#define GLX_NONE_EXT               0x8000
#define GLX_SLOW_VISUAL_EXT         0x8001
#define GLX_TRUE_COLOR_EXT          0x8002
#define GLX_DIRECT_COLOR_EXT        0x8003
#define GLX_PSEUDO_COLOR_EXT        0x8004
#define GLX_STATIC_COLOR_EXT        0x8005
#define GLX_GRAY_SCALE_EXT          0x8006
#define GLX_STATIC_GRAY_EXT         0x8007
#define GLX_TRANSPARENT_RGB_EXT     0x8008
#define GLX_TRANSPARENT_INDEX_EXT   0x8009
#define GLX_SHARE_CONTEXT_EXT       0x800A
#define GLX_VISUAL_ID_EXT           0x800B
#define GLX_SCREEN_EXT              0x800C
#define GLX_NON_CONFORMANT_VISUAL_EXT 0x800D
#define GLX_SAMPLE_BUFFERS_3DFX    0x8050
#define GLX_SAMPLES_3DFX           0x8051
#define GLX_ARB_multisample         1
#define GLX_EXT_import_context      1
#define GLX_EXT_visual_info         1
#define GLX_EXT_visual_rating       1

```

```
#define GLX_SUN_get_transparent_index 1
#define GLX_SAMPLE_BUFFERS_ARB 100000
#define GLX_SAMPLES_ARB 100001

extern void glXFreeContextEXT(Display *, GLXContext);
extern GLXContextID glXGetContextIDEXT(GLXContext);
extern __GLXextFuncPtr glXGetProcAddressARB(const GLubyte * procName);
extern GLXContext glXImportContextEXT(Display *, GLXContextID);
extern int glXQueryContextInfoEXT(Display *, GLXContext, int, int *);
```

7.3. Interfaces for libGLU

[Table 7-4](#) defines the library name and shared object name for the libGLU library

Table 7-4. libGLU Definition

Library:	libGLU
SONAME:	libGLU.so.1

The behavior of the interfaces in this library is specified by the following specifications:

[GLU] [OpenGL Utilities](#)

7.3.1. GL Utilities

7.3.1.1. Interfaces for GL Utilities

An LSB conforming implementation shall provide the generic functions for GL Utilities specified in [Table 7-5](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 7-5. libGLU - GL Utilities Function Interfaces

gluBeginCurve [GLU]	gluBeginPolygon [GLU]	gluBeginSurface [GLU]	gluBeginTrim [GLU]
gluBuild1DMipmapLevels [GLU]	gluBuild1DMipmaps [GLU]	gluBuild2DMipmapLevels [GLU]	gluBuild2DMipmaps [GLU]
gluBuild3DMipmapLevels [GLU]	gluBuild3DMipmaps [GLU]	gluCheckExtension [GLU]	gluCylinder [GLU]
gluDeleteNurbsRenderer [GLU]	gluDeleteQuadric [GLU]	gluDeleteTess [GLU]	gluDisk [GLU]
gluEndCurve [GLU]	gluEndPolygon [GLU]	gluEndSurface [GLU]	gluEndTrim [GLU]
gluErrorString [GLU]	gluGetNurbsProperty [GLU]	gluGetString [GLU]	gluGetTessProperty [GLU]
gluLoadSamplingMatrices [GLU]	gluLookAt [GLU]	gluNewNurbsRenderer [GLU]	gluNewQuadric [GLU]

<code>gluNewTess</code> [GLU]	<code>gluNextContour</code> [GLU]	<code>gluNurbsCallback</code> [GLU]	<code>gluNurbsCallbackData</code> [GLU]
<code>gluNurbsCallbackDataEXT</code> [GLU]	<code>gluNurbsCurve</code> [GLU]	<code>gluNurbsProperty</code> [GLU]	<code>gluNurbsSurface</code> [GLU]
<code>gluOrtho2D</code> [GLU]	<code>gluPartialDisk</code> [GLU]	<code>gluPerspective</code> [GLU]	<code>gluPickMatrix</code> [GLU]
<code>gluProject</code> [GLU]	<code>gluPwlCurve</code> [GLU]	<code>gluQuadricCallback</code> [GLU]	<code>gluQuadricDrawStyle</code> [GLU]
<code>gluQuadricNormals</code> [GLU]	<code>gluQuadricOrientation</code> [GLU]	<code>gluQuadricTexture</code> [GLU]	<code>gluScaleImage</code> [GLU]
<code>gluSphere</code> [GLU]	<code>gluTessBeginContour</code> [GLU]	<code>gluTessBeginPolygon</code> [GLU]	<code>gluTessCallback</code> [GLU]
<code>gluTessEndContour</code> [GLU]	<code>gluTessEndPolygon</code> [GLU]	<code>gluTessNormal</code> [GLU]	<code>gluTessProperty</code> [GLU]
<code>gluTessVertex</code> [GLU]	<code>gluUnProject</code> [GLU]	<code>gluUnProject4</code> [GLU]	

7.4. Data Definitions for libGLU

This section defines global identifiers and their values that are associated with interfaces contained in libGLU. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

7.4.1. GL/glu.h

```
#define GLU_FALSE          0
#define GLU_EXT_nurbs_tessellator    1
#define GLU_EXT_object_space_tess    1
#define GLU_TRUE           1
#define GLU_VERSION_1_1    1
#define GLU_VERSION_1_2    1
#define GLU_VERSION_1_3    1
#define GLU_TESS_MAX_COORD    1.0e150
#define GLU_SMOOTH            100000
#define GLU_FLAT              100001
#define GLU_NONE              100002
#define GLU_POINT             100010
#define GLU_LINE              100011
#define GLU_FILL              100012
#define GLU_SILHOUETTE       100013
```

```

#define GLU_OUTSIDE      100020
#define GLU_INSIDE       100021
#define GLU_BEGIN        100100
#define GLU_TESS_BEGIN   100100
#define GLU_TESS_VERTEX  100101
#define GLU_VERTEX       100101
#define GLU_END          100102
#define GLU_TESS_END     100102
#define GLU_ERROR        100103
#define GLU_NURBS_ERROR  100103
#define GLU_TESS_ERROR   100103
#define GLU_EDGE_FLAG    100104
#define GLU_TESS_EDGE_FLAG 100104
#define GLU_TESS_COMBINE 100105
#define GLU_TESS_BEGIN_DATA 100106
#define GLU_TESS_VERTEX_DATA 100107
#define GLU_TESS_END_DATA 100108
#define GLU_TESS_ERROR_DATA 100109
#define GLU_TESS_EDGE_FLAG_DATA 100110
#define GLU_TESS_COMBINE_DATA 100111
#define GLU_CW           100120
#define GLU_CCW          100121
#define GLU_INTERIOR     100122
#define GLU_EXTERIOR     100123
#define GLU_UNKNOWN      100124
#define GLU_TESS_WINDING_ODD 100130
#define GLU_TESS_WINDING_NONZERO 100131
#define GLU_TESS_WINDING_POSITIVE 100132
#define GLU_TESS_WINDING_NEGATIVE 100133
#define GLU_TESS_WINDING_ABS_GEQ_TWO 100134
#define GLU_TESS_WINDING_RULE 100140
#define GLU_TESS_BOUNDARY_ONLY 100141
#define GLU_TESS_TOLERANCE 100142
#define GLU_TESS_ERROR1 100151
#define GLU_TESS_MISSING_BEGIN_POLYGON 100151
#define GLU_TESS_ERROR2 100152
#define GLU_TESS_MISSING_BEGIN_CONTOUR 100152
#define GLU_TESS_ERROR3 100153
#define GLU_TESS_MISSING_END_POLYGON 100153
#define GLU_TESS_ERROR4 100154
#define GLU_TESS_MISSING_END_CONTOUR 100154
#define GLU_TESS_COORD_TOO_LARGE 100155
#define GLU_TESS_ERROR5 100155
#define GLU_TESS_ERROR6 100156
#define GLU_TESS_NEED_COMBINE_CALLBACK 100156
#define GLU_TESS_ERROR7 100157
#define GLU_TESS_ERROR8 100158
#define GLU_NURBS_MODE   100160
#define GLU_NURBS_MODE_EXT 100160
#define GLU_NURBS_TESSELLATOR 100161
#define GLU_NURBS_TESSELLATOR_EXT 100161
#define GLU_NURBS_RENDERER 100162
#define GLU_NURBS_RENDERER_EXT 100162
#define GLU_NURBS_BEGIN 100164
#define GLU_NURBS_BEGIN_EXT 100164
#define GLU_NURBS_VERTEX 100165
#define GLU_NURBS_VERTEX_EXT 100165
#define GLU_NURBS_NORMAL 100166
#define GLU_NURBS_NORMAL_EXT 100166
#define GLU_NURBS_COLOR 100167
#define GLU_NURBS_COLOR_EXT 100167
#define GLU_NURBS_TEXTURE_COORD 100168

```

```

#define GLU_NURBS_TEX_COORD_EXT 100168
#define GLU_NURBS_END 100169
#define GLU_NURBS_END_EXT 100169
#define GLU_NURBS_BEGIN_DATA 100170
#define GLU_NURBS_BEGIN_DATA_EXT 100170
#define GLU_NURBS_VERTEX_DATA 100171
#define GLU_NURBS_VERTEX_DATA_EXT 100171
#define GLU_NURBS_NORMAL_DATA 100172
#define GLU_NURBS_NORMAL_DATA_EXT 100172
#define GLU_NURBS_COLOR_DATA 100173
#define GLU_NURBS_COLOR_DATA_EXT 100173
#define GLU_NURBS_TEXTURE_COORD_DATA 100174
#define GLU_NURBS_TEX_COORD_DATA_EXT 100174
#define GLU_NURBS_END_DATA 100175
#define GLU_NURBS_END_DATA_EXT 100175
#define GLU_AUTO_LOAD_MATRIX 100200
#define GLU_CULLING 100201
#define GLU_PARAMETRIC_TOLERANCE 100202
#define GLU_SAMPLING_TOLERANCE 100203
#define GLU_DISPLAY_MODE 100204
#define GLU_SAMPLING_METHOD 100205
#define GLU_U_STEP 100206
#define GLU_V_STEP 100207
#define GLU_OBJECT_PARAMETRIC_ERROR 100208
#define GLU_OBJECT_PARAMETRIC_ERROR_EXT 100208
#define GLU_OBJECT_PATH_LENGTH 100209
#define GLU_OBJECT_PATH_LENGTH_EXT 100209
#define GLU_MAP1_TRIM_2 100210
#define GLU_MAP1_TRIM_3 100211
#define GLU_PATH_LENGTH 100215
#define GLU_PARAMETRIC_ERROR 100216
#define GLU_DOMAIN_DISTANCE 100217
#define GLU_OUTLINE_POLYGON 100240
#define GLU_OUTLINE_PATCH 100241
#define GLU_NURBS_ERROR1 100251
#define GLU_NURBS_ERROR2 100252
#define GLU_NURBS_ERROR3 100253
#define GLU_NURBS_ERROR4 100254
#define GLU_NURBS_ERROR5 100255
#define GLU_NURBS_ERROR6 100256
#define GLU_NURBS_ERROR7 100257
#define GLU_NURBS_ERROR8 100258
#define GLU_NURBS_ERROR9 100259
#define GLU_NURBS_ERROR10 100260
#define GLU_NURBS_ERROR11 100261
#define GLU_NURBS_ERROR12 100262
#define GLU_NURBS_ERROR13 100263
#define GLU_NURBS_ERROR14 100264
#define GLU_NURBS_ERROR15 100265
#define GLU_NURBS_ERROR16 100266
#define GLU_NURBS_ERROR17 100267
#define GLU_NURBS_ERROR18 100268
#define GLU_NURBS_ERROR19 100269
#define GLU_NURBS_ERROR20 100270
#define GLU_NURBS_ERROR21 100271
#define GLU_NURBS_ERROR22 100272
#define GLU_NURBS_ERROR23 100273
#define GLU_NURBS_ERROR24 100274
#define GLU_NURBS_ERROR25 100275
#define GLU_NURBS_ERROR26 100276
#define GLU_NURBS_ERROR27 100277
#define GLU_NURBS_ERROR28 100278

```

```

#define GLU_NURBS_ERROR29      100279
#define GLU_NURBS_ERROR30      100280
#define GLU_NURBS_ERROR31      100281
#define GLU_NURBS_ERROR32      100282
#define GLU_NURBS_ERROR33      100283
#define GLU_NURBS_ERROR34      100284
#define GLU_NURBS_ERROR35      100285
#define GLU_NURBS_ERROR36      100286
#define GLU_NURBS_ERROR37      100287
#define GLU_VERSION            100800
#define GLU_EXTENSIONS         100801
#define GLU_INVALID_ENUM       100900
#define GLU_INVALID_VALUE      100901
#define GLU_OUT_OF_MEMORY      100902
#define GLU_INCOMPATIBLE_GL_VERSION 100903
#define GLU_INVALID_OPERATION   100904

typedef void *_GLUfuncptr;
typedef struct GLUtesselator GLUtesselatorObj;
typedef struct GLUtesselator GLUtriangulatorObj;
typedef struct GLUquadric GLUquadricObj;
typedef struct GLUnurbs GLUnurbsObj;
typedef struct GLUnurbs GLUnurbs;
typedef struct GLUquadric GLUquadric;
typedef struct GLUtesselator GLUtesselator;
extern void gluBeginCurve(GLUnurbs * nurb);
extern void gluBeginPolygon(GLUtesselator * tess);
extern void gluBeginSurface(GLUnurbs * nurb);
extern void gluBeginTrim(GLUnurbs * nurb);
extern GLint gluBuild1DMipmapLevels(GLenum target, GLint internalFormat,
                                   GLsizei width, GLenum format,
                                   GLenum type, GLint level, GLint base,
                                   GLint max, const void *data);
extern GLint gluBuild1DMipmaps(GLenum target, GLint internalFormat,
                               GLsizei width, GLenum format, GLenum type,
                               const void *data);
extern GLint gluBuild2DMipmapLevels(GLenum target, GLint internalFormat,
                                   GLsizei width, GLsizei height,
                                   GLenum format, GLenum type,
                                   GLint level, GLint base, GLint max,
                                   const void *data);
extern GLint gluBuild2DMipmaps(GLenum target, GLint internalFormat,
                               GLsizei width, GLsizei height,
                               GLenum format, GLenum type,
                               const void *data);
extern GLint gluBuild3DMipmapLevels(GLenum target, GLint internalFormat,
                                   GLsizei width, GLsizei height,
                                   GLsizei depth, GLenum format,
                                   GLenum type, GLint level, GLint base,
                                   GLint max, const void *data);
extern GLint gluBuild3DMipmaps(GLenum target, GLint internalFormat,
                               GLsizei width, GLsizei height,
                               GLsizei depth, GLenum format, GLenum type,
                               const void *data);
extern GLboolean gluCheckExtension(const GLubyte * extName,
                                   const GLubyte * extString);
extern void gluCylinder(GLUquadric * quad, GLdouble base, GLdouble top,
                       GLdouble height, GLint slices, GLint stacks);
extern void gluDeleteNurbsRenderer(GLUnurbs * nurb);
extern void gluDeleteQuadric(GLUquadric * quad);
extern void gluDeleteTess(GLUtesselator * tess);
extern void gluDisk(GLUquadric * quad, GLdouble inner, GLdouble outer,

```

```

        GLint slices, GLint loops);
extern void gluEndCurve(GLUnurbs * nurb);
extern void gluEndPolygon(GLUtesselator * tess);
extern void gluEndSurface(GLUnurbs * nurb);
extern void gluEndTrim(GLUnurbs * nurb);
extern const GLubyte *gluErrorString(GLenum error);
extern void gluGetNurbsProperty(GLUnurbs * nurb, GLenum property,
                                GLfloat * data);
extern const GLubyte *gluGetString(GLenum name);
extern void gluGetTessProperty(GLUtesselator * tess, GLenum which,
                                GLdouble * data);
extern void gluLoadSamplingMatrices(GLUnurbs * nurb, const GLfloat * model,
                                    const GLfloat * perspective,
                                    const GLint * view);
extern void gluLookAt(GLdouble eyeX, GLdouble eyeY, GLdouble eyeZ,
                     GLdouble centerX, GLdouble centerY, GLdouble centerZ,
                     GLdouble upX, GLdouble upY, GLdouble upZ);
extern GLUnurbs *gluNewNurbsRenderer(void);
extern GLUquadric *gluNewQuadric(void);
extern GLUtesselator *gluNewTess(void);
extern void gluNextContour(GLUtesselator * tess, GLenum type);
extern void gluNurbsCallback(GLUnurbs * nurb, GLenum which,
                             _GLUfuncptr CallBackFunc);
extern void gluNurbsCallbackData(GLUnurbs * nurb, GLvoid * userData);
extern void gluNurbsCallbackDataEXT(GLUnurbs * nurb, GLvoid * userData);
extern void gluNurbsCurve(GLUnurbs * nurb, GLint knotCount,
                          GLfloat * knots, GLint stride, GLfloat * control,
                          GLint order, GLenum type);
extern void gluNurbsProperty(GLUnurbs * nurb, GLenum property,
                              GLfloat value);
extern void gluNurbsSurface(GLUnurbs * nurb, GLint sKnotCount,
                            GLfloat * sKnots, GLint tKnotCount,
                            GLfloat * tKnots, GLint sStride, GLint tStride,
                            GLfloat * control, GLint sOrder, GLint tOrder,
                            GLenum type);
extern void gluOrtho2D(GLdouble left, GLdouble right, GLdouble bottom,
                      GLdouble top);
extern void gluPartialDisk(GLUquadric * quad, GLdouble inner,
                          GLdouble outer, GLint slices, GLint loops,
                          GLdouble start, GLdouble sweep);
extern void gluPerspective(GLdouble fovy, GLdouble aspect, GLdouble zNear,
                          GLdouble zFar);
extern void gluPickMatrix(GLdouble x, GLdouble y, GLdouble delX,
                          GLdouble delY, GLint * viewport);
extern GLint gluProject(GLdouble objX, GLdouble objY, GLdouble objZ,
                       const GLdouble * model, const GLdouble * proj,
                       const GLint * view, GLdouble * winX,
                       GLdouble * winY, GLdouble * winZ);
extern void gluPwlCurve(GLUnurbs * nurb, GLint count, GLfloat * data,
                       GLint stride, GLenum type);
extern void gluQuadricCallback(GLUquadric * quad, GLenum which,
                              _GLUfuncptr CallBackFunc);
extern void gluQuadricDrawStyle(GLUquadric * quad, GLenum draw);
extern void gluQuadricNormals(GLUquadric * quad, GLenum normal);
extern void gluQuadricOrientation(GLUquadric * quad, GLenum orientation);
extern void gluQuadricTexture(GLUquadric * quad, GLboolean texture);
extern GLint gluScaleImage(GLenum format, GLsizei wIn, GLsizei hIn,
                          GLenum typeIn, const void *dataIn, GLsizei wOut,
                          GLsizei hOut, GLenum typeOut, GLvoid * dataOut);
extern void gluSphere(GLUquadric * quad, GLdouble radius, GLint slices,
                     GLint stacks);
extern void gluTessBeginContour(GLUtesselator * tess);

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```
extern void gluTessBeginPolygon(GLUtesselator * tess, GLvoid * data);
extern void gluTessCallback(GLUtesselator * tess, GLenum which,
                           _GLUfuncptr CallBackFunc);
extern void gluTessEndContour(GLUtesselator * tess);
extern void gluTessEndPolygon(GLUtesselator * tess);
extern void gluTessNormal(GLUtesselator * tess, GLdouble valueX,
                         GLdouble valueY, GLdouble valueZ);
extern void gluTessProperty(GLUtesselator * tess, GLenum which,
                           GLdouble data);
extern void gluTessVertex(GLUtesselator * tess, GLdouble * location,
                          GLvoid * data);
extern GLint gluUnProject(GLdouble winX, GLdouble winY, GLdouble winZ,
                         const GLdouble * model, const GLdouble * proj,
                         const GLint * view, GLdouble * objX,
                         GLdouble * objY, GLdouble * objZ);
extern GLint gluUnProject4(GLdouble winX, GLdouble winY, GLdouble winZ,
                          GLdouble clipW, const GLdouble * model,
                          const GLdouble * proj, const GLint * view,
                          GLdouble nearVal, GLdouble farVal,
                          GLdouble * objX, GLdouble * objY,
                          GLdouble * objZ, GLdouble * objW);
```


IV. PNG12 library

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8.3. Interface Definitions for libpng12

png_access_version_number -- return version of the run-time library

png_check_sig -- INSERT PURPOSE HERE

png_convert_from_struct_tm -- convert struct tm to png_time

png_convert_from_time_t -- convert time_t to png_time

png_create_info_struct -- allocate and initialize a png_info structure

png_create_read_struct -- allocate and initialize a png_struct structure for reading PNG file

png_create_read_struct_2 -- register custom read function

png_create_write_struct -- allocate and initialize a png_struct structure for writing PNG file

png_create_write_struct_2 -- register custom write function

png_data_freer -- change the default behavior for freeing data

png_destroy_info_struct -- free memory in PNG info structure

png_destroy_read_struct -- free the memory associated with read png_struct

png_destroy_write_struct -- free the memory associated with write png_struct

png_error -- default function to handle fatal errors

png_free -- free a pointer allocated by png_malloc()

png_free_data -- free internally allocated data

png_get_IHDR -- get PNG_IHDR chunk information from png_info structure

png_get_PLTE -- get image palette information from png_info structure

png_get_bKGD -- get background color for given image

png_get_bit_depth -- return image bit_depth

png_get_cHRM -- get CIE chromacities and referenced white point for given image

png_get_channels -- get number of color channels in image

png_get_color_type -- return image color type

png_get_error_ptr -- return error_ptr for user-defined functions

png_get_gAMA -- get the gamma value for given image

png_get_hIST -- get the histogram for given image

png_get_header_ver -- get version information for libpng header files

png_get_iCCP -- get the embedded ICC profile data for given image

png_get_image_height -- return image height

png_get_image_width -- return image width

png_get_interlace_type -- returns interlace method

png_get_io_ptr -- return pointer for user-defined I/O

png_get_libpng_ver -- get the library version string

png_get_oFFs -- get screen offsets for the given image

png_get_pHYs -- get the physical resolution for given image

png_get_progressive_ptr -- return pointer to user-defined push read functions

png_get_rowbytes -- Return number of bytes for a row

png_get_rows -- retrieve image data from png_info structure

png_get_sBIT -- get number of significant bits for each color channel

png_get_sRGB -- get the rendering intent for given image

png_get_tIME -- get last modification time for the image

png_get_tRNS -- get transparency data for images
png_get_text -- get comments information from png_info structure
png_get_unknown_chunks -- retrieve the unknown chunks from a PNG file
png_get_user_chunk_ptr -- get pointer to user chunk data
png_get_valid -- determine if given chunk data is valid
png_get_x_offset_pixels -- return x offset in pixels from oFFs chunk
png_get_x_pixels_per_meter -- return horizontal pixel density per meter
png_get_y_offset_pixels -- return y offset in pixels from oFFs chunk
png_get_y_pixels_per_meter -- return vertical pixel density per meter
png_info_init_3 -- initialize an info structure (DEPRECATED)
png_init_io -- initialize input/output for the PNG file
png_libpng_ver -- external variable holding version number of libpng
png_malloc -- allocate memory
png_permit_mng_features -- enable MNG extensions for PNG image wrapped in MNG datastream
png_process_data -- read PNG file progressively
png_progressive_combine_row -- combines current row data with processed row
png_read_end -- read the end of PNG file
png_read_image -- read the entire image into memory
png_read_info -- read the PNG image information
png_read_png -- read the entire PNG file
png_read_row -- read a row of image data
png_read_rows -- read multiple rows of image data
png_read_update_info -- update png_info structure
png_set_IHDR -- set the PNG_IHDR chunk information
png_set_PLTE -- set color values for the palette
png_set_bKGD -- set the background color for given image
png_set_background -- set the background for given image
png_set_bgr -- set pixel order to blue, green, red
png_set_chRM -- set CIE chromacities and referenced white point for given image
png_set_compression_buffer_size -- set the size of the compression buffer
png_set_compression_level -- set image compression level
png_set_compression_mem_level -- set how much memory to use for the internal state during PNG compression
png_set_compression_method -- set PNG compression algorithm
png_set_compression_strategy -- set PNG compression strategy
png_set_compression_window_bits -- set PNG compression window size
png_set_dither -- turn on dithering to 8-bit
png_set_error_fn -- set user defined functions for error handling
png_set_expand -- set expansion transformation
png_set_filler -- add a filler byte to given image
png_set_filter -- set filtering method
png_set_gAMA -- set the gamma value for given image
png_set_gamma -- transform the image from file gamma to screen gamma
png_set_gray_1_2_4_to_8 -- set expansion transformation
png_set_gray_to_rgb -- expand the grayscale image to 24-bit RGB
png_set_hIST -- set the histogram of color palette
png_set_iCCP -- set ICC component
png_set_interlace_handling -- get the number of passes for image interlacing
png_set_invert_alpha -- invert the level of opacity of a PNG file
png_set_invert_mono -- reverse values for monochromaticity

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png_set_keep_unknown_chunks -- specify list of chunks and how to handle them
png_set_mem_fn -- install custom memory allocation functions
png_set_oFFs -- set screen offsets for given image
png_set_pHYs -- set physical resolution
png_set_packing -- expand image to 1 pixel per byte for bit-depths 1,2 and 4
png_set_packswap -- swap the order of pixels for packed-pixel image
png_set_palette_to_rgb -- set expansion transformation
png_set_progressive_read_fn -- set progressive read callback functions
png_set_read_fn -- set user-defined function for reading a PNG stream
png_set_read_user_chunk_fn -- install custom callback function to handle unknown chunks in the input stream
png_set_read_user_transform_fn -- install a custom input transformation callback function
png_set_rgb_to_gray -- reduce 24-bit RGB to grayscale image
png_set_rows -- put image data in png_info structure
png_set_sBIT -- set number of significant bits for each channel
png_set_sRGB -- set the rendering intent for given image
png_set_sRGB_gAMA_and_cHRM -- set rendering intent, gamma values, and CIE chromaticities of a PNG file
png_set_shift -- shift pixel values to valid bit-depth
png_set_sig_bytes -- number of bytes read from PNG file
png_set_strip_16 -- strip 16 bit PNG file to 8 bit depth
png_set_strip_alpha -- remove alpha channel on the given image
png_set_swap -- swap byte-order for 16 bit depth files
png_set_swap_alpha -- swap image data from RGBA to ARGB format
png_set_tIME -- set last modification time for the image
png_set_tRNS -- set transparency values for images
png_set_tRNS_to_alpha -- set expansion transformation
png_set_text -- stores information for image comments
png_set_unknown_chunk_location -- set the location of an unknown chunk in a PNG file
png_set_unknown_chunks -- insert unknown chunks into a PNG file
png_set_write_fn -- set user-defined function for writing a PNG stream
png_set_write_status_fn -- install custom callback function to be called after row is written
png_set_write_user_transform_fn -- install a custom output transformation callback function
png_sig_cmp -- match the PNG signature
png_start_read_image -- start reading a PNG file
png_warning -- default function to handle non-fatal errors
png_write_chunk -- write a PNG chunk
png_write_end -- write the end of a PNG file
png_write_flush -- flush the current output buffers
png_write_image -- write the given image data
png_write_info -- write PNG information to file
png_write_png -- write the entire PNG file
png_write_row -- write a row of image data
png_write_rows -- write multiple rows of image data

Chapter 8. Libraries

8.1. Interfaces for libpng12

Table 8-1 defines the library name and shared object name for the libpng12 library

Table 8-1. libpng12 Definition

Library:	libpng12
SONAME:	libpng12.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[LSB] [This Specification](#)

8.1.1. PNG Reference library

8.1.1.1. Interfaces for PNG Reference library

An LSB conforming implementation shall provide the generic functions for PNG Reference library specified in Table 8-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 8-2. libpng12 - PNG Reference library Function Interfaces

png_access_version_number(PNG12_0) [LSB]	png_check_sig(PNG12_0) [LSB]	png_convert_from_str
png_convert_from_time_t(PNG12_0) [LSB]	png_create_info_struct(PNG12_0) [LSB]	png_create_read_struct
png_create_read_struct_2(PNG12_0) [LSB]	png_create_write_struct(PNG12_0) [LSB]	png_create_write_stru
png_data_freer(PNG12_0) [LSB]	png_destroy_info_struct(PNG12_0) [LSB]	png_destroy_read_stru
png_destroy_write_struct(PNG12_0) [LSB]	png_error(PNG12_0) [LSB]	png_free(PNG12_0) [
png_free_data(PNG12_0) [LSB]	png_get_IHDR(PNG12_0) [LSB]	png_get_PLTE(PNG1
png_get_bKGD(PNG12_0) [LSB]	png_get_bit_depth(PNG12_0) [LSB]	png_get_cHRM(PNG
png_get_channels(PNG12_0) [LSB]	png_get_color_type(PNG12_0) [LSB]	png_get_error_ptr(PN
png_get_gAMA(PNG12_0) [LSB]	png_get_hIST(PNG12_0) [LSB]	png_get_header_ver(P
png_get_iCCP(PNG12_0) [LSB]	png_get_image_height(PNG12_0) [LSB]	png_get_image_width
png_get_interlace_type(PNG12_0) [LSB]	png_get_io_ptr(PNG12_0) [LSB]	png_get_libpng_ver(P
png_get_oFFs(PNG12_0) [LSB]	png_get_pHYs(PNG12_0) [LSB]	png_get_progressive_
png_get_rowbytes(PNG12_0) [LSB]	png_get_rows(PNG12_0) [LSB]	png_get_sBIT(PNG12
png_get_sRGB(PNG12_0) [LSB]	png_get_tIME(PNG12_0) [LSB]	png_get_tRNS(PNG1

png_get_text(PNG12_0) [LSB]	png_get_unknown_chunks(PNG12_0) [LSB]	png_get_user_chunk_
png_get_valid(PNG12_0) [LSB]	png_get_x_offset_pixels(PNG12_0) [LSB]	png_get_x_pixels_per
png_get_y_offset_pixels(PNG12_0) [LSB]	png_get_y_pixels_per_meter(PNG12_0) [LSB]	png_info_init_3(PNG
png_init_io(PNG12_0) [LSB]	png_malloc(PNG12_0) [LSB]	png_permit_mng_feat
png_process_data(PNG12_0) [LSB]	png_progressive_combine_row(PNG12_0) [LSB]	png_read_end(PNG12
png_read_image(PNG12_0) [LSB]	png_read_info(PNG12_0) [LSB]	png_read_png(PNG12
png_read_row(PNG12_0) [LSB]	png_read_rows(PNG12_0) [LSB]	png_read_update_info
png_set_IHDR(PNG12_0) [LSB]	png_set_PLTE(PNG12_0) [LSB]	png_set_bKGD(PNG1
png_set_background(PNG12_0) [LSB]	png_set_bgr(PNG12_0) [LSB]	png_set_cHRM(PNG1
png_set_compression_buffer_size(PNG12_0) [LSB]	png_set_compression_level(PNG12_0) [LSB]	png_set_compression_
png_set_compression_method(PNG12_0) [LSB]	png_set_compression_strategy(PNG12_0) [LSB]	png_set_compression_
png_set_dither(PNG12_0) [LSB]	png_set_error_fn(PNG12_0) [LSB]	png_set_expand(PNG
png_set_filler(PNG12_0) [LSB]	png_set_filter(PNG12_0) [LSB]	png_set_gAMA(PNG
png_set_gamma(PNG12_0) [LSB]	png_set_gray_1_2_4_to_8(PNG12_0) [LSB]	png_set_gray_to_rgb(
png_set_hIST(PNG12_0) [LSB]	png_set_iCCP(PNG12_0) [LSB]	png_set_interlace_han
png_set_invert_alpha(PNG12_0) [LSB]	png_set_invert_mono(PNG12_0) [LSB]	png_set_keep_unknow
png_set_mem_fn(PNG12_0) [LSB]	png_set_oFFs(PNG12_0) [LSB]	png_set_pHYs(PNG12
png_set_packing(PNG12_0) [LSB]	png_set_packswap(PNG12_0) [LSB]	png_set_palette_to_rg
png_set_progressive_read_fn(PNG12_0) [LSB]	png_set_read_fn(PNG12_0) [LSB]	png_set_read_user_ch
png_set_read_user_transform_fn(PNG12_0) [LSB]	png_set_rgb_to_gray(PNG12_0) [LSB]	png_set_rows(PNG12
png_set_sBIT(PNG12_0) [LSB]	png_set_sRGB(PNG12_0) [LSB]	png_set_sRGB_gAMA
png_set_shift(PNG12_0) [LSB]	png_set_sig_bytes(PNG12_0) [LSB]	png_set_strip_16(PNC
png_set_strip_alpha(PNG12_0) [LSB]	png_set_swap(PNG12_0) [LSB]	png_set_swap_alpha(I
png_set_tIME(PNG12_0) [LSB]	png_set_tRNS(PNG12_0) [LSB]	png_set_tRNS_to_alp
png_set_text(PNG12_0) [LSB]	png_set_unknown_chunk_location(PNG12_0) [LSB]	png_set_unknown_chu
png_set_write_fn(PNG12_0) [LSB]	png_set_write_status_fn(PNG12_0) [LSB]	png_set_write_user_tr

png_sig_cmp(PNG12_0) [LSB]	png_start_read_image(PNG12_0) [LSB]	png_warning(PNG12_0) [LSB]
png_write_chunk(PNG12_0) [LSB]	png_write_end(PNG12_0) [LSB]	png_write_flush(PNG12_0) [LSB]
png_write_image(PNG12_0) [LSB]	png_write_info(PNG12_0) [LSB]	png_write_png(PNG12_0) [LSB]
png_write_row(PNG12_0) [LSB]	png_write_rows(PNG12_0) [LSB]	

An LSB conforming implementation shall provide the generic data interfaces for PNG Reference library specified in [Table 8-3](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 8-3. libpng12 - PNG Reference library Data Interfaces

png_libpng_ver(PNG12_0) [LSB]		

8.2. Data Definitions for libpng12

This section defines global identifiers and their values that are associated with interfaces contained in libpng12. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

8.2.1. png.h

```
#define FARDATA
#define PNGAPI
#define PNG_1_2_X
#define PNG_EASY_ACCESS_SUPPORTED
#define PNG_ERROR_NUMBERS_SUPPORTED
#define PNG_FIXED_POINT_SUPPORTED
#define PNG_FLOATING_POINT_SUPPORTED
#define PNG_FREE_ME_SUPPORTED
#define PNG_HANDLE_AS_UNKNOWN_SUPPORTED
#define PNG_IMEXP
#define PNG_INFO_IMAGE_SUPPORTED
#define PNG_MMX_CODE_SUPPORTED
#define PNG_MNG_FEATURES_SUPPORTED
#define PNG_NO_READ_iTXt
#define PNG_NO_WRITE_iTXt
#define PNG_PROGRESSIVE_READ_SUPPORTED
#define PNG_READ_16_TO_8_SUPPORTED
#define PNG_READ_ANCILLARY_CHUNKS_SUPPORTED
#define PNG_READ_BACKGROUND_SUPPORTED
```

```

#define PNG_READ_BGR_SUPPORTED
#define PNG_READ_COMPOSITE_NODIV_SUPPORTED
#define PNG_READ_DITHER_SUPPORTED
#define PNG_READ_EMPTY_PLTE_SUPPORTED
#define PNG_READ_EXPAND_SUPPORTED
#define PNG_READ_FILLER_SUPPORTED
#define PNG_READ_GAMMA_SUPPORTED
#define PNG_READ_GRAY_TO_RGB_SUPPORTED
#define PNG_READ_INTERLACING_SUPPORTED
#define PNG_READ_INVERT_ALPHA_SUPPORTED
#define PNG_READ_INVERT_SUPPORTED
#define PNG_READ_OPT_PLTE_SUPPORTED
#define PNG_READ_PACKSWAP_SUPPORTED
#define PNG_READ_PACK_SUPPORTED
#define PNG_READ_RGB_TO_GRAY_SUPPORTED
#define PNG_READ_SHIFT_SUPPORTED
#define PNG_READ_STRIP_ALPHA_SUPPORTED
#define PNG_READ_SUPPORTED
#define PNG_READ_SWAP_ALPHA_SUPPORTED
#define PNG_READ_SWAP_SUPPORTED
#define PNG_READ_TEXT_SUPPORTED
#define PNG_READ_TRANSFORMS_SUPPORTED
#define PNG_READ_UNKNOWN_CHUNKS_SUPPORTED
#define PNG_READ_USER_CHUNKS_SUPPORTED
#define PNG_READ_USER_TRANSFORM_SUPPORTED
#define PNG_READ_bKGD_SUPPORTED
#define PNG_READ_cHRM_SUPPORTED
#define PNG_READ_gAMA_SUPPORTED
#define PNG_READ_hIST_SUPPORTED
#define PNG_READ_iCCP_SUPPORTED
#define PNG_READ_oFFs_SUPPORTED
#define PNG_READ_pCAL_SUPPORTED
#define PNG_READ_pHYs_SUPPORTED
#define PNG_READ_sBIT_SUPPORTED
#define PNG_READ_sCAL_SUPPORTED
#define PNG_READ_sPLT_SUPPORTED
#define PNG_READ_sRGB_SUPPORTED
#define PNG_READ_tEXt_SUPPORTED
#define PNG_READ_tIME_SUPPORTED
#define PNG_READ_tRNS_SUPPORTED
#define PNG_READ_zTXt_SUPPORTED
#define PNG_SETJMP_SUPPORTED
#define PNG_SET_USER_LIMITS_SUPPORTED
#define PNG_TEXT_SUPPORTED
#define PNG_TIME_RFC1123_SUPPORTED
#define PNG_UNKNOWN_CHUNKS_SUPPORTED
#define PNG_USER_CHUNKS_SUPPORTED
#define PNG_USER_MEM_SUPPORTED
#define PNG_USER_TRANSFORM_PTR_SUPPORTED
#define PNG_USE_GLOBAL_ARRAYS
#define PNG_WRITE_ANCILLARY_CHUNKS_SUPPORTED
#define PNG_WRITE_BGR_SUPPORTED
#define PNG_WRITE_EMPTY_PLTE_SUPPORTED
#define PNG_WRITE_FILLER_SUPPORTED
#define PNG_WRITE_FLUSH_SUPPORTED
#define PNG_WRITE_INTERLACING_SUPPORTED
#define PNG_WRITE_INVERT_ALPHA_SUPPORTED
#define PNG_WRITE_INVERT_SUPPORTED
#define PNG_WRITE_PACKSWAP_SUPPORTED
#define PNG_WRITE_PACK_SUPPORTED
#define PNG_WRITE_SHIFT_SUPPORTED
#define PNG_WRITE_SUPPORTED

```

```

#define PNG_WRITE_SWAP_ALPHA_SUPPORTED
#define PNG_WRITE_SWAP_SUPPORTED
#define PNG_WRITE_TEXT_SUPPORTED
#define PNG_WRITE_TRANSFORMS_SUPPORTED
#define PNG_WRITE_UNKNOWN_CHUNKS_SUPPORTED
#define PNG_WRITE_USER_TRANSFORM_SUPPORTED
#define PNG_WRITE_WEIGHTED_FILTER_SUPPORTED
#define PNG_WRITE_bKGD_SUPPORTED
#define PNG_WRITE_cHRM_SUPPORTED
#define PNG_WRITE_gAMA_SUPPORTED
#define PNG_WRITE_hIST_SUPPORTED
#define PNG_WRITE_iCCP_SUPPORTED
#define PNG_WRITE_oFFs_SUPPORTED
#define PNG_WRITE_pCAL_SUPPORTED
#define PNG_WRITE_pHYs_SUPPORTED
#define PNG_WRITE_sBIT_SUPPORTED
#define PNG_WRITE_sCAL_SUPPORTED
#define PNG_WRITE_sPLT_SUPPORTED
#define PNG_WRITE_sRGB_SUPPORTED
#define PNG_WRITE_tEXt_SUPPORTED
#define PNG_WRITE_tIME_SUPPORTED
#define PNG_WRITE_tRNS_SUPPORTED
#define PNG_WRITE_zTXt_SUPPORTED
#define PNG_bKGD_SUPPORTED
#define PNG_cHRM_SUPPORTED
#define PNG_gAMA_SUPPORTED
#define PNG_hIST_SUPPORTED
#define PNG_iCCP_SUPPORTED
#define PNG_oFFs_SUPPORTED
#define PNG_pCAL_SUPPORTED
#define PNG_pHYs_SUPPORTED
#define PNG_sBIT_SUPPORTED
#define PNG_sCAL_SUPPORTED
#define PNG_sPLT_SUPPORTED
#define PNG_sRGB_SUPPORTED
#define PNG_tEXt_SUPPORTED
#define PNG_tIME_SUPPORTED
#define PNG_tRNS_SUPPORTED
#define PNG_zTXt_SUPPORTED
#define PNG_HEADER_VERSION_STRING      " libpng version 1.2.8 - December 3, 2004 (header)\n"
#define PNG_MMX_READ_FLAGS      \
    ( PNG_ASM_FLAG_MMX_READ_COMBINE_ROW | PNG_ASM_FLAG_MMX_READ_INTERLACE \
    | PNG_ASM_FLAG_MMX_READ_FILTER_SUB | PNG_ASM_FLAG_MMX_READ_FILTER_UP | \
    PNG_ASM_FLAG_MMX_READ_FILTER_AVG | PNG_ASM_FLAG_MMX_READ_FILTER_PAETH \
    )
#define PNG_MMX_FLAGS      \
    ( PNG_ASM_FLAG_MMX_SUPPORT_COMPILED | PNG_ASM_FLAG_MMX_SUPPORT_IN_CPU \
    | PNG_MMX_READ_FLAGS | PNG_MMX_WRITE_FLAGS )
#define PNG_ALL_FILTERS      \
    (PNG_FILTER_NONE | PNG_FILTER_SUB | PNG_FILTER_UP | PNG_FILTER_AVG | \
    PNG_FILTER_PAETH)
#define png_info_init(info_ptr) \
    png_info_init_3(&info_ptr, png_sizeof(png_info));
#define png_composite(composite, fg, alpha, bg) \
    { png_uint_16 temp = (png_uint_16)((png_uint_16)(fg) * \
    (png_uint_16)(alpha) + (png_uint_16)(bg)*(png_uint_16)(255 - \
    (png_uint_16)(alpha)) + (png_uint_16)128); (composite) = \
    (png_byte)((temp + (temp >> 8)) >> 8); }
#define png_composite_16(composite, fg, alpha, bg) \
    { png_uint_32 temp = (png_uint_32)((png_uint_32)(fg) * \
    (png_uint_32)(alpha) + (png_uint_32)(bg)*(png_uint_32)(65535L - \
    (png_uint_32)(alpha)) + (png_uint_32)32768L); (composite) = \

```



```

        (png_uint_16)((temp + (temp >> 16)) >> 16); }
#define PNG_MMX_WRITE_FLAGS      ( 0 )
#define png_jmpbuf(png_ptr)      ((png_ptr)->jmpbuf)
#define PNG_SIZE_MAX              ((png_size_t)(-1))
#define PNG_UINT_32_MAX           ((png_uint_32)(-1))
#define PNG_UINT_31_MAX           ((png_uint_32)0x7fffffffL)
#define int_p_NULL                (int *)NULL
#define png_bytep_NULL            (png_bytep)NULL
#define png_bytepp_NULL           (png_bytepp)NULL
#define PNG_COLOR_TYPE_GRAY_ALPHA (PNG_COLOR_MASK_ALPHA)
#define PNG_COLOR_TYPE_RGB_ALPHA  (PNG_COLOR_MASK_COLOR | PNG_COLOR_MASK_ALPHA)
#define PNG_COLOR_TYPE_PALETTE    (PNG_COLOR_MASK_COLOR | PNG_COLOR_MASK_PALETTE)
#define PNG_COLOR_TYPE_RGB         (PNG_COLOR_MASK_COLOR)
#define png_doublep_NULL           (png_doublep)NULL
#define png_error_ptr_NULL         (png_error_ptr)NULL
#define png_flush_ptr_NULL         (png_flush_ptr)NULL
#define png_infopp_NULL           (png_infopp)NULL
#define png_rw_ptr_NULL           (png_rw_ptr)NULL
#define png_structp_NULL          (png_structp)NULL
#define png_uint_16p_NULL         (png_uint_16p)NULL
#define png_voidp_NULL            (png_voidp)NULL
#define CVT_PTR(ptr)              (ptr)
#define CVT_PTR_NOCHECK(ptr)      (ptr)
#define PNG_TEXT_COMPRESSION_NONE -1
#define PNG_TEXT_COMPRESSION_zTXt_WR -2
#define PNG_TEXT_COMPRESSION_NONE_WR -3
#define PNG_BACKGROUND_GAMMA_UNKNOWN 0
#define PNG_COLOR_TYPE_GRAY        0
#define PNG_COMPRESSION_TYPE_BASE   0
#define PNG_CRC_DEFAULT            0
#define PNG_EQUATION_LINEAR         0
#define PNG_FILLER_BEFORE           0
#define PNG_FILTER_HEURISTIC_DEFAULT 0
#define PNG_FILTER_TYPE_BASE        0
#define PNG_FILTER_VALUE_NONE       0
#define PNG_HANDLE_CHUNK_AS_DEFAULT 0
#define PNG_INTERLACE_NONE          0
#define PNG_LIBPNG_VER_BUILD        0
#define PNG_LIBPNG_VER_SONUM        0
#define PNG_OFFSET_PIXEL            0
#define PNG_RESOLUTION_UNKNOWN      0
#define PNG_SCALE_UNKNOWN           0
#define PNG_TEXT_COMPRESSION_zTXt   0
#define PNG_sRGB_INTENT_PERCEPTUAL 0
#define PNG_NO_FILTERS              0x00
#define PNG_TRANSFORM_IDENTITY      0x0000
#define PNG_INFO_gAMA                0x0001
#define PNG_TRANSFORM_STRIP_16       0x0001
#define PNG_INFO_sBIT                0x0002
#define PNG_TRANSFORM_STRIP_ALPHA    0x0002
#define PNG_INFO_cHRM                0x0004
#define PNG_TRANSFORM_PACKING        0x0004
#define PNG_FREE_HIST                0x0008
#define PNG_INFO_PLTE                0x0008
#define PNG_TRANSFORM_PACKSWAP       0x0008
#define PNG_FREE_ICCP                0x0010
#define PNG_INFO_tRNS                0x0010
#define PNG_TRANSFORM_EXPAND         0x0010
#define PNG_FREE_SPLT                0x0020
#define PNG_INFO_bKGD                0x0020
#define PNG_TRANSFORM_INVERT_MONO    0x0020
#define PNG_FREE_ROWS                0x0040

```

```

#define PNG_INFO_hIST      0x0040
#define PNG_TRANSFORM_SHIFT      0x0040
#define PNG_FREE_PCAL      0x0080
#define PNG_INFO_pHYs      0x0080
#define PNG_TRANSFORM_BGR      0x0080
#define PNG_ASM_FLAG_MMX_SUPPORT_COMPILED      0x01
#define PNG_FLAG_MNG_EMPTY_PLTE      0x01
#define PNG_FREE_SCAL      0x0100
#define PNG_INFO_oFFs      0x0100
#define PNG_TRANSFORM_SWAP_ALPHA      0x0100
#define PNG_ASM_FLAG_MMX_SUPPORT_IN_CPU      0x02
#define PNG_FREE_UNKN      0x0200
#define PNG_INFO_tIME      0x0200
#define PNG_TRANSFORM_SWAP_ENDIAN      0x0200
#define PNG_ASM_FLAG_MMX_READ_COMBINE_ROW      0x04
#define PNG_FLAG_MNG_FILTER_64      0x04
#define PNG_FREE_LIST      0x0400
#define PNG_INFO_pCAL      0x0400
#define PNG_TRANSFORM_INVERT_ALPHA      0x0400
#define PNG_ALL_MNG_FEATURES      0x05
#define PNG_ASM_FLAG_MMX_READ_INTERLACE      0x08
#define PNG_FILTER_NONE      0x08
#define PNG_INFO_sRGB      0x0800
#define PNG_TRANSFORM_STRIP_FILLER      0x0800
#define PNG_ASM_FLAG_MMX_READ_FILTER_SUB      0x10
#define PNG_FILTER_SUB      0x10
#define PNG_FREE_PLTE      0x1000
#define PNG_INFO_iCCP      0x1000
#define PNG_ASM_FLAG_MMX_READ_FILTER_UP      0x20
#define PNG_FILTER_UP      0x20
#define PNG_FREE_TRNS      0x2000
#define PNG_INFO_sPLT      0x2000
#define PNG_ASM_FLAG_MMX_READ_FILTER_AVG      0x40
#define PNG_FILTER_AVG      0x40
#define PNG_FREE_TEXT      0x4000
#define PNG_INFO_sCAL      0x4000
#define PNG_FREE_MUL      0x4220
#define PNG_FREE_ALL      0x7fff
#define PNG_ASM_FLAG_MMX_READ_FILTER_PAETH      0x80
#define PNG_FILTER_PAETH      0x80
#define PNG_ASM_FLAGS_INITIALIZED      0x80000000
#define PNG_INFO_IDAT      0x8000L
#define PNG_BACKGROUND_GAMMA_SCREEN      1
#define PNG_COLOR_MASK_PALETTE      1
#define PNG_CRC_ERROR_QUIT      1
#define PNG_DESTROY_WILL_FREE_DATA      1
#define PNG_EQUATION_BASE_E      1
#define PNG_FILLER_AFTER      1
#define PNG_FILTER_HEURISTIC_UNWEIGHTED      1
#define PNG_FILTER_VALUE_SUB      1
#define PNG_HANDLE_CHUNK_NEVER      1
#define PNG_INTERLACE_ADAM7      1
#define PNG_ITXT_COMPRESSION_NONE      1
#define PNG_LIBPNG_BUILD_ALPHA      1
#define PNG_LIBPNG_VER_MAJOR      1
#define PNG_OFFSET_MICROMETER      1
#define PNG_RESOLUTION_METER      1
#define PNG_SCALE_METER      1
#define PNG_SELECT_READ      1
#define PNG_SET_WILL_FREE_DATA      1
#define PNG_sRGB_INTENT_RELATIVE      1
#define PNG_LIBPNG_VER_STRING      "1.2.8"

```

```

#define PNG_USER_HEIGHT_MAX      1000000L
#define PNG_USER_WIDTH_MAX      1000000L
#define PNG_LIBPNG_VER 10208
#define PNG_LIBPNG_VER_DLLNUM 13
#define PNG_LIBPNG_BUILD_PRIVATE 16
#define PNG_BACKGROUND_GAMMA_FILE 2
#define PNG_COLOR_MASK_COLOR 2
#define PNG_CRC_WARN_DISCARD 2
#define PNG_EQUATION_ARBITRARY 2
#define PNG_FILTER_HEURISTIC_WEIGHTED 2
#define PNG_FILTER_VALUE_UP 2
#define PNG_HANDLE_CHUNK_IF_SAFE 2
#define PNG_INTERLACE_LAST 2
#define PNG_ITXT_COMPRESSION_zTXt 2
#define PNG_LIBPNG_BUILD_BETA 2
#define PNG_LIBPNG_VER_MINOR 2
#define PNG_OFFSET_LAST 2
#define PNG_RESOLUTION_LAST 2
#define PNG_SCALE_RADIAN 2
#define PNG_SELECT_WRITE 2
#define PNG_USER_WILL_FREE_DATA 2
#define PNG_sRGB_INTENT_SATURATION 2
#define PNG_MAX_PALETTE_LENGTH 256
#define PNG_BACKGROUND_GAMMA_UNIQUE 3
#define PNG_CRC_WARN_USE 3
#define PNG_EQUATION_HYPERBOLIC 3
#define PNG_FILTER_HEURISTIC_LAST 3
#define PNG_FILTER_VALUE_AVG 3
#define PNG_HANDLE_CHUNK_ALWAYS 3
#define PNG_LIBPNG_BUILD_RC 3
#define PNG_SCALE_LAST 3
#define PNG_TEXT_COMPRESSION_LAST 3
#define PNG_sRGB_INTENT_ABSOLUTE 3
#define PNG_LIBPNG_BUILD_SPECIAL 32
#define PNG_COLOR_MASK_ALPHA 4
#define PNG_CRC_QUIET_USE 4
#define PNG_EQUATION_LAST 4
#define PNG_FILTER_VALUE_PAETH 4
#define PNG_LIBPNG_BUILD_STABLE 4
#define PNG_sRGB_INTENT_LAST 4
#define PNG_CRC_NO_CHANGE 5
#define PNG_FILTER_VALUE_LAST 5
#define PNG_INTRAPIXEL_DIFFERENCING 64
#define PNG_LIBPNG_BUILD_RELEASE_STATUS_MASK 7
#define PNG_KEYWORD_MAX_LENGTH 79
#define PNG_LIBPNG_BUILD_PATCH 8
#define PNG_LIBPNG_VER_RELEASE 8
#define PNG_ZBUF_SIZE 8192
#define PNG_ABORT() abort()
#define PNG_CONST const
#define PNG_EXPORT_VAR(type) extern PNG_IMPEXP type
#define png_memcmp memcmp
#define png_memcpy memcpy
#define png_memset memset
#define PNG_COLOR_TYPE_GA PNG_COLOR_TYPE_GRAY_ALPHA
#define PNG_COLOR_TYPE_RGBA PNG_COLOR_TYPE_RGB_ALPHA
#define PNG_COMPRESSION_TYPE_DEFAULT PNG_COMPRESSION_TYPE_BASE
#define PNG_FILTER_TYPE_DEFAULT PNG_FILTER_TYPE_BASE
#define PNG_EXPORT(type,symbol) PNG_IMPEXP type PNGAPI symbol
#define PNG_LIBPNG_BUILD_TYPE PNG_LIBPNG_BUILD_BASE_TYPE
#define PNG_LIBPNG_BUILD_BASE_TYPE PNG_LIBPNG_BUILD_STABLE
#define PNG_MAX_UINT PNG_UINT_31_MAX

```

```

#define png_sizeof(x)    sizeof (x)
#define png_strcpy      strcpy
#define png_strlen      strlen
#define png_strncpy     strncpy

typedef png_unknown_chunk **png_unknown_chunkpp;
typedef struct png_sPLT_entry_struct {
    png_uint_16 red;
    png_uint_16 green;
    png_uint_16 blue;
    png_uint_16 alpha;
    png_uint_16 frequency;
} png_sPLT_entry;
typedef png_sPLT_entry *png_sPLT_entryp;
typedef png_sPLT_entry **png_sPLT_entrypp;
typedef struct png_sPLT_struct {
    png_charp name;
    png_byte depth;
    png_sPLT_entryp entries;
    png_int_32 nentries;
} png_sPLT_t;
typedef png_sPLT_t *png_sPLT_tp;
typedef png_sPLT_t **png_sPLT_tpp;
typedef struct png_unknown_chunk_t {
    png_byte name[5];
    png_byte *data;
    png_size_t size;
    png_byte location;
} png_unknown_chunk;
typedef png_unknown_chunk *png_unknown_chunkp;
typedef struct png_struct_def {
    struct __jmp_buf_tag jmpbuf[1];
    png_error_ptr error_fn;
    png_error_ptr warning_fn;
    png_voidp error_ptr;
    png_rw_ptr write_data_fn;
    png_rw_ptr read_data_fn;
    png_voidp io_ptr;
    png_user_transform_ptr read_user_transform_fn;
    png_user_transform_ptr write_user_transform_fn;
    png_voidp user_transform_ptr;
    png_byte user_transform_depth;
    png_byte user_transform_channels;
    png_uint_32 mode;
    png_uint_32 flags;
    png_uint_32 transformations;
    z_stream zstream;
    png_bytep zbuf;
    png_size_t zbuf_size;
    int zlib_level;
    int zlib_method;
    int zlib_window_bits;
    int zlib_mem_level;
    int zlib_strategy;
    png_uint_32 width;
    png_uint_32 height;
    png_uint_32 num_rows;
    png_uint_32 usr_width;
    png_uint_32 rowbytes;
    png_uint_32 irowbytes;
    png_uint_32 iwidth;
    png_uint_32 row_number;

```

```

png_bytep prev_row;
png_bytep row_buf;
png_bytep sub_row;
png_bytep up_row;
png_bytep avg_row;
png_bytep paeth_row;
png_row_info row_info;
png_uint_32 idat_size;
png_uint_32 crc;
png_colorp palette;
png_uint_16 num_palette;
png_uint_16 num_trans;
png_byte chunk_name[5];
png_byte compression;
png_byte filter;
png_byte interlaced;
png_byte pass;
png_byte do_filter;
png_byte color_type;
png_byte bit_depth;
png_byte usr_bit_depth;
png_byte pixel_depth;
png_byte channels;
png_byte usr_channels;
png_byte sig_bytes;
png_uint_16 filler;
png_byte background_gamma_type;
float background_gamma;
png_color_16 background;
png_color_16 background_1;
png_flush_ptr output_flush_fn;
png_uint_32 flush_dist;
png_uint_32 flush_rows;
int gamma_shift;
float gamma;
float screen_gamma;
png_bytep gamma_table;
png_bytep gamma_from_1;
png_bytep gamma_to_1;
png_uint_16pp gamma_16_table;
png_uint_16pp gamma_16_from_1;
png_uint_16pp gamma_16_to_1;
png_color_8 sig_bit;
png_color_8 shift;
png_bytep trans;
png_color_16 trans_values;
png_read_status_ptr read_row_fn;
png_write_status_ptr write_row_fn;
png_progressive_info_ptr info_fn;
png_progressive_row_ptr row_fn;
png_progressive_end_ptr end_fn;
png_bytep save_buffer_ptr;
png_bytep save_buffer;
png_bytep current_buffer_ptr;
png_bytep current_buffer;
png_uint_32 push_length;
png_uint_32 skip_length;
png_size_t save_buffer_size;
png_size_t save_buffer_max;
png_size_t buffer_size;
png_size_t current_buffer_size;
int process_mode;

```

```

int cur_palette;
png_size_t current_text_size;
png_size_t current_text_left;
png_charp current_text;
png_charp current_text_ptr;
png_bytep palette_lookup;
png_bytep dither_index;
png_uint_16p hist;
png_byte heuristic_method;
png_byte num_prev_filters;
png_bytep prev_filters;
png_uint_16p filter_weights;
png_uint_16p inv_filter_weights;
png_uint_16p filter_costs;
png_uint_16p inv_filter_costs;
png_charp time_buffer;
png_uint_32 free_me;
png_voidp user_chunk_ptr;
png_user_chunk_ptr read_user_chunk_fn;
int num_chunk_list;
png_bytep chunk_list;
png_byte rgb_to_gray_status;
png_uint_16 rgb_to_gray_red_coeff;
png_uint_16 rgb_to_gray_green_coeff;
png_uint_16 rgb_to_gray_blue_coeff;
png_uint_32 mng_features_permitted;
png_fixed_point int_gamma;
png_byte filter_type;
png_voidp mem_ptr;
png_malloc_ptr malloc_fn;
png_free_ptr free_fn;
png_bytep big_row_buf;
png_bytep dither_sort;
png_bytep index_to_palette;
png_bytep palette_to_index;
png_byte compression_type;
png_uint_32 user_width_max;
png_uint_32 user_height_max;
} png_struct;
typedef png_struct *png_structp;
typedef struct png_info_struct {
    png_uint_32 width;
    png_uint_32 height;
    png_uint_32 valid;
    png_uint_32 rowbytes;
    png_colorp palette;
    png_uint_16 num_palette;
    png_uint_16 num_trans;
    png_byte bit_depth;
    png_byte color_type;
    png_byte compression_type;
    png_byte filter_type;
    png_byte interlace_type;
    png_byte channels;
    png_byte pixel_depth;
    png_byte spare_byte;
    png_byte signature[8];
    float gamma;
    png_byte srgb_intent;
    int num_text;
    int max_text;
    png_textp text;

```

```

png_time mod_time;
png_color_8 sig_bit;
png_bytep trans;
png_color_16 trans_values;
png_color_16 background;
png_int_32 x_offset;
png_int_32 y_offset;
png_byte offset_unit_type;
png_uint_32 x_pixels_per_unit;
png_uint_32 y_pixels_per_unit;
png_byte phys_unit_type;
png_uint_16p hist;
float x_white;
float y_white;
float x_red;
float y_red;
float x_green;
float y_green;
float x_blue;
float y_blue;
png_charp pcal_purpose;
png_int_32 pcal_X0;
png_int_32 pcal_X1;
png_charp pcal_units;
png_charpp pcal_params;
png_byte pcal_type;
png_byte pcal_nparams;
png_uint_32 free_me;
png_unknown_chunkp unknown_chunks;
png_size_t unknown_chunks_num;
png_charp iccp_name;
png_charp iccp_profile;
png_uint_32 iccp_proflen;
png_byte iccp_compression;
png_sPLT_tp splt_palettes;
png_uint_32 splt_palettes_num;
png_byte scal_unit;
double scal_pixel_width;
double scal_pixel_height;
png_charp scal_s_width;
png_charp scal_s_height;
png_bytepp row_pointers;
png_fixed_point int_gamma;
png_fixed_point int_x_white;
png_fixed_point int_y_white;
png_fixed_point int_x_red;
png_fixed_point int_y_red;
png_fixed_point int_x_green;
png_fixed_point int_y_green;
png_fixed_point int_x_blue;
png_fixed_point int_y_blue;
} png_info;
typedef png_info *png_infop;
typedef void *png_voidp;
typedef void (*png_progressive_info_ptr) (png_structp, png_infop);
typedef unsigned char png_byte;
typedef png_byte *png_bytep;
typedef unsigned long int png_uint_32;
typedef void (*png_progressive_row_ptr) (png_structp, png_bytep,
                                         png_uint_32, int);
typedef void (*png_progressive_end_ptr) (png_structp, png_infop);
typedef struct png_color_8_struct {

```

```

    png_byte red;
    png_byte green;
    png_byte blue;
    png_byte gray;
    png_byte alpha;
} png_color_8;
typedef png_color_8 *png_color_8p;
typedef long int png_int_32;
typedef char *png_charp;
typedef size_t png_size_t;
typedef struct png_text_struct {
    int compression;
    png_charp key;
    png_charp text;
    png_size_t text_length;
} png_text;
typedef png_text *png_textp;
typedef png_byte **png_bytepp;
typedef unsigned short png_uint_16;
typedef struct png_color_16_struct {
    png_byte index;
    png_uint_16 red;
    png_uint_16 green;
    png_uint_16 blue;
    png_uint_16 gray;
} png_color_16;
typedef png_color_16 *png_color_16p;
typedef struct png_color_struct {
    png_byte red;
    png_byte green;
    png_byte blue;
} png_color;
typedef png_color *png_colorp;
typedef const char *png_const_charp;
typedef void (*png_error_ptr) (png_structp, png_const_charp);
typedef void (*png_rw_ptr) (png_structp, png_bytep, png_size_t);
typedef struct png_time_struct {
    png_uint_16 year;
    png_byte month;
    png_byte day;
    png_byte hour;
    png_byte minute;
    png_byte second;
} png_time;
typedef png_time *png_timep;
typedef png_uint_16 *png_uint_16p;
typedef void (*png_flush_ptr) (png_structp);
typedef char **png_charpp;
typedef png_struct **png_structpp;
typedef png_info **png_infopp;
typedef FILE *png_FILE_p;
typedef struct png_row_info_struct {
    png_uint_32 width;
    png_uint_32 rowbytes;
    png_byte color_type;
    png_byte bit_depth;
    png_byte channels;
    png_byte pixel_depth;
} png_row_info;
typedef png_row_info *png_row_infop;
typedef png_structp version_1_2_8;
typedef png_uint_32 *png_uint_32p;

```



```

typedef png_uint_16 **png_uint_16pp;
typedef png_int_32 png_fixed_point;
typedef double *png_doublep;
typedef charf *png_zcharp;
typedef png_fixed_point *png_fixed_point_p;
typedef png_int_32 *png_int_32p;
typedef z_stream *png_zstreamp;
typedef short png_int_16;
typedef png_int_16 *png_int_16p;
typedef png_int_16 **png_int_16pp;
typedef png_int_32 **png_int_32pp;
typedef png_uint_32 **png_uint_32pp;
typedef charf **png_zcharpp;
typedef char ***png_charppp;
typedef const char **png_const_charpp;
typedef double **png_doublepp;
typedef png_colorp *png_colorpp;
typedef png_color_16p *png_color_16pp;
typedef png_color_8p *png_color_8pp;
typedef png_fixed_point **png_fixed_point_pp;
typedef png_row_info **png_row_infopp;
typedef png_textp *png_textpp;
typedef png_timep *png_timepp;
typedef void (*png_user_transform_ptr) (png_structp, png_row_infop,
                                       png_bytep);
typedef void (*png_read_status_ptr) (png_structp, png_uint_32, int);
typedef void (*png_write_status_ptr) (png_structp, png_uint_32, int);
typedef int (*png_user_chunk_ptr) (png_structp, png_unknown_chunkp);
typedef png_voidp(*png_malloc_ptr) (png_structp, png_size_t);
typedef void (*png_free_ptr) (png_structp, png_voidp);
extern png_uint_32 png_access_version_number(void);
extern int png_check_sig(png_bytep sig, int num);
extern void png_convert_from_struct_tm(png_timep ptime, struct tm *tttime);
extern void png_convert_from_time_t(png_timep ptime, time_t tttime);
extern png_infop png_create_info_struct(png_structp png_ptr);
extern png_structp png_create_read_struct(png_const_charp user_png_ver,
                                       png_voidp error_ptr,
                                       png_error_ptr error_fn,
                                       png_error_ptr warn_fn);
extern png_structp png_create_read_struct_2(png_const_charp user_png_ver,
                                       png_voidp error_ptr,
                                       png_error_ptr error_fn,
                                       png_error_ptr warn_fn,
                                       png_voidp mem_ptr,
                                       png_malloc_ptr malloc_fn,
                                       png_free_ptr free_fn);
extern png_structp png_create_write_struct(png_const_charp user_png_ver,
                                       png_voidp error_ptr,
                                       png_error_ptr error_fn,
                                       png_error_ptr warn_fn);
extern png_structp png_create_write_struct_2(png_const_charp user_png_ver,
                                       png_voidp error_ptr,
                                       png_error_ptr error_fn,
                                       png_error_ptr warn_fn,
                                       png_voidp mem_ptr,
                                       png_malloc_ptr malloc_fn,
                                       png_free_ptr free_fn);
extern void png_data_freer(png_structp png_ptr, png_infop info_ptr,
                          int freer, png_uint_32 mask);
extern void png_destroy_info_struct(png_structp png_ptr,
                                   png_infopp info_ptr_ptr);
extern void png_destroy_read_struct(png_structpp png_ptr_ptr,

```

```

        png_infopp info_ptr_ptr,
        png_infopp end_info_ptr_ptr);
extern void png_destroy_write_struct(png_structpp png_ptr_ptr,
        png_infopp info_ptr_ptr);
extern void png_error(png_structtp png_ptr, png_const_charp error_message);
extern void png_free(png_structtp png_ptr, png_voidp ptr);
extern void png_free_data(png_structtp png_ptr, png_infop info_ptr,
        png_uint_32 free_me, int num);
extern png_uint_32 png_get_IHDR(png_structtp png_ptr, png_infop info_ptr,
        png_uint_32 * width, png_uint_32 * height,
        int *bit_depth, int *color_type,
        int *interlace_method,
        int *compression_method,
        int *filter_method);
extern png_uint_32 png_get_PLTE(png_structtp png_ptr, png_infop info_ptr,
        png_colorp * palette, int *num_palette);
extern png_uint_32 png_get_bKGD(png_structtp png_ptr, png_infop info_ptr,
        png_color_16p * background);
extern png_byte png_get_bit_depth(png_structtp png_ptr, png_infop info_ptr);
extern png_uint_32 png_get_cHRM(png_structtp png_ptr, png_infop info_ptr,
        double *white_x, double *white_y,
        double *red_x, double *red_y,
        double *green_x, double *green_y,
        double *blue_x, double *blue_y);
extern png_byte png_get_channels(png_structtp png_ptr, png_infop info_ptr);
extern png_byte png_get_color_type(png_structtp png_ptr,
        png_infop info_ptr);
extern png_voidp png_get_error_ptr(png_structtp png_ptr);
extern png_uint_32 png_get_gAMA(png_structtp png_ptr, png_infop info_ptr,
        double *file_gamma);
extern png_uint_32 png_get_hIST(png_structtp png_ptr, png_infop info_ptr,
        png_uint_16p * hist);
extern png_charp png_get_header_ver(png_structtp png_ptr);
extern png_uint_32 png_get_iCCP(png_structtp png_ptr, png_infop info_ptr,
        png_charpp name, int *compression_type,
        png_charpp profile, png_uint_32 * proflen);
extern png_uint_32 png_get_image_height(png_structtp png_ptr,
        png_infop info_ptr);
extern png_uint_32 png_get_image_width(png_structtp png_ptr,
        png_infop info_ptr);
extern png_byte png_get_interlace_type(png_structtp png_ptr,
        png_infop info_ptr);
extern png_voidp png_get_io_ptr(png_structtp png_ptr);
extern png_charp png_get_libpng_ver(png_structtp png_ptr);
extern png_uint_32 png_get_oFFs(png_structtp png_ptr, png_infop info_ptr,
        png_int_32 * offset_x,
        png_int_32 * offset_y, int *unit_type);
extern png_uint_32 png_get_pHYs(png_structtp png_ptr, png_infop info_ptr,
        png_uint_32 * res_x, png_uint_32 * res_y,
        int *unit_type);
extern png_voidp png_get_progressive_ptr(png_structtp png_ptr);
extern png_uint_32 png_get_rowbytes(png_structtp png_ptr,
        png_infop info_ptr);
extern png_bytepp png_get_rows(png_structtp png_ptr, png_infop info_ptr);
extern png_uint_32 png_get_sBIT(png_structtp png_ptr, png_infop info_ptr,
        png_color_8p * sig_bit);
extern png_uint_32 png_get_sRGB(png_structtp png_ptr, png_infop info_ptr,
        int *intent);
extern png_uint_32 png_get_tIME(png_structtp png_ptr, png_infop info_ptr,
        png_timep * mod_time);
extern png_uint_32 png_get_tRNS(png_structtp png_ptr, png_infop info_ptr,
        png_bytep * trans, int *num_trans,

```

```

        png_color_16p * trans_values);
extern png_uint_32 png_get_text(png_structp png_ptr, png_infop info_ptr,
        png_textp * text_ptr, int *num_text);
extern png_uint_32 png_get_unknown_chunks(png_structp png_ptr,
        png_infop info_ptr,
        png_unknown_chunkpp entries);
extern png_voidp png_get_user_chunk_ptr(png_structp png_ptr);
extern png_uint_32 png_get_valid(png_structp png_ptr, png_infop info_ptr,
        png_uint_32 flag);
extern png_int_32 png_get_x_offset_pixels(png_structp png_ptr,
        png_infop info_ptr);
extern png_uint_32 png_get_x_pixels_per_meter(png_structp png_ptr,
        png_infop info_ptr);
extern png_int_32 png_get_y_offset_pixels(png_structp png_ptr,
        png_infop info_ptr);
extern png_uint_32 png_get_y_pixels_per_meter(png_structp png_ptr,
        png_infop info_ptr);
extern void png_info_init_3(png_infopp info_ptr,
        png_size_t png_info_struct_size);
extern void png_init_io(png_structp png_ptr, png_FILE_p fp);
extern const char png_libpng_ver[];
extern png_voidp png_malloc(png_structp png_ptr, png_uint_32 size);
extern png_uint_32 png_permit_mng_features(png_structp png_ptr,
        png_uint_32
        mng_features_permitted);
extern void png_process_data(png_structp png_ptr, png_infop info_ptr,
        png_bytep buffer, png_size_t buffer_size);
extern void png_progressive_combine_row(png_structp png_ptr,
        png_bytep old_row,
        png_bytep new_row);
extern void png_read_end(png_structp png_ptr, png_infop info_ptr);
extern void png_read_image(png_structp png_ptr, png_bytepp image);
extern void png_read_info(png_structp png_ptr, png_infop info_ptr);
extern void png_read_png(png_structp png_ptr, png_infop info_ptr,
        int transforms, voidp params);
extern void png_read_row(png_structp png_ptr, png_bytep row,
        png_bytep display_row);
extern void png_read_rows(png_structp png_ptr, png_bytepp row,
        png_bytepp display_row, png_uint_32 num_rows);
extern void png_read_update_info(png_structp png_ptr, png_infop info_ptr);
extern void png_set_IHDR(png_structp png_ptr, png_infop info_ptr,
        png_uint_32 width, png_uint_32 height,
        int bit_depth, int color_type,
        int interlace_method, int compression_method,
        int filter_method);
extern void png_set_PLTE(png_structp png_ptr, png_infop info_ptr,
        png_colorp palette, int num_palette);
extern void png_set_bKGD(png_structp png_ptr, png_infop info_ptr,
        png_color_16p background);
extern void png_set_background(png_structp png_ptr,
        png_color_16p background_color,
        int background_gamma_code, int need_expand,
        double background_gamma);
extern void png_set_bgr(png_structp png_ptr);
extern void png_set_cHRM(png_structp png_ptr, png_infop info_ptr,
        double white_x, double white_y, double red_x,
        double red_y, double green_x, double green_y,
        double blue_x, double blue_y);
extern void png_set_compression_buffer_size(png_structp png_ptr,
        png_uint_32 size);
extern void png_set_compression_level(png_structp png_ptr, int level);
extern void png_set_compression_mem_level(png_structp png_ptr,

```

```

        int mem_level);
extern void png_set_compression_method(png_structp png_ptr, int method);
extern void png_set_compression_strategy(png_structp png_ptr,
        int strategy);
extern void png_set_compression_window_bits(png_structp png_ptr,
        int window_bits);
extern void png_set_dither(png_structp png_ptr, png_colorp palette,
        int num_palette, int maximum_colors,
        png_uint_16p histogram, int full_dither);
extern void png_set_error_fn(png_structp png_ptr, png_voidp error_ptr,
        png_error_ptr error_fn,
        png_error_ptr warning_fn);
extern void png_set_expand(png_structp png_ptr);
extern void png_set_filler(png_structp png_ptr, png_uint_32 filler,
        int flags);
extern void png_set_filter(png_structp png_ptr, int method, int filters);
extern void png_set_gAMA(png_structp png_ptr, png_infop info_ptr,
        double file_gamma);
extern void png_set_gamma(png_structp png_ptr, double screen_gamma,
        double default_file_gamma);
extern void png_set_gray_1_2_4_to_8(png_structp png_ptr);
extern void png_set_gray_to_rgb(png_structp png_ptr);
extern void png_set_hIST(png_structp png_ptr, png_infop info_ptr,
        png_uint_16p hist);
extern void png_set_iCCP(png_structp png_ptr, png_infop info_ptr,
        png_charp name, int compression_type,
        png_charp profile, png_uint_32 proflen);
extern int png_set_interlace_handling(png_structp png_ptr);
extern void png_set_invert_alpha(png_structp png_ptr);
extern void png_set_invert_mono(png_structp png_ptr);
extern void png_set_keep_unknown_chunks(png_structp png_ptr, int keep,
        png_bytep chunk_list,
        int num_chunks);
extern void png_set_mem_fn(png_structp png_ptr, png_voidp mem_ptr,
        png_malloc_ptr malloc_fn, png_free_ptr free_fn);
extern void png_set_oFFs(png_structp png_ptr, png_infop info_ptr,
        png_int_32 offset_x, png_int_32 offset_y,
        int unit_type);
extern void png_set_pHYs(png_structp png_ptr, png_infop info_ptr,
        png_uint_32 res_x, png_uint_32 res_y,
        int unit_type);
extern void png_set_packing(png_structp png_ptr);
extern void png_set_packswap(png_structp png_ptr);
extern void png_set_palette_to_rgb(png_structp png_ptr);
extern void png_set_progressive_read_fn(png_structp png_ptr,
        png_voidp progressive_ptr,
        png_progressive_info_ptr info_fn,
        png_progressive_row_ptr row_fn,
        png_progressive_end_ptr end_fn);
extern void png_set_read_fn(png_structp png_ptr, png_voidp io_ptr,
        png_rw_ptr read_data_fn);
extern void png_set_read_user_chunk_fn(png_structp png_ptr,
        png_voidp user_chunk_ptr,
        png_user_chunk_ptr
        read_user_chunk_fn);
extern void png_set_read_user_transform_fn(png_structp png_ptr,
        png_user_transform_ptr
        read_user_transform_fn);
extern void png_set_rgb_to_gray(png_structp png_ptr, int error_action,
        double red, double green);
extern void png_set_rows(png_structp png_ptr, png_infop info_ptr,
        png_bytepp row_pointers);

```

```

extern void png_set_sBIT(png_structp png_ptr, png_infop info_ptr,
                        png_color_8p sig_bit);
extern void png_set_sRGB(png_structp png_ptr, png_infop info_ptr,
                        int intent);
extern void png_set_sRGB_gAMA_and_cHRM(png_structp png_ptr,
                                       png_infop info_ptr, int intent);
extern void png_set_shift(png_structp png_ptr, png_color_8p true_bits);
extern void png_set_sig_bytes(png_structp png_ptr, int num_bytes);
extern void png_set_strip_16(png_structp png_ptr);
extern void png_set_strip_alpha(png_structp png_ptr);
extern void png_set_swap(png_structp png_ptr);
extern void png_set_swap_alpha(png_structp png_ptr);
extern void png_set_tIME(png_structp png_ptr, png_infop info_ptr,
                        png_timep mod_time);
extern void png_set_tRNS(png_structp png_ptr, png_infop info_ptr,
                        png_bytep trans, int num_trans,
                        png_color_16p trans_values);
extern void png_set_tRNS_to_alpha(png_structp png_ptr);
extern void png_set_text(png_structp png_ptr, png_infop info_ptr,
                        png_textp text_ptr, int num_text);
extern void png_set_unknown_chunk_location(png_structp png_ptr,
                                       png_infop info_ptr, int chunk,
                                       int location);
extern void png_set_unknown_chunks(png_structp png_ptr, png_infop info_ptr,
                                  png_unknown_chunkp unknowns,
                                  int num_unknowns);
extern void png_set_write_fn(png_structp png_ptr, png_voidp io_ptr,
                            png_rw_ptr write_data_fn,
                            png_flush_ptr output_flush_fn);
extern void png_set_write_status_fn(png_structp png_ptr,
                                   png_write_status_ptr write_row_fn);
extern void png_set_write_user_transform_fn(png_structp png_ptr,
                                           png_user_transform_ptr
                                           write_user_transform_fn);
extern int png_sig_cmp(png_bytep sig, png_size_t start,
                      png_size_t num_to_check);
extern void png_start_read_image(png_structp png_ptr);
extern void png_warning(png_structp png_ptr,
                      png_const_charp warning_message);
extern void png_write_chunk(png_structp png_ptr, png_bytep chunk_name,
                          png_bytep data, png_size_t length);
extern void png_write_end(png_structp png_ptr, png_infop info_ptr);
extern void png_write_flush(png_structp png_ptr);
extern void png_write_image(png_structp png_ptr, png_bytepp image);
extern void png_write_info(png_structp png_ptr, png_infop info_ptr);
extern void png_write_png(png_structp png_ptr, png_infop info_ptr,
                        int transforms, voidp params);
extern void png_write_row(png_structp png_ptr, png_bytep row);
extern void png_write_rows(png_structp png_ptr, png_bytepp row,
                          png_uint_32 num_rows);

```

8.3. Interface Definitions for libpng12

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png_access_version_number -- return version of the run-time library

png_check_sig -- INSERT PURPOSE HERE

png_convert_from_struct_tm -- convert struct tm to png_time

png_convert_from_time_t -- convert time_t to png_time

png_create_info_struct -- allocate and initialize a png_info structure

png_create_read_struct -- allocate and initialize a png_struct structure for reading PNG file
png_create_read_struct_2 -- register custom read function
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png_data_freer -- change the default behavior for freeing data
png_destroy_info_struct -- free memory in PNG info structure
png_destroy_read_struct -- free the memory associated with read png_struct
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png_error -- default function to handle fatal errors
png_free -- free a pointer allocated by png_malloc()
png_free_data -- free internally allocated data
png_get_IHDR -- get PNG_IHDR chunk information from png_info structure
png_get_PLTE -- get image palette information from png_info structure
png_get_bKGD -- get background color for given image
png_get_bit_depth -- return image bit_depth
png_get_cHRM -- get CIE chromacities and referenced white point for given image
png_get_channels -- get number of color channels in image
png_get_color_type -- return image color type
png_get_error_ptr -- return error_ptr for user-defined functions
png_get_gAMA -- get the gamma value for given image
png_get_hIST -- get the histogram for given image
png_get_header_ver -- get version information for libpng header files
png_get_iCCP -- get the embedded ICC profile data for given image
png_get_image_height -- return image height
png_get_image_width -- return image width
png_get_interlace_type -- returns interlace method
png_get_io_ptr -- return pointer for user-defined I/O
png_get_libpng_ver -- get the library version string
png_get_oFFs -- get screen offsets for the given image
png_get_pHYs -- get the physical resolution for given image
png_get_progressive_ptr -- return pointer to user-defined push read functions
png_get_rowbytes -- Return number of bytes for a row
png_get_rows -- retrieve image data from png_info structure
png_get_sBIT -- get number of significant bits for each color channel
png_get_sRGB -- get the rendering intent for given image
png_get_tIME -- get last modification time for the image
png_get_tRNS -- get transparency data for images
png_get_text -- get comments information from png_info structure
png_get_unknown_chunks -- retrieve the unknown chunks from a PNG file
png_get_user_chunk_ptr -- get pointer to user chunk data
png_get_valid -- determine if given chunk data is valid
png_get_x_offset_pixels -- return x offset in pixels from oFFs chunk
png_get_x_pixels_per_meter -- return horizontal pixel density per meter
png_get_y_offset_pixels -- return y offset in pixels from oFFs chunk
png_get_y_pixels_per_meter -- return vertical pixel density per meter
png_info_init_3 -- initialize an info structure (DEPRECATED)
png_init_io -- initialize input/output for the PNG file
png_libpng_ver -- external variable holding version number of libpng
png_malloc -- allocate memory
png_permit_mng_features -- enable MNG extensions for PNG image wrapped in MNG datastream
png_process_data -- read PNG file progressively

png_progressive_combine_row -- combines current row data with processed row
png_read_end -- read the end of PNG file
png_read_image -- read the entire image into memory
png_read_info -- read the PNG image information
png_read_png -- read the entire PNG file
png_read_row -- read a row of image data
png_read_rows -- read multiple rows of image data
png_read_update_info -- update png_info structure
png_set_IHDR -- set the PNG_IHDR chunk information
png_set_PLTE -- set color values for the palette
png_set_bKGD -- set the background color for given image
png_set_background -- set the background for given image
png_set_bgr -- set pixel order to blue, green, red
png_set_cHRM -- set CIE chromacities and referenced white point for given image
png_set_compression_buffer_size -- set the size of the compression buffer
png_set_compression_level -- set image compression level
png_set_compression_mem_level -- set how much memory to use for the internal state during PNG compression
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png_set_compression_strategy -- set PNG compression strategy
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png_set_dither -- turn on dithering to 8-bit
png_set_error_fn -- set user defined functions for error handling
png_set_expand -- set expansion transformation
png_set_filler -- add a filler byte to given image
png_set_filter -- set filtering method
png_set_gAMA -- set the gamma value for given image
png_set_gamma -- transform the image from file gamma to screen gamma
png_set_gray_1_2_4_to_8 -- set expansion transformation
png_set_gray_to_rgb -- expand the grayscale image to 24-bit RGB
png_set_hIST -- set the histogram of color palette
png_set_iCCP -- set ICC component
png_set_interlace_handling -- get the number of passes for image interlacing
png_set_invert_alpha -- invert the level of opacity of a PNG file
png_set_invert_mono -- reverse values for monochromaticity
png_set_keep_unknown_chunks -- specify list of chunks and how to handle them
png_set_mem_fn -- install custom memory allocation functions
png_set_oFFs -- set screen offsets for given image
png_set_pHYs -- set physical resolution
png_set_packing -- expand image to 1 pixel per byte for bit-depths 1,2 and 4
png_set_packswap -- swap the order of pixels for packed-pixel image
png_set_palette_to_rgb -- set expansion transformation
png_set_progressive_read_fn -- set progressive read callback functions
png_set_read_fn -- set user-defined function for reading a PNG stream
png_set_read_user_chunk_fn -- install custom callback function to handle unknown chunks in the input stream
png_set_read_user_transform_fn -- install a custom input transformation callback function
png_set_rgb_to_gray -- reduce 24-bit RGB to grayscale image
png_set_rows -- put image data in png_info structure
png_set_sBIT -- set number of significant bits for each channel
png_set_sRGB -- set the rendering intent for given image

png_set_sRGB_gAMA_and_chRM -- set rendering intent, gamma values, and CIE chromaticities of a PNG file
png_set_shift -- shift pixel values to valid bit-depth
png_set_sig_bytes -- number of bytes read from PNG file
png_set_strip_16 -- strip 16 bit PNG file to 8 bit depth
png_set_strip_alpha -- remove alpha channel on the given image
png_set_swap -- swap byte-order for 16 bit depth files
png_set_swap_alpha -- swap image data from RGBA to ARGB format
png_set_tIME -- set last modification time for the image
png_set_tRNS -- set transparency values for images
png_set_tRNS_to_alpha -- set expansion transformation
png_set_text -- stores information for image comments
png_set_unknown_chunk_location -- set the location of an unknown chunk in a PNG file
png_set_unknown_chunks -- insert unknown chunks into a PNG file
png_set_write_fn -- set user-defined function for writing a PNG stream
png_set_write_status_fn -- install custom callback function to be called after row is written
png_set_write_user_transform_fn -- install a custom output transformation callback function
png_sig_cmp -- match the PNG signature
png_start_read_image -- start reading a PNG file
png_warning -- default function to handle non-fatal errors
png_write_chunk -- write a PNG chunk
png_write_end -- write the end of a PNG file
png_write_flush -- flush the current output buffers
png_write_image -- write the given image data
png_write_info -- write PNG information to file
png_write_png -- write the entire PNG file
png_write_row -- write a row of image data
png_write_rows -- write multiple rows of image data

The interfaces defined on the following pages are included in libpng12 and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 8.1](#) shall behave as described in the referenced base document.

png_access_version_number

Name

png_access_version_number -- return version of the run-time library

Synopsis

```
#include <png.h>
png_uint_32 png_access_version_number(void);
```

Description

png_access_version_number() returns version of the libpng12 library available at run-time.

Return Value

png_access_version_number() returns integer constructed from the major version, minor version with leading zero and leading number with leading zero. For example, the version number for version 1.2.8 is 10208.

png_check_sig

Name

png_check_sig -- INSERT PURPOSE HERE

Synopsis

```
#include <png.h>
int png_check_sig(png_bytep arg0, int arg1);
```

Description

INSERT TEXT HERE

Return Value

INSERT TEXT HERE

Errors

INSERT TEXT HERE

png_convert_from_struct_tm

Name

png_convert_from_struct_tm -- convert struct tm to png_time

Synopsis

```
#include <png.h>
void png_convert_from_struct_tm(png_timep ptime, struct tm * ttime);
```

Description

This interface shall convert from the struct tm time format to the png_time format.

The parameter *ttime* shall specify the struct tm value to convert to png_time format.

The output parameter *ptime* shall contain the converted value.

png_convert_from_time_t

Name

png_convert_from_time_t -- convert time_t to png_time

Synopsis

```
#include <png.h>
void png_convert_from_time_t(png_timep ptime, time_t ttime);
```

Description

This interface shall convert from the time_t time format to the png_time format.

The parameter *ttime* shall specify the time_t value to convert to png_time format.

The output parameter *ptime* shall contain the converted value.

png_create_info_struct

Name

png_create_info_struct -- allocate and initialize a png_info structure

Synopsis

```
#include <png.h>
png_infop png_create_info_struct(png_structp png_ptr);
```

Description

png_create_info_struct() shall allocate and initialize a png_info structure.

Return Value

Returns the pointer to png_info structure. Returns NULL if it fails to create the structure.

Errors

png_create_info_struct() shall return NULL if the allocation fails. The application should check for the return value.

png_create_read_struct

Name

png_create_read_struct -- allocate and initialize a png_struct structure for reading PNG file

Synopsis

```
#include <png.h>

png_structp png_create_read_struct(png_const_charp user_png_ver,
png_voidp error_ptr, png_error_ptr error_fn, png_error_ptr warn_fn);
```

Description

png_create_read_struct() shall allocate and initialize a png_struct structure. The function shall return NULL if the allocation fails. The application should check for the return value. For handling errors and warnings, the application can pass desired error handling routines as arguments to png_create_read_struct(). Otherwise, the default error handling uses stderr and longjmp. The error handling routine must NOT return to the calling routine.

<i>user_png_ver</i>	version string of the library. Must be PNG_LIBPNG_VER_STRING
<i>error_ptr</i>	user defined struct for error functions.
<i>error_fn</i>	user defined function for printing errors and aborting.
<i>warn_fn</i>	user defined function for warnings.

Return Value

Returns the pointer to png_struct structure. Returns NULL if it fails to create the structure.

Errors

png_create_read_struct() shall return NULL if the allocation fails. The application should check for the return value.

png_create_read_struct_2

Name

png_create_read_struct_2 -- register custom read function

Synopsis

```
#include <png.h>

png_structp png_create_read_struct_2(png_const_charp user_png_ver,
png_voidp error_ptr, png_error_ptr error_fn, png_error_ptr warn_fn,
png_voidp mem_ptr, png_malloc_ptr malloc_fn, png_free_ptr free_fn);
```

Description

This interface shall register a custom read function and allocate and initialize a `png_struct` structure. For handling errors and warnings, as well as allocating and deallocating memory, the application can pass functions as arguments. Otherwise, the default error handling functions `stderr` and `longjmp()` will be used. The error handling routine must not return to the calling routine.

The parameter *user_png_ver* shall specify the version string of the library, which must be `PNG_LIBPNG_VER_STRING`.

The parameter *error_ptr* shall specify a user-defined structure for error functions.

The parameter *error_fn* shall specify an optional user-defined function for printing errors and aborting.

The parameter *warn_fn* shall specify an optional user-defined function for warnings.

The parameter *mem_ptr* shall specify the memory to allocate.

The parameter *malloc_fn* shall specify an optional user-defined memory allocation function.

The parameter *free_fn* shall specify an optional user-defined memory deallocation function.

Application Usage (informative)

You should define `PNG_USER_MEM_SUPPORTED` before you call `png_create_read_struct2()`.

png_create_write_struct

Name

png_create_write_struct -- allocate and initialize a png_struct structure for writing PNG file

Synopsis

```
#include <png.h>

png_structp png_create_write_struct(png_const_charp user_png_ver,
png_voidp error_ptr, png_error_ptr error_fn, png_error_ptr warn_fn);
```

Description

png_create_write_struct() shall allocate and initialize a png_struct structure. The function shall return NULL if the allocation fails. The application should check for the return value.

<i>user_png_ver</i>	version string of the library. Must be PNG_LIBPNG_VER_STRING
<i>error_ptr</i>	user defined struct for error functions.
<i>error_fn</i>	user defined function for printing errors and aborting.
<i>warn_fn</i>	user defined function for warnings.

Return Value

Returns the pointer to png_struct structure. Returns NULL if it fails to create the structure.

png_create_write_struct_2

Name

png_create_write_struct_2 -- register custom write function

Synopsis

```
#include <png.h>

png_structp png_create_write_struct_2(png_const_charp user_png_ver,
png_voidp error_ptr, png_error_ptr error_fn, png_error_ptr warn_fn,
png_voidp mem_ptr, png_malloc_ptr malloc_fn, png_free_ptr free_fn);
```

Description

This interface shall register a custom write function and allocate and initialize a `png_struct` structure. For handling errors and warnings, as well as allocating and deallocating memory, the application can pass functions as arguments. Otherwise, the default error handling functions `stderr` and `longjmp()` will be used. The error handling routine must not return to the calling routine.

The parameter *user_png_ver* shall specify the version string of the library, which must be `PNG_LIBPNG_VER_STRING`.

The parameter *error_ptr* shall specify a user-defined structure for error functions.

The parameter *error_fn* shall specify an optional user-defined function for printing errors and aborting.

The parameter *warn_fn* shall specify an optional user-defined function for warnings.

The parameter *mem_ptr* shall specify the memory to allocate.

The parameter *malloc_fn* shall specify an optional user-defined memory allocation function.

The parameter *free_fn* shall specify an optional user-defined memory deallocation function.

Return Value

On success, returns a pointer to the `png_struct` that was created.

On failure, returns `NULL`.

png_data_freer

Name

`png_data_freer` -- change the default behavior for freeing data

Synopsis

```
#include <png.h>

void png_data_freer(png_structp png_ptr, png_infop info_ptr, int freer,
png_uint_32 mask);
```

Description

This interface shall change the default behavior for freeing allocated data, from only freeing data allocated internally by libpng, to either freeing user-allocated data or to not freeing any data at all.

This interface can enable deallocation of user data allocated with `png_malloc()` or `png_zalloc()` and passed to libpng with one of the `png_set_*`() interfaces. Users can call it both before and after passing the data. Calling it after reading PNG data but before passing the data controls whether the user or the interface is responsible for the existing data. Calling it after passing the data controls whether the user or the interface should deallocate the data.

If the user becomes responsible for data allocated by libpng, `png_free()` must be called to free it. If libpng becomes responsible for user-allocated data, the data must only have been allocated with `png_malloc()` or `png_zalloc()`.

The parameter `png_ptr` shall specify the PNG file.

The parameter `info_ptr` shall specify the PNG info structure.

The parameter `freer` shall specify one of these constants: `PNG_DESTROY_WILL_FREE_DATA`, `PNG_SET_WILL_FREE_DATA`, `PNG_USER_WILL_FREE_DATA`.

The parameter `mask` shall specify the data to free, as described under `png_free_data()`.

Application Usage (informative)

A `row_pointers` array allocated in a single block must not be freed with `png_set_rows()` or `png_read_destroy()`, because they would attempt to free the elements of the array as well.

Do not free `text_ptr` with libpng if some of its members were allocated separately, because this will actually only free `text_ptr.key`. If responsibility for freeing `text_ptr` moves from libpng to the user, the user must not free the members separately.

png_destroy_info_struct

Name

png_destroy_info_struct -- free memory in PNG info structure

Synopsis

```
#include <png.h>

void png_destroy_info_struct(png_structp png_ptr, png_infopp
info_ptr_ptr);
```

Description

This interface shall free any memory in a single PNG info structure.

The parameter *png_ptr* shall specify the PNG file.

The parameter *info_ptr_ptr* shall point to a pointer to the png_info_struct to destroy.

png_destroy_read_struct

Name

png_destroy_read_struct -- free the memory associated with read png_struct

Synopsis

```
#include <png.h>

void png_destroy_read_struct(png_structpp png_ptr_ptr, png_infopp
info_ptr_ptr, png_infopp end_info_ptr_ptr);
```

Description

png_destroy_read_struct() frees the memory associated with the read png_struct struct that holds information from the given PNG file, the associated png_info struct for holding the image information and png_info struct for holding the information at end of the given PNG file.

png_destroy_write_struct

Name

png_destroy_write_struct -- free the memory associated with write png_struct

Synopsis

```
#include <png.h>

void png_destroy_write_struct(png_structpp png_ptr_ptr, png_infopp
info_ptr_ptr);
```

Description

png_destroy_write_struct() frees the memory associated with the write png_struct struct that holds information for writing the PNG file and the associated png_info struct for holding the image information.

png_error

Name

png_error -- default function to handle fatal errors

Synopsis

```
#include <png.h>
void png_error(png_structp png_ptr, png_const_charp error_message);
```

Description

png_error() is the default error handling function for fatal errors. The default error handling functionality may be changed by using png_set_error_fn() to replace the error function at run-time.

Return Value

Errors

png_free

Name

png_free -- free a pointer allocated by png_malloc()

Synopsis

```
#include <png.h>
void png_free(png_structp png_ptr, png_voidp ptr);
```

Description

png_free() shall free memory pointed to by "ptr" previously allocated by png_malloc().

png_free_data

Name

png_free_data -- free internally allocated data

Synopsis

```
#include <png.h>

void png_free_data(png_structp png_ptr, png_infop info_ptr, png_uint_32
free_me, int num);
```

Description

This interface shall free data that was internally allocated by libpng.

The parameter *png_ptr* shall specify the PNG file.

The parameter *info_ptr* shall specify the PNG info structure containing members to free that are pointing to memory allocated by libpng.

The parameter *mask* shall specify the data to free with a mask consisting of the logical OR of at least one of the following constants: PNG_FREE_HIST, PNG_FREE_ICCP, PNG_FREE_PCAL, PNG_FREE_PLTE, PNG_FREE_ROWS, PNG_FREE_SCAL, PNG_FREE_SPLT, PNG_FREE_TEXT, PNG_FREE_TRNS, PNG_FREE_UNKN. (To specify all constants, use PNG_FREE_ALL.)

The parameter *num* shall specify the sequence number of the item to free. The value -1 specifies all items.

png_get_IHDR

Name

png_get_IHDR -- get PNG_IHDR chunk information from png_info structure

Synopsis

```
#include <png.h>

png_uint_32 png_get_IHDR(png_structp png_ptr, png_infop info_ptr,
png_uint_32 * width, png_uint_32 * height, int * bit_depth, int *
color_type, int * interlace_method, int * compression_method, int *
filter_method);
```

Description

png_get_IHDR() gets PNG_IHDR chunk type information from png_info structure.

<i>width</i>	holds the width of the image in pixels up to 2 ³¹ .
<i>height</i>	holds the height of the image in pixels up to 2 ³¹ .
<i>bit_depth</i>	holds the bit depth of one of the image channels. Valid values are 1, 2, 4, 8, 16 and also depend on the color_type.
<i>color_type</i>	describes which color/alpha channels are present. Supported color types shall include: PNG_COLOR_TYPE_GRAY (bit depths 1, 2, 4, 8, 16) PNG_COLOR_TYPE_GRAY_ALPHA (bit depths 8, 16) PNG_COLOR_TYPE_PALETTE (bit depths 1, 2, 4, 8) PNG_COLOR_TYPE_RGB (bit_depths 8, 16) PNG_COLOR_TYPE_RGB_ALPHA (bit_depths 8, 16) PNG_COLOR_MASK_PALETTE PNG_COLOR_MASK_COLOR PNG_COLOR_MASK_ALPHA
<i>filter_method</i>	holds the filter method. If this argument is NULL, the filter method will not be retrieved. Valid values after retrieval are PNG_FILTER_TYPE_BASE PNG_INTRAPIXEL_DIFFERENCING
<i>compression_method</i>	holds the compression method. If this argument is NULL, the compression method will not be retrieved. Valid values after retrieval are PNG_COMPRESSION_TYPE_BASE

interlace_method holds the interlace method. If this argument is NULL, the interlacing method will not be retrieved. Valid values after retrieval are

PNG_INTERLACE_NONE
PNG_INTERLACE_ADAM7

Return Value

On success, `png_get_HDR()` shall return 1. Otherwise, `png_get_IHDR()` shall return 0.

png_get_PLTE

Name

png_get_PLTE -- get image palette information from png_info structure

Synopsis

```
#include <png.h>
png_uint_32 png_get_PLTE(png_structp png_ptr, png_infop info_ptr,
png_colorp * palette, int * num_palette);
```

Description

png_get_PLTE() gets palette information from png_info structure. "palette" holds an array of color values with "num_palette" entries.

Return Value

On successful retrieval of palette information, png_get_PLTE() shall return PNG_INFO_PLTE. Otherwise, png_get_PLTE() shall return 0.

png_get_bKGD

Name

png_get_bKGD -- get background color for given image

Synopsis

```
#include <png.h>
png_uint_32 png_get_bKGD(png_structp png_ptr, png_infop info_ptr,
png_color_16p * background);
```

Description

png_get_bKGD() shall return the background color to "background" if the validity flag for background is set.

Return Value

On success, png_get_bKGD() shall return PNG_INFO_bKGD. Otherwise, png_get_bKGD() shall return 0.

png_get_bit_depth

Name

png_get_bit_depth -- return image bit_depth

Synopsis

```
#include <png.h>
png_byte png_get_bit_depth(png_structp png_ptr, png_infop info_ptr);
```

Description

Returns the image bit_depth.

Return Value

Returns 0 if *png_ptr* or *info_ptr* is NULL, bit_depth otherwise.

png_get_cHRM

Name

png_get_cHRM -- get CIE chromacities and referenced white point for given image

Synopsis

```
#include <png.h>

png_uint_32 png_get_cHRM(png_structp png_ptr, png_infop info_ptr, double
* white_x, double * white_y, double * red_x, double * red_y, double *
green_x, double * green_y, double * blue_x, double * blue_y);
```

Description

png_get_cHRM() shall return the CIE x,y chromaticities of the red, green and blue display primaries used in the image and the referenced white point from the cHRM chunk in the image.

Return Value

On success, png_get_cHRM() shall return PNG_INFO_cHRM. Otherwise, the function shall return 0.

png_get_channels

Name

png_get_channels -- get number of color channels in image

Synopsis

```
#include <png.h>
png_byte png_get_channels(png_structp png_ptr, png_infop info_ptr);
```

Description

png_get_channels() shall return the number of data channels per pixel for the color type of the image. The number of channels shall range from 1-4 depending on the color type as given below.

- 1 - PNG_COLOR_TYPE_GRAY or PNG_COLOR_TYPE_PALETTE
- 2 - PNG_COLOR_TYPE_GRAY_ALPHA
- 3 - PNG_COLOR_TYPE_RGB
- 4 - PNG_COLOR_TYPE_RGB_ALPHA or PNG_COLOR_TYPE_RGB+filler byte

Return Value

On success, png_get_channels() shall return the number of channels ranging from 1-4. Otherwise, png_get_channels shall return 0.

png_get_color_type

Name

png_get_color_type -- return image color type

Synopsis

```
#include <png.h>
png_byte png_get_color_type(png_structp png_ptr, png_infop info_ptr);
```

Description

Returns the image color type.

Return Value

Returns 0 if png_ptr or info_ptr is NULL, color_type otherwise.

png_get_error_ptr

Name

png_get_error_ptr -- return error_ptr for user-defined functions

Synopsis

```
#include <png.h>
png_voidp png_get_error_ptr(png_structp png_ptr);
```

Description

png_get_error_ptr() returns the error_ptr associated with user-defined functions.

Return Value

Returns error_ptr

png_get_gAMA

Name

png_get_gAMA -- get the gamma value for given image

Synopsis

```
#include <png.h>
png_uint_32 png_get_gAMA(png_structp png_ptr, png_infop info_ptr, double
* file_gamma);
```

Description

Returns the gamma value of an image to "file_gamma" if the gAMA chunk information is valid for the image.

Return Value

PNG_INFO_gAMA - if png_ptr, info_ptr, file_gamma are not NULL and gAMA chunk information is valid 0
- otherwise.

png_get_hIST

Name

png_get_hIST -- get the histogram for given image

Synopsis

```
#include <png.h>

png_uint_32 png_get_hIST(png_structp png_ptr, png_infop info_ptr,
png_uint_16p * hist);
```

Description

Returns the histogram of an image to **hist* if the hIST chunk information is valid for the image.

Return Value

PNG_INFO_hIST - if *png_ptr*, *info_ptr*, *hist* are not NULL and hIST chunk information is valid 0 - otherwise.

png_get_header_ver

Name

png_get_header_ver -- get version information for libpng header files

Synopsis

```
#include <png.h>
png_charp png_get_header_ver(png_structp png_ptr);
```

Description

This interface shall return the version of the header files used when building libpng as a short string in the format "1.0.0" through "99.99.99zz".

png_get_iCCP

Name

png_get_iCCP -- get the embedded ICC profile data for given image

Synopsis

```
#include <png.h>

png_uint_32 png_get_iCCP(png_structp png_ptr, png_info_ptr info_ptr,
png_charpp name, int * compression_type, png_charpp profile, png_uint_32
* proflen);
```

Description

png_get_iCCP() shall return the embedded ICC profile data in iCCP chunk. "name" shall contain the profile name, *compression_type shall contain the compression type, profile shall contain the International Color Consortium color profile data and *proflen shall contain the length of the profile data in bytes. *compression_type must always be set to PNG_COMPRESSION_TYPE_BASE.

Return Value

On success, png_get_iCCP() shall return PNG_INFO_iCCP. Otherwise, the function shall return 0.

png_get_image_height

Name

png_get_image_height -- return image height

Synopsis

```
#include <png.h>
png_uint_32 png_get_image_height(png_structp png_ptr, png_infop
info_ptr);
```

Description

png_get_image_height() returns the image height in pixels.

Return Value

Returns 0 if *png_ptr* or *info_ptr* is NULL, *image_height* otherwise.

png_get_image_width

Name

png_get_image_width -- return image width

Synopsis

```
#include <png.h>
png_uint_32 png_get_image_width(png_structp png_ptr, png_infop info_ptr);
```

Description

png_get_image_width() returns the image width in pixels.

Return Value

Returns 0 if *png_ptr* or *info_ptr* is NULL, *image_width* otherwise.

png_get_interlace_type

Name

png_get_interlace_type -- returns interlace method

Synopsis

```
#include <png.h>
png_byte png_get_interlace_type(png_structp png_ptr, png_info_ptr info_ptr);
```

Description

png_get_interlace_type() returns the interlace method used for the image.

Return Value

Valid values are PNG_INTERLACE_NONE, PNG_INTERLACE_ADAM7. Returns 0 if png_ptr or info_ptr is NULL.

png_get_io_ptr

Name

png_get_io_ptr -- return pointer for user-defined I/O

Synopsis

```
#include <png.h>
png_voidp png_get_io_ptr(png_structp png_ptr);
```

Description

Returns the pointer associated with user-defined input-output functions.

png_get_libpng_ver

Name

png_get_libpng_ver -- get the library version string

Synopsis

```
#include <png.h>
png_charp png_get_libpng_ver(png_structp png_ptr);
```

Description

png_get_libpng_ver() shall return the library version as a short string in the format "1.0.0" through "99.99.99zz".

png_get_oFFs

Name

png_get_oFFs -- get screen offsets for the given image

Synopsis

```
#include <png.h>

png_uint_32 png_get_oFFs(png_structp png_ptr, png_infop info_ptr,
png_int_32 * x_offset, png_int_32 * y_offset, int * unit_type);
```

Description

png_get_oFFs() shall read the positive offset from the left edge of the screen from info_ptr to x_offset and the positive offset from the top edge of the screen to y_offset. The unit type shall be returned in unit_type, which can take the following values

PNG_OFFSET_PIXEL
PNG_OFFSET_MICROMETER

Return Value

On success, png_get_oFFs() shall return PNG_INFO_oFFs. Otherwise, png_get_oFFs() shall return 0.

png_get_pHYs

Name

png_get_pHYs -- get the physical resolution for given image

Synopsis

```
#include <png.h>

png_uint_32 png_get_pHYs(png_structp png_ptr, png_infop info_ptr,
png_uint_32 * res_x, png_uint_32 * res_y, int * unit_type);
```

Description

png_get_pHYs() shall return the physical pixel resolution of the image and the unit of resolution. Upon success, *res_x shall contain the horizontal resolution and *res_y shall contain the vertical resolution in pixels per unit. *unit_type will be set to PNG_RESOLUTION_METER if the resolution is expressed in pixels per meter. Otherwise *unit_type will be PNG_RESOLUTION_UNKNOWN.

Return Value

PNG_INFO_pHYs - on success 0 - otherwise.

png_get_progressive_ptr

Name

png_get_progressive_ptr -- return pointer to user-defined push read functions

Synopsis

```
#include <png.h>
png_voidp png_get_progressive_ptr(png_structp png_ptr);
```

Description

Returns the pointer to user-defined structure containing information about the callback functions.

png_get_rowbytes

Name

png_get_rowbytes -- Return number of bytes for a row

Synopsis

```
#include <png.h>
png_uint_32 png_get_rowbytes(png_structp png_ptr, png_infop info_ptr);
```

Description

png_get_rowbytes() returns the number of bytes needed to hold a transformed row of an image.

Return Value

Returns 0 if *png_ptr* or *info_ptr* is NULL, number of bytes otherwise.

png_get_rows

Name

png_get_rows -- retrieve image data from png_info structure

Synopsis

```
#include <png.h>
png_bytepp png_get_rows(png_structp png_ptr, png_infop info_ptr);
```

Description

png_get_rows() shall retrieve rows of image data from the *info_ptr* structure in an array of pointers to the pixel data for each row.

Return Value

On success, png_get_rows() shall return an array of pointers to the pixel data for each row of the image.

png_get_sBIT

Name

png_get_sBIT -- get number of significant bits for each color channel

Synopsis

```
#include <png.h>
png_uint_32 png_get_sBIT(png_structp png_ptr, png_infop info_ptr,
png_color_8p * sig_bit);
```

Description

png_get_sBIT() shall return the number of significant bit for each of the gray, red, blue and green color channels.

Return Value

On success, png_get_sBIT() shall return PNG_INFO_sBIT. Otherwise, png_get_sBIT() shall return 0.

png_get_sRGB

Name

png_get_sRGB -- get the rendering intent for given image

Synopsis

```
#include <png.h>

png_uint_32 png_get_sRGB(png_structp png_ptr, png_infop info_ptr, int *  
srgb_intent);
```

Description

png_get_sRGB() shall return the rendering intent of an image to *srgb_intent if the sRGB chunk information is valid for the image.

Return Value

PNG_INFO_sRGB - if png_ptr, info_ptr, srgb_intent are not NULL and sRGB chunk information is valid 0 - otherwise.

png_get_tIME

Name

png_get_tIME -- get last modification time for the image

Synopsis

```
#include <png.h>

png_uint_32 png_get_tIME(png_structp png_ptr, png_infop info_ptr,
png_timep * mod_time);
```

Description

png_get_tIME() shall return the time of last modification of the image if the tIME information is valid for the image.

Return Value

PNG_INFO_tIME - if *png_ptr*, *info_ptr*, *mod_time* are not NULL and tIME information is valid 0 - otherwise.

png_get_tRNS

Name

png_get_tRNS -- get transparency data for images

Synopsis

```
#include <png.h>

png_uint_32 png_get_tRNS(png_structp png_ptr, png_infop info_ptr,
png_bytep * trans, int * num_trans, png_color_16p * trans_values);
```

Description

png_get_tRNS() shall obtain the transparency data for paletted images and image types that don't need a full alpha channel from info_ptr. For a paletted image, the function retrieves the transparency values stored in the same order as the palette colors, starting from index 0. For non-paletted images, the function retrieves the single color value which is treated as fully transparent. If the transparency information is valid, i.e. PNG_INFO_tRNS bit is set for info_ptr->valid: *trans shall be set to the transparency values for a paletted image. Values for the data shall be in range [0,255], ranging from fully transparent to fully opaque, respectively. *num_trans shall be set to the number of transparency values *trans_values shall be set to the single color value specified for non-paletted images.

Return Value

Returns PNG_INFO_tRNS on successful return, 0 otherwise.

png_get_text

Name

png_get_text -- get comments information from png_info structure

Synopsis

```
#include <png.h>

png_uint_32 png_get_text(png_structp png_ptr, png_infop info_ptr,
png_textp * text_ptr, int * num_text);
```

Description

png_get_text() returns the text chunk information from the PNG stream in the array pointed to by *text_ptr*. It also returns the number of text chunks in *num_text*. *text_ptr* is an array of structure png_text whose members include:

compression type of compression used on text. Valid values are:

PNG_TEXT_COMPRESSION_NONE
PNG_TEXT_COMPRESSION_zTXt
PNG_ITXT_COMPRESSION_NONE
PNG_ITXT_COMPRESSION_zTXt

key keyword for comment. Must contain 1-79 characters.

text text comment for current keyword. May be empty.

text_length length of text string after decompression. 0 for iTXt.

Return Value

Returns 0 if *png_ptr* or *info_ptr* is NULL, returns the number of text chunks otherwise.

png_get_unknown_chunks

Name

png_get_unknown_chunks -- retrieve the unknown chunks from a PNG file

Synopsis

```
#include <png.h>

png_uint_32 png_get_unknown_chunks(png_structp png_ptr, png_info_ptr
info_ptr, png_unknown_chunkpp unknowns);
```

Description

This interface shall retrieve the unknown chunks from a PNG file.

The parameter *png_ptr* shall specify the PNG file.

The parameter *info_ptr* shall specify the PNG info structure.

The parameter *unknowns* shall specify an array of `png_unknown_chunk` structures containing the unknown chunks. The position of a structure in the array shall correspond to the order in which `png_set_unknown_chunks()` inserted its chunk into the PNG file, or in which it was read.

The `png_unknown_chunkpp` structure shall contain the following members.

name	the name of the chunk
data	the data of the chunk
size	the size of the chunk's data
location	the position of the chunk in the PNG file

Return Value

On success, this interface shall return the number of unknown chunks obtained.

On failure, this interface shall return 0.

png_get_user_chunk_ptr

Name

png_get_user_chunk_ptr -- get pointer to user chunk data

Synopsis

```
#include <png.h>
png_voidp png_get_user_chunk_ptr(png_structp png_ptr);
```

Description

This interface shall return the pointer to the user chunk data associated with the specified PNG file.

The parameter *png_ptr* shall specify the PNG file.

png_get_valid

Name

png_get_valid -- determine if given chunk data is valid

Synopsis

```
#include <png.h>

png_uint_32 png_get_valid(png_structp png_ptr, png_infop info_ptr,
png_uint_32 flag);
```

Description

png_get_valid() shall obtain the validity of chunk data specified by the bits set in "flag". The following bits may be set in flag: PNG_INFO_gAMA PNG_INFO_sBIT PNG_INFO_cHRM PNG_INFO_PLTE PNG_INFO_tRNS PNG_INFO_bKGD PNG_INFO_hIST PNG_INFO_pHYs PNG_INFO_oFFs PNG_INFO_tIME PNG_INFO_pCAL PNG_INFO_sRGB PNG_INFO_iCCP PNG_INFO_sPLT PNG_INFO_sCAL PNG_INFO_IDAT

Return Value

On success, png_get_valid() shall return "flag" with the chunk bits set. Otherwise, png_get_valid() shall return 0.

png_get_x_offset_pixels

Name

png_get_x_offset_pixels -- return x offset in pixels from oFFs chunk

Synopsis

```
#include <png.h>
png_int_32 png_get_x_offset_pixels(png_structp png_ptr, png_info_ptr
info_ptr);
```

Description

png_get_x_offset_pixels() shall obtain x offset in pixels for the image from its PNG_oFFs chunk data stored in info_ptr, if the unit for offset is pixels.

Return Value

On success, png_get_x_offset_pixels() shall return x offset in pixels. Otherwise png_get_x_offset_pixels() shall return 0.

png_get_x_pixels_per_meter

Name

png_get_x_pixels_per_meter -- return horizontal pixel density per meter

Synopsis

```
#include <png.h>

png_uint_32 png_get_x_pixels_per_meter(png_structp png_ptr, png_infop
info_ptr);
```

Description

png_get_x_pixels_per_meter() shall obtain the horizontal pixel density in pixels per meter from its PNG_pHYs chunk data stored in *info_ptr*, if the unit for resolution is pixels per meter.

Return Value

On success, png_get_x_pixels_per_meter() shall return horizontal pixel density in pixels per meter. Otherwise png_get_x_pixels_per_meter() shall return 0.

png_get_y_offset_pixels

Name

png_get_y_offset_pixels -- return y offset in pixels from oFFs chunk

Synopsis

```
#include <png.h>
png_int_32 png_get_y_offset_pixels(png_structp png_ptr, png_info_ptr
info_ptr);
```

Description

png_get_y_offset_pixels() shall obtain y offset in pixels for the image from its PNG_oFFs chunk data stored in info_ptr, if the unit for offset is pixels.

Return Value

On success, png_get_y_offset_pixels() shall return y offset in pixels. Otherwise png_get_y_offset_pixels() shall return 0.

png_get_y_pixels_per_meter

Name

png_get_y_pixels_per_meter -- return vertical pixel density per meter

Synopsis

```
#include <png.h>

png_uint_32 png_get_y_pixels_per_meter(png_structp png_ptr, png_infop
info_ptr);
```

Description

png_get_y_pixels_per_meter() shall obtain the vertical pixel density in pixels per meter from its PNG_pHYs chunk data stored in *info_ptr*, if the unit for resolution is pixels per meter.

Return Value

On success, png_get_y_pixels_per_meter() shall return vertical pixel density in pixels per meter. Otherwise png_get_y_pixels_per_meter() shall return 0.

png_info_init_3

Name

png_info_init_3 -- initialize an info structure (DEPRECATED)

Synopsis

```
#include <png.h>
void png_info_init_3(png_infopp info_ptr, png_size_t
png_info_struct_size);
```

Description

This interface shall initialize a PNG info structure. This interface is deprecated.

The parameter *info_ptr* shall specify the PNG info structure to initialize.

The parameter *png_info_struct_size* shall specify the size of the new structure.

png_init_io

Name

png_init_io -- initialize input/output for the PNG file

Synopsis

```
#include <png.h>
void png_init_io(png_structp png_ptr, png_FILE_p fp);
```

Description

Initialize the default input/output functions for the PNG file to standard C streams. To replace the default read and write functions, use `png_set_read_fn()` and `png_set_write_fn()` respectively.

Return Value

Errors

png_libpng_ver

Name

png_libpng_ver -- external variable holding version number of libpng

Synopsis

```
#include <png.h>
const char png_libpng_ver[18];
```

Description

The external variable `png_libpng_ver` shall contain a character string value indicating the version number of libpng. An LSB conforming implementation shall return a value at least as high as `PNG_LIBPNG_VER_STRING` as defined in this specification.

png_malloc

Name

png_malloc -- allocate memory

Synopsis

```
#include <png.h>
png_voidp png_malloc(png_structp png_ptr, png_uint_32 size);
```

Description

png_malloc() shall return a pointer to allocated memory of the specified size.

Return Value

Pointer to the block of memory allocated.

Errors

Invokes error handling function if the system is out of memory and sets PNG_FLAG_MALLOC_NULL_MEM_OK in member flags of png_struct.

png_permit_mng_features

Name

png_permit_mng_features -- enable MNG extensions for PNG image wrapped in MNG datastream

Synopsis

```
#include <png.h>

png_uint_32 png_permit_mng_features(png_structp png_ptr, png_uint_32
mng_features_permitted);
```

Description

This interface shall enable some MNG extensions for a PNG image wrapped in a MNG datastream.

The parameter *png_ptr* shall specify the PNG image.

The parameter *mng_features_permitted* shall specify the logical OR of the features to be enabled, possibly including PNG_ALL_MNG_FEATURES, PNG_FLAG_MNG_EMPTY_PLTE, and PNG_FLAG_MNG_FILTER_64.

Return Value

This interface shall return the logical AND of the parameter *mng_features_permitted* with the set of MNG features supported by the local version of libpng.

Application Usage (informational)

This interface may not read or write a standalone PNG file; the PNG datastream must be embedded in a MNG datastream with an 8-byte MNG signature and MEND and MHDR chunks.

png_process_data

Name

png_process_data -- read PNG file progressively

Synopsis

```
#include <png.h>

void png_process_data(png_structp png_ptr, png_infop info_ptr, png_bytep
buffer, png_size_t length);
```

Description

png_process_data() shall process data progressively from the PNG stream using callback functions set within png_set_progressive_read_fn(). The data is passed in "buffer" and length of data to be processed is specified by "length".

png_progressive_combine_row

Name

png_progressive_combine_row -- combines current row data with processed row

Synopsis

```
#include <png.h>

void png_progressive_combine_row(png_structp png_ptr, png_bytep old_row,
png_bytep new_row);
```

Description

For non-NULL rows of interlaced images during progressive read, png_progressive_combine_row() shall combine the data for the current row with the previously processed row data. png_progressive_combine_row() shall return for NULL rows of interlaced images and memcpy rows for non-interlaced images.

png_read_end

Name

png_read_end -- read the end of PNG file

Synopsis

```
#include <png.h>
void png_read_end(png_structp png_ptr, png_infop info_ptr);
```

Description

png_read_end() reads the end of a PNG file after reading the image data, including any comments or time information at the end of the file. The function shall not read past the end of the file.

png_read_image

Name

png_read_image -- read the entire image into memory

Synopsis

```
#include <png.h>
void png_read_image(png_structp png_ptr, png_bytepp image);
```

Description

png_read_image() reads the entire image into memory at once. For each pass of an interlaced image, use png_read_rows() instead.

png_read_info

Name

png_read_info -- read the PNG image information

Synopsis

```
#include <png.h>
void png_read_info(png_structp png_ptr, png_infop info_ptr);
```

Description

Reads the information before the actual image data from the PNG file. The function allows reading a file that already has the PNG signature bytes read from the stream.

png_read_png

Name

png_read_png -- read the entire PNG file

Synopsis

```
#include <png.h>

void png_read_png(png_structp png_ptr, png_infop info_ptr, int
transforms, png_voidp params);
```

Description

png_read_png() shall provide the high-level read operation. The function shall read the entire image into memory. The integer "transforms" shall contain the logical OR of a set of the following transformation flags:

PNG_TRANSFORM_IDENTITY
No transformation

PNG_TRANSFORM_STRIP_16
Strip 16-bit samples to 8 bits

PNG_TRANSFORM_STRIP_ALPHA
Discard the alpha channel

PNG_TRANSFORM_PACKING
Expand 1, 2 and 4-bit samples to bytes

PNG_TRANSFORM_PACKSWAP
Change order of packed pixels to LSB first

PNG_TRANSFORM_EXPAND
Expand paletted images to RGB, grayscale to 8-bit images and tRNS chunks to alpha channels

PNG_TRANSFORM_INVERT_MONO
Invert monochrome images

PNG_TRANSFORM_SHIFT
Normalize pixels to the sBIT depth

PNG_TRANSFORM_BGR
Flip RGB to BGR, RGBA to BGRA

PNG_TRANSFORM_SWAP_ALPHA
Flip RGBA to ARGB or GA to AG

PNG_TRANSFORM_INVERT_ALPHA
Change alpha from opacity to transparency

PNG_TRANSFORM_SWAP_ENDIAN
Byte-swap 16-bit samples

"params" is unused and must be set to NULL.

png_read_row

Name

png_read_row -- read a row of image data

Synopsis

```
#include <png.h>

void png_read_row(png_structp png_ptr, png_bytep row, png_bytep
display_row);
```

Description

png_read_row() reads a row of actual image data. "row" holds the image pixels as they are processed. If the image is displayed after each pass, "display_row" is used to display a blurred progressive image. "display_row" can be NULL if the progressive image is not required.

png_read_rows

Name

png_read_rows -- read multiple rows of image data

Synopsis

```
#include <png.h>

void png_read_rows(png_structp png_ptr, png_bytepp row, png_bytepp
display_row, png_uint_32 num_rows);
```

Description

Read "num_rows" rows of image data starting from "row". If the image is interlaced, the rows must contain the contents of the rows from the previous pass. If the image is displayed after each pass, "display_row" is used to display a blurred progressive image. "display_row" can be NULL if the progressive image is not required.

png_read_update_info

Name

png_read_update_info -- update png_info structure

Synopsis

```
#include <png.h>
void png_read_update_info(png_structp png_ptr, png_infop info_ptr);
```

Description

png_read_update_info() updates the structure pointed to by *info_ptr* to reflect any transformations that have been requested. For example, rowbytes will be updated to handle expansion of an interlaced image with png_read_update_info().

png_set_IHDR

Name

png_set_IHDR -- set the PNG_IHDR chunk information

Synopsis

```
#include <png.h>

void png_set_IHDR(png_structp png_ptr, png_infop info_ptr, png_uint_32
width, png_uint_32 height, int bit_depth, int color_type, int
interlace_type, int compression_type, int filter_type);
```

Description

png_set_IHDR() shall set image header information in info_ptr. width is the image width in pixels. height is the image height in pixels. bit_depth is the bit depth of the image. Valid values shall include 1, 2, 4, 8, 16 and shall also depend on the color type. color_type is the type of image. Supported color types shall include: PNG_COLOR_TYPE_GRAY (bit depths 1, 2, 4, 8, 16) PNG_COLOR_TYPE_GRAY_ALPHA (bit depths 8, 16) PNG_COLOR_TYPE_PALETTE (bit depths 1, 2, 4, 8) PNG_COLOR_TYPE_RGB (bit depths 8, 16) PNG_COLOR_TYPE_RGB_ALPHA (bit depths 8, 16) PNG_COLOR_MASK_PALETTE PNG_COLOR_MASK_COLOR PNG_COLOR_MASK_ALPHA interlace_type is the image interlace method. Supported values shall include: PNG_INTERLACE_NONE or PNG_INTERLACE_ADAM7 compression_type is the method used for image compression. The value must be PNG_COMPRESSION_TYPE_DEFAULT. filter_type is the method used for image filtering. The value must be PNG_FILTER_TYPE_DEFAULT.

Errors

png_set_IHDR() shall invoke error function if any of the arguments has an invalid value.

png_set_PLTE

Name

png_set_PLTE -- set color values for the palette

Synopsis

```
#include <png.h>

void png_set_PLTE(png_structp png_ptr, png_infop info_ptr, png_colorp
palette, int num_palette);
```

Description

png_set_PLTE() shall set the array of color values used as palette for image to "palette". The palette shall include "num_palette" entries.

png_set_bKGD

Name

png_set_bKGD -- set the background color for given image

Synopsis

```
#include <png.h>

void png_set_bKGD(png_structp png_ptr, png_infop info_ptr, png_color_16p
background);
```

Description

png_set_bKGD() shall set the background color of an image to "background" and sets bKGD chunk information to valid for the image.

png_set_background

Name

png_set_background -- set the background for given image

Synopsis

```
#include <png.h>

void png_set_background(png_structp png_ptr, png_color_16p
background_color, int background_gamma_code, int need_expand, double
background_gamma);
```

Description

png_set_background() shall set the background of an image with alpha channel or simple transparency with the specified background color. If background_gamma_code is set to PNG_BACKGROUND_GAMMA_SCREEN, it indicates that the supplied background color is in the gamma space of the display, else if it is set to PNG_BACKGROUND_GAMMA_FILE, the color is in the gamma space of the file. If the background color is supplied at the original bit-depth for a grayscale image that is expanded to truecolor or to a higher bit-depth, need_expand must be set to 1, but if the background color is supplied at the expanded bit-depth, need_expand must be set to 0. Similarly for paletted images, if background color is supplied as a palette index, need_expand must be set to 1, else if background color is supplied as an RGB triplet, need_expand must be set to 0.

png_set_bgr

Name

png_set_bgr -- set pixel order to blue, green, red

Synopsis

```
#include <png.h>
void png_set_bgr(png_structp png_ptr);
```

Description

png_set_bgr() shall set the pixel order to blue, green, red.

png_set_cHRM

Name

png_set_cHRM -- set CIE chromacities and referenced white point for given image

Synopsis

```
#include <png.h>

void png_set_cHRM(png_structp png_ptr, png_infop info_ptr, double
white_x, double white_y, double red_x, double red_y, double green_x,
double green_y, double blue_x, double blue_y);
```

Description

png_set_cHRM() shall set the CIE x,y chromaticities of the red, green and blue display primaries for the image and the referenced white point. The values must range from 0 to 21474.83 both inclusive.

Errors

png_set_cHRM() shall report a non-fatal error and exit if any of the chromacity values lies outside the range 0 to 21474.83.

png_set_compression_buffer_size

Name

png_set_compression_buffer_size -- set the size of the compression buffer

Synopsis

```
#include <png.h>

void png_set_compression_buffer_size(png_structp png_ptr, png_uint_32
size);
```

Description

This interface shall set the size of the libz compression buffer `zbuf` for the specified PNG file.

The parameter *png_ptr* shall specify the PNG file for which to set the size of the compression buffer.

The parameter *size* shall specify the size to which to set the compression buffer, in bytes.

png_set_compression_level

Name

png_set_compression_level -- set image compression level

Synopsis

```
#include <png.h>
void png_set_compression_level(png_structp png_ptr, int level);
```

Description

png_set_compression_level() shall set the compression level to "level". The valid values for "level" range from [0,9], corresponding directly to compression levels for zlib. The value 0 implies no compression and 9 implies maximal compression. Note: Tests have shown that zlib compression levels 3-6 usually perform as well as level 9 for PNG images, and do considerably fewer calculations.

png_set_compression_mem_level

Name

png_set_compression_mem_level -- set how much memory to use for the internal state during PNG compression

Synopsis

```
#include <png.h>
void png_set_compression_mem_level(png_structp png_ptr, int mem_level);
```

Description

This interface shall set how much memory to use for the internal state during PNG compression.

The parameter *png_ptr* shall specify the PNG file to compress.

The parameter *mem_level* corresponds directly to the *memLevel* parameter of the libz `deflateInit2_()` interface. This parameter shall specify how much memory to use for the internal state. The value of *mem_level* must be between 1 and `MAX_MEM_LEVEL`. Smaller values use less memory but are slower, while higher values use more memory to gain compression speed.

png_set_compression_method

Name

png_set_compression_method -- set PNG compression algorithm

Synopsis

```
#include <png.h>
void png_set_compression_method(png_structp png_ptr, int method);
```

Description

This interface shall set the PNG compression algorithm to use.

The parameter *png_ptr* shall specify the PNG file to compress.

The parameter *method* corresponds directly to the *method* parameter of the libz `deflateInit2()` interface. An LSB-conforming implementation shall support the `Z_DEFLATED` method, and may support other implementation defined methods.

png_set_compression_strategy

Name

png_set_compression_strategy -- set PNG compression strategy

Synopsis

```
#include <png.h>
void png_set_compression_strategy(png_structp png_ptr, int strategy);
```

Description

This interface shall set the PNG compression strategy.

The parameter *png_ptr* shall specify the PNG file to compress.

The parameter *strategy* corresponds directly to the *strategy* parameter of the libz `deflateInit2_()` interface. This parameter shall specify the PNG compression strategy to use: one of `Z_DEFAULT_STRATEGY`, `Z_FILTERED`, and `Z_HUFFMAN_ONLY`.

png_set_compression_window_bits

Name

png_set_compression_window_bits -- set PNG compression window size

Synopsis

```
#include <png.h>

void png_set_compression_window_bits(png_structp png_ptr, int
window_bits);
```

Description

This interface shall set the PNG compression window size.

The parameter *window_bits* corresponds directly to the *windowBits* parameter of the libz `deflateInit2_()` interface. The value of this parameter equals the base 2 logarithm of the window size to use, and must be a value between 8 and 15.

png_set_dither

Name

png_set_dither -- turn on dithering to 8-bit

Synopsis

```
#include <png.h>

void png_set_dither(png_structp png_ptr, png_colorp palette, int
num_palette, int maximum_colors, png_uint_16p histogram, int
full_dither);
```

Description

png_set_dither() shall set transformation to dither file to 8-bit. For the given palette with num_palette number of colors, the number of colors in the palette shall be reduced to fit in "maximum_colors" if the palette is larger than maximum_colors. If supplied, the histogram is used to get better results of the reduced palette. For reducing the number of colors in palette, full_dither must be set to 0. If full_dither is set to 1, dithering cube shall be setup for RGB images to reduce the RGB file to a paletted file.

png_set_error_fn

Name

png_set_error_fn -- set user defined functions for error handling

Synopsis

```
#include <png.h>

void png_set_error_fn(png_structp png_ptr, png_voidp error_ptr,
png_error_ptr error_fn, png_error_ptr warning_fn);
```

Description

png_set_error_fn() shall replace the default error handling and warning functions with user defined function *error_fn* for handling fatal errors and function *warning_fn* for handling non-fatal errors. The replacement functions must do a longjmp to the last setjmp location if setjmp/longjmp method of error handling is used. If *error_fn* or *warning_fn* is NULL, the default functions for error handling shall be used.

png_set_expand

Name

png_set_expand -- set expansion transformation

Synopsis

```
#include <png.h>
void png_set_expand(png_structp png_ptr);
```

Description

`png_set_expand()` shall set transformation in *png_ptr* such that paletted images are expanded to RGB, grayscale images of bit-depth less than 8 are expanded to 8-bit images and tRNS chunks are expanded to alpha channels.

png_set_filler

Name

png_set_filler -- add a filler byte to given image

Synopsis

```
#include <png.h>
void png_set_filler(png_structp png_ptr, png_uint_32 filler, int flags);
```

Description

png_set_filler() shall set transformations in *png_ptr* such that a filler byte is added when an 8-bit grayscale image or 24-bit RGB image is read and a filler byte is deleted when an 8-bit grayscale image or 24-bit RGB image is written.

png_set_filter

Name

png_set_filter -- set filtering method

Synopsis

```
#include <png.h>
void png_set_filter(png_structp png_ptr, int method, int filters);
```

Description

png_set_filter() shall set the filtering method used for scan-line filtering. The only valid value for "method" is 0. "filters" is a bitmap for which the following bits may be set. PNG_NO_FILTERS PNG_FILTER_NONE PNG_FILTER_SUB PNG_FILTER_UP PNG_FILTER_AVG PNG_FILTER_PAETH PNG_ALL_FILTERS

png_set_gAMA

Name

png_set_gAMA -- set the gamma value for given image

Synopsis

```
#include <png.h>

void png_set_gAMA(png_structp png_ptr, png_infop info_ptr, double
file_gamma);
```

Description

Sets the gamma value of an image to "file_gamma" and sets gAMA chunk information to valid for the image.

Errors

png_set_gAMA() shall generate warning if file_gamma > 21474.83 or file_gamma = 0

png_set_gamma

Name

png_set_gamma -- transform the image from file gamma to screen gamma

Synopsis

```
#include <png.h>

void png_set_gamma(png_structp png_ptr, double screen_gamma, double
file_gamma);
```

Description

png_set_gamma() shall set the transformation for gamma correction of the PNG file based on the screen gamma i.e. the display exponent. The gamma transformation may be turned off later if no semitransparent entries are present in the tRNS array for palette images.

png_set_gray_1_2_4_to_8

Name

png_set_gray_1_2_4_to_8 -- set expansion transformation

Synopsis

```
#include <png.h>
void png_set_gray_1_2_4_to_8(png_structp png_ptr);
```

Description

`png_set_gray_1_2_4_to_8()` shall set transformation in *png_ptr* such that grayscale images of bit-depth less than 8 are expanded to 8-bit images. `png_set_png_set_gray_1_2_4_to_8()` is actually an alias for `png_set_expand()`.

png_set_gray_to_rgb

Name

png_set_gray_to_rgb -- expand the grayscale image to 24-bit RGB

Synopsis

```
#include <png.h>
void png_set_gray_to_rgb(png_structp png_ptr);
```

Description

png_set_gray_to_rgb() shall set transformations such that the grayscale image is converted to 24-bit RGB.

png_set_hIST

Name

png_set_hIST -- set the histogram of color palette

Synopsis

```
#include <png.h>

void png_set_hIST(png_structp png_ptr, png_infop info_ptr, png_uint_16p
hist);
```

Description

png_set_hIST() shall set the histogram of palette to "hist".

png_set_iCCP

Name

png_set_iCCP -- set ICC component

Synopsis

```
#include <png.h>

void png_set_iCCP(png_structp png_ptr, png_infop info_ptr, png_charp
name, int compression_type, png_charp profile, png_uint_32 proflen);
```

Description

png_set_iCCP() shall set the ICC component information to info_ptr. The arguments used to describe the ICC profile information have been described below:

<i>name</i>	ICC profile name
<i>compression_type</i>	compression type used must be 0
<i>profile</i>	profile data
<i>proflen</i>	length of profile data

png_set_interlace_handling

Name

png_set_interlace_handling -- get the number of passes for image interlacing

Synopsis

```
#include <png.h>
int png_set_interlace_handling(png_structp png_ptr);
```

Description

png_set_interlace_handling() shall set the scheme to interlacing for writing an image and return the number of sub-images required to write the image.

Return Value

png_set_interlace_handling() shall return 7 if the image is interlaced, otherwise png_set_interlace_handling() shall return 1.

png_set_invert_alpha

Name

png_set_invert_alpha -- invert the level of opacity of a PNG file

Synopsis

```
#include <png.h>
void png_set_invert_alpha(png_structp png_ptr);
```

Description

This interface shall invert the level of opacity (alpha) of a PNG file.

The parameter *png_ptr* shall specify the PNG file for which to invert the opacity.

png_set_invert_mono

Name

png_set_invert_mono -- reverse values for monochromaticity

Synopsis

```
#include <png.h>
void png_set_invert_mono(png_structp png_ptr);
```

Description

png_set_invert_mono() shall set monochromaticity value 0 to white and value 1 to black.

png_set_keep_unknown_chunks

Name

png_set_keep_unknown_chunks -- specify list of chunks and how to handle them

Synopsis

```
#include <png.h>

void png_set_keep_unknown_chunks(png_structp png_ptr, int keep, png_bytep
chunk_list, int num_chunks);
```

Description

This interface shall specify a list of chunks in the input PNG stream and how to handle them. Any unspecified chunks shall be handled in the default way. The IEND and IHDR chunks must not be specified.

The parameter *png_ptr* shall specify the PNG file.

The parameter *keep* shall specify how the unknown chunks are to be handled (see below).

The parameter *chunk_list* shall specify the list of chunks that shall be affected. The value passed must be a string of bytes with five bytes per chunk, or NULL or \0 if the value of *num_chunks* is 0.

The parameter *num_chunks* shall specify the number of chunks to be affected. If the value is 0, all unknown chunks shall be affected.

The possible values of *keep* are as follows.

- 0 handle unknown chunks in the default way
- 1 do not keep unknown chunks
- 2 keep unknown chunks only if they are safe to copy
- 3 keep unknown chunks even if they are unsafe to copy

Application Usage (informative)

The normal behavior of libpng is that known chunks are processed and unknown chunks are discarded. This interface reads both known and unknown chunks, handling them as specified by the user.

Unknown chunks specified to this interface are saved unchanged in a list of `png_unknown_chunk` structures. If a known chunk is specified in the list of unknown chunks, it will be handled per the *keep* parameter. If a chunk is specified in successive calls to this interface, the final call takes precedence.

png_set_mem_fn

Name

png_set_mem_fn -- install custom memory allocation functions

Synopsis

```
#include <png.h>

void png_set_mem_fn(png_structp png_ptr, png_voidp mem_ptr,
png_malloc_ptr malloc_fn, png_free_ptr free_fn);
```

Description

This interface shall install custom memory allocation functions.

The parameter *png_ptr* shall specify the PNG file.

The parameter *mem_ptr* shall specify a struct provided by the user for memory functions.

The parameter *malloc_fn* shall specify the function used to allocate memory. If the value of this parameter is `NULL`, then the capability to allocate memory with the libpng ABI shall be disabled.

The parameter *free_fn* shall specify the function used to free memory. If the value of this parameter is `NULL`, then the capability to free memory with the libpng ABI shall be disabled.

png_set_oFFs

Name

png_set_oFFs -- set screen offsets for given image

Synopsis

```
#include <png.h>

void png_set_oFFs(png_structp png_ptr, png_infop info_ptr, png_int_32
offset_x, png_int_32 offset_y, int unit_type);
```

Description

png_set_oFFs() shall set the positive offset from the left edge of the screen to *offset_x* and the positive offset from the left edge of the screen to *offset_y*. The *unit_type* must be PNG_OFFSET_PIXEL if the offset is defined in pixels or PNG_OFFSET_MICROMETER if the offset is defined in microns.

png_set_pHYs

Name

png_set_pHYs -- set physical resolution

Synopsis

```
#include <png.h>

void png_set_pHYs(png_structp png_ptr, png_infop info_ptr, png_uint_32
res_x, png_uint_32 res_y, int unit_type);
```

Description

png_set_pHYs() sets the physical resolution for the image in pixels per unit. The physical resolution in x direction is set to *res_x* and that in y direction is set to *res_y*. *unit_type* must be set to PNG_RESOLUTION_METER is the unit for resolution is pixels per unit, otherwise *unit_type* must be set to PNG_RESOLUTION_UNKNOWN.

png_set_packing

Name

png_set_packing -- expand image to 1 pixel per byte for bit-depths 1,2 and 4

Synopsis

```
#include <png.h>
void png_set_packing(png_structp png_ptr);
```

Description

png_set_packing() shall expand image to 1 pixel per byte for bit-depths 1, 2 and 4 without changing the order of the pixels. If png_set_packing() is not called, PNG files pack pixels of bit_depths 1, 2 and 4 into bytes as small as possible, for example, 8 pixels per byte for 1-bit files.

png_set_packswap

Name

png_set_packswap -- swap the order of pixels for packed-pixel image

Synopsis

```
#include <png.h>
void png_set_packswap(png_structp png_ptr);
```

Description

png_set_swap() shall change the pixel packing order for each byte for packed-pixel images with bit-depths 1, 2 or 4.

png_set_palette_to_rgb

Name

png_set_palette_to_rgb -- set expansion transformation

Synopsis

```
#include <png.h>
void png_set_palette_to_rgb(png_structp png_ptr);
```

Description

`png_set_palette_to_rgb()` shall set transformation in *png_ptr* such that paletted images are expanded to RGB. `png_set_palette_to_rgb()` is actually an alias for `png_set_expand()`.

png_set_progressive_read_fn

Name

png_set_progressive_read_fn -- set progressive read callback functions

Synopsis

```
#include <png.h>

void png_set_progressive_read_fn(png_structp png_ptr, png_voidp user_ptr,
png_progressive_info_ptr info_callback, png_progressive_row_ptr
row_callback, png_progressive_end_ptr end_callback);
```

Description

png_set_progressive_read_fn() shall provide function callbacks for which shall be called for processing image data by png_process_data(). "info_callback" shall be called to process header information, "row_callback" shall be called when each row is completed and "end_callback" shall be called to process end of image information. png_set_progressive_read_fn() must be called even if all callback functions are NULL. The user-defined structure pointed to by "user_ptr" may be retrieved from inside the callbacks using function get_progressive_ptr().

png_set_read_fn

Name

png_set_read_fn -- set user-defined function for reading a PNG stream

Synopsis

```
#include <png.h>

void png_set_read_fn(png_structp png_ptr, png_voidp io_ptr, png_rw_ptr
read_data_fn);
```

Description

png_set_read_fn() sets the read_data_fn as the input function for reading PNG files instead of using standard C I/O stream functions. png_ptr - pointer to input data structure png_struct io_ptr - pointer to user-defined structure containing information about the input functions. This value may be NULL. read_data_fn - pointer to new input function that shall take the following arguments: - a pointer to a png_struct - a pointer to a structure where input data can be stored - 32-bit unsigned int to indicate number of bytes to read The input function should invoke png_error() to handle any fatal errors and png_warning() to handle non-fatal errors.

png_set_read_user_chunk_fn

Name

`png_set_read_user_chunk_fn` -- install custom callback function to handle unknown chunks in the input stream

Synopsis

```
#include <png.h>

void png_set_read_user_chunk_fn(png_structp png_ptr, png_voidp
user_chunk_ptr, png_user_chunk_ptr read_user_chunk_fn);
```

Description

This interface shall install a custom callback function to handle unknown chunks in the input stream.

The parameter *png_ptr* shall specify the PNG file.

The parameter *user_chunk_ptr* shall specify a user pointer obtainable with `png_get_user_chunk_ptr()`.

The parameter *read_user_chunk_fn* shall specify the custom callback function.

png_set_read_user_transform_fn

Name

png_set_read_user_transform_fn -- install a custom input transformation callback function

Synopsis

```
#include <png.h>

void png_set_read_user_transform_fn(png_structp png_ptr,
png_user_transform_ptr read_user_transform_fn);
```

Description

This interface shall install a custom input transformation callback function.

The parameter *png_ptr* shall specify the PNG file to be transformed.

The parameter *read_user_transform_fn* shall specify the custom callback function.

png_set_rgb_to_gray

Name

png_set_rgb_to_gray -- reduce 24-bit RGB to grayscale image

Synopsis

```
#include <png.h>
void png_set_rgb_to_gray(png_structp png_ptr);
```

Description

png_set_rgb_to_gray() shall set transformations such that the 24-bit RGB image is converted to grayscale.

png_set_rows

Name

png_set_rows -- put image data in png_info structure

Synopsis

```
#include <png.h>
void png_set_rows(png_structp png_ptr, png_infop info_ptr, png_bytepp
row_pointers);
```

Description

png_set_rows() shall put rows of image data into the *info_ptr* structure, where *row_pointers* is an array of pointers to the pixel data for each row.

png_set_sBIT

Name

png_set_sBIT -- set number of significant bits for each channel

Synopsis

```
#include <png.h>

void png_set_sBIT(png_structp png_ptr, png_infop info_ptr, png_color_8p
sig_bit);
```

Description

png_set_sBIT shall set the number of significant bits for each of gray, red, green and blue channels, whichever are appropriate for the given color type.

png_set_sRGB

Name

png_set_sRGB -- set the rendering intent for given image

Synopsis

```
#include <png.h>

void png_set_sRGB(png_structp png_ptr, png_infop info_ptr, int
srgb_intent);
```

Description

png_set_sRGB() shall set the rendering intent of an image as specified by *srgb_intent* and shall set the sRGB chunk information to valid for the image. The presence of sRGB chunk implies that the pixel data is in the sRGB color space. *srgb_intent* can take one of the following values

PNG_sRGB_INTENT_SATURATION
PNG_sRGB_INTENT_PERCEPTUAL
PNG_sRGB_INTENT_ABSOLUTE
PNG_sRGB_INTENT_RELATIVE

png_set_sRGB_gAMA_and_cHRM

Name

png_set_sRGB_gAMA_and_cHRM -- set rendering intent, gamma values, and CIE chromaticities of a PNG file

Synopsis

```
#include <png.h>

void png_set_sRGB_gAMA_and_cHRM(png_structp png_ptr, png_infop info_ptr,
int srgb_intent);
```

Description

This interface shall set the rendering intent, gamma values, and CIE chromaticities of a PNG file.

The parameter *png_ptr* shall specify the PNG file.

The parameter *info_ptr* shall specify the PNG info structure.

The parameter *srgb_intent* shall specify the rendering intent. Because the sRGB chunk is present, the pixel data uses the sRGB color space. This interface shall also write gAMA and cHRM chunks with values consistent with sRGB.

png_set_shift

Name

png_set_shift -- shift pixel values to valid bit-depth

Synopsis

```
#include <png.h>
void png_set_shift(png_structp png_ptr, png_color_8p true_bits);
```

Description

If image data in a row buffer is stored in a bit depth other than those supported by PNG, `png_set_shift()` shall scale the values to a valid bit-depth defined by PNG format. For example, 3-bit data in range 0-7 is scaled to 4-bit PNG.

png_set_sig_bytes

Name

png_set_sig_bytes -- number of bytes read from PNG file

Synopsis

```
#include <png.h>
void png_set_sig_bytes(png_structp png_ptr, int num_bytes);
```

Description

png_set_sig_bytes() shall store the number of bytes of the PNG file signature that have been read from the PNG stream.

Errors

png_set_sig_bytes() shall invoke error function if num_bytes > 8.

png_set_strip_16

Name

png_set_strip_16 -- strip 16 bit PNG file to 8 bit depth

Synopsis

```
#include <png.h>
void png_set_strip_16(png_structp png_ptr);
```

Description

png_set_strip_16() shall strip the pixels of a PNG stream with 16 bits per channel to 8 bits per channel.

png_set_strip_alpha

Name

png_set_strip_alpha -- remove alpha channel on the given image

Synopsis

```
#include <png.h>
void png_set_strip_alpha(png_structp png_ptr);
```

Description

png_set_strip_alpha() shall set transformation on the image to remove the alpha channel.

png_set_swap

Name

png_set_swap -- swap byte-order for 16 bit depth files

Synopsis

```
#include <png.h>
void png_set_swap(png_structp png_ptr);
```

Description

PNG files store 16-bit pixels in network byte order (big-endian, ie most significant bytes first). `png_set_swap()` shall switch the byte-order to little-endian (ie, least significant bits first).

png_set_swap_alpha

Name

png_set_swap_alpha -- swap image data from RGBA to ARGB format

Synopsis

```
#include <png.h>
void png_set_swap_alpha(png_structp png_ptr);
```

Description

png_set_swap_alpha() shall swap data for an image with an alpha channel from RGBA format to ARGB format.

png_set_tIME

Name

png_set_tIME -- set last modification time for the image

Synopsis

```
#include <png.h>

void png_set_tIME(png_structp png_ptr, png_infop info_ptr, png_timep
mod_time);
```

Description

png_set_sBIT shall set the time of last modification of the image in *info_ptr* as specified by *mod_time*.

png_set_tRNS

Name

png_set_tRNS -- set transparency values for images

Synopsis

```
#include <png.h>

void png_set_tRNS(png_structp png_ptr, png_infop info_ptr, png_bytep
trans, int num_trans, png_color_16p trans_values);
```

Description

png_set_tRNS() shall set the transparency data for paletted images and image types that don't need a full alpha channel. For a paletted image, png_set_tRNS() shall set the array of transparency values for the palette colors to "trans". The number of transparency entries is given by "num_trans". For non-paletted images, png_set_tRNS() shall set the single color value or graylevel to "trans_values"

png_set_tRNS_to_alpha

Name

png_set_tRNS_to_alpha -- set expansion transformation

Synopsis

```
#include <png.h>
void png_set_tRNS_to_alpha(png_structp png_ptr);
```

Description

png_set_tRNS_to_alpha() shall set transformation in *png_ptr* such that tRNS chunks are expanded to alpha channels. png_set_tRNS_to_alpha() is actually an alias for png_set_expand().

png_set_text

Name

png_set_text -- stores information for image comments

Synopsis

```
#include <png.h>

void png_set_text(png_structp png_ptr, png_infop info_ptr, png_textp
text_ptr, int num_text);
```

Description

png_set_text() shall store information for image comments given in *text_ptr* to *info_ptr*. *text_ptr* is an array of size *num_text* of png_text structures whose member fields include:

compression type of compression used on text. Valid values are:

PNG_TEXT_COMPRESSION_NONE
PNG_TEXT_COMPRESSION_zTXt
PNG_ITXT_COMPRESSION_NONE
PNG_ITXT_COMPRESSION_zTXt

key keyword for comment. Must contain 1-79 characters.

text text comment for current keyword. May be empty.

text_length length of text string after decompression. 0 for iTXt.

png_set_unknown_chunk_location

Name

png_set_unknown_chunk_location -- set the location of an unknown chunk in a PNG file

Synopsis

```
#include <png.h>

void png_set_unknown_chunk_location(png_structp png_ptr, png_infop
info_ptr, int chunk, int location);
```

Description

This interface shall set the location of an unknown chunk in a PNG file.

The parameter *png_ptr* shall specify the PNG file.

The parameter *info_ptr* shall specify the PNG info structure.

The parameter *chunk* shall specify the number of the chunk in the array of unknown chunks.

The parameter *location* shall specify the new location of the chunk within the PNG file.

png_set_unknown_chunks

Name

png_set_unknown_chunks -- insert unknown chunks into a PNG file

Synopsis

```
#include <png.h>

void png_set_unknown_chunks(png_structp png_ptr, png_info_ptr info_ptr,
png_unknown_chunkp unknowns, int num_unknowns);
```

Description

This interface shall insert unknown chunks into a PNG file.

The parameter *png_ptr* shall specify the PNG file.

The parameter *info_ptr* shall specify the PNG info structure.

The parameter *unknowns* shall specify an array of `png_unknown_chunk` structures containing the unknown chunks, as described under `png_get_unknown_chunks()`. The `location` member of a `png_unknown_chunk` structure can take several special values (see below).

The parameter *num_unknowns* shall specify the number of unknown chunks.

The special values for the `location` members of the `png_unknown_chunk` structures are as follows.

0	do not write the chunk
PNG_HAVE_IHDR	insert chunk before PLTE
PNG_HAVE_PLTE	insert chunk before IDAT
PNG_AFTER_IDAT	insert chunk after IDAT

Notes

The `location` member of the `png_unknown_chunk` structure is set automatically depending on how much of the PNG file has been written. Its value can be changed after calling this interface. The chunk is placed within a location according to its position in the array of structures, as described under `png_get_unknown_chunks()`.

png_set_write_fn

Name

png_set_write_fn -- set user-defined function for writing a PNG stream

Synopsis

```
#include <png.h>

void png_set_write_fn(png_structp png_ptr, png_voidp io_ptr, png_rw_ptr
write_data_fn, png_flush_ptr output_flush_fn);
```

Description

png_set_write_fn() sets the write_data_fn as the output function for writing PNG files instead of using standard C I/O stream functions. png_ptr - pointer to output data structure png_struct io_ptr - pointer to user-defined structure containing information about the output functions. This value may be NULL. write_data_fn - pointer to new output function that shall take the following arguments: - a pointer to a png_struct - a pointer to a structure where output data can be stored - 32-bit unsigned int to indicate number of bytes to write The output function should invoke png_error() to handle any fatal errors and png_warning() to handle non-fatal errors. flush_data_fn - pointer to a new flush function that shall take a pointer to a png_struct as argument. This function shall flush any remaining data in buffers used by the output function. If the output function does not buffer output, a function prototype must still be supplied.

png_set_write_status_fn

Name

png_set_write_status_fn -- install custom callback function to be called after row is written

Synopsis

```
#include <png.h>
void png_set_write_status_fn(png_structp png_ptr, png_write_status_ptr
write_row_fn);
```

Description

This interface shall install a custom callback function to be called after a row has been written.

The parameter *png_ptr* shall specify the PNG file to be transformed.

The parameter *write_row_fn* shall specify the custom callback function.

png_set_write_user_transform_fn

Name

png_set_write_user_transform_fn -- install a custom output transformation callback function

Synopsis

```
#include <png.h>

void png_set_write_user_transform_fn(png_structp png_ptr,
png_user_transform_ptr write_user_transform_fn);
```

Description

This interface shall install a custom output transformation callback function.

The parameter *png_ptr* shall specify the PNG file to be transformed.

The parameter *write_user_transform_fn* shall specify the custom callback function.

png_sig_cmp

Name

png_sig_cmp -- match the PNG signature

Synopsis

```
#include <png.h>
int png_sig_cmp(png_bytep sig, png_size_t start, png_size_t
num_to_check);
```

Description

png_sig_cmp() checks whether the given number of bytes match the PNG signature starting from the start position. The function shall return non-zero if num_to_check == 0 or start > 7.

Return Value

Zero - the given number of bytes starting from start position match the respective bytes of the PNG signature.
Non-zero - the given number of bytes starting from start position do not match the respective bytes of the PNG signature or num_to_check == 0 or start > 7.

png_start_read_image

Name

png_start_read_image -- start reading a PNG file

Synopsis

```
#include <png.h>
void png_start_read_image(png_structp png_ptr);
```

Description

This interface shall update the palette with the previously specified transformations, and then start reading the specified PNG file.

The parameter *png_ptr* shall specify the PNG file to read.

png_warning

Name

png_warning -- default function to handle non-fatal errors

Synopsis

```
#include <png.h>
void png_warning(png_structp png_ptr, png_const_charp warning_message);
```

Description

png_warning() is the default function for handling non-fatal errors. The default function to handle warnings may be changed by using png_set_error_fn() to replace the warning function at run-time.

png_write_chunk

Name

png_write_chunk -- write a PNG chunk

Synopsis

```
#include <png.h>

void png_write_chunk(png_structp png_ptr, png_bytep chunk_name, png_bytep
data, png_size_t length);
```

Description

png_write_chunk() writes the start of a PNG chunk, the chunk data and the end of the chunk all at once.

png_write_end

Name

png_write_end -- write the end of a PNG file

Synopsis

```
#include <png.h>
void png_write_end(png_structp png_ptr, png_infop info_ptr);
```

Description

png_write_end() writes the end of a PNG file to which the image data has already been written. The user may write time information or comments at the end of the PNG file.

png_write_flush

Name

png_write_flush -- flush the current output buffers

Synopsis

```
#include <png.h>
void png_write_flush(png_structp png_ptr);
```

Description

png_write_flush() shall the current output buffers for any pending data.

png_write_image

Name

png_write_image -- write the given image data

Synopsis

```
#include <png.h>
void png_write_image(png_structp png_ptr, png_bytepp image);
```

Description

Write the rows of given image data. If the image is not interlaced, the image shall be written in a single pass.

png_write_info

Name

png_write_info -- write PNG information to file

Synopsis

```
#include <png.h>
void png_write_info(png_structp png_ptr, png_infop info_ptr);
```

Description

png_write_info() writes the PNG information in *info_ptr* to file.

png_write_png

Name

png_write_png -- write the entire PNG file

Synopsis

```
#include <png.h>

void png_write_png(png_structp png_ptr, png_infop info_ptr, int
transforms, png_voidp params);
```

Description

png_write_png() shall provide the high-level write operation. The function shall write the PNG stream if the entire image information is available in png_ptr. The integer "transforms" shall contain the logical OR of a set of the following transformation flags:

PNG_TRANSFORM_IDENTITY
No transformation

PNG_TRANSFORM_PACKING
Expand 1, 2 and 4-bit samples to bytes

PNG_TRANSFORM_PACKSWAP
Change order of packed pixels to LSB first

PNG_TRANSFORM_INVERT_MONO
Invert monochrome images

PNG_TRANSFORM_SHIFT
Normalize pixels to the sBIT depth

PNG_TRANSFORM_BGR
Flip RGB to BGR, RGBA to BGRA

PNG_TRANSFORM_SWAP_ALPHA
Flip RGBA to ARGB or GA to AG

PNG_TRANSFORM_INVERT_ALPHA
Change alpha from opacity to transparency

PNG_TRANSFORM_SWAP_ENDIAN
Byte-swap 16-bit samples

PNG_TRANSFORM_STRIP_FILLER
Strip off filler bytes

"params" is unused and must be set to NULL.

png_write_row

Name

png_write_row -- write a row of image data

Synopsis

```
#include <png.h>
void png_write_row(png_structp png_ptr, png_bytep row);
```

Description

Process and write a row of image data. The header information must have been written before the image data can be written.

png_write_rows

Name

png_write_rows -- write multiple rows of image data

Synopsis

```
#include <png.h>
void png_write_rows(png_structp png_ptr, png_bytepp row, png_uint_32
num_rows);
```

Description

Process and write "num_rows" rows of image data starting from "row".

V. JPEG library

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9.3. Interface Definitions for libjpeg

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Chapter 9. Libraries

9.1. Interfaces for libjpeg

Table 9-1 defines the library name and shared object name for the libjpeg library

Table 9-1. libjpeg Definition

Library:	libjpeg
SONAME:	libjpeg.so.62

The behavior of the interfaces in this library is specified by the following specifications:

[LSB] [This Specification](#)

9.1.1. JPEG Reference library

9.1.1.1. Interfaces for JPEG Reference library

An LSB conforming implementation shall provide the generic functions for JPEG Reference library specified in Table 9-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 9-2. libjpeg - JPEG Reference library Function Interfaces

jpeg_CreateCompress [LSB]	jpeg_CreateDecompress [LSB]	jpeg_abort [LSB]
jpeg_abort_compress [LSB]	jpeg_abort_decompress [LSB]	jpeg_add_quant_table [LSB]
jpeg_alloc_huff_table [LSB]	jpeg_alloc_quant_table [LSB]	jpeg_calc_output_dimensions [LSB]
jpeg_consume_input [LSB]	jpeg_copy_critical_parameters [LSB]	jpeg_default_colorspace [LSB]
jpeg_destroy [LSB]	jpeg_destroy_compress [LSB]	jpeg_destroy_decompress [LSB]
jpeg_finish_compress [LSB]	jpeg_finish_decompress [LSB]	jpeg_finish_output [LSB]
jpeg_has_multiple_scans [LSB]	jpeg_input_complete [LSB]	jpeg_new_colormap [LSB]
jpeg_quality_scaling [LSB]	jpeg_read_coefficients [LSB]	jpeg_read_header [LSB]
jpeg_read_raw_data [LSB]	jpeg_read_scanlines [LSB]	jpeg_resync_to_restart [LSB]
jpeg_save_markers [LSB]	jpeg_set_colorspace [LSB]	jpeg_set_defaults [LSB]
jpeg_set_linear_quality [LSB]	jpeg_set_marker_processor [LSB]	jpeg_set_quality [LSB]
jpeg_simple_progression [LSB]	jpeg_start_compress [LSB]	jpeg_start_decompress [LSB]

jpeg_start_output [LSB]	jpeg_std_error [LSB]	jpeg_stdio_dest [LSB]
jpeg_stdio_src [LSB]	jpeg_suppress_tables [LSB]	jpeg_write_coefficients [LSB]
jpeg_write_m_byte [LSB]	jpeg_write_m_header [LSB]	jpeg_write_marker [LSB]
jpeg_write_raw_data [LSB]	jpeg_write_scanlines [LSB]	jpeg_write_tables [LSB]

9.2. Data Definitions for libjpeg

This section defines global identifiers and their values that are associated with interfaces contained in libjpeg. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

9.2.1. jerror.h

```
#define JERROR_H
#define JMESSAGE(code,string) code ,
#define MAKESTMT(stuff) do { stuff } while (0)
#define TRACEMS(cinfo, lvl, code) \
    ((cinfo)->err->msg_code = (code), \
     (* (cinfo)->err->emit_message) ((j_common_ptr) (cinfo), (lvl)))
#define WARNMS(cinfo, code) \
    ((cinfo)->err->msg_code = (code), \
     (* (cinfo)->err->emit_message) ((j_common_ptr) (cinfo), -1))
#define ERREXIT(cinfo, code) \
    ((cinfo)->err->msg_code = (code), \
     (* (cinfo)->err->error_exit) ((j_common_ptr) (cinfo)))
#define TRACEMS1(cinfo, lvl, code, p1) \
    ((cinfo)->err->msg_code = (code), \
     (cinfo)->err->msg_parm.i[0] = (p1), \
     (* (cinfo)->err->emit_message) ((j_common_ptr) (cinfo), (lvl)))
#define ERREXIT1(cinfo, code, p1) \
    ((cinfo)->err->msg_code = (code), \
     (cinfo)->err->msg_parm.i[0] = (p1), \
     (* (cinfo)->err->error_exit) ((j_common_ptr) (cinfo)))
#define TRACEMS2(cinfo, lvl, code, p1, p2) \
    ((cinfo)->err->msg_code = (code), \
     (cinfo)->err->msg_parm.i[0] = (p1), \
     (cinfo)->err->msg_parm.i[1] = (p2), \
     (* (cinfo)->err->emit_message) ((j_common_ptr) (cinfo), (lvl)))
#define WARNMS2(cinfo, code, p1, p2) \
    ((cinfo)->err->msg_code = (code), \
     (cinfo)->err->msg_parm.i[0] = (p1), \
     (cinfo)->err->msg_parm.i[1] = (p2), \
     (* (cinfo)->err->emit_message) ((j_common_ptr) (cinfo), -1))
```

```

#define ERREXIT2(cinfo,code,p1,p2) \
    ((cinfo)->err->msg_code = (code), \
    (cinfo)->err->msg_parm.i[0] = (p1), \
    (cinfo)->err->msg_parm.i[1] = (p2), \
    (*(cinfo)->err->error_exit) ((j_common_ptr) (cinfo)))
#define ERREXIT3(cinfo,code,p1,p2,p3) \
    ((cinfo)->err->msg_code = (code), \
    (cinfo)->err->msg_parm.i[0] = (p1), \
    (cinfo)->err->msg_parm.i[1] = (p2), \
    (cinfo)->err->msg_parm.i[2] = (p3), \
    (*(cinfo)->err->error_exit) ((j_common_ptr) (cinfo)))
#define ERREXIT4(cinfo,code,p1,p2,p3,p4) \
    ((cinfo)->err->msg_code = (code), \
    (cinfo)->err->msg_parm.i[0] = (p1), \
    (cinfo)->err->msg_parm.i[1] = (p2), \
    (cinfo)->err->msg_parm.i[2] = (p3), \
    (cinfo)->err->msg_parm.i[3] = (p4), \
    (*(cinfo)->err->error_exit) ((j_common_ptr) (cinfo)))
#define TRACEMSS(cinfo,lv1,code,str) \
    ((cinfo)->err->msg_code = (code), \
    strncpy((cinfo)->err->msg_parm.s, (str), JMSG_STR_PARM_MAX), \
    (*(cinfo)->err->emit_message) ((j_common_ptr) (cinfo), (lv1)))
#define ERREXITS(cinfo,code,str) \
    ((cinfo)->err->msg_code = (code), \
    strncpy((cinfo)->err->msg_parm.s, (str), JMSG_STR_PARM_MAX), \
    (*(cinfo)->err->error_exit) ((j_common_ptr) (cinfo)))
#define WARNMS1(cinfo,code,p1) \
    ((cinfo)->err->msg_code = (code), \
    (cinfo)->err->msg_parm.i[0] = (p1), \
    (*(cinfo)->err->emit_message) ((j_common_ptr) (cinfo), -1))
#define TRACEMS3(cinfo,lv1,code,p1,p2,p3) \
    MAKESTMT(int * _mp = (cinfo)->err->msg_parm.i; \
    _mp[0] = (p1); _mp[1] = (p2); _mp[2] = (p3); \
    (cinfo)->err->msg_code = (code); \
    (*(cinfo)->err->emit_message) ((j_common_ptr) (cinfo), (lv1)); )
#define TRACEMS4(cinfo,lv1,code,p1,p2,p3,p4) \
    MAKESTMT(int * _mp = (cinfo)->err->msg_parm.i; \
    _mp[0] = (p1); _mp[1] = (p2); _mp[2] = (p3); _mp[3] = (p4); \
    (cinfo)->err->msg_code = (code); \
    (*(cinfo)->err->emit_message) ((j_common_ptr) (cinfo), (lv1)); )
#define TRACEMS5(cinfo,lv1,code,p1,p2,p3,p4,p5) \
    MAKESTMT(int * _mp = (cinfo)->err->msg_parm.i; \
    _mp[0] = (p1); _mp[1] = (p2); _mp[2] = (p3); _mp[3] = (p4); \
    _mp[4] = (p5); \
    (cinfo)->err->msg_code = (code); \
    (*(cinfo)->err->emit_message) ((j_common_ptr) (cinfo), (lv1)); )
#define TRACEMS8(cinfo,lv1,code,p1,p2,p3,p4,p5,p6,p7,p8) \
    MAKESTMT(int * _mp = (cinfo)->err->msg_parm.i; \
    _mp[0] = (p1); _mp[1] = (p2); _mp[2] = (p3); _mp[3] = (p4); \
    _mp[4] = (p5); _mp[5] = (p6); _mp[6] = (p7); _mp[7] = (p8); \
    (cinfo)->err->msg_code = (code); \
    (*(cinfo)->err->emit_message) ((j_common_ptr) (cinfo), (lv1)); )

typedef enum {
    JMSG_NOMESSAGE = 0,
    JERR_ARITH_NOTIMPL = 1,
    JERR_BAD_ALIGN_TYPE = 2,
    JERR_BAD_ALLOC_CHUNK = 3,
    JERR_BAD_BUFFER_MODE = 4,
    JERR_BAD_COMPONENT_ID = 5,
    JERR_BAD_CROP_SPEC = 6,
    JERR_BAD_DCT_COEF = 7,

```

```

JERR_BAD_DCTSIZE = 8,
JERR_BAD_HUFF_TABLE = 9,
JERR_BAD_IN_COLORSPACE = 10,
JERR_BAD_J_COLORSPACE = 11,
JERR_BAD_LENGTH = 12,
JERR_BAD_LIB_VERSION = 13,
JERR_BAD_MCU_SIZE = 14,
JERR_BAD_POOL_ID = 15,
JERR_BAD_PRECISION = 16,
JERR_BAD_PROGRESSION = 17,
JERR_BAD_PROG_SCRIPT = 18,
JERR_BAD_SAMPLING = 19,
JERR_BAD_SCAN_SCRIPT = 20,
JERR_BAD_STATE = 21,
JERR_BAD_STRUCT_SIZE = 22,
JERR_BAD_VIRTUAL_ACCESS = 23,
JERR_BUFFER_SIZE = 24,
JERR_CANT_SUSPEND = 25,
JERR_CCIR601_NOTIMPL = 26,
JERR_COMPONENT_COUNT = 27,
JERR_CONVERSION_NOTIMPL = 28,
JERR_DAC_INDEX = 29,
JERR_DAC_VALUE = 30,
JERR_DHT_INDEX = 31,
JERR_DQT_INDEX = 32,
JERR_EMPTY_IMAGE = 33,
JERR_EMS_READ = 34,
JERR_EMS_WRITE = 35,
JERR_EOI_EXPECTED = 36,
JERR_FILE_READ = 37,
JERR_FILE_WRITE = 38,
JERR_FRACT_SAMPLE_NOTIMPL = 39,
JERR_HUFF_CLEN_OVERFLOW = 40,
JERR_HUFF_MISSING_CODE = 41,
JERR_IMAGE_TOO_BIG = 42,
JERR_INPUT_EMPTY = 43,
JERR_INPUT_EOF = 44,
JERR_MISMATCHED_QUANT_TABLE = 45,
JERR_MISSING_DATA = 46,
JERR_MODE_CHANGE = 47,
JERR_NOTIMPL = 48,
JERR_NOT_COMPILED = 49,
JERR_NO_BACKING_STORE = 50,
JERR_NO_HUFF_TABLE = 51,
JERR_NO_IMAGE = 52,
JERR_NO_QUANT_TABLE = 53,
JERR_NO_SOI = 54,
JERR_OUT_OF_MEMORY = 55,
JERR_QUANT_COMPONENTS = 56,
JERR_QUANT_FEW_COLORS = 57,
JERR_QUANT_MANY_COLORS = 58,
JERR_SOF_DUPLICATE = 59,
JERR_SOF_NO_SOS = 60,
JERR_SOF_UNSUPPORTED = 61,
JERR_SOI_DUPLICATE = 62,
JERR_SOS_NO_SOF = 63,
JERR_TFILE_CREATE = 64,
JERR_TFILE_READ = 65,
JERR_TFILE_SEEK = 66,
JERR_TFILE_WRITE = 67,
JERR_TOO_LITTLE_DATA = 68,
JERR_UNKNOWN_MARKER = 69,

```

```

JERR_VIRTUAL_BUG = 70,
JERR_WIDTH_OVERFLOW = 71,
JERR_XMS_READ = 72,
JERR_XMS_WRITE = 73,
JMSG_COPYRIGHT = 74,
JMSG_VERSION = 75,
JTRC_16BIT_TABLES = 76,
JTRC_ADOBE = 77,
JTRC_APP0 = 78,
JTRC_APP14 = 79,
JTRC_DAC = 80,
JTRC_DHT = 81,
JTRC_DQT = 82,
JTRC_DRI = 83,
JTRC_EMS_CLOSE = 84,
JTRC_EMS_OPEN = 85,
JTRC_EOI = 86,
JTRC_HUFFBITS = 87,
JTRC_JFIF = 88,
JTRC_JFIF_BADTHUMBNAILSIZE = 89,
JTRC_JFIF_EXTENSION = 90,
JTRC_JFIF_THUMBNAIL = 91,
JTRC_MISC_MARKER = 92,
JTRC_PARMLESS_MARKER = 93,
JTRC_QUANTVALS = 94,
JTRC_QUANT_3_NCOLORS = 95,
JTRC_QUANT_NCOLORS = 96,
JTRC_QUANT_SELECTED = 97,
JTRC_RECOVERY_ACTION = 98,
JTRC_RST = 99,
JTRC_SMOOTH_NOTIMPL = 100,
JTRC_SOF = 101,
JTRC_SOF_COMPONENT = 102,
JTRC_SOI = 103,
JTRC_SOS = 104,
JTRC_SOS_COMPONENT = 105,
JTRC_SOS_PARAMS = 106,
JTRC_TFILE_CLOSE = 107,
JTRC_TFILE_OPEN = 108,
JTRC_THUMB_JPEG = 109,
JTRC_THUMB_PALETTE = 110,
JTRC_THUMB_RGB = 111,
JTRC_UNKNOWN_IDS = 112,
JTRC_XMS_CLOSE = 113,
JTRC_XMS_OPEN = 114,
JWRN_ADOBE_XFORM = 115,
JWRN_BOGUS_PROGRESSION = 116,
JWRN_EXTRANEIOUS_DATA = 117,
JWRN_HIT_MARKER = 118,
JWRN_HUFF_BAD_CODE = 119,
JWRN_JFIF_MAJOR = 120,
JWRN_JPEG_EOF = 121,
JWRN_MUST_RESYNC = 122,
JWRN_NOT_SEQUENTIAL = 123,
JWRN_TOO_MUCH_DATA = 124,
JMSG_LASTMSGCODE = 125
} J_MESSAGE_CODE;

```

9.2.2. jpeglib.h

```

#define FAR
#define HAVE_PROTOTYPES
#define HAVE_UNSIGNED_CHAR
#define HAVE_UNSIGNED_SHORT
#define jpeg_create_compress(cinfo) \
    jpeg_CreateCompress((cinfo), JPEG_LIB_VERSION, (size_t) sizeof(struct \
    jpeg_compress_struct))
#define jpeg_create_decompress(cinfo) \
    jpeg_CreateDecompress((cinfo), JPEG_LIB_VERSION, (size_t) \
    sizeof(struct jpeg_decompress_struct))
#define jpeg_common_fields \
    struct jpeg_error_mgr * err; struct jpeg_memory_mgr * mem; struct \
    jpeg_progress_mgr * progress; void * client_data; boolean \
    is_decompressor; int global_state
#define GETJSAMPLE(value) ((int) (value))
#define GETJOCTET(value) (value)
#define JPEG_SUSPENDED 0
#define JPOOL_PERMANENT 0
#define JPEG_RST0 0xD0
#define JPEG_EOI 0xD9
#define JPEG_APP0 0xE0
#define JPEG_COM 0xFE
#define JPEG_HEADER_OK 1
#define JPEG_REACHED_SOS 1
#define JPOOL_IMAGE 1
#define C_MAX_BLOCKS_IN_MCU 10
#define D_MAX_BLOCKS_IN_MCU 10
#define MAX_COMPONENTS 10
#define CENTERJSAMPLE 128
#define NUM_ARITH_TBLS 16
#define JPEG_HEADER_TABLES_ONLY 2
#define JPEG_REACHED_EOI 2
#define JPOOL_NUMPOOLS 2
#define JMSG_LENGTH_MAX 200
#define MAXJSAMPLE 255
#define JPEG_ROW_COMPLETED 3
#define JPEG_SCAN_COMPLETED 4
#define MAX_COMPS_IN_SCAN 4
#define MAX_SAMP_FACTOR 4
#define NUM_HUFF_TBLS 4
#define NUM_QUANT_TBLS 4
#define JPEG_LIB_VERSION 62
#define DCTSIZE2 64
#define JPEG_MAX_DIMENSION 65500L
#define BITS_IN_JSAMPLE 8
#define DCTSIZE 8
#define JMSG_STR_PARM_MAX 80
#define JPP(arglist) arglist
#define EXTERN(type) extern type
#define JDCT_FASTEST JDCT_IFAST
#define JDCT_DEFAULT JDCT_ISLOW
#define LOCAL(type) static type
#define METHODDEF(type) static type
#define GLOBAL(type) type
#define JMETHOD(type,methodname,arglist) type (*methodname) arglist

struct jpeg_decompress_struct {
    struct jpeg_error_mgr *err;
    struct jpeg_memory_mgr *mem;

```

```

struct jpeg_progress_mgr *progress;
void *client_data;
boolean is_decompressor;
int global_state;
struct jpeg_source_mgr *src;
JDIMENSION image_width;
JDIMENSION image_height;
int num_components;
J_COLOR_SPACE jpeg_color_space;
J_COLOR_SPACE out_color_space;
unsigned int scale_num;
unsigned int scale_denom;
double output_gamma;
boolean buffered_image;
boolean raw_data_out;
J_DCT_METHOD dct_method;
boolean do_fancy_upsampling;
boolean do_block_smoothing;
boolean quantize_colors;
J_DITHER_MODE dither_mode;
boolean two_pass_quantize;
int desired_number_of_colors;
boolean enable_1pass_quant;
boolean enable_external_quant;
boolean enable_2pass_quant;
JDIMENSION output_width;
JDIMENSION output_height;
int out_color_components;
int output_components;
int rec_outbuf_height;
int actual_number_of_colors;
JSAMPARRAY colormap;
JDIMENSION output_scanline;
int input_scan_number;
JDIMENSION input_iMCU_row;
int output_scan_number;
JDIMENSION output_iMCU_row;
int *coef_bits;
JQUANT_TBL *quant_tbl_ptrs[4];
JHUFF_TBL *dc_huff_tbl_ptrs[4];
JHUFF_TBL *ac_huff_tbl_ptrs[4];
int data_precision;
jpeg_component_info *comp_info;
boolean progressive_mode;
boolean arith_code;
UINT8 arith_dc_L[16];
UINT8 arith_dc_U[16];
UINT8 arith_ac_K[16];
unsigned int restart_interval;
boolean saw_JFIF_marker;
UINT8 JFIF_major_version;
UINT8 JFIF_minor_version;
UINT8 density_unit;
UINT16 X_density;
UINT16 Y_density;
boolean saw_Adobe_marker;
UINT8 Adobe_transform;
boolean CCIR601_sampling;
jpeg_saved_marker_ptr marker_list;
int max_h_samp_factor;
int max_v_samp_factor;
int min_DCT_scaled_size;

```

```

JDIMENSION total_iMCU_rows;
JSAMPLE *sample_range_limit;
int comps_in_scan;
jpeg_component_info *cur_comp_info[4];
JDIMENSION MCUs_per_row;
JDIMENSION MCU_rows_in_scan;
int blocks_in_MCU;
int MCU_membership[10];
int Ss;
int Se;
int Ah;
int Al;
int unread_marker;
struct jpeg_decomp_master *master;
struct jpeg_d_main_controller *main;
struct jpeg_d_coef_controller *coef;
struct jpeg_d_post_controller *post;
struct jpeg_input_controller *inputctl;
struct jpeg_marker_reader *marker;
struct jpeg_entropy_decoder *entropy;
struct jpeg_inverse_dct *idct;
struct jpeg_upsampler *upsample;
struct jpeg_color_deconverter *cconvert;
struct jpeg_color_quantizer *cquantize;
};

struct jpeg_error_mgr {
    void (*error_exit) (j_common_ptr);
    void (*emit_message) (j_common_ptr, int);
    void (*output_message) (j_common_ptr);
    void (*format_message) (j_common_ptr, char *);
    void (*reset_error_mgr) (j_common_ptr);
    int msg_code;
    union {
        int i[8];
        char s[80];
    } msg_parm;
    int trace_level;
    long int num_warnings;
    const char *const *jpeg_message_table;
    int last_jpeg_message;
    const char *const *addon_message_table;
    int first_addon_message;
    int last_addon_message;
};

struct jpeg_common_struct {
    struct jpeg_error_mgr *err;
    struct jpeg_memory_mgr *mem;
    struct jpeg_progress_mgr *progress;
    void *client_data;
    boolean is_decompressor;
    int global_state;
};

struct jpeg_memory_mgr {
    void *(*alloc_small) (j_common_ptr, int, size_t);
    void *(*alloc_large) (j_common_ptr, int, size_t);
    JSAMPARRAY(*alloc_sarray) (j_common_ptr, int, JDIMENSION, JDIMENSION);
    JBLOCKARRAY(*alloc_barray) (j_common_ptr, int, JDIMENSION,
                                JDIMENSION);
    jvirt_sarray_ptr(*request_virt_sarray) (j_common_ptr, int, boolean,
                                           JDIMENSION, JDIMENSION,
                                           JDIMENSION);
    jvirt_barray_ptr(*request_virt_barray) (j_common_ptr, int, boolean,

```

```

                                JDIMENSION, JDIMENSION,
                                JDIMENSION);

void (*realize_virt_arrays) (j_common_ptr);
JSAMPARRAY(*access_virt_sarray) (j_common_ptr, jvirt_sarray_ptr,
                                JDIMENSION, JDIMENSION, boolean);
JBLOCKARRAY(*access_virt_barray) (j_common_ptr, jvirt_barray_ptr,
                                JDIMENSION, JDIMENSION, boolean);

void (*free_pool) (j_common_ptr, int);
void (*self_destruct) (j_common_ptr);
long int max_memory_to_use;
long int max_alloc_chunk;
};

typedef struct jpeg_common_struct *j_common_ptr;
typedef unsigned char JSAMPLE;
typedef JSAMPLE *JSAMPROW;
typedef JSAMPROW *JSAMPARRAY;
typedef unsigned int JDIMENSION;
typedef short int JCOEF;
typedef JCOEF JBLOCK[64];
typedef JBLOCK *JBLOCKROW;
typedef JBLOCKROW *JBLOCKARRAY;
typedef struct jvirt_sarray_control *jvirt_sarray_ptr;
typedef int boolean;
typedef struct jvirt_barray_control *jvirt_barray_ptr;
struct jpeg_progress_mgr {
    void (*progress_monitor) (j_common_ptr);
    long int pass_counter;
    long int pass_limit;
    int completed_passes;
    int total_passes;
};

struct jpeg_source_mgr {
    const JOCTET *next_input_byte;
    size_t bytes_in_buffer;
    void (*init_source) (j_decompress_ptr);
    boolean(*fill_input_buffer) (j_decompress_ptr);
    void (*skip_input_data) (j_decompress_ptr, long int);
    boolean(*resync_to_restart) (j_decompress_ptr, int);
    void (*term_source) (j_decompress_ptr);
};

typedef unsigned char JOCTET;
typedef struct jpeg_decompress_struct *j_decompress_ptr;
typedef enum {
    JCS_UNKNOWN = 0,
    JCS_GRAYSCALE = 1,
    JCS_RGB = 2,
    JCS_YCbCr = 3,
    JCS_CMYK = 4,
    JCS_YCCK = 5
} J_COLOR_SPACE;
typedef enum {
    JDCT_ISLOW = 0,
    JDCT_IFAST = 1,
    JDCT_FLOAT = 2
} J_DCT_METHOD;
typedef enum {
    JDITHER_NONE = 0,
    JDITHER_ORDERED = 1,
    JDITHER_FS = 2
} J_DITHER_MODE;
typedef short unsigned int UINT16;
typedef struct {

```



```

    UINT16 quantval[64];
    boolean sent_table;
} JQUANT_TBL;
typedef unsigned char UINT8;
typedef struct {
    UINT8 bits[17];
    UINT8 huffval[256];
    boolean sent_table;
} JHUFF_TBL;
typedef struct {
    int component_id;
    int component_index;
    int h_samp_factor;
    int v_samp_factor;
    int quant_tbl_no;
    int dc_tbl_no;
    int ac_tbl_no;
    JDIMENSION width_in_blocks;
    JDIMENSION height_in_blocks;
    int DCT_scaled_size;
    JDIMENSION downsampled_width;
    JDIMENSION downsampled_height;
    boolean component_needed;
    int MCU_width;
    int MCU_height;
    int MCU_blocks;
    int MCU_sample_width;
    int last_col_width;
    int last_row_height;
    JQUANT_TBL *quant_table;
    void *dct_table;
} jpeg_component_info;
struct jpeg_marker_struct {
    jpeg_saved_marker_ptr next;
    UINT8 marker;
    unsigned int original_length;
    unsigned int data_length;
    JOCTET *data;
};
typedef struct jpeg_marker_struct *jpeg_saved_marker_ptr;
struct jpeg_compress_struct {
    struct jpeg_error_mgr *err;
    struct jpeg_memory_mgr *mem;
    struct jpeg_progress_mgr *progress;
    void *client_data;
    boolean is_decompressor;
    int global_state;
    struct jpeg_destination_mgr *dest;
    JDIMENSION image_width;
    JDIMENSION image_height;
    int input_components;
    J_COLOR_SPACE in_color_space;
    double input_gamma;
    int data_precision;
    int num_components;
    J_COLOR_SPACE jpeg_color_space;
    jpeg_component_info *comp_info;
    JQUANT_TBL *quant_tbl_ptrs[4];
    JHUFF_TBL *dc_huff_tbl_ptrs[4];
    JHUFF_TBL *ac_huff_tbl_ptrs[4];
    UINT8 arith_dc_L[16];
    UINT8 arith_dc_U[16];

```

```

UINT8 arith_ac_K[16];
int num_scans;
const jpeg_scan_info *scan_info;
boolean raw_data_in;
boolean arith_code;
boolean optimize_coding;
boolean CCIR601_sampling;
int smoothing_factor;
J_DCT_METHOD dct_method;
unsigned int restart_interval;
int restart_in_rows;
boolean write_JFIF_header;
UINT8 JFIF_major_version;
UINT8 JFIF_minor_version;
UINT8 density_unit;
UINT16 X_density;
UINT16 Y_density;
boolean write_Adobe_marker;
JDIMENSION next_scanline;
boolean progressive_mode;
int max_h_samp_factor;
int max_v_samp_factor;
JDIMENSION total_iMCU_rows;
int comps_in_scan;
jpeg_component_info *cur_comp_info[4];
JDIMENSION MCUs_per_row;
JDIMENSION MCU_rows_in_scan;
int blocks_in_MCU;
int MCU_membership[10];
int Ss;
int Se;
int Ah;
int Al;
struct jpeg_comp_master *master;
struct jpeg_c_main_controller *main;
struct jpeg_c_prep_controller *prep;
struct jpeg_c_coef_controller *coef;
struct jpeg_marker_writer *marker;
struct jpeg_color_converter *cconvert;
struct jpeg_downsampler *downsample;
struct jpeg_forward_dct *fdct;
struct jpeg_entropy_encoder *entropy;
jpeg_scan_info *script_space;
int script_space_size;
};
struct jpeg_destination_mgr {
    JOCTET *next_output_byte;
    size_t free_in_buffer;
    void (*init_destination) (j_compress_ptr);
    boolean (*empty_output_buffer) (j_compress_ptr);
    void (*term_destination) (j_compress_ptr);
};
typedef struct jpeg_compress_struct *j_compress_ptr;
typedef struct {
    int comps_in_scan;
    int component_index[4];
    int Ss;
    int Se;
    int Ah;
    int Al;
} jpeg_scan_info;
typedef JSAMPARRAY *JSAMPIMAGE;

```

```

typedef boolean(*jpeg_marker_parser_method) (j_decompress_ptr);
extern void jpeg_CreateCompress(j_compress_ptr, int, size_t);
extern void jpeg_CreateDecompress(j_decompress_ptr, int, size_t);
extern void jpeg_abort(j_common_ptr);
extern void jpeg_abort_compress(j_compress_ptr);
extern void jpeg_abort_decompress(j_decompress_ptr);
extern void jpeg_add_quant_table(j_compress_ptr, int, const unsigned int *,
                                int, boolean);
extern JHUFF_TBL *jpeg_alloc_huff_table(j_common_ptr);
extern JQUANT_TBL *jpeg_alloc_quant_table(j_common_ptr);
extern void jpeg_calc_output_dimensions(j_decompress_ptr);
extern int jpeg_consume_input(j_decompress_ptr);
extern void jpeg_copy_critical_parameters(j_decompress_ptr,
                                          j_compress_ptr);
extern void jpeg_default_colorspace(j_compress_ptr);
extern void jpeg_destroy(j_common_ptr);
extern void jpeg_destroy_compress(j_compress_ptr);
extern void jpeg_destroy_decompress(j_decompress_ptr);
extern void jpeg_finish_compress(j_compress_ptr);
extern boolean jpeg_finish_decompress(j_decompress_ptr);
extern boolean jpeg_finish_output(j_decompress_ptr);
extern boolean jpeg_has_multiple_scans(j_decompress_ptr);
extern boolean jpeg_input_complete(j_decompress_ptr);
extern void jpeg_new_colormap(j_decompress_ptr);
extern int jpeg_quality_scaling(int);
extern jvirt_barray_ptr *jpeg_read_coefficients(j_decompress_ptr);
extern int jpeg_read_header(j_decompress_ptr, boolean);
extern JDIMENSION jpeg_read_raw_data(j_decompress_ptr, JSAMPIMAGE,
                                      JDIMENSION);
extern JDIMENSION jpeg_read_scanlines(j_decompress_ptr, JSAMPARRAY,
                                       JDIMENSION);
extern boolean jpeg_resync_to_restart(j_decompress_ptr, int);
extern void jpeg_save_markers(j_decompress_ptr, int, unsigned int);
extern void jpeg_set_colorspace(j_compress_ptr, J_COLOR_SPACE);
extern void jpeg_set_defaults(j_compress_ptr);
extern void jpeg_set_linear_quality(j_compress_ptr, int, boolean);
extern void jpeg_set_marker_processor(j_decompress_ptr, int,
                                      jpeg_marker_parser_method);
extern void jpeg_set_quality(j_compress_ptr, int, boolean);
extern void jpeg_simple_progression(j_compress_ptr);
extern void jpeg_start_compress(j_compress_ptr, boolean);
extern boolean jpeg_start_decompress(j_decompress_ptr);
extern boolean jpeg_start_output(j_decompress_ptr, int);
extern struct jpeg_error_mgr *jpeg_std_error(struct jpeg_error_mgr *);
extern void jpeg_stdio_dest(j_compress_ptr, FILE *);
extern void jpeg_stdio_src(j_decompress_ptr, FILE *);
extern void jpeg_suppress_tables(j_compress_ptr, boolean);
extern void jpeg_write_coefficients(j_compress_ptr, jvirt_barray_ptr *);
extern void jpeg_write_m_byte(j_compress_ptr, int);
extern void jpeg_write_m_header(j_compress_ptr, int, unsigned int);
extern void jpeg_write_marker(j_compress_ptr, int, const JOCTET *,
                              unsigned int);
extern JDIMENSION jpeg_write_raw_data(j_compress_ptr, JSAMPIMAGE,
                                       JDIMENSION);
extern JDIMENSION jpeg_write_scanlines(j_compress_ptr, JSAMPARRAY,
                                       JDIMENSION);
extern void jpeg_write_tables(j_compress_ptr);

```

9.3. Interface Definitions for libjpeg

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jpeg_write_tables -- create a tables-only file

The interfaces defined on the following pages are included in libjpeg and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in Section 9.1 shall behave as described in the referenced base document.

jpeg_CreateCompress

Name

jpeg_CreateCompress -- allocate and initialize a JPEG compression object

Synopsis

```
#include <jpeglib.h>
void jpeg_CreateCompress(j_compress_ptr cinfo, int version, size_t size);
```

Description

The function `jpeg_CreateCompress()` shall allocate and initialize a JPEG compression object of type `struct jpeg_compress_struct`. The error handler structure of type `struct jpeg_error_mgr` must be initialized before making a call to `jpeg_CreateCompress()`. `JPEG_LIB_VERSION` and size of the structure used to hold the JPEG compression object `struct jpeg_compress_struct` must be passed in arguments `version` and `size` respectively.

Errors

`jpeg_CreateCompress()` shall exit via the error handler if it fails to allocate memory.

jpeg_CreateDecompress

Name

jpeg_CreateDecompress -- allocate and initialize a JPEG decompression object

Synopsis

```
#include <jpeglib.h>

void jpeg_CreateDecompress(j_decompress_ptr cinfo, int version, size_t
size);
```

Description

The function `jpeg_CreateDecompress()` shall allocate and initialize a JPEG decompression object of type `struct jpeg_decompress_struct`. The error handler structure of type `struct jpeg_error_mgr` must be initialized before making a call to `jpeg_CreateDecompress()`. `JPEG_LIB_VERSION` and size of the structure used to hold the JPEG compression object `struct jpeg_decompress_struct` must be passed in arguments `version` and `size` respectively.

Errors

`jpeg_CreateDecompress()` shall exit via the error handler if it fails to allocate memory.

jpeg_abort

Name

jpeg_abort -- aborts the compression or decompression cycle

Synopsis

```
#include <jpeglib.h>
void jpeg_abort(j_common_ptr cinfo);
```

Description

The function jpeg_abort() shall abort the processing of a compression or decompression operation. The function shall return the given object to an idle state releasing any working memory. The object may be reused after a call to jpeg_abort().

jpeg_abort_compress

Name

jpeg_abort_compress -- abort processing of JPEG compression operation

Synopsis

```
#include <jpeglib.h>
void jpeg_abort_compress(j_compress_ptr cinfo);
```

Description

The function `jpeg_abort_compress()` shall abort the processing of a JPEG compression operation. The function shall return the given compression object to an idle state releasing any working memory. The compression object may be reused after a call to `jpeg_abort_compress()`.

jpeg_abort_decompress

Name

jpeg_abort_decompress -- abort processing of JPEG decompression operation

Synopsis

```
#include <jpeglib.h>
void jpeg_abort_decompress(j_decompress_ptr cinfo);
```

Description

The function `jpeg_abort_decompress()` shall abort the processing of a JPEG decompression operation. The function shall return the given decompression object to an idle state releasing any working memory. The decompression object may be reused after a call to `jpeg_abort_decompress()`.

jpeg_add_quant_table

Name

jpeg_add_quant_table -- add a quantization table

Synopsis

```
#include <jpeglib.h>

void jpeg_add_quant_table(j_compress_ptr cinfo, int table_slot, const
unsigned int * basic_table, int scale_factor, boolean force_baseline);
```

Description

The function `jpeg_add_quant_table()` shall add a quantization table parameter at the "table_slot" index of the quantization table array. "basic_table" points to an array of 64 unsigned ints given in normal array order. These values are multiplied by "scale_factor"/100. The values are limited to the range 1..65535. If "force_baseline" is TRUE, the computed quantization table entries are limited to 1..255 for JPEG baseline compatibility.

Errors

`jpeg_add_quant_table()` shall return error and exit if "table_slot" is $\geq$ NUM_QUANT_TBLS.
`jpeg_add_quant_table()` shall return error and exit if the state of the compression object indicates that the compression cycle has started.

jpeg_alloc_huff_table

Name

jpeg_alloc_huff_table -- allocate Huffman table

Synopsis

```
#include <jpeglib.h>
JHUFF_TBL * jpeg_alloc_huff_table(j_common_ptr cinfo);
```

Description

jpeg_alloc_huff_table() shall allocate memory for a structure holding Huffman coding table.

Return Value

jpeg_alloc_huff_table() shall return a pointer to allocated data structure for the Huffman coding table.

jpeg_alloc_quant_table

Name

jpeg_alloc_quant_table -- allocate quantization table

Synopsis

```
#include <jpeglib.h>
JQUANT_TBL * jpeg_alloc_quant_table(j_common_ptr cinfo);
```

Description

jpeg_alloc_quant_table() shall allocate memory for a structure holding quantization table.

Return Value

jpeg_alloc_quant_table() shall return a pointer to allocated data structure for the quantization table.

jpeg_calc_output_dimensions

Name

jpeg_calc_output_dimensions -- compute output image dimensions

Synopsis

```
#include <jpeglib.h>
void jpeg_calc_output_dimensions(j_decompress_ptr cinfo);
```

Description

jpeg_calc_output_dimensions() computes the output image dimensions based on the current compression parameter settings in the compression object. The following dimensions shall be computed:

<i>output_width</i>	actual width of output image
<i>output_height</i>	actual height of output image
<i>out_color_components</i>	number of color components in out_color_space
<i>output_components</i>	number of color components returned
<i>rec_outbuf_height</i>	recommended height of scanline buffer

jpeg_consume_input

Name

jpeg_consume_input -- decode input data

Synopsis

```
#include <jpeglib.h>
int jpeg_consume_input(j_decompress_ptr cinfo);
```

Description

jpeg_consume_input() shall decode the input data as it arrives, even if it is not to be displayed.

Return Value

jpeg_consume_input() shall return with one of the following return codes:

<i>JPEG_REACHED_SOS</i>	reached SOS marker
<i>JPEG_REACHED_EOI</i>	reached EOI marker
<i>JPEG_ROW_COMPLETED</i>	completed reading one MCU row of compressed data
<i>JPEG_SCAN_COMPLETED</i>	completed reading last MCU row of compressed scan
<i>JPEG_SUSPENDED</i>	if data source module requests suspension of the decompressor.

jpeg_copy_critical_parameters

Name

jpeg_copy_critical_parameters -- copy critical compression parameters from source decompression object

Synopsis

```
#include <jpeglib.h>

void jpeg_copy_critical_parameters(j_decompress_ptr srcinfo,
j_compress_ptr dstinfo);
```

Description

jpeg_copy_critical_parameters() shall initialize the compression object with default parameters, then copy the parameters needed for lossless transcoding from the source decompression object.

jpeg_default_colorspace

Name

jpeg_default_colorspace -- set default colorspace based on input image's color space

Synopsis

```
#include <jpeglib.h>
void jpeg_default_colorspace(j_compress_ptr cinfo);
```

Description

jpeg_default_colorspace() shall set the JPEG color space to a default value based on the color space of the input image.

jpeg_destroy

Name

jpeg_destroy -- deallocation of a JPEG object

Synopsis

```
#include <jpeglib.h>
void jpeg_destroy(j_common_ptr cinfo);
```

Description

The function `jpeg_destroy()` shall deallocate and release all memory associated with the JPEG object. The object itself and the error manager struct allocated by the application should not be freed by this function.

jpeg_destroy_compress

Name

jpeg_destroy_compress -- deallocate a JPEG compression object

Synopsis

```
#include <jpeglib.h>
void jpeg_destroy_compress(j_compress_ptr cinfo);
```

Description

The function `jpeg_destroy_compress()` shall deallocate and release all memory associated with the compression object. The `jpeg_compress_struct` itself and the error manager struct allocated by the application should not be freed by this function.

jpeg_destroy_decompress

Name

jpeg_destroy_decompress -- deallocate a JPEG decompression object

Synopsis

```
#include <jpeglib.h>
void jpeg_destroy_decompress(j_decompress_ptr cinfo);
```

Description

The function `jpeg_destroy_decompress()` shall deallocate and release all memory associated with the decompression object. The `jpeg_decompress_struct` itself and the error manager struct allocated by the application should not be freed by this function.

jpeg_finish_compress

Name

jpeg_finish_compress -- complete the compression cycle

Synopsis

```
#include <jpeglib.h>
void jpeg_finish_compress(j_compress_ptr cinfo);
```

Description

The function `jpeg_finish_compress()` shall set the compression state to completion. Any remaining bufferload of data shall be written to the data destination. `jpeg_finish_compress()` shall also release working memory associated with the JPEG object.

Errors

`jpeg_finish_compress()` shall return error if the function is invoked before writing the specified number of scanlines.

jpeg_finish_decompress

Name

jpeg_finish_decompress -- complete decompression cycle

Synopsis

```
#include <jpeglib.h>
boolean jpeg_finish_decompress(j_decompress_ptr cinfo);
```

Description

The function `jpeg_finish_decompress()` shall set the decompression state to completion. Any remaining input data shall be decoded and consumed. `jpeg_finish_decompress()` shall also release working memory associated with the JPEG object.

Return Value

`jpeg_finish_decompress()` shall return `FALSE` if data source requests suspension of the decompressor. Otherwise, `jpeg_finish_decompress()` shall return `TRUE`.

Errors

`jpeg_finish_decompress()` shall return error if the function is invoked before reading the specified number of scanlines.

jpeg_finish_output

Name

jpeg_finish_output -- complete pass in buffered-image mode

Synopsis

```
#include <jpeglib.h>
boolean jpeg_finish_output(j_decompress_ptr cinfo);
```

Description

jpeg_start_output() shall change state for completion of an output pass in buffered-image mode. The scan number shall be incremented if the end-of-image marker is not reached.

Return Value

jpeg_finish_output() shall return FALSE if decompression is suspended. Otherwise, jpeg_finish_output() shall return TRUE.

jpeg_has_multiple_scans

Name

jpeg_has_multiple_scans -- test if input image has multiple scans

Synopsis

```
#include <jpeglib.h>
boolean jpeg_has_multiple_scans(j_decompress_ptr cinfo);
```

Description

jpeg_has_multiple_scans() shall return TRUE if the incoming image file has more than one scan.

Return Value

TRUE for multiple scans, FALSE otherwise.

jpeg_input_complete

Name

jpeg_input_complete -- test for end-of-image

Synopsis

```
#include <jpeglib.h>
boolean jpeg_input_complete(j_decompress_ptr cinfo);
```

Description

jpeg_input_complete() shall return TRUE if the end-of-image marker has not been read for the input image file.

Return Value

TRUE if reached EOI, FALSE otherwise.

jpeg_new_colormap

Name

jpeg_new_colormap -- switch to a new external colormap between output passes

Synopsis

```
#include <jpeglib.h>
void jpeg_new_colormap(j_decompress_ptr cinfo);
```

Description

jpeg_new_colormap() shall select 2-pass quantizer for using an external colormap and notify the quantizer of the switch to a colormap that is different from the one used in the previous pass. The new colormap must be set using cinfo.colormap before a call to jpeg_new_colormap().

jpeg_quality_scaling

Name

jpeg_quality_scaling -- convert quality scaling to percentage scaling factor

Synopsis

```
#include <jpeglib.h>
int jpeg_quality_scaling(int quality);
```

Description

The function jpeg_quality_scaling() shall convert a user-specified quality rating to a percentage scaling factor for an underlying quantization table, using IJG-recommended scaling curve. The input "quality" factor ranges from 0 to 100.

Return Value

jpeg_quality_scaling() shall return the integer value of quality as a percentage.

jpeg_read_coefficients

Name

jpeg_read_coefficients -- read the contents of JPEG file as DCT coefficients

Synopsis

```
#include <jpeglib.h>
jvirt_barray_ptr * jpeg_read_coefficients(j_decompress_ptr cinfo);
```

Description

jpeg_read_coefficients() shall return the contents of the JPEG image file as DCT coefficients. The entire image shall be read as a set of virtual coefficient-block arrays, one array per component. The return value is a pointer to an array of virtual-array descriptors.

Each block in the block arrays shall contain quantized coefficient values in normal array order and not JPEG zigzag order. The block arrays shall contain only DCT blocks containing real data; any entirely-dummy blocks added to fill out interleaved MCUs at the right or bottom edges of the image shall be discarded during reading and shall not be stored in the block arrays. The size of each block array can be determined from the width_in_blocks and height_in_blocks fields of the component's comp_info entry.

Return Value

jpeg_read_coefficients() shall return a pointer to an array of virtual-array descriptors containing DCT coefficients.

jpeg_read_header

Name

jpeg_read_header -- read start of JPEG datastream

Synopsis

```
#include <jpeglib.h>
int jpeg_read_header(j_decompress_ptr cinfo, boolean require_image);
```

Description

The function `jpeg_read_header()` shall read the JPEG datastream until the first SOS marker is encountered. The function shall initialize all decompression parameters to default values and save all tables and parameters in the decompression object structure.

Return Value

`jpeg_read_header()` shall return with one of the following return codes:

JPEG_HEADER_OK
if SOS marker is reached
JPEG_HEADER_TABLES_ONLY
for an abbreviated input image, if EOI is reached
JPEG_SUSPENDED
if data source module requests suspension of the decompressor.

Errors

`jpeg_read_header()` returns error if it encounters end-of-image and `require_image` is TRUE.

jpeg_read_raw_data

Name

jpeg_read_raw_data -- read raw downsampled image data

Synopsis

```
#include <jpeglib.h>
JDIMENSION jpeg_read_raw_data(j_decompress_ptr cinfo, JSAMPIMAGE data,
JDIMENSION max_lines);
```

Description

jpeg_read_raw_data() shall return upto max_lines number of scanlines of raw downsampled data into the JSAMPIMAGE array argument. The data buffer must be of atleast max_v_samp_factor*DCTSIZE scanlines as jpeg_read_raw_data() shall return one MCU row per call.

The passed max_lines value must be atleast (cinfo->max_v_samp_factor * DCTSIZE). Before starting the decompression sequence, cinfo->raw_data_out must be set to TRUE.

Return Value

jpeg_read_raw_data() shall return the number of scanlines processed. jpeg_read_raw_data() shall return 0 if the data source is suspended.

Errors

jpeg_read_raw_data() shall report error and exit if max_lines is less than (cinfo->max_v_samp_factor*DCTSIZE).

jpeg_read_scanlines

Name

jpeg_read_scanlines -- read scanlines of data from JPEG decompressor

Synopsis

```
#include <jpeglib.h>
JDIMENSION jpeg_read_scanlines(j_decompress_ptr cinfo, JSAMPARRAY
scanlines, JDIMENSION max_lines);
```

Description

jpeg_read_scanlines() shall return upto the maximum number of scanlines of decompressed image data. This may be less than the number requested in cases such as bottom of image, data source suspension, and operating modes that emit multiple scanlines at a time. Image data shall be returned in top-to-bottom scanline order.

Return Value

On success, jpeg_read_scanlines() shall return the number of lines actually read.

Errors

jpeg_read_scanlines() shall report a non-fatal error if the requested number of scanlines is greater than the height of the original unscaled image.

jpeg_resync_to_restart

Name

jpeg_resync_to_restart -- resync if marker other than expected restart marker found

Synopsis

```
#include <jpeglib.h>
boolean jpeg_resync_to_restart(j_decompress_ptr cinfo, int desired);
```

Description

jpeg_resync_to_restart() is the default resync procedure that a data source manager can invoke when the decompressor fails to find a restart (RSTn) marker where one is expected. The function shall find a suitable point for resuming decompression and position the input stream to the next data segment. The desired restart marker number (0..7) is passed as argument "desired".

Return Value

jpeg_resync_to_restart() shall return FALSE if decompression is suspended. Otherwise, jpeg_start_output() shall return TRUE.

jpeg_save_markers

Name

jpeg_save_markers -- save the contents of special markers

Synopsis

```
#include <jpeglib.h>

void jpeg_save_markers(j_decompress_ptr cinfo, int marker_code, unsigned
int length_limit);
```

Description

jpeg_save_markers() shall obtain length_limit bytes of special markers of type specified by marker_code. The marker_code shall take one of the following values: JPEG_COM, JPEG_APP0 - JPEG_APP15. The marker contents shall be stored in the marker field of cinfo. If length_limit is 0xFFFF, all marker bytes are saved.

jpeg_set_colorspace

Name

jpeg_set_colorspace -- set JPEG file's colorspace

Synopsis

```
#include <jpeglib.h>
void jpeg_set_colorspace(j_compress_ptr cinfo, J_COLOR_SPACE colorspace);
```

Description

jpeg_set_colorspace() shall set the JPEG file's colorspace to the given color space. The function may change the value of other compression parameters that are dependent on color space.

Errors

jpeg_set_colorspace() shall return error and exit if the state of the compression object indicates that the compression cycle has started.

jpeg_set_defaults

Name

jpeg_set_defaults -- set compression parameters to default values

Synopsis

```
#include <jpeglib.h>
void jpeg_set_defaults(j_compress_ptr cinfo);
```

Description

The function `jpeg_set_defaults()` shall set all JPEG compression parameters to default values using the input image's color space.

Errors

`jpeg_set_defaults()` shall return error and exit if the state of the compression object indicates that the compression cycle has started.

jpeg_set_linear_quality

Name

jpeg_set_linear_quality -- construct JPEG quantization tables for indicated scale factor

Synopsis

```
#include <jpeglib.h>

void jpeg_set_linear_quality(j_compress_ptr cinfo, int scale_factor,
boolean force_baseline);
```

Description

The function jpeg_set_linear_quality() shall construct JPEG quantization tables from the sample table values in JPEG specification Section K.1, multiplied by the given percentage scale factor. If "force_baseline" is TRUE, the computed quantization table entries are limited to 1..255 for JPEG baseline compatibility.

jpeg_set_marker_processor

Name

jpeg_set_marker_processor -- set processor method for COM or APPn markers

Synopsis

```
#include <jpeglib.h>

void jpeg_set_marker_processor(j_decompress_ptr cinfo, int marker_code,
    jpeg_marker_parser_method routine);
```

Description

jpeg_set_marker_processor() shall set a marker processor routine having signature `boolean jpeg_marker_parser_method()` *j_decompress_ptr cinfo*. The marker processor routine must return TRUE if the marker and its parameters are processed completely. The routine must return FALSE if it is forced to suspend before reaching the end of marker parameters.

jpeg_set_quality

Name

jpeg_set_quality -- construct JPEG quantization tables for indicated quality

Synopsis

```
#include <jpeglib.h>

void jpeg_set_quality(j_compress_ptr cinfo, int quality, boolean
force_baseline);
```

Description

The function jpeg_set_quality() shall construct JPEG quantization tables for the given quality setting. The quality value ranges from 0..100. If "force_baseline" is TRUE, the computed quantization table entries are limited to 1..255 for JPEG baseline compatibility.

jpeg_simple_progression

Name

jpeg_simple_progression -- generate scan script for writing progressive JPEG file

Synopsis

```
#include <jpeglib.h>
void jpeg_simple_progression(j_compress_ptr cinfo);
```

Description

The function jpeg_simple_progression() shall generate a default scan script for writing a progressive JPEG file.

jpeg_start_compress

Name

jpeg_start_compress -- initialize a compression cycle

Synopsis

```
#include <jpeglib.h>
void jpeg_start_compress(j_compress_ptr cinfo, boolean write_all_tables);
```

Description

The function `jpeg_start_compress()` shall initialize state for a JPEG compression cycle. The compression parameters, data destination and source image information must be set prior to the invocation of `jpeg_start_compress()`. Setting `write_all_tables` to `TRUE` shall indicate that a complete JPEG interchange datastream will be written and all Huffman tables shall be emitted. If `write_all_tables` is set to `FALSE`, the default behavior shall be to emit a pure abbreviated image with no tables.

jpeg_start_decompress

Name

jpeg_start_decompress -- initialize a decompression cycle

Synopsis

```
#include <jpeglib.h>
boolean jpeg_start_decompress(j_decompress_ptr cinfo);
```

Description

The function `jpeg_start_decompress()` shall initialize state for a JPEG decompression cycle and allocate working memory. The JPEG datastream header must be read prior to the invocation of `jpeg_start_decompress()` to obtain the parameters for decompression.

jpeg_start_output

Name

jpeg_start_output -- initialize for a pass in buffered-image mode

Synopsis

```
#include <jpeglib.h>
boolean jpeg_start_output(j_decompress_ptr cinfo, int scan_number);
```

Description

jpeg_start_output() shall initialize state for an output pass in buffered-image mode. The scan_number indicates the scan of the image to be displayed. Scan numbers start from 1. The buffered-image mode must be selected before starting an output pass by setting cinfo.buffered_image = TRUE.

Return Value

jpeg_start_output() shall return FALSE if decompression is suspended. Otherwise, jpeg_start_output() shall return TRUE.

jpeg_std_error

Name

jpeg_std_error -- update error manager with error handling routines

Synopsis

```
#include <jpeglib.h>
struct jpeg_error_mgr * jpeg_std_error(struct jpeg_error_mgr *
error_mgr);
```

Description

jpeg_std_error() shall update the given jpeg_error_mgr object with standard error handling methods.

Return Value

jpeg_std_error() shall return the updated jpeg_error_mgr object.

jpeg_stdio_dest

Name

jpeg_stdio_dest -- Initialize state for output to stdio stream

Synopsis

```
#include <jpeglib.h>
void jpeg_stdio_dest(j_compress_ptr cinfo, FILE * outfile);
```

Description

jpeg_stdio_dest() shall initialize state for output to the given stdio stream outfile. The stream outfile must be in open state.

jpeg_stdio_src

Name

jpeg_stdio_src -- Initialize state for input from stdio stream

Synopsis

```
#include <jpeglib.h>
void jpeg_stdio_src(j_decompress_ptr cinfo, FILE * infile);
```

Description

jpeg_stdio_src() shall initialize state for input from the given stdio stream infile. The stream infile must be in open state.

jpeg_suppress_tables

Name

jpeg_suppress_tables -- control quantization and Huffman table suppression

Synopsis

```
#include <jpeglib.h>
void jpeg_suppress_tables(j_compress_ptr cinfo, boolean suppress);
```

Description

The function `jpeg_suppress_tables()` forcibly suppress or un-suppresses all quantization and Huffman tables. If "suppress" is TRUE, the function shall mark all currently defined tables as already written. Otherwise, the tables will be marked as not written. This controls the emission of tables on subsequent calls to `jpeg_start_compress()`.

jpeg_write_coefficients

Name

jpeg_write_coefficients -- Compression initialization for writing raw-coefficient data

Synopsis

```
#include <jpeglib.h>

void jpeg_write_coefficients(j_compress_ptr cinfo, jvirt_barray_ptr *
coeff_arrays);
```

Description

jpeg_write_coefficients() shall write the contents of the JPEG file as DCT coefficients. The DCT coefficients shall be obtained from the array of virtual block array descriptors pointed to be "coeff_arrays". The number of arrays to be written is obtained from cinfo.num_components. Note: The virtual arrays may not be realized before jpeg_write_coefficients() is called. The virtual arrays requested from the compression object's memory manager may be realized by calling jpeg_write_coefficients() as a side-effect.

jpeg_write_m_byte

Name

jpeg_write_m_byte -- emit a byte of special marker data

Synopsis

```
#include <jpeglib.h>
void jpeg_write_m_byte(j_compress_ptr cinfo, int val);
```

Description

jpeg_write_m_byte() shall emit a byte of marker data equal to "val".

jpeg_write_m_header

Name

jpeg_write_m_header -- emit header for special marker

Synopsis

```
#include <jpeglib.h>

void jpeg_write_m_header(j_compress_ptr cinfo, int marker, unsigned int
datalen);
```

Description

jpeg_write_marker_header() shall emit the marker header. The marker header consists of the marker code derived from "marker" followed by the length of marker data "datalen".

jpeg_write_marker

Name

jpeg_write_marker -- write special marker data

Synopsis

```
#include <jpeglib.h>

void jpeg_write_marker(j_compress_ptr cinfo, int marker, const JOCTET *
dataptr, unsigned int datalen);
```

Description

jpeg_write_marker() shall emit the marker header and "datalen" number of marker bytes obtained from "*dataptr". The marker header consists of the marker code followed by the length of marker data.

jpeg_write_raw_data

Name

jpeg_write_raw_data -- write raw downsampled image data

Synopsis

```
#include <jpeglib.h>
JDIMENSION jpeg_write_raw_data(j_compress_ptr cinfo, JSAMPIMAGE data,
JDIMENSION num_lines);
```

Description

jpeg_write_raw_data() shall write the compressed image data for raw downsampled data supplied in the JSAMPIMAGE array argument. The number of scanlines passed in num_lines to jpeg_write_raw_data() is measured in terms of the component with the largest v_samp_factor.

If the image dimensions are not a multiple of the MCU size, the data must be padded to a multiple of a DCT block in each component, such that each downsampled row must contain a multiple of 8 valid samples, and there must be a multiple of 8 sample rows for each component. Data must be padded so that the passed num_lines value is atleast (cinfo->max_v_samp_factor * DCTSIZE). jpeg_write_raw_data() shall process one MCU row per call which is (cinfo->comp_info[0].v_samp_factor*DCTSIZE) sample rows of each component.

Before starting the compression sequence, cinfo->raw_data_in must be set to TRUE. cinfo->jpeg_color_space must be set to colorspace to be used in the JPEG file. The sampling factors, cinfo->comp_info[i].h_samp_factor and cinfo->comp_info[i].v_samp_factor must be set to the dimensions of the supplied data.

Return Value

jpeg_write_raw_data() shall return the number of scanlines processed. jpeg_write_raw_data() shall return 0 if the compressor is suspended.

Errors

jpeg_write_raw_data() shall report error and exit if num_lines is less than (cinfo->max_v_samp_factor*DCTSIZE).

jpeg_write_scanlines

Name

jpeg_write_scanlines -- write scanlines of data to JPEG compressor

Synopsis

```
#include <jpeglib.h>
JDIMENSION jpeg_write_scanlines(j_compress_ptr cinfo, JSAMPARRAY
scanlines, JDIMENSION num_lines);
```

Description

jpeg_write_scanlines() shall write the number of scanlines of image data to be compressed from in-memory buffers. The image data shall be written in top-to-bottom scanline order.

Return Value

On success, jpeg_read_scanlines() shall return the number of lines actually written.

Errors

jpeg_write_scanlines() shall report a non-fatal error if the requested number of scanlines is greater than the height of the original unscaled image.

jpeg_write_tables

Name

jpeg_write_tables -- create a tables-only file

Synopsis

```
#include <jpeglib.h>
void jpeg_write_tables(j_compress_ptr cinfo);
```

Description

jpeg_write_tables() shall create a tables-only file by writing an abbreviated datastream containing only SOI, DQT and/or DHT and EOI markers. All the quantization and Huffman tables currently defined in the compression object shall be emitted unless their sent_table flag is set to TRUE. Once emitted, sent_table flag shall be set for all tables written.

VI. Fontconfig library

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11.1. Commands and Utilities

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Chapter 10. Libraries

10.1. Interfaces for libfontconfig

Table 10-1 defines the library name and shared object name for the libfontconfig library

Table 10-1. libfontconfig Definition

Library:	libfontconfig
SONAME:	libfontconfig.so.1

The behavior of the interfaces in this library is specified by the following specifications:

[fontconfig] [Fontconfig Developers Reference](#)

10.1.1. Font Customization and Configuration Library

10.1.1.1. Interfaces for Font Customization and Configuration Library

An LSB conforming implementation shall provide the generic functions for Font Customization and Configuration Library specified in Table 10-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 10-2. libfontconfig - Font Customization and Configuration Library Function Interfaces

FcAtomicCreate [fontconfig]	FcAtomicDeleteNew [fontconfig]	FcAtomicDestroy [fontconfig]
FcAtomicLock [fontconfig]	FcAtomicNewFile [fontconfig]	FcAtomicOrigFile [fontconfig]
FcAtomicReplaceOrig [fontconfig]	FcAtomicUnlock [fontconfig]	FcBlanksAdd [fontconfig]
FcBlanksCreate [fontconfig]	FcBlanksDestroy [fontconfig]	FcBlanksIsMember [fontconfig]
FcCharSetAddChar [fontconfig]	FcCharSetCopy [fontconfig]	FcCharSetCount [fontconfig]
FcCharSetCreate [fontconfig]	FcCharSetDestroy [fontconfig]	FcCharSetEqual [fontconfig]
FcCharSetFirstPage [fontconfig]	FcCharSetHasChar [fontconfig]	FcCharSetIntersect [fontconfig]
FcCharSetIntersectCount [fontconfig]	FcCharSetIsSubset [fontconfig]	FcCharSetNextPage [fontconfig]
FcCharSetSubtract [fontconfig]	FcCharSetSubtractCount [fontconfig]	FcCharSetUnion [fontconfig]
FcConfigAppFontAddDir [fontconfig]	FcConfigAppFontAddFile [fontconfig]	FcConfigAppFontClear [fontconfig]
FcConfigBuildFonts [fontconfig]	FcConfigDestroy [fontconfig]	FcConfigEnableHome [fontconfig]

FcConfigFilename [fontconfig]	FcConfigGetBlanks [fontconfig]	FcConfigGetCache [fontconfig]
FcConfigGetConfigDirs [fontconfig]	FcConfigGetConfigFiles [fontconfig]	FcConfigGetCurrent [fontconfig]
FcConfigGetFontDirs [fontconfig]	FcConfigGetFonts [fontconfig]	FcConfigGetRescanInterval [fontconfig]
FcConfigHome [fontconfig]	FcConfigParseAndLoad [fontconfig]	FcConfigSetCurrent [fontconfig]
FcConfigSetRescanInterval [fontconfig]	FcConfigSubstitute [fontconfig]	FcConfigSubstituteWithPat [fontconfig]
FcConfigUptoDate [fontconfig]	FcDefaultSubstitute [fontconfig]	FcDirCacheValid [fontconfig]
FcDirSave [fontconfig]	FcDirScan [fontconfig]	FcFileScan [fontconfig]
FcFini [fontconfig]	FcFontList [fontconfig]	FcFontMatch [fontconfig]
FcFontRenderPrepare [fontconfig]	FcFontSetAdd [fontconfig]	FcFontSetCreate [fontconfig]
FcFontSetDestroy [fontconfig]	FcFontSetList [fontconfig]	FcFontSetMatch [fontconfig]
FcFontSetPrint [fontconfig]	FcFontSetSort [fontconfig]	FcFontSetSortDestroy [fontconfig]
FcFontSort [fontconfig]	FcFreeTypeCharIndex [fontconfig]	FcFreeTypeCharSet [fontconfig]
FcFreeTypeCharSetAndSpacing [fontconfig]	FcFreeTypeQuery [fontconfig]	FcGetVersion [fontconfig]
FcInit [fontconfig]	FcInitBringUptoDate [fontconfig]	FcInitLoadConfig [fontconfig]
FcInitLoadConfigAndFonts [fontconfig]	FcInitReinitialize [fontconfig]	FcLangSetAdd [fontconfig]
FcLangSetCompare [fontconfig]	FcLangSetContains [fontconfig]	FcLangSetCopy [fontconfig]
FcLangSetCreate [fontconfig]	FcLangSetDestroy [fontconfig]	FcLangSetEqual [fontconfig]
FcLangSetHasLang [fontconfig]	FcLangSetHash [fontconfig]	FcMatrixCopy [fontconfig]
FcMatrixEqual [fontconfig]	FcMatrixMultiply [fontconfig]	FcMatrixRotate [fontconfig]
FcMatrixScale [fontconfig]	FcMatrixShear [fontconfig]	FcNameConstant [fontconfig]
FcNameGetConstant [fontconfig]	FcNameGetObjectType [fontconfig]	FcNameParse [fontconfig]
FcNameRegisterConstants [fontconfig]	FcNameRegisterObjectTypes [fontconfig]	FcNameUnparse [fontconfig]
FcNameUnregisterConstants [fontconfig]	FcNameUnregisterObjectTypes [fontconfig]	FcObjectSetAdd [fontconfig]
FcObjectSetBuild [fontconfig]	FcObjectSetCreate [fontconfig]	FcObjectSetDestroy [fontconfig]
FcObjectSetVaBuild [fontconfig]	FcPatternAdd [fontconfig]	FcPatternAddBool [fontconfig]
FcPatternAddCharSet [fontconfig]	FcPatternAddDouble [fontconfig]	

		FcPatternAddFTFace [fontconfig]
FcPatternAddInteger [fontconfig]	FcPatternAddLangSet [fontconfig]	FcPatternAddMatrix [fontconfig]
FcPatternAddString [fontconfig]	FcPatternAddWeak [fontconfig]	FcPatternBuild [fontconfig]
FcPatternCreate [fontconfig]	FcPatternDel [fontconfig]	FcPatternDestroy [fontconfig]
FcPatternDuplicate [fontconfig]	FcPatternEqual [fontconfig]	FcPatternEqualSubset [fontconfig]
FcPatternGet [fontconfig]	FcPatternGetBool [fontconfig]	FcPatternGetCharSet [fontconfig]
FcPatternGetDouble [fontconfig]	FcPatternGetFTFace [fontconfig]	FcPatternGetInteger [fontconfig]
FcPatternGetLangSet [fontconfig]	FcPatternGetMatrix [fontconfig]	FcPatternGetString [fontconfig]
FcPatternHash [fontconfig]	FcPatternPrint [fontconfig]	FcPatternReference [fontconfig]
FcPatternVaBuild [fontconfig]	FcStrBasename [fontconfig]	FcStrCmp [fontconfig]
FcStrCmpIgnoreCase [fontconfig]	FcStrCopy [fontconfig]	FcStrCopyFilename [fontconfig]
FcStrDirname [fontconfig]	FcStrListCreate [fontconfig]	FcStrListDone [fontconfig]
FcStrListNext [fontconfig]	FcStrSetAdd [fontconfig]	FcStrSetAddFilename [fontconfig]
FcStrSetCreate [fontconfig]	FcStrSetDel [fontconfig]	FcStrSetDestroy [fontconfig]
FcStrSetEqual [fontconfig]	FcStrSetMember [fontconfig]	FcUcs4ToUtf8 [fontconfig]
FcUtf16Len [fontconfig]	FcUtf16ToUcs4 [fontconfig]	FcUtf8Len [fontconfig]
FcUtf8ToUcs4 [fontconfig]	FcValueDestroy [fontconfig]	FcValueEqual [fontconfig]
FcValuePrint [fontconfig]	FcValueSave [fontconfig]	

An LSB conforming implementation shall provide the generic deprecated functions for Font Customization and Configuration Library specified in [Table 10-3](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 10-3. libfontconfig - Font Customization and Configuration Library Deprecated Function Interfaces

FcConfigGetCache [fontconfig]	FcDirSave [fontconfig]	FcDirScan [fontconfig]
FcFontSetSortDestroy [fontconfig]		

10.2. Data Definitions for libfontconfig

This section defines global identifiers and their values that are associated with interfaces contained in libfontconfig. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

10.2.1. fontconfig/fcfreeType.h

```
extern FT_UInt FcFreeTypeCharIndex(FT_Face, FcChar32);
extern FcCharSet *FcFreeTypeCharSet(FT_Face, FcBlanks *);
extern FcCharSet *FcFreeTypeCharSetAndSpacing(FT_Face, FcBlanks *, int *);
extern FcBool FcPatternAddFTFace(FcPattern *, const char *, const FT_Face);
extern FcResult FcPatternGetFTFace(const FcPattern *, const char *, int,
                                   FT_Face *);
```

10.2.2. fontconfig/fcprivate.h

```
#define FcObjectSetVapBuild(__ret__, __first__, __va__) \
    { FcObjectSet *__os__; const char *__ob__; __ret__ = 0; __os__ = \
    FcObjectSetCreate (); if (!__os__) goto _FcObjectSetVapBuild_bail0; \
    __ob__ = __first__; while (__ob__) { if (!FcObjectSetAdd (__os__, \
    __ob__)) goto _FcObjectSetVapBuild_bail1; __ob__ = va_arg (__va__, \
    const char *); } __ret__ = __os__; _FcObjectSetVapBuild_bail1: if \
    (!__ret__ && __os__) FcObjectSetDestroy (__os__); \
    _FcObjectSetVapBuild_bail0: ; }

#define FcPatternVapBuild(result, orig, va) \
    { \
    FcPattern *__p__ = (orig); \
    const char *__o__; \
    FcValue __v__; \
    if (!__p__) \
    { \
    __p__ = FcPatternCreate (); \
    if (!__p__) \
    goto _FcPatternVapBuild_bail0; \
    } \
    for (;;) \
    { \
    __o__ = va_arg (va, const char *); \
    if (!__o__) \
    break; \
    __v__.type = va_arg (va, FcType); \
    switch (__v__.type) { \
    case FcTypeVoid: \
    goto _FcPatternVapBuild_bail1; \
    case FcTypeInteger: \

```

```

        __v__.u.i = va_arg (va, int);\
        break;\
    case FcTypeDouble:\
        __v__.u.d = va_arg (va, double);\
        break;\
    case FcTypeString:\
        __v__.u.s = va_arg (va, const FcChar8 *);\
        break;\
    case FcTypeBool:\
        __v__.u.b = va_arg (va, FcBool);\
        break;\
    case FcTypeMatrix:\
        __v__.u.m = va_arg (va, const FcMatrix *);\
        break;\
    case FcTypeCharSet:\
        __v__.u.c = va_arg (va, const FcCharSet *);\
        break;\
    case FcTypeFTFace:\
        __v__.u.f = va_arg (va, FT_Face);\
        break;\
    case FcTypeLangSet:\
        __v__.u.l = va_arg (va, const FcLangSet *);\
        break;\
    }\
    if (!FcPatternAdd (__p__, __o__, __v__, FcTrue))\
        goto _FcPatternVapBuild_bail1;\
}\
result = __p__;\
goto _FcPatternVapBuild_return;\
\
_FcPatternVapBuild_bail1:\
    if (!orig)\
        FcPatternDestroy (__p__);\
_FcPatternVapBuild_bail0:\
    result = (void*)0;\
\
_FcPatternVapBuild_return:\
    ;\
}

```

10.2.3. fontconfig/fontconfig.h

```

#define _FCFUNCPROTOBEGIN
#define _FCFUNCPROTOEND
#define FC_USER_CACHE_FILE      ".fonts.cache-FC_CACHE_VERSION"
#define FC_DIR_CACHE_FILE      "fonts.cache-FC_CACHE_VERSION"
#define FcIsUpper(c)            ((0101 <= (c) && (c) <= 0132))
#define FcIsLower(c)            ((0141 <= (c) && (c) <= 0172))
#define FC_CHARSET_DONE         ((FcChar32) -1)
#define FC_VERSION              ((FC_MAJOR * 10000) + (FC_MINOR * 100) + (FC_REVISION))
#define FcMatrixInit(m)         ((m)->xx = (m)->yy = 1, (m)->xy = (m)->yx = 0)
#define FC_CHARSET_MAP_SIZE     (256/32)
#define FcToLower(c)            (FcIsUpper(c) ? (c) - 0101 + 0141 : (c))
#define FC_HINT_NONE            0
#define FC_PROPORTIONAL         0
#define FC_RGBA_UNKNOWN         0
#define FC_SLANT_ROMAN          0
#define FC_WEIGHT_THIN          0
#define FcFalse                 0
#define FC_CACHE_VERSION        "1"
#define FC_HINT_SLIGHT          1

```

```

#define FC_RGBA_RGB      1
#define FcTrue 1
#define FC_MONO 100
#define FC_SLANT_ITALIC 100
#define FC_WEIGHT_MEDIUM 100
#define FC_WIDTH_NORMAL 100
#define FC_CHARCELL 110
#define FC_SLANT_OBLIQUE 110
#define FC_WIDTH_SEMIEXPANDED 113
#define FC_WIDTH_EXPANDED 125
#define FC_WIDTH_EXTRAEXPANDED 150
#define FC_WEIGHT_DEMIBOLD 180
#define FC_HINT_MEDIUM 2
#define FC_MAJOR 2
#define FC_REVISION 2
#define FC_RGBA_BGR 2
#define FC_WEIGHT_BOLD 200
#define FC_WIDTH_ULTRAEXPANDED 200
#define FC_WEIGHT_EXTRABOLD 205
#define FC_WEIGHT_BLACK 210
#define FC_HINT_FULL 3
#define FC_MINOR 3
#define FC_RGBA_VRGB 3
#define FC_RGBA_VBGR 4
#define FC_WEIGHT_EXTRALIGHT 40
#define FC_RGBA_NONE 5
#define FC_WEIGHT_LIGHT 50
#define FC_WIDTH_ULTRACONDENSED 50
#define FC_UTF8_MAX_LEN 6
#define FC_WIDTH_EXTRACONDENSED 63
#define FC_WEIGHT_BOOK 75
#define FC_WIDTH_CONDENSED 75
#define FC_WEIGHT_REGULAR 80
#define FC_WIDTH_SEMICONDENSED 87
#define FC_DUAL 90
#define FC_ANTIALIAS "antialias"
#define FC_ASPECT "aspect"
#define FC_AUTOHINT "autohint"
#define FC_CAPABILITY "capability"
#define FC_CHAR_HEIGHT "charheight"
#define FC_CHARSET "charset"
#define FC_CHAR_WIDTH "charwidth"
#define FC_DPI "dpi"
#define FC_EMBOLDEN "embolden"
#define FC_FAMILY "family"
#define FC_FAMILYLANG "familylang"
#define FC_WEIGHT_HEAVY FC_WEIGHT_BLACK
#define FC_WEIGHT_SEMIBOLD FC_WEIGHT_DEMIBOLD
#define FC_WEIGHT_ULTRABOLD FC_WEIGHT_EXTRABOLD
#define FC_WEIGHT_ULTRALIGHT FC_WEIGHT_EXTRALIGHT
#define FC_WEIGHT_NORMAL FC_WEIGHT_REGULAR
#define FC_FILE "file"
#define FC_FONTFORMAT "fontformat"
#define FC_FONTVERSION "fontversion"
#define FC_FOUNDRY "foundry"
#define FC_FT_FACE "ftface"
#define FC_FULLNAME "fullname"
#define FC_FULLNAMELANG "fullnamelang"
#define FC_GLOBAL_ADVANCE "globaladvance"
#define FC_HINTING "hinting"
#define FC_HINT_STYLE "hintstyle"
#define FC_INDEX "index"

```

```

#define FC_LANG "lang"
#define FC_MATRIX "matrix"
#define FC_MINSPACE "minspace"
#define FC_OUTLINE "outline"
#define FC_PIXEL_SIZE "pixelsize"
#define FC_RASTERIZER "rasterizer"
#define FC_RGBA "rgba"
#define FC_SCALABLE "scalable"
#define FC_SCALE "scale"
#define FC_SIZE "size"
#define FC_SLANT "slant"
#define FC_SOURCE "source"
#define FC_SPACING "spacing"
#define FC_STYLE "style"
#define FC_STYLELANG "stylelang"
#define FC_VERTICAL_LAYOUT "verticallayout"
#define FC_WEIGHT "weight"
#define FC_WIDTH "width"

typedef int FcBool;
typedef struct _FcPattern FcPattern;
typedef enum _FcType {
    FcTypeVoid = 0,
    FcTypeInteger = 1,
    FcTypeDouble = 2,
    FcTypeString = 3,
    FcTypeBool = 4,
    FcTypeMatrix = 5,
    FcTypeCharSet = 6,
    FcTypeFTFace = 7,
    FcTypeLangSet = 8
} FcType;
typedef unsigned char FcChar8;
typedef struct _FcMatrix {
    double xx;
    double xy;
    double yx;
    double yy;
} FcMatrix;
typedef struct _FcCharSet FcCharSet;
typedef struct _FcLangSet FcLangSet;
typedef struct _FcValue {
    FcType type;
    union {
        const FcChar8 *s;
        int i;
        FcBool b;
        double d;
        const FcMatrix *m;
        const FcCharSet *c;
        void *f;
        const FcPattern *p;
        const FcLangSet *l;
    } u;
} FcValue;
typedef struct _FcStrList FcStrList;
typedef struct _FcConfig FcConfig;
typedef struct _FcStrSet FcStrSet;
typedef unsigned int FcChar32;
typedef enum _FcMatchKind {
    FcMatchPattern = 0,
    FcMatchFont = 1

```

```

} FcMatchKind;
typedef struct _FcObjectSet {
    int nobject;
    int sobject;
    const char **objects;
} FcObjectSet;
typedef enum {
    FcEndianBig = 0,
    FcEndianLittle = 1
} FcEndian;
typedef struct _FcAtomic FcAtomic;
typedef struct _FcConstant {
    const FcChar8 *name;
    const char *object;
    int value;
} FcConstant;
typedef struct _FcFontSet {
    int nfont;
    int sfont;
    FcPattern **fonts;
} FcFontSet;
typedef enum _FcSetName {
    FcSetSystem = 0,
    FcSetApplication = 1
} FcSetName;
typedef struct _FcBlanks FcBlanks;
typedef enum _FcResult {
    FcResultMatch = 0,
    FcResultNoMatch = 1,
    FcResultTypeMismatch = 2,
    FcResultNoId = 3,
    FcResultOutOfMemory = 4
} FcResult;
typedef struct _FcObjectType {
    const char *object;
    FcType type;
} FcObjectType;
typedef struct _FcGlobalCache FcGlobalCache;
typedef enum _FcLangResult {
    FcLangEqual = 0,
    FcLangDifferentCountry = 1,
    FcLangDifferentLang = 2
} FcLangResult;
typedef short unsigned int FcChar16;
extern FcAtomic *FcAtomicCreate(const FcChar8 * file);
extern void FcAtomicDeleteNew(FcAtomic * atomic);
extern void FcAtomicDestroy(FcAtomic * atomic);
extern FcBool FcAtomicLock(FcAtomic * atomic);
extern FcChar8 *FcAtomicNewFile(FcAtomic * atomic);
extern FcChar8 *FcAtomicOrigFile(FcAtomic * atomic);
extern FcBool FcAtomicReplaceOrig(FcAtomic * atomic);
extern void FcAtomicUnlock(FcAtomic * atomic);
extern FcBool FcBlanksAdd(FcBlanks * b, FcChar32 ucs4);
extern FcBlanks *FcBlanksCreate(void);
extern void FcBlanksDestroy(FcBlanks * b);
extern FcBool FcBlanksIsMember(FcBlanks * b, FcChar32 ucs4);
extern FcBool FcCharSetAddChar(FcCharSet * fcs, FcChar32 ucs4);
extern FcCharSet *FcCharSetCopy(FcCharSet * src);
extern FcChar32 FcCharSetCount(const FcCharSet * a);
extern FcCharSet *FcCharSetCreate(void);
extern void FcCharSetDestroy(FcCharSet * fcs);
extern FcBool FcCharSetEqual(const FcCharSet * a, const FcCharSet * b);

```

```

extern FcChar32 FcCharSetFirstPage(const FcCharSet * a, FcChar32 * map,
                                   FcChar32 * next);
extern FcBool FcCharSetHasChar(const FcCharSet * fcs, FcChar32 ucs4);
extern FcCharSet *FcCharSetIntersect(const FcCharSet * a,
                                     const FcCharSet * b);
extern FcChar32 FcCharSetIntersectCount(const FcCharSet * a,
                                       const FcCharSet * b);
extern FcBool FcCharSetIsSubset(const FcCharSet * a, const FcCharSet * b);
extern FcChar32 FcCharSetNextPage(const FcCharSet * a, FcChar32 * map,
                                  FcChar32 * next);
extern FcCharSet *FcCharSetSubtract(const FcCharSet * a,
                                   const FcCharSet * b);
extern FcChar32 FcCharSetSubtractCount(const FcCharSet * a,
                                       const FcCharSet * b);
extern FcCharSet *FcCharSetUnion(const FcCharSet * a, const FcCharSet * b);
extern FcBool FcConfigAppFontAddDir(FcConfig * config,
                                    const FcChar8 * dir);
extern FcBool FcConfigAppFontAddFile(FcConfig * config,
                                    const FcChar8 * file);
extern void FcConfigAppFontClear(FcConfig * config);
extern FcBool FcConfigBuildFonts(FcConfig * config);
extern void FcConfigDestroy(FcConfig * config);
extern FcBool FcConfigEnableHome(FcBool enable);
extern FcChar8 *FcConfigFilename(const FcChar8 * url);
extern FcBlanks *FcConfigGetBlanks(FcConfig * config);
extern FcChar8 *FcConfigGetCache(FcConfig * config);
extern FcStrList *FcConfigGetConfigDirs(FcConfig * config);
extern FcStrList *FcConfigGetConfigFiles(FcConfig * config);
extern FcConfig *FcConfigGetCurrent(void);
extern FcStrList *FcConfigGetFontDirs(FcConfig * config);
extern FcFontSet *FcConfigGetFonts(FcConfig * config, FcSetName set);
extern int FcConfigGetRescanInterval(FcConfig * config);
extern FcChar8 *FcConfigHome(void);
extern FcBool FcConfigParseAndLoad(FcConfig * config, const FcChar8 * file,
                                   FcBool complain);
extern FcBool FcConfigSetCurrent(FcConfig * config);
extern FcBool FcConfigSetRescanInterval(FcConfig * config,
                                       int rescanInterval);
extern FcBool FcConfigSubstitute(FcConfig * config, FcPattern * p,
                                FcMatchKind kind);
extern FcBool FcConfigSubstituteWithPat(FcConfig * config, FcPattern * p,
                                       FcPattern * p_pat,
                                       FcMatchKind kind);
extern FcBool FcConfigUptoDate(FcConfig * config);
extern void FcDefaultSubstitute(FcPattern * pattern);
extern FcBool FcDirCacheValid(const FcChar8 * cache_file);
extern FcBool FcDirSave(FcFontSet * set, FcStrSet * dirs,
                       const FcChar8 * dir);
extern FcBool FcDirScan(FcFontSet * set, FcStrSet * dirs,
                       FcGlobalCache * cache, FcBlanks * blanks,
                       const FcChar8 * dir, FcBool force);
extern FcBool FcFileScan(FcFontSet * set, FcStrSet * dirs,
                       FcGlobalCache * cache, FcBlanks * blanks,
                       const FcChar8 * file, FcBool force);
extern void FcFini(void);
extern FcFontSet *FcFontList(FcConfig * config, FcPattern * p,
                             FcObjectSet * os);
extern FcPattern *FcFontMatch(FcConfig * config, FcPattern * p,
                              FcResult * result);
extern FcPattern *FcFontRenderPrepare(FcConfig * config, FcPattern * pat,
                                      FcPattern * font);
extern FcBool FcFontSetAdd(FcFontSet * s, FcPattern * font);

```

```

extern FcFontSet *FcFontSetCreate(void);
extern void FcFontSetDestroy(FcFontSet * s);
extern FcFontSet *FcFontSetList(FcConfig * config, FcFontSet * *sets,
                                int nsets, FcPattern * p,
                                FcObjectSet * os);
extern FcPattern *FcFontSetMatch(FcConfig * config, FcFontSet * *sets,
                                int nsets, FcPattern * p,
                                FcResult * result);
extern void FcFontSetPrint(const FcFontSet * s);
extern FcFontSet *FcFontSetSort(FcConfig * config, FcFontSet * *sets,
                                int nsets, FcPattern * p, FcBool trim,
                                FcCharSet * *csp, FcResult * result);
extern void FcFontSetSortDestroy(FcFontSet * fs);
extern FcFontSet *FcFontSort(FcConfig * config, FcPattern * p, FcBool trim,
                              FcCharSet * *csp, FcResult * result);
extern FcPattern *FcFreeTypeQuery(const FcChar8 * file, int id,
                                  FcBlanks * blanks, int *count);

extern int FcGetVersion(void);
extern FcBool FcInit(void);
extern FcBool FcInitBringUpToDate(void);
extern FcConfig *FcInitLoadConfig(void);
extern FcConfig *FcInitLoadConfigAndFonts(void);
extern FcBool FcInitReinitialize(void);
extern FcBool FcLangSetAdd(FcLangSet * ls, const FcChar8 * lang);
extern FcLangResult FcLangSetCompare(const FcLangSet * lsa,
                                     const FcLangSet * lsb);
extern FcBool FcLangSetContains(const FcLangSet * lsa,
                                const FcLangSet * lsb);
extern FcLangSet *FcLangSetCopy(const FcLangSet * ls);
extern FcLangSet *FcLangSetCreate(void);
extern void FcLangSetDestroy(FcLangSet * ls);
extern FcBool FcLangSetEqual(const FcLangSet * lsa, const FcLangSet * lsb);
extern FcLangResult FcLangSetHasLang(const FcLangSet * ls,
                                     const FcChar8 * lang);
extern FcChar32 FcLangSetHash(const FcLangSet * ls);
extern FcMatrix *FcMatrixCopy(const FcMatrix * mat);
extern FcBool FcMatrixEqual(const FcMatrix * mat1, const FcMatrix * mat2);
extern void FcMatrixMultiply(FcMatrix * result, const FcMatrix * a,
                              const FcMatrix * b);
extern void FcMatrixRotate(FcMatrix * m, double c, double s);
extern void FcMatrixScale(FcMatrix * m, double sx, double sy);
extern void FcMatrixShear(FcMatrix * m, double sh, double sv);
extern FcBool FcNameConstant(FcChar8 * string, int *result);
extern const FcConstant *FcNameGetConstant(FcChar8 * string);
extern const FcObjectType *FcNameGetObjectType(const char *object);
extern FcPattern *FcNameParse(const FcChar8 * name);
extern FcBool FcNameRegisterConstants(const FcConstant * consts,
                                      int nconsts);
extern FcBool FcNameRegisterObjectTypes(const FcObjectType * types,
                                         int ntype);
extern FcChar8 *FcNameUnparse(FcPattern * pat);
extern FcBool FcNameUnregisterConstants(const FcConstant * consts,
                                       int nconsts);
extern FcBool FcNameUnregisterObjectTypes(const FcObjectType * types,
                                           int ntype);
extern FcBool FcObjectSetAdd(FcObjectSet * os, const char *object);
extern FcObjectSet *FcObjectSetBuild(const char *first, ...);
extern FcObjectSet *FcObjectSetCreate(void);
extern void FcObjectSetDestroy(FcObjectSet * os);
extern FcObjectSet *FcObjectSetVaBuild(const char *first, va_list va);
extern FcBool FcPatternAdd(FcPattern * p, const char *object,
                           FcValue value, FcBool append);

```



```

extern FcBool FcPatternAddBool(FcPattern * p, const char *object,
                               FcBool b);
extern FcBool FcPatternAddCharSet(FcPattern * p, const char *object,
                                  const FcCharSet * c);
extern FcBool FcPatternAddDouble(FcPattern * p, const char *object,
                                 double d);
extern FcBool FcPatternAddInteger(FcPattern * p, const char *object,
                                  int i);
extern FcBool FcPatternAddLangSet(FcPattern * p, const char *object,
                                  const FcLangSet * ls);
extern FcBool FcPatternAddMatrix(FcPattern * p, const char *object,
                                  const FcMatrix * s);
extern FcBool FcPatternAddString(FcPattern * p, const char *object,
                                 const FcChar8 * s);
extern FcBool FcPatternAddWeak(FcPattern * p, const char *object,
                               FcValue value, FcBool append);
extern FcPattern *FcPatternBuild(FcPattern * orig, ...);
extern FcPattern *FcPatternCreate(void);
extern FcBool FcPatternDel(FcPattern * p, const char *object);
extern void FcPatternDestroy(FcPattern * p);
extern FcPattern *FcPatternDuplicate(const FcPattern * p);
extern FcBool FcPatternEqual(const FcPattern * pa, const FcPattern * pb);
extern FcBool FcPatternEqualSubset(const FcPattern * pa,
                                   const FcPattern * pb,
                                   const FcObjectSet * os);
extern FcResult FcPatternGet(const FcPattern * p, const char *object,
                             int id, FcValue * v);
extern FcResult FcPatternGetBool(const FcPattern * p, const char *object,
                                 int n, FcBool * b);
extern FcResult FcPatternGetCharSet(const FcPattern * p,
                                    const char *object, int n,
                                    FcCharSet * c);
extern FcResult FcPatternGetDouble(const FcPattern * p, const char *object,
                                   int n, double *d);
extern FcResult FcPatternGetInteger(const FcPattern * p,
                                    const char *object, int n, int *i);
extern FcResult FcPatternGetLangSet(const FcPattern * p,
                                    const char *object, int n,
                                    FcLangSet * ls);
extern FcResult FcPatternGetMatrix(const FcPattern * p, const char *object,
                                   int n, FcMatrix * s);
extern FcResult FcPatternGetString(const FcPattern * p, const char *object,
                                   int n, FcChar8 * s);
extern FcChar32 FcPatternHash(const FcPattern * p);
extern void FcPatternPrint(const FcPattern * p);
extern void FcPatternReference(FcPattern * p);
extern FcPattern *FcPatternVaBuild(FcPattern * orig, va_list va);
extern FcChar8 *FcStrBasename(const FcChar8 * file);
extern int FcStrCmp(const FcChar8 * s1, const FcChar8 * s2);
extern int FcStrCmpIgnoreCase(const FcChar8 * s1, const FcChar8 * s2);
extern FcChar8 *FcStrCopy(const FcChar8 * s);
extern FcChar8 *FcStrCopyFilename(const FcChar8 * s);
extern FcChar8 *FcStrDirname(const FcChar8 * file);
extern FcStrList *FcStrListCreate(FcStrSet * set);
extern void FcStrListDone(FcStrList * list);
extern FcChar8 *FcStrListNext(FcStrList * list);
extern FcBool FcStrSetAdd(FcStrSet * set, const FcChar8 * s);
extern FcBool FcStrSetAddFilename(FcStrSet * set, const FcChar8 * s);
extern FcStrSet *FcStrSetCreate(void);
extern FcBool FcStrSetDel(FcStrSet * set, const FcChar8 * s);
extern void FcStrSetDestroy(FcStrSet * set);
extern FcBool FcStrSetEqual(FcStrSet * sa, FcStrSet * sb);

```

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```
extern FcBool FcStrSetMember(FcStrSet * set, const FcChar8 * s);
extern int FcUcs4ToUtf8(FcChar32 ucs4, FcChar8 * dest);
extern FcBool FcUtf16Len(const FcChar8 * string, FcEndian endian, int len,
                        int *nchar, int *wchar);
extern int FcUtf16ToUcs4(const FcChar8 * src_orig, FcEndian endian,
                        FcChar32 * dst, int len);
extern FcBool FcUtf8Len(const FcChar8 * string, int len, int *nchar,
                        int *wchar);
extern int FcUtf8ToUcs4(const FcChar8 * src_orig, FcChar32 * dst, int len);
extern void FcValueDestroy(FcValue v);
extern FcBool FcValueEqual(FcValue va, FcValue vb);
extern void FcValuePrint(const FcValue v);
extern FcValue FcValueSave(FcValue v);
```

Chapter 11. Commands and Utilities

11.1. Commands and Utilities

An LSB conforming implementation shall provide the commands and utilities as described in [Table 11-1](#), with at least the behavior described as mandatory in the referenced underlying specification, with the following exceptions:

1. If any operand (except one which follows `--`) starts with a hyphen, the behavior is unspecified.

Rationale (Informative): Applications should place options before operands, or use `--`, as needed. This text is needed because, by default, GNU option parsing differs from POSIX, unless the environment variable `POSIXLY_CORRECT` is set. For example, `ls . -a` in GNU `ls` means to list the current directory, showing all files (that is, `"."` is an operand and `-a` is an option). In POSIX, `"."` and `-a` are both operands, and the command means to list the current directory, and also the file named `-a`. Suggesting that applications rely on the setting of the `POSIXLY_CORRECT` environment variable, or try to set it, seems worse than just asking the applications to invoke commands in ways which work with either the POSIX or GNU behaviors.

Table 11-1. Commands And Utilities

<code>fc-cache</code> [1]	<code>fc-list</code> [1]	<code>fc-match</code> [1]		

Referenced Specification(s)

[\[1\]. This Specification](#)

11.2. Command Behavior

Table of Contents

[fc-cache](#) -- build font information cache files

[fc-list](#) -- list available fonts.

[fc-match](#) -- match available fonts

This section contains descriptions for commands and utilities whose specified behavior in the LSB contradicts or extends the standards referenced. It also contains commands and utilities only required by the LSB and not specified by other standards.

fc-cache

Name

fc-cache -- build font information cache files

Description

fc-cache scans the font directories on the system and builds font information cache files for applications using fontconfig for their font handling. If directory arguments are not given, fc-cache uses each directory in the current font configuration. Each directory is scanned for font files readable by FreeType. A cache is created which contains properties of each font and the associated filename. This cache is used to speed up application startup when using the fontconfig library.

Synopsis

```
fc-cache [ -fsvV? ] [ --force ] [ --system-only ] [ --verbose ] [ --version ] [ --help ] [ dirs ]
```

Option and Operand Handling

This program follows the usual GNU command line syntax, with long options starting with two dashes ('-'). A summary of options is included below.

<i>-f --force</i>	Force re-generation of apparently up-to-date cache files, overriding the timestamp checking.
<i>-s --system-only</i>	Only scan system-wide directories, omitting the places located in the user's home directory.
<i>-v --verbose</i>	Display status information while busy.
<i>-? --help</i>	Show summary of options.
<i>-V --version</i>	Show version of the program and exit.
<i>dirs</i>	A list of directories to scan for fonts.

fc-list

Name

fc-list -- list available fonts.

Description

fc-list lists fonts and styles available on the system for applications using fontconfig.

Synopsis

```
fc-list [ -vV? ] [ --verbose ] [ --version ] [ --help ] [ pattern ] [ element ]
```

Option and Operand Handling

This program follows the usual GNU command line syntax, with long options starting with two dashes ('-'). A summary of options is included below.

<i>-v</i> <i>--verbose</i>	Display status information while busy.
<i>-?</i> <i>--help</i>	Show summary of options.
<i>-V</i> <i>--version</i>	Show version of the program and exit.
<i>pattern</i>	If this argument is set, only fonts matching pattern are displayed.
<i>element</i>	If set, the element property is displayed for matching fonts.

fc-match

Name

fc-match -- match available fonts

Description

fc-match matches font-pattern (empty pattern by default) using the normal fontconfig matching rules to find the best font available. If --sort is given, the sorted list of best matching fonts is displayed. With --verbose, the whole font pattern for each match is printed, otherwise only the file, family and style are printed.

VII. FreeType library

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12.1.1. FreeType Library

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12.3. Interface Definitions for libfreetype

FT_Get_X11_Font_Format -- Get font format

Chapter 12. Libraries

12.1. Interfaces for libfreetype

Table 12-1 defines the library name and shared object name for the libfreetype library

Table 12-1. libfreetype Definition

Library:	libfreetype
SONAME:	libfreetype.so.6

The behavior of the interfaces in this library is specified by the following specifications:

[freetype 2.2] [FreeType 2.2 Reference](#)

[LSB] [This Specification](#)

12.1.1. FreeType Library

12.1.1.1. Interfaces for FreeType Library

An LSB conforming implementation shall provide the generic functions for FreeType Library specified in Table 12-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 12-2. libfreetype - FreeType Library Function Interfaces

FT_Activate_Size [freetype 2.2]	FT_Add_Default_Modules [freetype 2.2]	FT_Add_Module [freetype 2.2]
FT_Angle_Diff [freetype 2.2]	FT_Atan2 [freetype 2.2]	FT_Attach_File [freetype 2.2]
FT_Attach_Stream [freetype 2.2]	FT_Bitmap_Convert [freetype 2.2]	FT_Bitmap_Copy [freetype 2.2]
FT_Bitmap_Done [freetype 2.2]	FT_Bitmap_Embolden [freetype 2.2]	FT_Bitmap_New [freetype 2.2]
FT_CeilFix [freetype 2.2]	FT_Cos [freetype 2.2]	FT_DivFix [freetype 2.2]
FT_Done_Face [freetype 2.2]	FT_Done_FreeType [freetype 2.2]	FT_Done_Glyph [freetype 2.2]
FT_Done_Library [freetype 2.2]	FT_Done_Size [freetype 2.2]	FT_FloorFix [freetype 2.2]
FT_Get_BDF_Charset_ID [freetype 2.2]	FT_Get_BDF_Property [freetype 2.2]	FT_Get_CMap_Language_ID [freetype 2.2]
FT_Get_Char_Index [freetype 2.2]	FT_Get_Charmap_Index [freetype 2.2]	FT_Get_First_Char [freetype 2.2]
FT_Get_Glyph [freetype 2.2]	FT_Get_Glyph_Name [freetype 2.2]	FT_Get_Kerning [freetype 2.2]

FT_Get_MM_Var [freetype 2.2]	FT_Get_Module [freetype 2.2]	FT_Get_Multi_Master [freetype 2.2]
FT_Get_Name_Index [freetype 2.2]	FT_Get_Next_Char [freetype 2.2]	FT_Get_PFR_Advance [freetype 2.2]
FT_Get_PFR_Kerning [freetype 2.2]	FT_Get_PFR_Metrics [freetype 2.2]	FT_Get_PS_Font_Info [freetype 2.2]
FT_Get_PS_Font_Private [freetype 2.2]	FT_Get_Postscript_Name [freetype 2.2]	FT_Get_Renderer [freetype 2.2]
FT_Get_Sfnt_Name [freetype 2.2]	FT_Get_Sfnt_Name_Count [freetype 2.2]	FT_Get_Sfnt_Table [freetype 2.2]
FT_Get_X11_Font_Format [LSB]	FT_Glyph_Copy [freetype 2.2]	FT_Glyph_Get_CBox [freetype 2.2]
FT_Glyph_Stroke [freetype 2.2]	FT_Glyph_StrokeBorder [freetype 2.2]	FT_Glyph_To_Bitmap [freetype 2.2]
FT_Glyph_Transform [freetype 2.2]	FT_Has_PS_Glyph_Names [freetype 2.2]	FT_Init_FreeType [freetype 2.2]
FT_Library_Version [freetype 2.2]	FT_List_Add [freetype 2.2]	FT_List_Finalize [freetype 2.2]
FT_List_Find [freetype 2.2]	FT_List_Insert [freetype 2.2]	FT_List_Iterate [freetype 2.2]
FT_List_Remove [freetype 2.2]	FT_List_Up [freetype 2.2]	FT_Load_Char [freetype 2.2]
FT_Load_Glyph [freetype 2.2]	FT_Load_Sfnt_Table [freetype 2.2]	FT_Matrix_Invert [freetype 2.2]
FT_Matrix_Multiply [freetype 2.2]	FT_MulDiv [freetype 2.2]	FT_MulFix [freetype 2.2]
FT_New_Face [freetype 2.2]	FT_New_Library [freetype 2.2]	FT_New_Memory_Face [freetype 2.2]
FT_New_Size [freetype 2.2]	FT_OpenType_Validate [freetype 2.2]	FT_Open_Face [freetype 2.2]
FT_Outline_Check [freetype 2.2]	FT_Outline_Copy [freetype 2.2]	FT_Outline_Decompose [freetype 2.2]
FT_Outline_Done [freetype 2.2]	FT_Outline_GetInsideBorder [freetype 2.2]	FT_Outline_GetOutsideBorder [freetype 2.2]
FT_Outline_Get_BBox [freetype 2.2]	FT_Outline_Get_Bitmap [freetype 2.2]	FT_Outline_Get_CBox [freetype 2.2]
FT_Outline_Get_Orientation [freetype 2.2]	FT_Outline_New [freetype 2.2]	FT_Outline_Render [freetype 2.2]
FT_Outline_Reverse [freetype 2.2]	FT_Outline_Transform [freetype 2.2]	FT_Outline_Translate [freetype 2.2]
	FT_Render_Glyph [freetype 2.2]	FT_RoundFix [freetype 2.2]

FT_Remove_Module [freetype 2.2]		
FT_Select_Charmap [freetype 2.2]	FT_Set_Char_Size [freetype 2.2]	FT_Set_Charmap [freetype 2.2]
FT_Set_Debug_Hook [freetype 2.2]	FT_Set_MM_Blend_Coordinates [freetype 2.2]	FT_Set_MM_Design_Coordinates [freetype 2.2]
FT_Set_Pixel_Sizes [freetype 2.2]	FT_Set_Renderer [freetype 2.2]	FT_Set_Transform [freetype 2.2]
FT_Set_Var_Blend_Coordinates [freetype 2.2]	FT_Set_Var_Design_Coordinates [freetype 2.2]	FT_Sfnt_Table_Info [freetype 2.2]
FT_Sin [freetype 2.2]	FT_Stroker_BeginSubPath [freetype 2.2]	FT_Stroker_ConicTo [freetype 2.2]
FT_Stroker_CubicTo [freetype 2.2]	FT_Stroker_Done [freetype 2.2]	FT_Stroker_EndSubPath [freetype 2.2]
FT_Stroker_Export [freetype 2.2]	FT_Stroker_ExportBorder [freetype 2.2]	FT_Stroker_GetBorderCounts [freetype 2.2]
FT_Stroker_GetCounts [freetype 2.2]	FT_Stroker_LineTo [freetype 2.2]	FT_Stroker_New [freetype 2.2]
FT_Stroker_ParseOutline [freetype 2.2]	FT_Stroker_Rewind [freetype 2.2]	FT_Stroker_Set [freetype 2.2]
FT_Tan [freetype 2.2]	FT_Vector_From_Polar [freetype 2.2]	FT_Vector_Length [freetype 2.2]
FT_Vector_Polarize [freetype 2.2]	FT_Vector_Rotate [freetype 2.2]	FT_Vector_Transform [freetype 2.2]
FT_Vector_Unit [freetype 2.2]		

12.2. Data Definitions for libfreetype

This section defines global identifiers and their values that are associated with interfaces contained in libfreetype. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

12.2.1. freetype/config/ftheader.h

```

#define FT_BEGIN_HEADER
#define FT_END_HEADER
#define FT_ERRORDEF_(e,v,s) \
    FT_ERRORDEF( FT_ERR_CAT( FT_ERR_PREFIX, e ), v + FT_ERR_BASE, s )
#define FT_NOERRORDEF_(e,v,s) \
    FT_ERRORDEF( FT_ERR_CAT( FT_ERR_PREFIX, e ), v, s )
#define FT_ERR_BASE 0
#define FT_CONFIG_CONFIG_H <freetype/config/ftconfig.h>
#define FT_CONFIG_MODULES_H <freetype/config/ftmodule.h>
#define FT_CONFIG_OPTIONS_H <freetype/config/ftoption.h>
#define FT_CONFIG_STANDARD_LIBRARY_H <freetype/config/ftstdlib.h>
#define FT_FREETYPE_H <freetype/freetype.h>
#define FT_BBOX_H <freetype/ftbbox.h>
#define FT_BDF_H <freetype/ftbdf.h>
#define FT_BITMAP_H <freetype/ftbitmap.h>
#define FT_CACHE_H <freetype/ftcache.h>
#define FT_CACHE_INTERNAL_CACHE_H <freetype/ftcache.h>
#define FT_CACHE_INTERNAL_GLYPH_H <freetype/ftcache.h>
#define FT_CACHE_INTERNAL_IMAGE_H <freetype/ftcache.h>
#define FT_CACHE_INTERNAL_MANAGER_H <freetype/ftcache.h>
#define FT_CACHE_INTERNAL_MRU_H <freetype/ftcache.h>
#define FT_CACHE_INTERNAL_SBITS_H <freetype/ftcache.h>
#define FT_CACHE_MANAGER_H <freetype/ftcache.h>
#define FT_ERROR_DEFINITIONS_H <freetype/fterrdef.h>
#define FT_ERRORS_H <freetype/fterrors.h>
#define FT_GLYPH_H <freetype/ftglyph.h>
#define FT_GZIP_H <freetype/ftgzip.h>
#define FT_IMAGE_H <freetype/ftimage.h>
#define FT_INCREMENTAL_H <freetype/ftincrem.h>
#define FT_LIST_H <freetype/ftlist.h>
#define FT_LZW_H <freetype/ftlzw.h>
#define FT_MAC_H <freetype/ftmac.h>
#define FT_MULTIPLE_MASTERS_H <freetype/ftmm.h>
#define FT_MODULE_H <freetype/ftmodapi.h>
#define FT_MODULE_ERRORS_H <freetype/ftmoderr.h>
#define FT_OPENTYPE_VALIDATE_H <freetype/ftotval.h>
#define FT_OUTLINE_H <freetype/ftoutln.h>
#define FT_RENDER_H <freetype/ftrender.h>
#define FT_SIZES_H <freetype/ftsizes.h>
#define FT_SFNT_NAMES_H <freetype/ftsnames.h>
#define FT_STROKER_H <freetype/ftstroke.h>
#define FT_SYNTHESIS_H <freetype/ftsynth.h>
#define FT_SYSTEM_H <freetype/ftsystem.h>
#define FT_TRIGONOMETRY_H <freetype/fttrigon.h>
#define FT_TYPES_H <freetype/fttypes.h>
#define FT_WINFONTS_H <freetype/ftwinfnt.h>
#define FT_XFREE86_H <freetype/ftxf86.h>
#define FT_TYPE1_TABLES_H <freetype/tltables.h>
#define FT_TRUETYPE_IDS_H <freetype/ttnameid.h>
#define FT_TRUETYPE_TABLES_H <freetype/tttables.h>
#define FT_TRUETYPE_TAGS_H <freetype/tttags.h>
#define FT_TRUETYPE_UNPATENTED_H <freetype/ttunpat.h>
#define FT_ERRORDEF(e,v,s) e = v,
#define FT_ERROR_START_LIST enum {
#define FT_CACHE_CHARMAP_H FT_CACHE_H
#define FT_CACHE_IMAGE_H FT_CACHE_H
#define FT_CACHE_SMALL_BITMAPS_H FT_CACHE_H
#define FT_ERR_PREFIX FT_Err_
#define FT_ERROR_END_LIST FT_ERR_CAT( FT_ERR_PREFIX, Max ) };

```

```
#define FT_ERR_CAT(x,y) FT_ERR_XCAT( x, y )
#define FT_ERR_XCAT(x,y)      x ## y
```

12.2.2. freetype/config/ftoption.h

```
#define FT_CONFIG_OPTION_ADOBE_GLYPH_LIST
#define FT_CONFIG_OPTION_GUESSING_EMBEDDED_RFORK
#define FT_CONFIG_OPTION_MAC_FONTS
#define FT_CONFIG_OPTION_POSTSCRIPT_NAMES
#define FT_CONFIG_OPTION_USE_LZW
#define FT_CONFIG_OPTION_USE_ZLIB
#define TT_CONFIG_CMAP_FORMAT_0
#define TT_CONFIG_CMAP_FORMAT_10
#define TT_CONFIG_CMAP_FORMAT_12
#define TT_CONFIG_CMAP_FORMAT_2
#define TT_CONFIG_CMAP_FORMAT_4
#define TT_CONFIG_CMAP_FORMAT_6
#define TT_CONFIG_CMAP_FORMAT_8
#define TT_CONFIG_OPTION_EMBEDDED_BITMAPS
#define TT_CONFIG_OPTION_GX_VAR_SUPPORT
#define TT_CONFIG_OPTION_INTERPRETER_SWITCH
#define TT_CONFIG_OPTION_POSTSCRIPT_NAMES
#define TT_CONFIG_OPTION_SFNT_NAMES
#define TT_CONFIG_OPTION_UNPATENTED_HINTING
#define T1_MAX_SUBRS_CALLS      16
#define FT_RENDER_POOL_SIZE    16384L
#define T1_MAX_CHARSTRINGS_OPERANDS 256
#define FT_MAX_MODULES      32
#define T1_MAX_DICT_DEPTH    5
```

12.2.3. freetype/config/ftstdlib.h

```
#define ft_atol atol
#define ft_exit exit
#define FT_INT_MAX      INT_MAX
#define ft_isalnum      isalnum
#define ft_isdigit      isdigit
#define ft_islower      islower
#define ft_isupper      isupper
#define ft_isxdigit      isxdigit
#define ft_jump_buf      jmp_buf
#define ft_longjmp      longjmp
#define ft_memcmp      memcmp
#define ft_memcpy      memcpy
#define ft_memmove      memmove
#define ft_memset      memset
#define ft_ptrdiff_t      ptrdiff_t
#define ft_qsort      qsort
#define ft_setjmp      setjmp
#define ft_sprintf      sprintf
#define ft_strcat      strcat
#define ft_strcmp      strcmp
#define ft_strcpy      strcpy
#define ft_strlen      strlen
#define ft_strncmp      strncmp
#define ft_strncpy      strncpy
#define ft_strchr      strchr
#define FT_UINT_MAX      UINT_MAX
#define FT_ULONG_MAX      ULONG_MAX
```

12.2.4. freetype/freetype.h

```
#define FT_HAS_FAST_GLYPHS(face) \
    ( face->face_flags & FT_FACE_FLAG_FAST_GLYPHS )
#define FT_HAS_FIXED_SIZES(face) \
    ( face->face_flags & FT_FACE_FLAG_FIXED_SIZES )
#define FT_IS_FIXED_WIDTH(face) \
    ( face->face_flags & FT_FACE_FLAG_FIXED_WIDTH )
#define FT_HAS_GLYPH_NAMES(face) \
    ( face->face_flags & FT_FACE_FLAG_GLYPH_NAMES )
#define FT_HAS_HORIZONTAL(face) \
    ( face->face_flags & FT_FACE_FLAG_HORIZONTAL )
#define FT_HAS_MULTIPLE_MASTERS(face) \
    ( face->face_flags & FT_FACE_FLAG_MULTIPLE_MASTERS )
#define FT_ENC_TAG(value,a,b,c,d) \
    value = ( ( (FT_UInt32)(a) << 24 ) | ( (FT_UInt32)(b) << 16 ) | ( \
    (FT_UInt32)(c) << 8 ) | (FT_UInt32)(d) ) )
#define FT_LOAD_TARGET_(x) \
    ( (FT_Int32)( (x) & 15 ) << 16 )
#define FT_LOAD_TARGET_MODE(x) \
    ( (FT_Render_Mode)( ( (x) > 16 ) & 15 ) )
#define FT_STYLE_FLAG_ITALIC \
    ( 1 << 0 )
#define FT_STYLE_FLAG_BOLD \
    ( 1 << 1 )
#define FT_FACE_FLAG_SCALABLE \
    ( 1L << 0 )
#define FT_FACE_FLAG_FIXED_SIZES \
    ( 1L << 1 )
#define FT_FACE_FLAG_EXTERNAL_STREAM \
    ( 1L << 10 )
#define FT_FACE_FLAG_FIXED_WIDTH \
    ( 1L << 2 )
#define FT_FACE_FLAG_SFNT \
    ( 1L << 3 )
#define FT_FACE_FLAG_HORIZONTAL \
    ( 1L << 4 )
#define FT_FACE_FLAG_VERTICAL \
    ( 1L << 5 )
#define FT_FACE_FLAG_KERNING \
    ( 1L << 6 )
#define FT_FACE_FLAG_FAST_GLYPHS \
    ( 1L << 7 )
#define FT_FACE_FLAG_MULTIPLE_MASTERS \
    ( 1L << 8 )
#define FT_FACE_FLAG_GLYPH_NAMES \
    ( 1L << 9 )
#define FT_HAS_KERNING(face) \
    ( face->face_flags & FT_FACE_FLAG_KERNING )
#define FT_IS_SCALABLE(face) \
    ( face->face_flags & FT_FACE_FLAG_SCALABLE )
#define FT_IS_SFNT(face) \
    ( face->face_flags & FT_FACE_FLAG_SFNT )
#define FT_HAS_VERTICAL(face) \
    ( face->face_flags & FT_FACE_FLAG_VERTICAL )
#define FT_LOAD_DEFAULT 0x0
#define FT_LOAD_NO_SCALE 0x1
#define FT_OPEN_MEMORY 0x1
#define FT_LOAD_VERTICAL_LAYOUT 0x10
#define FT_OPEN_PARAMS 0x10
#define FT_LOAD_MONOCHROME 0x1000
#define FT_LOAD_NO_HINTING 0x2
#define FT_OPEN_STREAM 0x2
#define FT_LOAD_FORCE_AUTOHINT 0x20
#define FT_LOAD_IGNORE_GLOBAL_ADVANCE_WIDTH 0x200
#define FT_LOAD_LINEAR_DESIGN 0x2000
#define FT_LOAD_RENDER 0x4
#define FT_OPEN_PATHNAME 0x4
#define FT_LOAD_CROP_BITMAP 0x40
#define FT_LOAD_NO_RECURSE 0x400
#define FT_LOAD_SBITS_ONLY 0x4000
#define FT_LOAD_NO_BITMAP 0x8
#define FT_OPEN_DRIVER 0x8
#define FT_LOAD_PEDANTIC 0x80
#define FT_LOAD_IGNORE_TRANSFORM 0x800
#define FT_LOAD_NO_AUTOHINT 0x8000U
#define FREETYPE_MINOR 1
#define FREETYPE_PATCH 10
#define FREETYPE_MAJOR 2
```

```

#define FT_LOAD_TARGET_LCD      FT_LOAD_TARGET_( FT_RENDER_MODE_LCD )
#define FT_LOAD_TARGET_LCD_V   FT_LOAD_TARGET_( FT_RENDER_MODE_LCD_V )
#define FT_LOAD_TARGET_LIGHT    FT_LOAD_TARGET_( FT_RENDER_MODE_LIGHT )
#define FT_LOAD_TARGET_MONO     FT_LOAD_TARGET_( FT_RENDER_MODE_MONO )
#define FT_LOAD_TARGET_NORMAL   FT_LOAD_TARGET_( FT_RENDER_MODE_NORMAL )

typedef struct FT_FaceRec_ *FT_Face;
typedef struct FT_ModuleRec_ *FT_Module;
typedef struct FT_LibraryRec_ *FT_Library;
typedef struct FT_ModuleRec_ FT_ModuleRec;
typedef struct FT_RendererRec_ *FT_Renderer;
typedef struct FT_GlyphSlotRec_ *FT_GlyphSlot;
struct FT_GlyphSlotRec_ {
    FT_Library library;
    FT_Face face;
    FT_GlyphSlot next;
    FT_UInt reserved;
    FT_Generic generic;
    FT_Glyph_Metrics metrics;
    FT_Fixed linearHoriAdvance;
    FT_Fixed linearVertAdvance;
    FT_Vector advance;
    FT_Glyph_Format format;
    FT_Bitmap bitmap;
    FT_Int bitmap_left;
    FT_Int bitmap_top;
    FT_Outline outline;
    FT_UInt num_subglyphs;
    FT_SubGlyph subglyphs;
    void *control_data;
    long int control_len;
    FT_Pos lsb_delta;
    FT_Pos rsb_delta;
    void *other;
    FT_Slot_Internal internal;
};
typedef struct FT_Glyph_Metrics_ {
    FT_Pos width;
    FT_Pos height;
    FT_Pos horiBearingX;
    FT_Pos horiBearingY;
    FT_Pos horiAdvance;
    FT_Pos vertBearingX;
    FT_Pos vertBearingY;
    FT_Pos vertAdvance;
} FT_Glyph_Metrics;
typedef struct FT_SubGlyphRec_ *FT_SubGlyph;
typedef struct FT_Slot_InternalRec_ *FT_Slot_Internal;
struct FT_CharMapRec_ {
    FT_Face face;
    FT_Encoding encoding;
    FT_UShort platform_id;
    FT_UShort encoding_id;
};
typedef enum FT_Encoding_ {
    FT_ENCODING_NONE = 0,
    FT_ENCODING_MS_SYMBOL = 1937337698,
    FT_ENCODING_UNICODE = 1970170211,
    FT_ENCODING_SJIS = 1936353651,
    FT_ENCODING_GB2312 = 1734484000,
    FT_ENCODING_BIG5 = 1651074869,
    FT_ENCODING_WANSUNG = 2002873971,

```

```

    FT_ENCODING_JOHAB = 1785686113,
    FT_ENCODING_MS_SJIS = 1936353651,
    FT_ENCODING_MS_GB2312 = 1734484000,
    FT_ENCODING_MS_BIG5 = 1651074869,
    FT_ENCODING_MS_WANSUNG = 2002873971,
    FT_ENCODING_MS_JOHAB = 1785686113,
    FT_ENCODING_ADOBE_STANDARD = 1094995778,
    FT_ENCODING_ADOBE_EXPERT = 1094992453,
    FT_ENCODING_ADOBE_CUSTOM = 1094992451,
    FT_ENCODING_ADOBE_LATIN_1 = 1818326065,
    FT_ENCODING_OLD_LATIN_2 = 1818326066,
    FT_ENCODING_APPLE_ROMAN = 1634889070
} FT_Encoding;
typedef struct FT_CharMapRec_ *FT_CharMap;
typedef long int FT_F26Dot6;
typedef enum FT_Render_Mode_ {
    FT_RENDER_MODE_NORMAL = 0,
    FT_RENDER_MODE_LIGHT = 1,
    FT_RENDER_MODE_MONO = 2,
    FT_RENDER_MODE_LCD = 3,
    FT_RENDER_MODE_LCD_V = 4,
    FT_RENDER_MODE_MAX = 5
} FT_Render_Mode;
typedef struct FT_Parameter_ {
    FT_ULong tag;
    FT_Pointer data;
} FT_Parameter;
typedef struct FT_Open_Args_ {
    FT_UInt flags;
    const FT_Byte *memory_base;
    FT_Long memory_size;
    FT_String *pathname;
    FT_Stream stream;
    FT_Module driver;
    FT_Int num_params;
    FT_Parameter *params;
} FT_Open_Args;
struct FT_SizeRec_ {
    FT_Face face;
    FT_Generic generic;
    FT_Size_Metrics metrics;
    FT_Size_Internal internal;
};
typedef struct FT_Size_Metrics_ {
    FT_UShort x_ppem;
    FT_UShort y_ppem;
    FT_Fixed x_scale;
    FT_Fixed y_scale;
    FT_Pos ascender;
    FT_Pos descender;
    FT_Pos height;
    FT_Pos max_advance;
} FT_Size_Metrics;
typedef struct FT_Size_InternalRec_ *FT_Size_Internal;
typedef struct FT_SizeRec_ *FT_Size;
typedef struct FT_Bitmap_Size_ {
    FT_Short height;
    FT_Short width;
    FT_Pos size;
    FT_Pos x_ppem;
    FT_Pos y_ppem;
} FT_Bitmap_Size;

```

```

typedef struct FT_Face_InternalRec_ *FT_Face_Internal;
typedef struct FT_DriverRec_ *FT_Driver;
typedef struct FT_FaceRec_ {
    FT_Long num_faces;
    FT_Long face_index;
    FT_Long face_flags;
    FT_Long style_flags;
    FT_Long num_glyphs;
    const FT_String *family_name;
    const FT_String *style_name;
    FT_Int num_fixed_sizes;
    FT_Bitmap_Size *available_sizes;
    FT_Int num_charmaps;
    FT_CharMap *charmaps;
    FT_Generic generic;
    FT_BBox bbox;
    FT_UShort units_per_EM;
    FT_Short ascender;
    FT_Short descender;
    FT_Short height;
    FT_Short max_advance_width;
    FT_Short max_advance_height;
    FT_Short underline_position;
    FT_Short underline_thickness;
    FT_GlyphSlot glyph;
    FT_Size size;
    FT_CharMap charmap;
    FT_Driver driver;
    FT_Memory memory;
    FT_Stream stream;
    FT_ListRec sizes_list;
    FT_Generic autohint;
    void *extensions;
    FT_Face_Internal internal;
} FT_FaceRec;
typedef enum FT_Kerning_Mode_ {
    FT_KERNING_DEFAULT = 0,
    FT_KERNING_UNFITTED = 1,
    FT_KERNING_UNSCALED = 2
} FT_Kerning_Mode;
extern FT_Error FT_Attach_File(FT_Face, const char *);
extern FT_Error FT_Attach_Stream(FT_Face, FT_Open_Args *);
extern FT_Fixed FT_CeilFix(FT_Fixed);
extern FT_Long FT_DivFix(FT_Long, FT_Long);
extern FT_Error FT_Done_Face(FT_Face);
extern FT_Error FT_Done_FreeType(FT_Library);
extern FT_Fixed FT_FloorFix(FT_Fixed);
extern FT_UInt FT_Get_Char_Index(FT_Face, FT_ULong);
extern FT_Int FT_Get_Charmap_Index(FT_CharMap);
extern FT_ULong FT_Get_First_Char(FT_Face, FT_UInt *);
extern FT_Error FT_Get_Glyph_Name(FT_Face, FT_UInt, FT_Pointer, FT_UInt);
extern FT_Error FT_Get_Kerning(FT_Face, FT_UInt, FT_UInt, FT_UInt,
                               FT_Vector *);
extern FT_UInt FT_Get_Name_Index(FT_Face, FT_String *);
extern FT_ULong FT_Get_Next_Char(FT_Face, FT_ULong, FT_UInt *);
extern const char *FT_Get_Postscript_Name(FT_Face);
extern FT_Error FT_Init_FreeType(FT_Library *);
extern void FT_Library_Version(FT_Library, FT_Int *, FT_Int *, FT_Int *);
extern FT_Error FT_Load_Char(FT_Face, FT_ULong, FT_Int32);
extern FT_Error FT_Load_Glyph(FT_Face, FT_UInt, FT_Int32);
extern FT_Long FT_MulDiv(FT_Long, FT_Long, FT_Long);
extern FT_Long FT_MulFix(FT_Long, FT_Long);

```



```
extern FT_Error FT_New_Face(FT_Library, const char *, FT_Long, FT_Face *);
extern FT_Error FT_New_Memory_Face(FT_Library, const FT_Byte *, FT_Long,
                                   FT_Long, FT_Face *);
extern FT_Error FT_Open_Face(FT_Library, const FT_Open_Args *, FT_Long,
                             FT_Face *);
extern FT_Error FT_Render_Glyph(FT_GlyphSlot, FT_Render_Mode);
extern FT_Fixed FT_RoundFix(FT_Fixed);
extern FT_Error FT_Select_Charmap(FT_Face, FT_Encoding);
extern FT_Error FT_Set_Char_Size(FT_Face, FT_F26Dot6, FT_F26Dot6, FT_UInt,
                                 FT_UInt);
extern FT_Error FT_Set_Charmap(FT_Face, FT_Charmap);
extern FT_Error FT_Set_Pixel_Sizes(FT_Face, FT_UInt, FT_UInt);
extern void FT_Set_Transform(FT_Face, FT_Matrix *, FT_Vector *);
extern void FT_Vector_Transform(FT_Vector *, const FT_Matrix *);
```

12.2.5. freetype/ftbbox.h

```
extern FT_Error FT_Outline_Get_BBox(FT_Outline *, FT_BBox *);
```

12.2.6. freetype/ftbdf.h

```
typedef enum BDF_PropertyType_ {
    BDF_PROPERTY_TYPE_NONE = 0,
    BDF_PROPERTY_TYPE_ATOM = 1,
    BDF_PROPERTY_TYPE_INTEGER = 2,
    BDF_PROPERTY_TYPE_CARDINAL = 3
} BDF_PropertyType;
typedef struct BDF_PropertyRec_ {
    BDF_PropertyType type;
    union {
        const char *atom;
        FT_Int32 integer;
        FT_UInt32 cardinal;
    } u;
} BDF_PropertyRec;
extern FT_Error FT_Get_BDF_Charset_ID(FT_Face, const char **,
                                       const char **);
extern FT_Error FT_Get_BDF_Property(FT_Face, const char *,
                                    BDF_PropertyRec *);
```

12.2.7. freetype/ftbitmap.h

```
extern FT_Error FT_Bitmap_Convert(FT_Library, const FT_Bitmap *,
                                   FT_Bitmap *, FT_Int);
extern FT_Error FT_Bitmap_Copy(FT_Library, const FT_Bitmap *, FT_Bitmap *);
extern FT_Error FT_Bitmap_Done(FT_Library, FT_Bitmap *);
extern FT_Error FT_Bitmap_Embolden(FT_Library, FT_Bitmap *, FT_Pos,
                                   FT_Pos);
extern void FT_Bitmap_New(FT_Bitmap *);
```

12.2.8. freetype/fterrors.h

```
enum {
    FT_Err_Ok = 0x00,
    FT_Err_Cannot_Open_Resource = 0x01,
    FT_Err_Unknown_File_Format = 0x02,
```

```

FT_Err_Invalid_File_Format = 0x03,
FT_Err_Invalid_Version = 0x04,
FT_Err_Lower_Module_Version = 0x05,
FT_Err_Invalid_Argument = 0x06,
FT_Err_Unimplemented_Feature = 0x07,
FT_Err_Invalid_Table = 0x08,
FT_Err_Invalid_Offset = 0x09,
FT_Err_Invalid_Glyph_Index = 0x10,
FT_Err_Invalid_Character_Code = 0x11,
FT_Err_Invalid_Glyph_Format = 0x12,
FT_Err_Cannot_Render_Glyph = 0x13,
FT_Err_Invalid_Outline = 0x14,
FT_Err_Invalid_Composite = 0x15,
FT_Err_Too_Many_Hints = 0x16,
FT_Err_Invalid_Pixel_Size = 0x17,
FT_Err_Invalid_Handle = 0x20,
FT_Err_Invalid_Library_Handle = 0x21,
FT_Err_Invalid_Driver_Handle = 0x22,
FT_Err_Invalid_Face_Handle = 0x23,
FT_Err_Invalid_Size_Handle = 0x24,
FT_Err_Invalid_Slot_Handle = 0x25,
FT_Err_Invalid_CharMap_Handle = 0x26,
FT_Err_Invalid_Cache_Handle = 0x27,
FT_Err_Invalid_Stream_Handle = 0x28,
FT_Err_Too_Many_Drivers = 0x30,
FT_Err_Too_Many_Extensions = 0x31,
FT_Err_Out_Of_Memory = 0x40,
FT_Err_Unlisted_Object = 0x41,
FT_Err_Cannot_Open_Stream = 0x51,
FT_Err_Invalid_Stream_Seek = 0x52,
FT_Err_Invalid_Stream_Skip = 0x53,
FT_Err_Invalid_Stream_Read = 0x54,
FT_Err_Invalid_Stream_Operation = 0x55,
FT_Err_Invalid_Frame_Operation = 0x56,
FT_Err_Nested_Frame_Access = 0x57,
FT_Err_Invalid_Frame_Read = 0x58,
FT_Err_Raster_Uninitialized = 0x60,
FT_Err_Raster_Corrupted = 0x61,
FT_Err_Raster_Overflow = 0x62,
FT_Err_Raster_Negative_Height = 0x63,
FT_Err_Too_Many_Caches = 0x70,
FT_Err_Invalid_Opcode = 0x80,
FT_Err_Too_Few_Arguments = 0x81,
FT_Err_Stack_Overflow = 0x82,
FT_Err_Code_Overflow = 0x83,
FT_Err_Bad_Argument = 0x84,
FT_Err_Divide_By_Zero = 0x85,
FT_Err_Invalid_Reference = 0x86,
FT_Err_Debug_OpCode = 0x87,
FT_Err_ENDF_In_Exec_Stream = 0x88,
FT_Err_Nested_DEFS = 0x89,
FT_Err_Invalid_CodeRange = 0x8A,
FT_Err_Execution_Too_Long = 0x8B,
FT_Err_Too_Many_Function_Defs = 0x8C,
FT_Err_Too_Many_Instruction_Defs = 0x8D,
FT_Err_Table_Missing = 0x8E,
FT_Err_Horiz_Header_Missing = 0x8F,
FT_Err_Locations_Missing = 0x90,
FT_Err_Name_Table_Missing = 0x91,
FT_Err_CMap_Table_Missing = 0x92,
FT_Err_Hmtx_Table_Missing = 0x93,
FT_Err_Post_Table_Missing = 0x94,

```

```

FT_Err_Invalid_Horiz_Metrics = 0x95,
FT_Err_Invalid_CharMap_Format = 0x96,
FT_Err_Invalid_PPem = 0x97,
FT_Err_Invalid_Vert_Metrics = 0x98,
FT_Err_Could_Not_Find_Context = 0x99,
FT_Err_Invalid_Post_Table_Format = 0x9A,
FT_Err_Invalid_Post_Table = 0x9B,
FT_Err_Syntax_Error = 0xA0,
FT_Err_Stack_Underflow = 0xA1,
FT_Err_Ignore = 0xA2,
FT_Err_Missing_Startfont_Field = 0xB0,
FT_Err_Missing_Font_Field = 0xB1,
FT_Err_Missing_Size_Field = 0xB2,
FT_Err_Missing_Chars_Field = 0xB3,
FT_Err_Missing_Startchar_Field = 0xB4,
FT_Err_Missing_Encoding_Field = 0xB5,
FT_Err_Missing_Bbx_Field = 0xB6,
FT_Err_Bbx_Too_Big = 0xB7,
FT_Err_Max = 0xB8
};

```

12.2.9. freetype/ftglyph.h

```

typedef struct FT_Glyph_Class_ {
    FT_Long glyph_size;
    FT_Glyph_Format glyph_format;
    FT_Glyph_InitFunc glyph_init;
    FT_Glyph_DoneFunc glyph_done;
    FT_Glyph_CopyFunc glyph_copy;
    FT_Glyph_TransformFunc glyph_transform;
    FT_Glyph_GetBBoxFunc glyph_bbox;
    FT_Glyph_PrepareFunc glyph_prepare;
} FT_Glyph_Class;
typedef struct FT_GlyphRec_ *FT_Glyph;
typedef FT_Error(*FT_Glyph_InitFunc) (FT_Glyph, FT_GlyphSlot);
typedef void (*FT_Glyph_DoneFunc) (FT_Glyph);
typedef FT_Error(*FT_Glyph_CopyFunc) (FT_Glyph, FT_Glyph);
typedef void (*FT_Glyph_TransformFunc) (FT_Glyph, const FT_Matrix *,
                                         const FT_Vector *);
typedef void (*FT_Glyph_GetBBoxFunc) (FT_Glyph, FT_BBox *);
typedef FT_Error(*FT_Glyph_PrepareFunc) (FT_Glyph, FT_GlyphSlot);
typedef enum FT_Glyph_BBox_Mode_ {
    FT_GLYPH_BBOX_UNSCALED = 0,
    FT_GLYPH_BBOX_SUBPIXELS = 0,
    FT_GLYPH_BBOX_GRIDFIT = 1,
    FT_GLYPH_BBOX_TRUNCATE = 2,
    FT_GLYPH_BBOX_PIXELS = 3
} FT_Glyph_BBox_Mode;
struct FT_OutlineGlyphRec_ {
    FT_GlyphRec root;
    FT_Outline outline;
};
typedef struct FT_OutlineGlyphRec_ *FT_OutlineGlyph;
typedef struct FT_GlyphRec_ {
    FT_Library library;
    const FT_Glyph_Class *clazz;
    FT_Glyph_Format format;
    FT_Vector advance;
} FT_GlyphRec;
struct FT_BitmapGlyphRec_ {
    FT_GlyphRec root;

```

```

    FT_Int left;
    FT_Int top;
    FT_Bitmap bitmap;
};
typedef struct FT_BitmapGlyphRec_ *FT_BitmapGlyph;
extern void FT_Done_Glyph(FT_Glyph);
extern FT_Error FT_Get_Glyph(FT_GlyphSlot, FT_Glyph *);
extern FT_Error FT_Glyph_Copy(FT_Glyph, FT_Glyph *);
extern void FT_Glyph_Get_CBox(FT_Glyph, FT_UInt, FT_BBox *);
extern FT_Error FT_Glyph_To_Bitmap(FT_Glyph *, FT_Render_Mode, FT_Vector *,
                                   FT_Bool);
extern FT_Error FT_Glyph_Transform(FT_Glyph, FT_Matrix *, FT_Vector *);
extern FT_Error FT_Matrix_Invert(FT_Matrix *);
extern void FT_Matrix_Multiply(const FT_Matrix *, FT_Matrix *);

```

12.2.10. freetype/ftimage.h

```

#define FT_CURVE_TAG_TOUCH_BOTH \
    ( FT_CURVE_TAG_TOUCH_X | FT_CURVE_TAG_TOUCH_Y )
#define FT_IMAGE_TAG(value, _x1, _x2, _x3, _x4) \
    value = ( ( (unsigned long)_x1 << 24 ) | ( (unsigned long)_x2 << 16 ) \
    | ( (unsigned long)_x3 << 8 ) | (unsigned long)_x4 )
#define FT_CURVE_TAG(flag) ( flag & 3 )
#define FT_CURVE_TAG_CONIC 0
#define FT_OUTLINE_NONE 0x0
#define FT_RASTER_FLAG_DEFAULT 0x0
#define FT_OUTLINE_OWNER 0x1
#define FT_RASTER_FLAG_AA 0x1
#define FT_OUTLINE_HIGH_PRECISION 0x100
#define FT_OUTLINE_EVEN_ODD_FILL 0x2
#define FT_RASTER_FLAG_DIRECT 0x2
#define FT_OUTLINE_SINGLE_PASS 0x200
#define FT_OUTLINE_REVERSE_FILL 0x4
#define FT_RASTER_FLAG_CLIP 0x4
#define FT_OUTLINE_IGNORE_DROPOUTS 0x8
#define FT_CURVE_TAG_ON 1
#define FT_CURVE_TAG_TOUCH_Y 16
#define FT_CURVE_TAG_CUBIC 2
#define FT_CURVE_TAG_TOUCH_X 8
#define FT_Curve_Tag_Conic FT_CURVE_TAG_CONIC
#define FT_Curve_Tag_Cubic FT_CURVE_TAG_CUBIC
#define FT_Curve_Tag_On FT_CURVE_TAG_ON
#define FT_Curve_Tag_Touch_X FT_CURVE_TAG_TOUCH_X
#define FT_Curve_Tag_Touch_Y FT_CURVE_TAG_TOUCH_Y
#define FT_Outline_ConicTo_Func FT_Outline_ConicToFunc
#define FT_Outline_CubicTo_Func FT_Outline_CubicToFunc
#define FT_Outline_LineTo_Func FT_Outline_LineToFunc
#define FT_Outline_MoveTo_Func FT_Outline_MoveToFunc
#define FT_Raster_Done_Func FT_Raster_DoneFunc
#define FT_Raster_New_Func FT_Raster_NewFunc
#define FT_Raster_Render_Func FT_Raster_RenderFunc
#define FT_Raster_Reset_Func FT_Raster_ResetFunc
#define FT_Raster_Set_Mode_Func FT_Raster_SetModeFunc
#define FT_Raster_Span_Func FT_SpanFunc

typedef struct FT_Bitmap_ {
    int rows;
    int width;
    int pitch;
    unsigned char *buffer;
    short num_grays;

```

```

    char pixel_mode;
    char palette_mode;
    void *palette;
} FT_Bitmap;
typedef long int FT_Pos;
typedef struct FT_Vector_ {
    FT_Pos x;
    FT_Pos y;
} FT_Vector;
typedef struct FT_Outline_ {
    short n_contours;
    short n_points;
    FT_Vector *points;
    char *tags;
    short int *contours;
    int flags;
} FT_Outline;
typedef enum FT_Glyph_Format_ {
    FT_GLYPH_FORMAT_NONE = 0,
    FT_GLYPH_FORMAT_COMPOSITE = 1668246896,
    FT_GLYPH_FORMAT_BITMAP = 1651078259,
    FT_GLYPH_FORMAT_OUTLINE = 1869968492,
    FT_GLYPH_FORMAT_PLOTTER = 1886154612
} FT_Glyph_Format;
typedef struct FT_BBox_ {
    FT_Pos xMin;
    FT_Pos yMin;
    FT_Pos xMax;
    FT_Pos yMax;
} FT_BBox;
typedef struct FT_RasterRec_ *FT_Raster;
typedef int (*FT_Raster_NewFunc) (void *, FT_Raster *);
typedef void (*FT_Raster_ResetFunc) (FT_Raster, unsigned char *,
                                     long unsigned int);
typedef int (*FT_Raster_SetModeFunc) (FT_Raster, long unsigned int,
                                       void *);
typedef struct FT_Span_ {
    short x;
    unsigned short len;
    unsigned char coverage;
} FT_Span;
typedef void (*FT_SpanFunc) (int, int, const FT_Span *, void *);
typedef int (*FT_Raster_BitTest_Func) (int, int, void *);
typedef void (*FT_Raster_BitSet_Func) (int, int, void *);
typedef struct FT_Raster_Params_ {
    const FT_Bitmap *target;
    const void *source;
    int flags;
    FT_SpanFunc gray_spans;
    FT_SpanFunc black_spans;
    FT_Raster_BitTest_Func bit_test;
    FT_Raster_BitSet_Func bit_set;
    void *user;
    FT_BBox clip_box;
} FT_Raster_Params;
typedef int (*FT_Raster_RenderFunc) (FT_Raster, const FT_Raster_Params *);
typedef void (*FT_Raster_DoneFunc) (FT_Raster);
typedef struct FT_Raster_Funcs_ {
    FT_Glyph_Format glyph_format;
    FT_Raster_NewFunc raster_new;
    FT_Raster_ResetFunc raster_reset;
    FT_Raster_SetModeFunc raster_set_mode;

```

```

    FT_Raster_RenderFunc raster_render;
    FT_Raster_DoneFunc raster_done;
} FT_Raster_Funcs;
typedef int (*FT_Outline_MoveToFunc) (const FT_Vector *, void *);
typedef int (*FT_Outline_LineToFunc) (const FT_Vector *, void *);
typedef int (*FT_Outline_ConicToFunc) (const FT_Vector *,
                                       const FT_Vector *, void *);
typedef int (*FT_Outline_CubicToFunc) (const FT_Vector *,
                                       const FT_Vector *,
                                       const FT_Vector *, void *);

typedef struct FT_Outline_Funcs_ {
    FT_Outline_MoveToFunc move_to;
    FT_Outline_LineToFunc line_to;
    FT_Outline_ConicToFunc conic_to;
    FT_Outline_CubicToFunc cubic_to;
    int shift;
    FT_Pos delta;
} FT_Outline_Funcs;
typedef enum FT_Pixel_Mode_ {
    FT_PIXEL_MODE_NONE = 0,
    FT_PIXEL_MODE_MONO,
    FT_PIXEL_MODE_GRAY,
    FT_PIXEL_MODE_GRAY2,
    FT_PIXEL_MODE_GRAY4,
    FT_PIXEL_MODE_LCD,
    FT_PIXEL_MODE_LCD_V,
    FT_PIXEL_MODE_MAX
} FT_Pixel_Mode;

```

12.2.11. freetype/ftincrm.h

```
#define FT_PARAM_TAG_INCREMENTAL      FT_MAKE_TAG( 'i', 'n', 'c', 'r' )
```

12.2.12. freetype/ftlist.h

```

typedef void (*FT_List_Destructor) (FT_Memory, void *, void *);
typedef FT_Error (*FT_List_Iterator) (FT_ListNode, void *);
extern void FT_List_Add(FT_List, FT_ListNode);
extern void FT_List_Finalize(FT_List, FT_List_Destructor, FT_Memory,
                             void *);
extern FT_ListNode FT_List_Find(FT_List, void *);
extern void FT_List_Insert(FT_List, FT_ListNode);
extern FT_Error FT_List_Iterate(FT_List, FT_List_Iterator, void *);
extern void FT_List_Remove(FT_List, FT_ListNode);
extern void FT_List_Up(FT_List, FT_ListNode);

```

12.2.13. freetype/ftmm.h

```

typedef struct FT_MM_Axis_ {
    FT_String *name;
    FT_Long minimum;
    FT_Long maximum;
} FT_MM_Axis;
typedef struct FT_Multi_Master_ {
    FT_UInt num_axis;
    FT_UInt num_designs;
    FT_MM_Axis axis[4];
} FT_Multi_Master;

```

```

typedef struct FT_Var_Axis_ {
    FT_String *name;
    FT_Fixed minimum;
    FT_Fixed def;
    FT_Fixed maximum;
    FT_ULong tag;
    FT_UInt strid;
} FT_Var_Axis;
typedef struct FT_Var_Named_Style_ {
    FT_Fixed *coords;
    FT_UInt strid;
} FT_Var_Named_Style;
typedef struct FT_MM_Var_ {
    FT_UInt num_axis;
    FT_UInt num_designs;
    FT_UInt num_namedstyles;
    FT_Var_Axis *axis;
    FT_Var_Named_Style *namedstyle;
} FT_MM_Var;
extern FT_Error FT_Get_MM_Var(FT_Face, FT_MM_Var * *);
extern FT_Error FT_Get_Multi_Master(FT_Face, FT_Multi_Master *);
extern FT_Error FT_Set_MM_Blend_Coordinates(FT_Face, FT_UInt, FT_Fixed *);
extern FT_Error FT_Set_MM_Design_Coordinates(FT_Face, FT_UInt, FT_Long *);
extern FT_Error FT_Set_Var_Blend_Coordinates(FT_Face, FT_UInt, FT_Fixed *);
extern FT_Error FT_Set_Var_Design_Coordinates(FT_Face, FT_UInt,
                                              FT_Fixed *);

```

12.2.14. freetype/ftmodapi.h

```

#define FT_MODULE_DRIVER_SCALABLE      0x100
#define FT_MODULE_DRIVER_NO_OUTLINES  0x200
#define FT_MODULE_DRIVER_HAS_HINTER   0x400
#define FT_MODULE_FONT_DRIVER          1
#define FT_MODULE_RENDERER              2
#define FT_MODULE_HINTER               4
#define FT_MODULE_STYLER               8

typedef FT_Error(*FT_Module_Constructor)(FT_Module);
typedef void(*FT_Module_Destructor)(FT_Module);
typedef FT_Pointer FT_Module_Interface;
typedef FT_Module_Interface(*FT_Module_Requester)(FT_Module,
                                                  const char *);

typedef struct FT_Module_Class_ {
    FT_ULong module_flags;
    FT_Long module_size;
    const FT_String *module_name;
    FT_Fixed module_version;
    FT_Fixed module_requires;
    const void *module_interface;
    FT_Module_Constructor module_init;
    FT_Module_Destructor module_done;
    FT_Module_Requester get_interface;
} FT_Module_Class;

typedef void(*FT_DebugHook_Func)(void *);
extern void FT_Add_Default_Modules(FT_Library);
extern FT_Error FT_Add_Module(FT_Library, const FT_Module_Class *);
extern FT_Error FT_Done_Library(FT_Library);
extern FT_Module FT_Get_Module(FT_Library, const char *);
extern FT_Error FT_New_Library(FT_Memory, FT_Library *);
extern FT_Error FT_Remove_Module(FT_Library, FT_Module);
extern void FT_Set_Debug_Hook(FT_Library, FT_UInt, FT_DebugHook_Func);

```

12.2.15. freetype/ftmoderr.h

```
#define FT_MODERR_START_LIST    enum {
#define FT_MODERRDEF(e,v,s)    FT_Mod_Err_ ## e = 0,
#define FT_MODERR_END_LIST    FT_Mod_Err_Max };
```

12.2.16. freetype/ftotval.h

```
#define FT_VALIDATE_OT    \
    FT_VALIDATE_BASE | FT_VALIDATE_GDEF | FT_VALIDATE_GPOS | \
    FT_VALIDATE_GSUB | FT_VALIDATE_JSTF
#define FT_VALIDATE_BASE    0x0100
#define FT_VALIDATE_GDEF    0x0200
#define FT_VALIDATE_GPOS    0x0400
#define FT_VALIDATE_GSUB    0x0800
#define FT_VALIDATE_JSTF    0x1000

extern FT_Error FT_OpenType_Validate(FT_Face, FT_UInt, FT_Bytes *,
                                     FT_Bytes *, FT_Bytes *, FT_Bytes *,
                                     FT_Bytes *);
```

12.2.17. freetype/ftoutln.h

```
typedef enum {
    FT_ORIENTATION_TRUETYPE = 0,
    FT_ORIENTATION_POSTSCRIPT = 1,
    FT_ORIENTATION_FILL_RIGHT = 0,
    FT_ORIENTATION_FILL_LEFT = 1
} FT_Orientation;

extern FT_Error FT_Outline_Check(FT_Outline *);
extern FT_Error FT_Outline_Copy(const FT_Outline *, FT_Outline *);
extern FT_Error FT_Outline_Decompose(FT_Outline *,
                                     const FT_Outline_Funcs *, void *);
extern FT_Error FT_Outline_Done(FT_Library, FT_Outline *);
extern FT_Error FT_Outline_Get_Bitmap(FT_Library, FT_Outline *,
                                     const FT_Bitmap *);
extern void FT_Outline_Get_CBox(const FT_Outline *, FT_BBox *);
extern FT_Orientation FT_Outline_Get_Orientation(FT_Outline *);
extern FT_Error FT_Outline_New(FT_Library, FT_UInt, FT_Int, FT_Outline *);
extern FT_Error FT_Outline_Render(FT_Library, FT_Outline *,
                                  FT_Raster_Params *);
extern void FT_Outline_Reverse(FT_Outline *);
extern void FT_Outline_Transform(const FT_Outline *, const FT_Matrix *);
extern void FT_Outline_Translate(const FT_Outline *, FT_Pos, FT_Pos);
```

12.2.18. freetype/ftpfr.h

```
extern FT_Error FT_Get_PFR_Advance(FT_Face, FT_UInt, FT_Pos *);
extern FT_Error FT_Get_PFR_Kerning(FT_Face, FT_UInt, FT_UInt, FT_Vector *);
extern FT_Error FT_Get_PFR_Metrics(FT_Face, FT_UInt *, FT_UInt *,
                                   FT_Fixed *, FT_Fixed *);
```

12.2.19. freetype/ftrender.h

```

#define FT_Glyph_Done_Func      FT_Glyph_DoneFunc
#define FT_Glyph_BBox_Func     FT_Glyph_GetBBoxFunc
#define FT_Glyph_Init_Func     FT_Glyph_InitFunc
#define FT_Glyph_Prepare_Func  FT_Glyph_PrepareFunc
#define FT_Renderer_getCBox     FT_Renderer_GetCBoxFunc
#define FT_Renderer_render      FT_Renderer_RenderFunc
#define FT_Renderer_setMode     FT_Renderer_SetModeFunc
#define FT_Renderer_transform   FT_Renderer_TransformFunc

typedef FT_Error(*FT_Renderer_RenderFunc) (FT_Renderer, FT_GlyphSlot,
                                           FT_UInt, const FT_Vector *);
typedef FT_Error(*FT_Renderer_TransformFunc) (FT_Renderer, FT_GlyphSlot,
                                              const FT_Matrix *,
                                              const FT_Vector *);
typedef void (*FT_Renderer_GetCBoxFunc) (FT_Renderer, FT_GlyphSlot,
                                         FT_BBox *);
typedef FT_Error(*FT_Renderer_SetModeFunc) (FT_Renderer, FT_ULong,
                                           FT_Pointer);

typedef struct FT_Renderer_Class_ {
    FT_Module_Class root;
    FT_Glyph_Format glyph_format;
    FT_Renderer_RenderFunc render_glyph;
    FT_Renderer_TransformFunc transform_glyph;
    FT_Renderer_GetCBoxFunc get_glyph_cbox;
    FT_Renderer_SetModeFunc set_mode;
    FT_Raster_Funcs *raster_class;
} FT_Renderer_Class;

extern FT_Renderer FT_Get_Renderer(FT_Library, FT_Glyph_Format);
extern FT_Error FT_Set_Renderer(FT_Library, FT_Renderer, FT_UInt,
                               FT_Parameter *);

```

12.2.20. freetype/ftsizes.h

```

extern FT_Error FT_Activate_Size(FT_Size);
extern FT_Error FT_Done_Size(FT_Size);
extern FT_Error FT_New_Size(FT_Face, FT_Size *);

```

12.2.21. freetype/ftsnames.h

```

typedef struct FT_SfntName_ {
    FT_UShort platform_id;
    FT_UShort encoding_id;
    FT_UShort language_id;
    FT_UShort name_id;
    FT_Byte *string;
    FT_UInt string_len;
} FT_SfntName;

extern FT_Error FT_Get_Sfnt_Name(FT_Face, FT_UInt, FT_SfntName *);
extern FT_UInt FT_Get_Sfnt_Name_Count(FT_Face);

```

12.2.22. freetype/ftstroke.h

```

typedef enum {
    FT_STROKER_LINECAP_BUTT = 0,
    FT_STROKER_LINECAP_ROUND = 1,

```

```

    FT_STROKER_LINECAP_SQUARE = 2
} FT_Stroker_LineCap;
typedef enum {
    FT_STROKER_LINEJOIN_ROUND = 0,
    FT_STROKER_LINEJOIN_BEVEL = 1,
    FT_STROKER_LINEJOIN_MITER = 2
} FT_Stroker_LineJoin;
typedef struct FT_StrokerRec_ *FT_Stroker;
typedef enum {
    FT_STROKER_BORDER_LEFT = 0,
    FT_STROKER_BORDER_RIGHT = 1
} FT_StrokerBorder;
extern FT_Error FT_Glyph_Stroke(FT_Glyph *, FT_Stroker, FT_Bool);
extern FT_Error FT_Glyph_StrokeBorder(FT_Glyph *, FT_Stroker, FT_Bool,
                                      FT_Bool);
extern FT_StrokerBorder FT_Outline_GetInsideBorder(FT_Outline *);
extern FT_StrokerBorder FT_Outline_GetOutsideBorder(FT_Outline *);
extern FT_Error FT_Stroker_BeginSubPath(FT_Stroker, FT_Vector *, FT_Bool);
extern FT_Error FT_Stroker_ConicTo(FT_Stroker, FT_Vector *, FT_Vector *,
                                   FT_Vector *);
extern FT_Error FT_Stroker_CubicTo(FT_Stroker, FT_Vector *, FT_Vector *,
                                   FT_Vector *);
extern void FT_Stroker_Done(FT_Stroker);
extern FT_Error FT_Stroker_EndSubPath(FT_Stroker);
extern void FT_Stroker_Export(FT_Stroker, FT_Outline *);
extern void FT_Stroker_ExportBorder(FT_Stroker, FT_StrokerBorder,
                                   FT_Outline *);
extern FT_Error FT_Stroker_GetBorderCounts(FT_Stroker, FT_StrokerBorder,
                                           FT_UInt *, FT_UInt *);
extern FT_Error FT_Stroker_GetCounts(FT_Stroker, FT_UInt *, FT_UInt *);
extern FT_Error FT_Stroker_LineTo(FT_Stroker, FT_Vector *);
extern FT_Error FT_Stroker_New(FT_Library, FT_Stroker *);
extern FT_Error FT_Stroker_ParseOutline(FT_Stroker, FT_Outline *, FT_Bool);
extern void FT_Stroker_Rewind(FT_Stroker);
extern void FT_Stroker_Set(FT_Stroker, FT_Fixed, FT_Stroker_LineCap,
                           FT_Stroker_LineJoin, FT_Fixed);

```

12.2.23. freetype/ftsystem.h

```

struct FT_MemoryRec_ {
    void *user;
    FT_Alloc_Func alloc;
    FT_Free_Func free;
    FT_Realloc_Func realloc;
};
typedef struct FT_MemoryRec_ *FT_Memory;
typedef void *(*FT_Alloc_Func) (FT_Memory, long int);
typedef void *(*FT_Free_Func) (FT_Memory, void *);
typedef void *(*FT_Realloc_Func) (FT_Memory, long int, long int, void *);
union FT_StreamDesc_ {
    long int value;
    void *pointer;
};
struct FT_StreamRec_ {
    unsigned char *base;
    long unsigned int size;
    long unsigned int pos;
    FT_StreamDesc descriptor;
    FT_StreamDesc pathname;
    FT_Stream_IOFunc read;
    FT_Stream_CloseFunc close;
    FT_Memory memory;

```

```

    unsigned char *cursor;
    unsigned char *limit;
};
typedef union FT_StreamDesc_ {
    long int value;
    void *pointer;
} FT_StreamDesc;
typedef struct FT_StreamRec_ *FT_Stream;
typedef long unsigned int (*FT_Stream_IoFunc) (FT_Stream,
                                                long unsigned int,
                                                unsigned char *,
                                                long unsigned int);
typedef void (*FT_Stream_CloseFunc) (FT_Stream);

```

12.2.24. freetype/fttrigon.h

```

#define FT_ANGLE_PI      ( 180L << 16 )
#define FT_ANGLE_2PI    ( FT_ANGLE_PI * 2 )
#define FT_ANGLE_PI2    ( FT_ANGLE_PI / 2 )
#define FT_ANGLE_PI4    ( FT_ANGLE_PI / 4 )

typedef FT_Fixed FT_Angle;
extern FT_Angle FT_Angle_Diff(FT_Angle, FT_Angle);
extern FT_Angle FT_Atan2(FT_Fixed, FT_Fixed);
extern FT_Fixed FT_Cos(FT_Angle);
extern FT_Fixed FT_Sin(FT_Angle);
extern FT_Fixed FT_Tan(FT_Angle);
extern void FT_Vector_From_Polar(FT_Vector *, FT_Fixed, FT_Angle);
extern FT_Fixed FT_Vector_Length(FT_Vector *);
extern void FT_Vector_Polarize(FT_Vector *, FT_Fixed *, FT_Angle *);
extern void FT_Vector_Rotate(FT_Vector *, FT_Angle);
extern void FT_Vector_Unit(FT_Vector *, FT_Angle);

```

12.2.25. freetype/fttypes.h

```

#define FT_MAKE_TAG(_x1,_x2,_x3,_x4) \
    ( ( (FT_ULong)_x1 << 24 ) | ( (FT_ULong)_x2 << 16 ) | ( (FT_ULong)_x3 \
    << 8 ) | (FT_ULong)_x4 )
#define FT_BOOL(x)      ( (FT_Bool)( x ) )
#define FT_IS_EMPTY(list)      ( (list).head == 0 )
#define FT_ERROR_BASE(x)      ( (x) & 0xFF )
#define FT_ERROR_MODULE(x)    ( (x) & 0xFF00U )

typedef unsigned int FT_UInt;
typedef struct FT_ListNodeRec_ *FT_ListNode;
typedef struct FT_ListRec_ *FT_List;
typedef int FT_Error;
typedef void (*FT_Generic_Finalizer) (void *);
typedef struct FT_Generic_ {
    void *data;
    FT_Generic_Finalizer finalizer;
} FT_Generic;
typedef int FT_Int;
typedef long unsigned int FT_ULong;
typedef long int FT_Long;
typedef char FT_String;
typedef long int FT_Fixed;
typedef void *FT_Pointer;
typedef struct FT_ListRec_ {

```

```

    FT_ListNode head;
    FT_ListNode tail;
} FT_ListRec;
typedef short unsigned int FT_UShort;
typedef struct FT_Matrix_ {
    FT_Fixed xx;
    FT_Fixed xy;
    FT_Fixed yx;
    FT_Fixed yy;
} FT_Matrix;
typedef unsigned char FT_Bool;
typedef unsigned char FT_Byte;
typedef int FT_Int32;
typedef unsigned int FT_UInt32;
typedef const FT_Byte *FT_Bytes;
typedef short int FT_Short;
typedef struct FT_ListNodeRec_ {
    FT_ListNode prev;
    FT_ListNode next;
    void *data;
} FT_ListNodeRec;
typedef char FT_Char;

```

12.2.26. freetype/ftxf86.h

```
extern const char *FT_Get_X11_Font_Format (FT_Face);
```

12.2.27. freetype/t1tables.h

```

#define T1_MAX_MM_DESIGNS      16
#define T1_MAX_MM_MAP_POINTS  20
#define T1_MAX_MM_AXIS      4
#define t1_blend_blue_scale    T1_BLEND_BLUE_SCALE
#define t1_blend_blue_shift    T1_BLEND_BLUE_SHIFT
#define t1_blend_blue_values    T1_BLEND_BLUE_VALUES
#define t1_blend_family_blues    T1_BLEND_FAMILY_BLUES
#define t1_blend_family_other_blues    T1_BLEND_FAMILY_OTHER_BLUES
#define t1_blend_force_bold    T1_BLEND_FORCE_BOLD
#define t1_blend_italic_angle    T1_BLEND_ITALIC_ANGLE
#define t1_blend_max            T1_BLEND_MAX
#define t1_blend_other_blues    T1_BLEND_OTHER_BLUES
#define t1_blend_standard_height    T1_BLEND_STANDARD_HEIGHT
#define t1_blend_standard_widths    T1_BLEND_STANDARD_WIDTH
#define t1_blend_stem_snap_heights    T1_BLEND_STEM_SNAP_HEIGHTS
#define t1_blend_stem_snap_widths    T1_BLEND_STEM_SNAP_WIDTHS
#define t1_blend_underline_position    T1_BLEND_UNDERLINE_POSITION
#define t1_blend_underline_thickness    T1_BLEND_UNDERLINE_THICKNESS

typedef struct PS_PrivateRec_ {
    FT_Int unique_id;
    FT_Int lenIV;
    FT_Byte num_blue_values;
    FT_Byte num_other_blues;
    FT_Byte num_family_blues;
    FT_Byte num_family_other_blues;
    FT_Short blue_values[14];
    FT_Short other_blues[10];
    FT_Short family_blues[14];
    FT_Short family_other_blues[10];

```

```

    FT_Fixed blue_scale;
    FT_Int blue_shift;
    FT_Int blue_fuzz;
    FT_UShort standard_width[1];
    FT_UShort standard_height[1];
    FT_Byte num_snap_widths;
    FT_Byte num_snap_heights;
    FT_Bool force_bold;
    FT_Bool round_stem_up;
    FT_Short snap_widths[13];
    FT_Short snap_heights[13];
    FT_Fixed expansion_factor;
    FT_Long language_group;
    FT_Long password;
    FT_Short min_feature[2];
} PS_PrivateRec;
typedef struct PS_FontInfoRec {
    FT_String *version;
    FT_String *notice;
    FT_String *full_name;
    FT_String *family_name;
    FT_String *weight;
    FT_Long italic_angle;
    FT_Bool is_fixed_pitch;
    FT_Short underline_position;
    FT_UShort underline_thickness;
} PS_FontInfoRec;
typedef enum {
    T1_BLEND_UNDERLINE_POSITION,
    T1_BLEND_UNDERLINE_THICKNESS,
    T1_BLEND_ITALIC_ANGLE,
    T1_BLEND_BLUE_VALUES,
    T1_BLEND_OTHER_BLUES,
    T1_BLEND_STANDARD_WIDTH,
    T1_BLEND_STANDARD_HEIGHT,
    T1_BLEND_STEM_SNAP_WIDTHS,
    T1_BLEND_STEM_SNAP_HEIGHTS,
    T1_BLEND_BLUE_SCALE,
    T1_BLEND_BLUE_SHIFT,
    T1_BLEND_FAMILY_BLUES,
    T1_BLEND_FAMILY_OTHER_BLUES,
    T1_BLEND_FORCE_BOLD,
    T1_BLEND_MAX
} T1_Blend_Flags;
extern FT_Error FT_Get_PS_Font_Info(FT_Face, PS_FontInfoRec *);
extern FT_Error FT_Get_PS_Font_Private(FT_Face, PS_PrivateRec *);
extern FT_Int FT_Has_PS_Glyph_Names(FT_Face);

```

12.2.28. freetype/ttnameid.h

```

#define TT_MS_LANGID_KIRGHIZ_KIRGHIZ_REPUBLIC    \
    TT_MS_LANGID_KIRGHIZ_KIRGHIZSTAN
#define TT_MS_LANGID_SOTHO_SOUTHERN_SOUTH_AFRICA \
    TT_MS_LANGID_SEPEDI_SOUTH_AFRICA
#define TT_UCR_COMBINING_DIACRITICAL_MARKS_SYMB \
    TT_UCR_COMBINING_DIACRITICS_SYMB
#define TT_UCR_BASIC_LATIN      (1L << 0)
#define TT_UCR_COMBINING_HALF_MARKS (1L << 0)
#define TT_UCR_SUPERSCRIPTS_SUBSCRIPTS (1L << 0)
#define TT_UCR_CJK_COMPATIBILITY_FORMS (1L << 1)
#define TT_UCR_CURRENCY_SYMBOLS (1L << 1)

```

12.2.27. freetype/t1tables.h

```

#define TT_UCR_LATIN1_SUPPLEMENT      (1L << 1)
#define TT_UCR_ARMENIAN (1L << 10)
#define TT_UCR_ENCLOSED_ALPHANUMERICS (1L << 10)
#define TT_UCR_Myanmar (1L << 10)
#define TT_UCR_BOX_DRAWING (1L << 11)
#define TT_UCR_ETHIOPIA (1L << 11)
#define TT_UCR_HEBREW (1L << 11)
#define TT_UCR_BLOCK_ELEMENTS (1L << 12)
#define TT_UCR_CHEROKEE (1L << 12)
#define TT_UCR_ARABIC (1L << 13)
#define TT_UCR_CANADIAN_ABORIGINAL_SYLLABICS (1L << 13)
#define TT_UCR_GEOMETRIC_SHAPES (1L << 13)
#define TT_UCR_MISCELLANEOUS_SYMBOLS (1L << 14)
#define TT_UCR_OGHAM (1L << 14)
#define TT_UCR_DEVANAGARI (1L << 15)
#define TT_UCR_DINGBATS (1L << 15)
#define TT_UCR_RUNIC (1L << 15)
#define TT_UCR_BENGALI (1L << 16)
#define TT_UCR_CJK_SYMBOLS (1L << 16)
#define TT_UCR_KHMER (1L << 16)
#define TT_UCR_GURMUKHI (1L << 17)
#define TT_UCR_HIRAGANA (1L << 17)
#define TT_UCR_MONGOLIAN (1L << 17)
#define TT_UCR_BRAILLE (1L << 18)
#define TT_UCR_GUJARATI (1L << 18)
#define TT_UCR_KATAKANA (1L << 18)
#define TT_UCR_BOPOMOFO (1L << 19)
#define TT_UCR_ORIYA (1L << 19)
#define TT_UCR_YI (1L << 19)
#define TT_UCR_COMBINING_DIACRITICS_SYMB (1L << 2)
#define TT_UCR_LATIN_EXTENDED_A (1L << 2)
#define TT_UCR_SMALL_FORM_VARIANTS (1L << 2)
#define TT_UCR_HANGUL_COMPATIBILITY_JAMO (1L << 20)
#define TT_UCR_PHILIPPINE (1L << 20)
#define TT_UCR_TAMIL (1L << 20)
#define TT_UCR_CJK_MISC (1L << 21)
#define TT_UCR_OLD_ITALIC (1L << 21)
#define TT_UCR_TELUGU (1L << 21)
#define TT_UCR_ENCLOSED_CJK_LETTERS_MONTHS (1L << 22)
#define TT_UCR_GOTHIC (1L << 22)
#define TT_UCR_KANNADA (1L << 22)
#define TT_UCR_CJK_COMPATIBILITY (1L << 23)
#define TT_UCR_DESERET (1L << 23)
#define TT_UCR_MALAYALAM (1L << 23)
#define TT_UCR_HANGUL (1L << 24)
#define TT_UCR_MUSICAL_SYMBOLS (1L << 24)
#define TT_UCR_THAI (1L << 24)
#define TT_UCR_LAO (1L << 25)
#define TT_UCR_MATH_ALPHANUMERIC_SYMBOLS (1L << 25)
#define TT_UCR_SURROGATES (1L << 25)
#define TT_UCR_GEORGIAN (1L << 26)
#define TT_UCR_PRIVATE_USE_SUPPLEMENTARY (1L << 26)
#define TT_UCR_CJK_UNIFIED_IDEOGRAPHS (1L << 27)
#define TT_UCR_VARIATION_SELECTORS (1L << 27)
#define TT_UCR_HANGUL_JAMO (1L << 28)
#define TT_UCR_PRIVATE_USE (1L << 28)
#define TT_UCR_TAGS (1L << 28)
#define TT_UCR_CJK_COMPATIBILITY_IDEOGRAPHS (1L << 29)
#define TT_UCR_LATIN_EXTENDED_ADDITIONAL (1L << 29)
#define TT_UCR_ARABIC_PRESENTATIONS_B (1L << 3)
#define TT_UCR_LATIN_EXTENDED_B (1L << 3)
#define TT_UCR_LETTERLIKE_SYMBOLS (1L << 3)

```

```

#define TT_UCR_ALPHABETIC_PRESENTATION_FORMS (1L << 30)
#define TT_UCR_GREEK_EXTENDED (1L << 30)
#define TT_UCR_ARABIC_PRESENTATIONS_A (1L << 31)
#define TT_UCR_GENERAL_PUNCTUATION (1L << 31)
#define TT_UCR_HALFWIDTH_FULLWIDTH_FORMS (1L << 4)
#define TT_UCR_IPA_EXTENSIONS (1L << 4)
#define TT_UCR_NUMBER_FORMS (1L << 4)
#define TT_UCR_ARROWS (1L << 5)
#define TT_UCR_SPACING_MODIFIER (1L << 5)
#define TT_UCR_SPECIALS (1L << 5)
#define TT_UCR_COMBINING_DIACRITICS (1L << 6)
#define TT_UCR_MATHEMATICAL_OPERATORS (1L << 6)
#define TT_UCR_TIBETAN (1L << 6)
#define TT_UCR_GREEK (1L << 7)
#define TT_UCR_MISCELLANEOUS_TECHNICAL (1L << 7)
#define TT_UCR_SYRIAC (1L << 7)
#define TT_UCR_CONTROL_PICTURES (1L << 8)
#define TT_UCR_THAANA (1L << 8)
#define TT_UCR_CYRILLIC (1L << 9)
#define TT_UCR_OCR (1L << 9)
#define TT_UCR_SINHALA (1L << 9)
#define TT_ADOBE_ID_STANDARD 0
#define TT_APPLE_ID_DEFAULT 0
#define TT_ISO_ID_7BIT_ASCII 0
#define TT_MAC_ID_ROMAN 0
#define TT_MAC_LANGID_ENGLISH 0
#define TT_MS_ID_SYMBOL_CS 0
#define TT_NAME_ID_COPYRIGHT 0
#define TT_PLATFORM_APPLE_UNICODE 0
#define TT_MS_LANGID_ARABIC_GENERAL 0x0001
#define TT_MS_LANGID_CHINESE_GENERAL 0x0004
#define TT_MS_LANGID_ENGLISH_GENERAL 0x0009
#define TT_MS_LANGID_ARABIC_SAUDI_ARABIA 0x0401
#define TT_MS_LANGID_BULGARIAN_BULGARIA 0x0402
#define TT_MS_LANGID_CATALAN_SPAIN 0x0403
#define TT_MS_LANGID_CHINESE_TAIWAN 0x0404
#define TT_MS_LANGID_CZECH_CZECH_REPUBLIC 0x0405
#define TT_MS_LANGID_DANISH_DENMARK 0x0406
#define TT_MS_LANGID_GERMAN_GERMANY 0x0407
#define TT_MS_LANGID_GREEK_GREECE 0x0408
#define TT_MS_LANGID_ENGLISH_UNITED_STATES 0x0409
#define TT_MS_LANGID_SPANISH_SPAIN_TRADITIONAL_SORT 0x040a
#define TT_MS_LANGID_FINNISH_FINLAND 0x040b
#define TT_MS_LANGID_FRENCH_FRANCE 0x040c
#define TT_MS_LANGID_HEBREW_ISRAEL 0x040d
#define TT_MS_LANGID_HUNGARIAN_HUNGARY 0x040e
#define TT_MS_LANGID_ICELANDIC_ICELAND 0x040f
#define TT_MS_LANGID_ITALIAN_ITALY 0x0410
#define TT_MS_LANGID_JAPANESE_JAPAN 0x0411
#define TT_MS_LANGID_KOREAN_EXTENDED_WANSUNG_KOREA 0x0412
#define TT_MS_LANGID_DUTCH_NETHERLANDS 0x0413
#define TT_MS_LANGID_NORWEGIAN_NORWAY_BOKMAL 0x0414
#define TT_MS_LANGID_POLISH_POLAND 0x0415
#define TT_MS_LANGID_PORTUGUESE_BRAZIL 0x0416
#define TT_MS_LANGID_RHAETO_ROMANIC_SWITZERLAND 0x0417
#define TT_MS_LANGID_ROMANIAN_ROMANIA 0x0418
#define TT_MS_LANGID_RUSSIAN_RUSSIA 0x0419
#define TT_MS_LANGID_CROATIAN_CROATIA 0x041a
#define TT_MS_LANGID_SLOVAK_SLOVAKIA 0x041b
#define TT_MS_LANGID_ALBANIAN_ALBANIA 0x041c
#define TT_MS_LANGID_SWEDISH_SWEDEN 0x041d
#define TT_MS_LANGID_THAI_THAILAND 0x041e

```

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```
#define TT_MS_LANGID_TURKISH_TURKEY      0x041f
#define TT_MS_LANGID_URDU_PAKISTAN       0x0420
#define TT_MS_LANGID_INDONESIAN_INDONESIA 0x0421
#define TT_MS_LANGID_UKRAINIAN_UKRAINE   0x0422
#define TT_MS_LANGID_BELARUSIAN_BELARUS  0x0423
#define TT_MS_LANGID_SLOVENE_SLOVENIA     0x0424
#define TT_MS_LANGID_ESTONIAN_ESTONIA     0x0425
#define TT_MS_LANGID_LATVIAN_LATVIA       0x0426
#define TT_MS_LANGID_LITHUANIAN_LITHUANIA 0x0427
#define TT_MS_LANGID_TAJIK_TAJIKISTAN     0x0428
#define TT_MS_LANGID_FARSI_IRAN 0x0429
#define TT_MS_LANGID_VIETNAMESE_VIET_NAM  0x042a
#define TT_MS_LANGID_ARMENIAN_ARMENIA     0x042b
#define TT_MS_LANGID_AZERI_AZERBAIJAN_LATIN 0x042c
#define TT_MS_LANGID_BASQUE_SPAIN         0x042d
#define TT_MS_LANGID_SORBIAN_GERMANY      0x042e
#define TT_MS_LANGID_MACEDONIAN_MACEDONIA 0x042f
#define TT_MS_LANGID_SUTU_SOUTH_AFRICA    0x0430
#define TT_MS_LANGID_TSONGA_SOUTH_AFRICA   0x0431
#define TT_MS_LANGID_TSWANA_SOUTH_AFRICA   0x0432
#define TT_MS_LANGID_VENDA_SOUTH_AFRICA    0x0433
#define TT_MS_LANGID_XHOSA_SOUTH_AFRICA    0x0434
#define TT_MS_LANGID_ZULU_SOUTH_AFRICA     0x0435
#define TT_MS_LANGID_AFRIKAANS_SOUTH_AFRICA 0x0436
#define TT_MS_LANGID_GEORGIAN_GEORGIA      0x0437
#define TT_MS_LANGID_FAEROESE_FAEROE_ISLANDS 0x0438
#define TT_MS_LANGID_HINDI_INDIA          0x0439
#define TT_MS_LANGID_MALTESE_MALTA        0x043a
#define TT_MS_LANGID_SAAMI_LAPONIA        0x043b
#define TT_MS_LANGID_SAMI_NORTHERN_NORWAY  0x043b
#define TT_MS_LANGID_IRISH_GAELIC_IRELAND  0x043c
#define TT_MS_LANGID_YIDDISH_GERMANY      0x043d
#define TT_MS_LANGID_MALAY_MALAYSIA       0x043e
#define TT_MS_LANGID_KAZAK_KAZAKSTAN      0x043f
#define TT_MS_LANGID_KIRGHIZ_KIRGHIZSTAN  0x0440
#define TT_MS_LANGID_SWAHILI_KENYA        0x0441
#define TT_MS_LANGID_TURKMEN_TURKMENISTAN 0x0442
#define TT_MS_LANGID_UZBEK_UZBEKISTAN_LATIN 0x0443
#define TT_MS_LANGID_TATAR_TATARSTAN      0x0444
#define TT_MS_LANGID_BENGALI_INDIA        0x0445
#define TT_MS_LANGID_PUNJABI_INDIA        0x0446
#define TT_MS_LANGID_GUJARATI_INDIA       0x0447
#define TT_MS_LANGID_ORIYA_INDIA          0x0448
#define TT_MS_LANGID_TAMIL_INDIA          0x0449
#define TT_MS_LANGID_TELUGU_INDIA         0x044a
#define TT_MS_LANGID_KANNADA_INDIA        0x044b
#define TT_MS_LANGID_MALAYALAM_INDIA      0x044c
#define TT_MS_LANGID_ASSAMESE_INDIA       0x044d
#define TT_MS_LANGID_MARATHI_INDIA        0x044e
#define TT_MS_LANGID_SANSKRIT_INDIA       0x044f
#define TT_MS_LANGID_MONGOLIAN_MONGOLIA   0x0450
#define TT_MS_LANGID_TIBETAN_CHINA        0x0451
#define TT_MS_LANGID_WELSH_WALES          0x0452
#define TT_MS_LANGID_KHMER_CAMBODIA       0x0453
#define TT_MS_LANGID_LAO_LAOS 0x0454
#define TT_MS_LANGID_BURMESE_MYANMAR      0x0455
#define TT_MS_LANGID_GALICIAN_SPAIN       0x0456
#define TT_MS_LANGID_KONKANI_INDIA        0x0457
#define TT_MS_LANGID_MANIPURI_INDIA        0x0458
#define TT_MS_LANGID_SINDHI_INDIA         0x0459
#define TT_MS_LANGID_SYRIAC_SYRIA         0x045a
#define TT_MS_LANGID_SINHALESE_SRI_LANKA  0x045b
```


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```
#define TT_MS_LANGID_CHEROKEE_UNITED_STATES      0x045c
#define TT_MS_LANGID_INUKTITUT_CANADA            0x045d
#define TT_MS_LANGID_AMHARIC_ETHIOPIA            0x045e
#define TT_MS_LANGID_TAMAZIGHT_MOROCCO           0x045f
#define TT_MS_LANGID_KASHMIRI_PAKISTAN            0x0460
#define TT_MS_LANGID_NEPALI_NEPAL                 0x0461
#define TT_MS_LANGID_FRISIAN_NETHERLANDS         0x0462
#define TT_MS_LANGID_PASHTO_AFGHANISTAN           0x0463
#define TT_MS_LANGID_FILIPINO_PHILIPPINES         0x0464
#define TT_MS_LANGID_DHIVEHI_MALDIVES             0x0465
#define TT_MS_LANGID_EDO_NIGERIA                  0x0466
#define TT_MS_LANGID_FULFULDE_NIGERIA             0x0467
#define TT_MS_LANGID_HAUSA_NIGERIA                0x0468
#define TT_MS_LANGID_IBIBIO_NIGERIA               0x0469
#define TT_MS_LANGID_YORUBA_NIGERIA               0x046a
#define TT_MS_LANGID_QUECHUA_BOLIVIA              0x046b
#define TT_MS_LANGID_SEPEDI_SOUTH_AFRICA          0x046c
#define TT_MS_LANGID_IGBO_NIGERIA                 0x0470
#define TT_MS_LANGID_KANURI_NIGERIA               0x0471
#define TT_MS_LANGID_OROMO_ETHIOPIA               0x0472
#define TT_MS_LANGID_TIGRIGNA_ETHIOPIA            0x0473
#define TT_MS_LANGID_GUARANI_PARAGUAY             0x0474
#define TT_MS_LANGID_HAWAIIAN_UNITED_STATES       0x0475
#define TT_MS_LANGID_LATIN                        0x0476
#define TT_MS_LANGID_SOMALI_SOMALIA               0x0477
#define TT_MS_LANGID_YI_CHINA                      0x0478
#define TT_MS_LANGID_PAPIAMENTU_NETHERLANDS_ANTILLES 0x0479
#define TT_MS_LANGID_UGHUR_CHINA                  0x0480
#define TT_MS_LANGID_MAORI_NEW_ZEALAND            0x0481
#define TT_MS_LANGID_ARABIC_IRAQ                  0x0801
#define TT_MS_LANGID_CHINESE_PRC                  0x0804
#define TT_MS_LANGID_GERMAN_SWITZERLAND           0x0807
#define TT_MS_LANGID_ENGLISH_UNITED_KINGDOM       0x0809
#define TT_MS_LANGID_SPANISH_MEXICO                0x080a
#define TT_MS_LANGID_FRENCH_BELGIUM               0x080c
#define TT_MS_LANGID_ITALIAN_SWITZERLAND          0x0810
#define TT_MS_LANGID_KOREAN_JOHAB_KOREA           0x0812
#define TT_MS_LANGID_DUTCH_BELGIUM                0x0813
#define TT_MS_LANGID_NORWEGIAN_NORWAY_NYNORSK     0x0814
#define TT_MS_LANGID_PORTUGUESE_PORTUGAL          0x0816
#define TT_MS_LANGID_MOLDAVIAN_MOLDAVIA           0x0818
#define TT_MS_LANGID_RUSSIAN_MOLDAVIA             0x0819
#define TT_MS_LANGID_SERBIAN_SERBIA_LATIN         0x081a
#define TT_MS_LANGID_SWEDISH_FINLAND              0x081d
#define TT_MS_LANGID_URDU_INDIA                   0x0820
#define TT_MS_LANGID_CLASSIC_LITHUANIAN_LITHUANIA 0x0827
#define TT_MS_LANGID_AZERI_AZERBAIJAN_CYRILLIC    0x082c
#define TT_MS_LANGID_SAMI_NORTHERN_SWEDEN         0x083b
#define TT_MS_LANGID_SCOTTISH_GAELIC_UNITED_KINGDOM 0x083c
#define TT_MS_LANGID_MALAY_BRUNEI_DARUSSALAM      0x083e
#define TT_MS_LANGID_UZBEK_UZBEKISTAN_CYRILLIC    0x0843
#define TT_MS_LANGID_BENGALI_BANGLADESH           0x0845
#define TT_MS_LANGID_PUNJABI_ARABIC_PAKISTAN      0x0846
#define TT_MS_LANGID_MONGOLIAN_MONGOLIA_MONGOLIAN 0x0850
#define TT_MS_LANGID_DZONGHKA_BHUTAN              0x0851
#define TT_MS_LANGID_SINDHI_PAKISTAN              0x0859
#define TT_MS_LANGID_TAMAZIGHT_MOROCCO_LATIN      0x085f
#define TT_MS_LANGID_KASHMIRI_SASIA               0x0860
#define TT_MS_LANGID_NEPALI_INDIA                 0x0861
#define TT_MS_LANGID_QUECHUA_ECUADOR              0x086b
#define TT_MS_LANGID_TIGRIGNA_ERYTHREA            0x0873
#define TT_MS_LANGID_ARABIC_EGYPT                 0x0c01
```

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```
#define TT_MS_LANGID_CHINESE_HONG_KONG 0x0c04
#define TT_MS_LANGID_GERMAN_AUSTRIA 0x0c07
#define TT_MS_LANGID_ENGLISH_AUSTRALIA 0x0c09
#define TT_MS_LANGID_SPANISH_SPAIN_INTERNATIONAL_SORT 0x0c0a
#define TT_MS_LANGID_FRENCH_CANADA 0x0c0c
#define TT_MS_LANGID_SERBIAN_SERBIA_CYRILLIC 0x0c1a
#define TT_MS_LANGID_SAMI_NORTHERN_FINLAND 0x0c3b
#define TT_MS_LANGID_QUECHUA_PERU 0x0c6b
#define TT_MS_LANGID_ARABIC_LIBYA 0x1001
#define TT_MS_LANGID_CHINESE_SINGAPORE 0x1004
#define TT_MS_LANGID_GERMAN_LUXEMBOURG 0x1007
#define TT_MS_LANGID_ENGLISH_CANADA 0x1009
#define TT_MS_LANGID_SPANISH_GUATEMALA 0x100a
#define TT_MS_LANGID_FRENCH_SWITZERLAND 0x100c
#define TT_MS_LANGID_CROATIAN_BOSNIA_HERZEGOVINA 0x101a
#define TT_MS_LANGID_SAMI_LULE_NORWAY 0x103b
#define TT_MS_LANGID_ARABIC_ALGERIA 0x1401
#define TT_MS_LANGID_CHINESE_MACAU 0x1404
#define TT_MS_LANGID_GERMAN_LIECHTENSTEIN 0x1407
#define TT_MS_LANGID_ENGLISH_NEW_ZEALAND 0x1409
#define TT_MS_LANGID_SPANISH_COSTA_RICA 0x140a
#define TT_MS_LANGID_FRENCH_LUXEMBOURG 0x140c
#define TT_MS_LANGID_BOSNIAN_BOSNIA_HERZEGOVINA 0x141a
#define TT_MS_LANGID_SAMI_LULE_SWEDEN 0x143b
#define TT_MS_LANGID_ARABIC_MOROCCO 0x1801
#define TT_MS_LANGID_ENGLISH_IRELAND 0x1809
#define TT_MS_LANGID_SPANISH_PANAMA 0x180a
#define TT_MS_LANGID_FRENCH_MONACO 0x180c
#define TT_MS_LANGID_SERBIAN_BOSNIA_HERZ_CYRILLIC 0x181a
#define TT_MS_LANGID_SERBIAN_BOSNIA_HERZ_LATIN 0x181a
#define TT_MS_LANGID_SAMI_SOUTHERN_NORWAY 0x183b
#define TT_MS_LANGID_ARABIC_TUNISIA 0x1c01
#define TT_MS_LANGID_ENGLISH_SOUTH_AFRICA 0x1c09
#define TT_MS_LANGID_SPANISH_DOMINICAN_REPUBLIC 0x1c0a
#define TT_MS_LANGID_FRENCH_WEST_INDIES 0x1c0c
#define TT_MS_LANGID_SAMI_SOUTHERN_SWEDEN 0x1c3b
#define TT_MS_LANGID_ARABIC_OMAN 0x2001
#define TT_MS_LANGID_ENGLISH_JAMAICA 0x2009
#define TT_MS_LANGID_SPANISH_VENEZUELA 0x200a
#define TT_MS_LANGID_FRENCH_REUNION 0x200c
#define TT_MS_LANGID_SAMI_SKOLT_FINLAND 0x203b
#define TT_MS_LANGID_ARABIC_YEMEN 0x2401
#define TT_MS_LANGID_ENGLISH_CARIBBEAN 0x2409
#define TT_MS_LANGID_SPANISH_COLOMBIA 0x240a
#define TT_MS_LANGID_FRENCH_CONGO 0x240c
#define TT_MS_LANGID_SAMI_INARI_FINLAND 0x243b
#define TT_MS_LANGID_ARABIC_SYRIA 0x2801
#define TT_MS_LANGID_ENGLISH_BELIZE 0x2809
#define TT_MS_LANGID_SPANISH_PERU 0x280a
#define TT_MS_LANGID_FRENCH_SENEGAL 0x280c
#define TT_MS_LANGID_ARABIC_JORDAN 0x2c01
#define TT_MS_LANGID_ENGLISH_TRINIDAD 0x2c09
#define TT_MS_LANGID_SPANISH_ARGENTINA 0x2c0a
#define TT_MS_LANGID_FRENCH_CAMEROON 0x2c0c
#define TT_MS_LANGID_ARABIC_LEBANON 0x3001
#define TT_MS_LANGID_ENGLISH_ZIMBABWE 0x3009
#define TT_MS_LANGID_SPANISH_ECUADOR 0x300a
#define TT_MS_LANGID_FRENCH_COTE_D_IVOIRE 0x300c
#define TT_MS_LANGID_ARABIC_KUWAIT 0x3401
#define TT_MS_LANGID_ENGLISH_PHILIPPINES 0x3409
#define TT_MS_LANGID_SPANISH_CHILE 0x340a
#define TT_MS_LANGID_FRENCH_MALI 0x340c
```

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```
#define TT_MS_LANGID_ARABIC_UAE 0x3801
#define TT_MS_LANGID_ENGLISH_INDONESIA 0x3809
#define TT_MS_LANGID_SPANISH_URUGUAY 0x380a
#define TT_MS_LANGID_FRENCH_MOROCCO 0x380c
#define TT_MS_LANGID_ARABIC_BAHRAIN 0x3c01
#define TT_MS_LANGID_ENGLISH_HONG_KONG 0x3c09
#define TT_MS_LANGID_SPANISH_PARAGUAY 0x3c0a
#define TT_MS_LANGID_FRENCH_HAITI 0x3c0c
#define TT_MS_LANGID_ARABIC_QATAR 0x4001
#define TT_MS_LANGID_ENGLISH_INDIA 0x4009
#define TT_MS_LANGID_SPANISH_BOLIVIA 0x400a
#define TT_MS_LANGID_ENGLISH_MALAYSIA 0x4409
#define TT_MS_LANGID_SPANISH_EL_SALVADOR 0x440a
#define TT_MS_LANGID_ENGLISH_SINGAPORE 0x4809
#define TT_MS_LANGID_SPANISH_HONDURAS 0x480a
#define TT_MS_LANGID_SPANISH_NICARAGUA 0x4c0a
#define TT_MS_LANGID_SPANISH_PUERTO_RICO 0x500a
#define TT_MS_LANGID_SPANISH_UNITED_STATES 0x540a
#define TT_MS_LANGID_SPANISH_LATIN_AMERICA 0xE40aU
#define TT_MS_LANGID_FRENCH_NORTH_AFRICA 0xE40cU
#define TT_ADOBE_ID_EXPERT 1
#define TT_APPLE_ID_UNICODE_1_1 1
#define TT_ISO_ID_10646 1
#define TT_MAC_ID_JAPANESE 1
#define TT_MAC_LANGID_FRENCH 1
#define TT_MS_ID_UNICODE_CS 1
#define TT_NAME_ID_FONT_FAMILY 1
#define TT_PLATFORM_MACINTOSH 1
#define TT_MAC_ID_GURMUKHI 10
#define TT_MAC_LANGID_HEBREW 10
#define TT_MS_ID_UCS_4 10
#define TT_NAME_ID_DESCRIPTION 10
#define TT_MAC_ID_GUJARATI 11
#define TT_MAC_LANGID_JAPANESE 11
#define TT_NAME_ID_VENDOR_URL 11
#define TT_MAC_ID_ORIYA 12
#define TT_MAC_LANGID_ARABIC 12
#define TT_NAME_ID_DESIGNER_URL 12
#define TT_MAC_LANGID_WELSH 128
#define TT_MAC_LANGID_BASQUE 129
#define TT_MAC_ID_BENGALI 13
#define TT_MAC_LANGID_FINNISH 13
#define TT_NAME_ID_LICENSE 13
#define TT_MAC_LANGID_CATALAN 130
#define TT_MAC_LANGID_LATIN 131
#define TT_MAC_LANGID_QUECHUA 132
#define TT_MAC_LANGID_GUARANI 133
#define TT_MAC_LANGID_AYMARA 134
#define TT_MAC_LANGID_TATAR 135
#define TT_MAC_LANGID_UIGHUR 136
#define TT_MAC_LANGID_DZONGKHA 137
#define TT_MAC_LANGID_JAVANESE 138
#define TT_MAC_LANGID_SUNDANESE 139
#define TT_MAC_ID_TAMIL 14
#define TT_MAC_LANGID_GREEK 14
#define TT_NAME_ID_LICENSE_URL 14
#define TT_MAC_LANGID_GALICIAN 140
#define TT_MAC_LANGID_AFRIKAANS 141
#define TT_MAC_LANGID_BRETON 142
#define TT_MAC_LANGID_INUKTITUT 143
#define TT_MAC_LANGID_SCOTTISH_GAELIC 144
#define TT_MAC_LANGID_MANX_GAELIC 145
```

```

#define TT_MAC_LANGID_IRISH_GAELIC      146
#define TT_MAC_LANGID_TONGAN            147
#define TT_MAC_LANGID_GREEK_POLYTONIC   148
#define TT_MAC_LANGID_GREELANDIC        149
#define TT_MAC_ID_TELUGU                 15
#define TT_MAC_LANGID_ICELANDIC          15
#define TT_MAC_LANGID_AZERBAIJANI_ROMAN_SCRIPT 150
#define TT_MAC_ID_KANNADA                 16
#define TT_MAC_LANGID_MALTESE            16
#define TT_NAME_ID_PREFERRED_FAMILY      16
#define TT_MAC_ID_MALAYALAM              17
#define TT_MAC_LANGID_TURKISH            17
#define TT_NAME_ID_PREFERRED_SUBFAMILY   17
#define TT_MAC_ID_SINHALESE              18
#define TT_MAC_LANGID_CROATIAN           18
#define TT_NAME_ID_MAC_FULL_NAME         18
#define TT_MAC_ID_BURMESE                 19
#define TT_MAC_LANGID_CHINESE_TRADITIONAL 19
#define TT_NAME_ID_SAMPLE_TEXT           19
#define TT_ADOBE_ID_CUSTOM                2
#define TT_APPLE_ID_ISO_10646            2
#define TT_ISO_ID_8859_1                  2
#define TT_MAC_ID_TRADITIONAL_CHINESE    2
#define TT_MAC_LANGID_GERMAN              2
#define TT_MS_ID_SJIS                     2
#define TT_NAME_ID_FONT_SUBFAMILY         2
#define TT_PLATFORM_ISO                   2
#define TT_MAC_ID_KHMER                   20
#define TT_MAC_LANGID_URDU                20
#define TT_NAME_ID_CID_FINDFONT_NAME     20
#define TT_MAC_ID_THAI                    21
#define TT_MAC_LANGID_HINDI               21
#define TT_MAC_ID_LAOTIAN                 22
#define TT_MAC_LANGID_THAI                22
#define TT_MAC_ID_GEORGIAN                23
#define TT_MAC_LANGID_KOREAN              23
#define TT_MAC_ID_ARMENIAN                24
#define TT_MAC_LANGID_LITHUANIAN          24
#define TT_MAC_ID_MALDIVIAN               25
#define TT_MAC_ID_SIMPLIFIED_CHINESE     25
#define TT_MAC_LANGID_POLISH              25
#define TT_MAC_ID_TIBETAN                 26
#define TT_MAC_LANGID_HUNGARIAN           26
#define TT_MAC_ID_MONGOLIAN               27
#define TT_MAC_LANGID_ESTONIAN            27
#define TT_MAC_ID_GEEZ                    28
#define TT_MAC_LANGID_LETTISH             28
#define TT_MAC_ID_SLAVIC                  29
#define TT_MAC_LANGID_SAAMISK             29
#define TT_ADOBE_ID_LATIN_1               3
#define TT_APPLE_ID_UNICODE_2_0           3
#define TT_MAC_ID_KOREAN                  3
#define TT_MAC_LANGID_ITALIAN             3
#define TT_MS_ID_GB2312                   3
#define TT_NAME_ID_UNIQUE_ID              3
#define TT_PLATFORM_MICROSOFT             3
#define TT_MAC_ID_VIETNAMESE              30
#define TT_MAC_LANGID_FAEROESE            30
#define TT_MAC_ID_SINDHI                  31
#define TT_MAC_LANGID_FARSI               31
#define TT_MAC_ID_UNINTERP                32
#define TT_MAC_LANGID_RUSSIAN             32

```

```

#define TT_MAC_LANGID_CHINESE_SIMPLIFIED      33
#define TT_MAC_LANGID_FLEMISH      34
#define TT_MAC_LANGID_IRISH      35
#define TT_MAC_LANGID_ALBANIAN      36
#define TT_MAC_LANGID_ROMANIAN      37
#define TT_MAC_LANGID_CZECH      38
#define TT_MAC_LANGID_SLOVAK      39
#define TT_APPLE_ID_UNICODE_32      4
#define TT_MAC_ID_ARABIC      4
#define TT_MAC_LANGID_DUTCH      4
#define TT_MS_ID_BIG_5      4
#define TT_NAME_ID_FULL_NAME      4
#define TT_PLATFORM_CUSTOM      4
#define TT_MAC_LANGID_SLOVENIAN      40
#define TT_MAC_LANGID_YIDDISH      41
#define TT_MAC_LANGID_SERBIAN      42
#define TT_MAC_LANGID_MACEDONIAN      43
#define TT_MAC_LANGID_BULGARIAN      44
#define TT_MAC_LANGID_UKRAINIAN      45
#define TT_MAC_LANGID_BYELORUSSIAN      46
#define TT_MAC_LANGID_UZBEK      47
#define TT_MAC_LANGID_KAZAKH      48
#define TT_MAC_LANGID_AZERBAIJANI      49
#define TT_MAC_LANGID_AZERBAIJANI_CYRILLIC_SCRIPT      49
#define TT_MAC_ID_HEBREW      5
#define TT_MAC_LANGID_SWEDISH      5
#define TT_MS_ID_WANSUNG      5
#define TT_NAME_ID_VERSION_STRING      5
#define TT_MAC_LANGID_AZERBAIJANI_ARABIC_SCRIPT      50
#define TT_MAC_LANGID_ARMENIAN      51
#define TT_MAC_LANGID_GEORGIAN      52
#define TT_MAC_LANGID_MOLDAVIAN      53
#define TT_MAC_LANGID_KIRGHIZ      54
#define TT_MAC_LANGID_TAJIKI      55
#define TT_MAC_LANGID_TURKMEN      56
#define TT_MAC_LANGID_MONGOLIAN      57
#define TT_MAC_LANGID_MONGOLIAN_MONGOLIAN_SCRIPT      57
#define TT_MAC_LANGID_MONGOLIAN_CYRILLIC_SCRIPT      58
#define TT_MAC_LANGID_PASHTO      59
#define TT_MAC_ID_GREEK      6
#define TT_MAC_LANGID_SPANISH      6
#define TT_MS_ID_JOHAB      6
#define TT_NAME_ID_PS_NAME      6
#define TT_MAC_LANGID_KURDISH      60
#define TT_MAC_LANGID_KASHMIRI      61
#define TT_MAC_LANGID_SINDHI      62
#define TT_MAC_LANGID_TIBETAN      63
#define TT_MAC_LANGID_NEPALI      64
#define TT_MAC_LANGID_SANSKRIT      65
#define TT_MAC_LANGID_MARATHI      66
#define TT_MAC_LANGID_BENGALI      67
#define TT_MAC_LANGID_ASSAMESE      68
#define TT_MAC_LANGID_GUJARATI      69
#define TT_MAC_ID_RUSSIAN      7
#define TT_MAC_LANGID_DANISH      7
#define TT_NAME_ID_TRADEMARK      7
#define TT_PLATFORM_ADOBE      7
#define TT_MAC_LANGID_PUNJABI      70
#define TT_MAC_LANGID_ORIYA      71
#define TT_MAC_LANGID_MALAYALAM      72
#define TT_MAC_LANGID_KANNADA      73
#define TT_MAC_LANGID_TAMIL      74

```

```

#define TT_MAC_LANGID_TELUGU      75
#define TT_MAC_LANGID_SINHALESE  76
#define TT_MAC_LANGID_BURMESE    77
#define TT_MAC_LANGID_KHMER      78
#define TT_MAC_LANGID_LAO        79
#define TT_MAC_ID_RSMBOL         8
#define TT_MAC_LANGID_PORTUGUESE 8
#define TT_NAME_ID_MANUFACTURER 8
#define TT_MAC_LANGID_VIETNAMESE 80
#define TT_MAC_LANGID_INDONESIAN 81
#define TT_MAC_LANGID_TAGALOG    82
#define TT_MAC_LANGID_MALAY_ROMAN_SCRIPT 83
#define TT_MAC_LANGID_MALAY_ARABIC_SCRIPT 84
#define TT_MAC_LANGID_AMHARIC    85
#define TT_MAC_LANGID_TIGRINYA   86
#define TT_MAC_LANGID_GALLA      87
#define TT_MAC_LANGID_SOMALI     88
#define TT_MAC_LANGID_SWAHILI    89
#define TT_MAC_ID_DEVANAGARI     9
#define TT_MAC_LANGID_NORWEGIAN  9
#define TT_NAME_ID_DESIGNER      9
#define TT_MAC_LANGID_RUANDA     90
#define TT_MAC_LANGID_RUNDI      91
#define TT_MAC_LANGID_CHEWA      92
#define TT_MAC_LANGID_MALAGASY   93
#define TT_MAC_LANGID_ESPERANTO  94
#define TT_MS_LANGID_DIVEHI_MALDIVES TT_MS_LANGID_DHIVEHI_MALDIVES
#define TT_MS_LANGID_TIBETAN_BHUTAN TT_MS_LANGID_DZONGHKA_BHUTAN
#define TT_MS_LANGID_FRENCH_ZAIRE TT_MS_LANGID_FRENCH_CONGO
#define TT_MS_LANGID_KASHMIRI_INDIA TT_MS_LANGID_KASHMIRI_SASIA
#define TT_MS_LANGID_TIGRIGNA_ERYTREA TT_MS_LANGID_TIGRIGNA_ERYTHREA
#define TT_UCR_ARABIC_PRESENTATION_FORMS_A TT_UCR_ARABIC_PRESENTATIONS_A
#define TT_UCR_ARABIC_PRESENTATION_FORMS_B TT_UCR_ARABIC_PRESENTATIONS_B
#define TT_UCR_KANBUN TT_UCR_CJK_MISC
#define TT_UCR_COMBINING_DIACRITICAL_MARKS TT_UCR_COMBINING_DIACRITICS

```

12.2.29. freetype/tttables.h

```

typedef enum {
    ft_sfnt_head = 0,
    ft_sfnt_maxp = 1,
    ft_sfnt_os2 = 2,
    ft_sfnt_hhea = 3,
    ft_sfnt_vhea = 4,
    ft_sfnt_post = 5,
    ft_sfnt_pclt = 6,
    sfnt_max = 7
} FT_Sfnt_Tag;

typedef struct TT_Header_ {
    FT_Fixed Table_Version;
    FT_Fixed Font_Revision;
    FT_Long CheckSum_Adjust;
    FT_Long Magic_Number;
    FT_UShort Flags;
    FT_UShort Units_Per_EM;
    FT_Long Created[2];
    FT_Long Modified[2];
    FT_Short xMin;
    FT_Short yMin;
    FT_Short xMax;
    FT_Short yMax;

```

```

    FT_UShort Mac_Style;
    FT_UShort Lowest_Rec_PPEM;
    FT_Short Font_Direction;
    FT_Short Index_To_Loc_Format;
    FT_Short Glyph_Data_Format;
} TT_Header;
typedef struct TT_HoriHeader_ {
    FT_Fixed Version;
    FT_Short Ascender;
    FT_Short Descender;
    FT_Short Line_Gap;
    FT_UShort advance_Width_Max;
    FT_Short min_Left_Side_Bearing;
    FT_Short min_Right_Side_Bearing;
    FT_Short xMax_Extent;
    FT_Short caret_Slope_Rise;
    FT_Short caret_Slope_Run;
    FT_Short caret_Offset;
    FT_Short Reserved[4];
    FT_Short metric_Data_Format;
    FT_UShort number_Of_HMetrics;
    void *long_metrics;
    void *short_metrics;
} TT_HoriHeader;
typedef struct TT_VertHeader_ {
    FT_Fixed Version;
    FT_Short Ascender;
    FT_Short Descender;
    FT_Short Line_Gap;
    FT_UShort advance_Height_Max;
    FT_Short min_Top_Side_Bearing;
    FT_Short min_Bottom_Side_Bearing;
    FT_Short yMax_Extent;
    FT_Short caret_Slope_Rise;
    FT_Short caret_Slope_Run;
    FT_Short caret_Offset;
    FT_Short Reserved[4];
    FT_Short metric_Data_Format;
    FT_UShort number_Of_VMetrics;
    void *long_metrics;
    void *short_metrics;
} TT_VertHeader;
typedef struct TT_OS2_ {
    FT_UShort version;
    FT_Short xAvgCharWidth;
    FT_UShort usWeightClass;
    FT_UShort usWidthClass;
    FT_Short fsType;
    FT_Short ySubscriptXSize;
    FT_Short ySubscriptYSize;
    FT_Short ySubscriptXOffset;
    FT_Short ySubscriptYOffset;
    FT_Short ySuperscriptXSize;
    FT_Short ySuperscriptYSize;
    FT_Short ySuperscriptXOffset;
    FT_Short ySuperscriptYOffset;
    FT_Short yStrikeoutSize;
    FT_Short yStrikeoutPosition;
    FT_Short sFamilyClass;
    FT_Byte panose[10];
    FT_ULong ulUnicodeRange1;
    FT_ULong ulUnicodeRange2;

```

```

    FT_ULong  ulUnicodeRange3;
    FT_ULong  ulUnicodeRange4;
    FT_Char   achVendID[4];
    FT_UShort fsSelection;
    FT_UShort usFirstCharIndex;
    FT_UShort usLastCharIndex;
    FT_Short  sTypoAscender;
    FT_Short  sTypoDescender;
    FT_Short  sTypoLineGap;
    FT_UShort usWinAscent;
    FT_UShort usWinDescent;
    FT_ULong  ulCodePageRange1;
    FT_ULong  ulCodePageRange2;
    FT_Short  sxHeight;
    FT_Short  sCapHeight;
    FT_UShort usDefaultChar;
    FT_UShort usBreakChar;
    FT_UShort usMaxContext;
} TT_OS2;
typedef struct TT_Postscript_ {
    FT_Fixed  FormatType;
    FT_Fixed  italicAngle;
    FT_Short  underlinePosition;
    FT_Short  underlineThickness;
    FT_ULong  isFixedPitch;
    FT_ULong  minMemType42;
    FT_ULong  maxMemType42;
    FT_ULong  minMemType1;
    FT_ULong  maxMemType1;
} TT_Postscript;
typedef struct TT_PCLT_ {
    FT_Fixed  Version;
    FT_ULong  FontNumber;
    FT_UShort Pitch;
    FT_UShort xHeight;
    FT_UShort Style;
    FT_UShort TypeFamily;
    FT_UShort CapHeight;
    FT_UShort SymbolSet;
    FT_Char   TypeFace[16];
    FT_Char   CharacterComplement[8];
    FT_Char   FileName[6];
    FT_Char   StrokeWeight;
    FT_Char   WidthType;
    FT_Byte   SerifStyle;
    FT_Byte   Reserved;
} TT_PCLT;
typedef struct TT_MaxProfile_ {
    FT_Fixed  version;
    FT_UShort numGlyphs;
    FT_UShort maxPoints;
    FT_UShort maxContours;
    FT_UShort maxCompositePoints;
    FT_UShort maxCompositeContours;
    FT_UShort maxZones;
    FT_UShort maxTwilightPoints;
    FT_UShort maxStorage;
    FT_UShort maxFunctionDefs;
    FT_UShort maxInstructionDefs;
    FT_UShort maxStackElements;
    FT_UShort maxSizeOfInstructions;
    FT_UShort maxComponentElements;

```



```

    FT_UShort maxComponentDepth;
} TT_MaxProfile;
extern FT_ULong FT_Get_CMap_Language_ID(FT_CharMap);
extern void *FT_Get_Sfnt_Table(FT_Face, FT_Sfnt_Tag);
extern FT_Error FT_Load_Sfnt_Table(FT_Face, FT_ULong, FT_Long, FT_Byte *,
                                   FT_ULong *);
extern FT_Error FT_Sfnt_Table_Info(FT_Face, FT_UInt, FT_ULong *,
                                   FT_ULong *);

```

12.2.30. freetype/tttags.h

```

#define TTAG_avar      FT_MAKE_TAG( 'a', 'v', 'a', 'r' )
#define TTAG_BASE      FT_MAKE_TAG( 'B', 'A', 'S', 'E' )
#define TTAG_bdat      FT_MAKE_TAG( 'b', 'd', 'a', 't' )
#define TTAG_bhed      FT_MAKE_TAG( 'b', 'h', 'e', 'd' )
#define TTAG_bloc      FT_MAKE_TAG( 'b', 'l', 'o', 'c' )
#define TTAG_CFF       FT_MAKE_TAG( 'C', 'F', 'F', ' ' )
#define TTAG_cmap      FT_MAKE_TAG( 'c', 'm', 'a', 'p' )
#define TTAG_cvar      FT_MAKE_TAG( 'c', 'v', 'a', 'r' )
#define TTAG_cvt       FT_MAKE_TAG( 'c', 'v', 't', ' ' )
#define TTAG_DSIG      FT_MAKE_TAG( 'D', 'S', 'I', 'G' )
#define TTAG_EBDT      FT_MAKE_TAG( 'E', 'B', 'D', 'T' )
#define TTAG_EBLC      FT_MAKE_TAG( 'E', 'B', 'L', 'C' )
#define TTAG_EBSC      FT_MAKE_TAG( 'E', 'B', 'S', 'C' )
#define TTAG_fpgm      FT_MAKE_TAG( 'f', 'p', 'g', 'm' )
#define TTAG_fvar      FT_MAKE_TAG( 'f', 'v', 'a', 'r' )
#define TTAG_gasp      FT_MAKE_TAG( 'g', 'a', 's', 'p' )
#define TTAG_GDEF      FT_MAKE_TAG( 'G', 'D', 'E', 'F' )
#define TTAG_glyf      FT_MAKE_TAG( 'g', 'l', 'y', 'f' )
#define TTAG_GPOS      FT_MAKE_TAG( 'G', 'P', 'O', 'S' )
#define TTAG_GSUB      FT_MAKE_TAG( 'G', 'S', 'U', 'B' )
#define TTAG_gvar      FT_MAKE_TAG( 'g', 'v', 'a', 'r' )
#define TTAG_hdmx      FT_MAKE_TAG( 'h', 'd', 'm', 'x' )
#define TTAG_head      FT_MAKE_TAG( 'h', 'e', 'a', 'd' )
#define TTAG_hhea      FT_MAKE_TAG( 'h', 'h', 'e', 'a' )
#define TTAG_hmtx      FT_MAKE_TAG( 'h', 'm', 't', 'x' )
#define TTAG_JSTF      FT_MAKE_TAG( 'J', 'S', 'T', 'F' )
#define TTAG_kern      FT_MAKE_TAG( 'k', 'e', 'r', 'n' )
#define TTAG_loca      FT_MAKE_TAG( 'l', 'o', 'c', 'a' )
#define TTAG_LTSH      FT_MAKE_TAG( 'L', 'T', 'S', 'H' )
#define TTAG_maxp      FT_MAKE_TAG( 'm', 'a', 'x', 'p' )
#define TTAG_MMFx      FT_MAKE_TAG( 'M', 'M', 'F', 'X' )
#define TTAG_MMSD      FT_MAKE_TAG( 'M', 'M', 'S', 'D' )
#define TTAG_name      FT_MAKE_TAG( 'n', 'a', 'm', 'e' )
#define TTAG_OS2       FT_MAKE_TAG( 'O', 'S', '/', '2' )
#define TTAG_OTTO      FT_MAKE_TAG( 'O', 'T', 'T', 'O' )
#define TTAG_PCLT      FT_MAKE_TAG( 'P', 'C', 'L', 'T' )
#define TTAG_post      FT_MAKE_TAG( 'p', 'o', 's', 't' )
#define TTAG_prep      FT_MAKE_TAG( 'p', 'r', 'e', 'p' )
#define TTAG_true      FT_MAKE_TAG( 't', 'r', 'u', 'e' )
#define TTAG_ttc       FT_MAKE_TAG( 't', 't', 'c', ' ' )
#define TTAG_ttcf      FT_MAKE_TAG( 't', 't', 'c', 'f' )
#define TTAG_VDMX      FT_MAKE_TAG( 'V', 'D', 'M', 'X' )
#define TTAG_vhea      FT_MAKE_TAG( 'v', 'h', 'e', 'a' )
#define TTAG_vmtx      FT_MAKE_TAG( 'v', 'm', 't', 'x' )

```

12.2.31. freetype/ttunpat.h

```
#define FT_PARAM_TAG_UNPATENTED_HINTING FT_MAKE_TAG( 'u', 'n', 'p', 'a' )
```

12.3. Interface Definitions for libfreetype

Table of Contents

FT_Get_X11_Font_Format -- Get font format

The interfaces defined on the following pages are included in libfreetype and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 12.1](#) shall behave as described in the referenced base document.

FT_Get_X11_Font_Format

Name

FT_Get_X11_Font_Format -- Get font format

Synopsis

```
#include <freetype/ftxf86.h>
const char *FT_Get_X11_Font_Format (FT_Face face);
```

Description

The `FT_Get_X11_Font_Format()` function can be used to return a string describing the format of the font face referenced by *face*.

Note that this information is not needed normally; however, there are special cases (like in PDF devices) where it is important to differentiate, in spite of FreeType's uniform API.

Return Value

The `FT_Get_X11_Font_Format()` function returns a string describing the format of a given face, using values which can be used as an `X11 FONT_PROPERTY`. Possible values are TrueType, Type 1, BDF, PCF, Type 42, CID Type 1, CFF, PFR, and Windows FNT. In case of an error, `NULL` is returned.

VIII. Xft library

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13. Libraries

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13.2. Data Definitions for libXft

13.2.1. X11/Xft/Xft.h

13.2.2. X11/Xft/XftCompat.h

13.3. Interface Definitions for libXft

Chapter 13. Libraries

13.1. Interfaces for libXft

Table 13-1 defines the library name and shared object name for the libXft library

Table 13-1. libXft Definition

Library:	libXft
SONAME:	libXft.so.2

The behavior of the interfaces in this library is specified by the following specifications:

[LSB] [This Specification](#)

13.1.1. X FreeType Library

13.1.1.1. Interfaces for X FreeType Library

An LSB conforming implementation shall provide the generic functions for X FreeType Library specified in Table 13-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 13-2. libXft - X FreeType Library Function Interfaces

XftCharExists [LSB]	XftCharFontSpecRender [LSB]	XftCharIndex [LSB]
XftCharSpecRender [LSB]	XftColorAllocName [LSB]	XftColorAllocValue [LSB]
XftColorFree [LSB]	XftDefaultHasRender [LSB]	XftDefaultSet [LSB]
XftDefaultSubstitute [LSB]	XftDrawChange [LSB]	XftDrawCharFontSpec [LSB]
XftDrawCharSpec [LSB]	XftDrawColormap [LSB]	XftDrawCreate [LSB]
XftDrawCreateAlpha [LSB]	XftDrawCreateBitmap [LSB]	XftDrawDestroy [LSB]
XftDrawDisplay [LSB]	XftDrawDrawable [LSB]	XftDrawGlyphFontSpec [LSB]
XftDrawGlyphSpec [LSB]	XftDrawGlyphs [LSB]	XftDrawPicture [LSB]
XftDrawRect [LSB]	XftDrawSetClip [LSB]	XftDrawSetClipRectangles [LSB]
XftDrawSetSubwindowMode [LSB]	XftDrawSrcPicture [LSB]	XftDrawString16 [LSB]
XftDrawString32 [LSB]	XftDrawString8 [LSB]	XftDrawStringUtf16 [LSB]
XftDrawStringUtf8 [LSB]	XftDrawVisual [LSB]	XftFontCheckGlyph [LSB]
XftFontClose [LSB]	XftFontCopy [LSB]	XftFontInfoCreate [LSB]
XftFontInfoDestroy [LSB]	XftFontInfoEqual [LSB]	XftFontInfoHash [LSB]

XftFontLoadGlyphs [LSB]	XftFontMatch [LSB]	XftFontOpen [LSB]
XftFontOpenInfo [LSB]	XftFontOpenName [LSB]	XftFontOpenPattern [LSB]
XftFontOpenXlfd [LSB]	XftFontUnloadGlyphs [LSB]	XftGetVersion [LSB]
XftGlyphExtents [LSB]	XftGlyphFontSpecRender [LSB]	XftGlyphRender [LSB]
XftGlyphSpecRender [LSB]	XftInit [LSB]	XftInitFtLibrary [LSB]
XftListFonts [LSB]	XftLockFace [LSB]	XftNameParse [LSB]
XftTextExtents16 [LSB]	XftTextExtents32 [LSB]	XftTextExtents8 [LSB]
XftTextExtentsUtf16 [LSB]	XftTextExtentsUtf8 [LSB]	XftTextRender16 [LSB]
XftTextRender16BE [LSB]	XftTextRender16LE [LSB]	XftTextRender32 [LSB]
XftTextRender32BE [LSB]	XftTextRender32LE [LSB]	XftTextRender8 [LSB]
XftTextRenderUtf16 [LSB]	XftTextRenderUtf8 [LSB]	XftUnlockFace [LSB]
XftXlfdParse [LSB]		

13.2. Data Definitions for libXft

This section defines global identifiers and their values that are associated with interfaces contained in libXft. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

13.2.1. X11/Xft/Xft.h

```
#define _XFT_H_
#define XFT_VERSION      \
    ((XFT_MAJOR * 10000) + (XFT_MINOR * 100) + (XFT_REVISION))
#define XFT_CORE         "core"
#define XFT_MAX_GLYPH_MEMORY    "maxglyphmemory"
#define XFT_MAX_UNREF_FONTS    "maxunreffonts"
#define XFT_RENDER        "render"
#define XFT_XLFD          "xlfd"
#define XFT_MINOR         1
#define XFT_MAJOR         2
#define XFT_NMISSING      256
#define XFT_REVISION      8
#define XftVersion        XFT_VERSION

typedef struct _XftDraw XftDraw;
```

```

typedef struct _XftColor {
    unsigned long int pixel;
    XRenderColor color;
} XftColor;
typedef struct _XftFont {
    int ascent;
    int descent;
    int height;
    int max_advance_width;
    FcCharSet *charset;
    FcPattern **pattern;
} XftFont;
typedef struct _XftGlyphSpec {
    FT_UInt glyph;
    short x;
    short y;
} XftGlyphSpec;
typedef struct _XftCharSpec {
    FcChar32 ucs4;
    short x;
    short y;
} XftCharSpec;
typedef struct _XftFtFile XftFtFile;
typedef struct _XftFontInfo XftFontInfo;
typedef struct _XftCharFontSpec {
    XftFont *font;
    FcChar32 ucs4;
    short x;
    short y;
} XftCharFontSpec;
typedef struct _XftGlyphFontSpec {
    XftFont *font;
    FT_UInt glyph;
    short x;
    short y;
} XftGlyphFontSpec;
extern FcBool XftCharExists(Display *, XftFont *, FcChar32);
extern void XftCharFontSpecRender(Display *, int, Picture, Picture, int,
                                   int, const XftCharFontSpec *, int);
extern FT_UInt XftCharIndex(Display *, XftFont *, FcChar32);
extern void XftCharSpecRender(Display *, int, Picture, XftFont *, Picture,
                               int, int, const XftCharSpec *, int);
extern int XftColorAllocName(Display *, const Visual *, Colormap,
                             const char *, XftColor *);
extern int XftColorAllocValue(Display *, Visual *, Colormap,
                              const XRenderColor *, XftColor *);
extern void XftColorFree(Display *, Visual *, Colormap, XftColor *);
extern int XftDefaultHasRender(Display *);
extern int XftDefaultSet(Display *, FcPattern *);
extern void XftDefaultSubstitute(Display *, int, FcPattern *);
extern void XftDrawChange(XftDraw *, Drawable);
extern void XftDrawCharFontSpec(XftDraw *, const XftColor *,
                                 const XftCharFontSpec *, int);
extern void XftDrawCharSpec(XftDraw *, const XftColor *, XftFont *,
                            const XftCharSpec *, int);
extern Colormap XftDrawColormap(XftDraw *);
extern XftDraw *XftDrawCreate(Display *, Drawable, Visual *, Colormap);
extern XftDraw *XftDrawCreateAlpha(Display *, Pixmap, int);
extern XftDraw *XftDrawCreateBitmap(Display *, Pixmap);
extern void XftDrawDestroy(XftDraw *);
extern Display *XftDrawDisplay(XftDraw *);
extern Drawable XftDrawDrawable(XftDraw *);

```

```

extern void XftDrawGlyphFontSpec(XftDraw *, const XftColor *,
                                   const XftGlyphFontSpec *, int);
extern void XftDrawGlyphSpec(XftDraw *, const XftColor *, XftFont *,
                              const XftGlyphSpec *, int);
extern void XftDrawGlyphs(XftDraw *, const XftColor *, XftFont *, int, int,
                           const FT_UInt *, int);
extern Picture XftDrawPicture(XftDraw *);
extern void XftDrawRect(XftDraw *, const XftColor *, int, int,
                        unsigned int, unsigned int);
extern int XftDrawSetClip(XftDraw *, Region);
extern int XftDrawSetClipRectangles(XftDraw *, int, int,
                                     const XRectangle *, int);
extern void XftDrawSetSubwindowMode(XftDraw *, int);
extern Picture XftDrawSrcPicture(XftDraw *, const XftColor *);
extern void XftDrawString16(XftDraw *, const XftColor *, XftFont *, int,
                             int, const FcChar16 *, int);
extern void XftDrawString32(XftDraw *, const XftColor *, XftFont *, int,
                             int, const FcChar32 *, int);
extern void XftDrawString8(XftDraw *, const XftColor *, XftFont *, int,
                            int, const FcChar8 *, int);
extern void XftDrawStringUtf16(XftDraw *, const XftColor *, XftFont *, int,
                                int, const FcChar8 *, FcEndian, int);
extern void XftDrawStringUtf8(XftDraw *, const XftColor *, XftFont *, int,
                               int, const FcChar8 *, int);
extern Visual *XftDrawVisual(XftDraw *);
extern FcBool XftFontCheckGlyph(Display *, XftFont *, FcBool, FT_UInt,
                                 FT_UInt *, int *);
extern void XftFontClose(Display *, XftFont *);
extern XftFont *XftFontCopy(Display *, XftFont *);
extern XftFontInfo *XftFontInfoCreate(Display *, const FcPattern *);
extern void XftFontInfoDestroy(Display *, XftFontInfo *);
extern FcBool XftFontInfoEqual(const XftFontInfo *, const XftFontInfo *);
extern FcChar32 XftFontInfoHash(const XftFontInfo *);
extern void XftFontLoadGlyphs(Display *, XftFont *, FcBool,
                               const FT_UInt *, int);
extern FcPattern *XftFontMatch(Display *, int, const FcPattern *,
                               FcResult *);
extern XftFont *XftFontOpen(Display *, int, ...);
extern XftFont *XftFontOpenInfo(Display *, FcPattern *, XftFontInfo *);
extern XftFont *XftFontOpenName(Display *, int, const char *);
extern XftFont *XftFontOpenPattern(Display *, FcPattern *);
extern XftFont *XftFontOpenXlfd(Display *, int, const char *);
extern void XftFontUnloadGlyphs(Display *, XftFont *, const FT_UInt *,
                                 int);
extern int XftGetVersion(void);
extern void XftGlyphExtents(Display *, XftFont *, const FT_UInt *, int,
                             XGlyphInfo *);
extern void XftGlyphFontSpecRender(Display *, int, Picture, Picture, int,
                                    int, const XftGlyphFontSpec *, int);
extern void XftGlyphRender(Display *, int, Picture, XftFont *, Picture,
                             int, int, int, int, const FT_UInt *, int);
extern void XftGlyphSpecRender(Display *, int, Picture, XftFont *, Picture,
                                int, int, const XftGlyphSpec *, int);
extern int XftInit(const char *);
extern FcBool XftInitFtLibrary(void);
extern FcFontSet *XftListFonts(Display *, int, ...);
extern FT_Face XftLockFace(XftFont *);
extern FcPattern *XftNameParse(const char *);
extern void XftTextExtents16(Display *, XftFont *, const FcChar16 *, int,
                              XGlyphInfo *);
extern void XftTextExtents32(Display *, XftFont *, const FcChar32 *, int,
                              XGlyphInfo *);

```



```

extern void XftTextExtents8(Display *, XftFont *, const FcChar8 *, int,
                           XGlyphInfo *);
extern void XftTextExtentsUtf16(Display *, XftFont *, const FcChar8 *,
                                FcEndian, int, XGlyphInfo *);
extern void XftTextExtentsUtf8(Display *, XftFont *, const FcChar8 *, int,
                               XGlyphInfo *);
extern void XftTextRender16(Display *, int, Picture, XftFont *, Picture,
                           int, int, int, int, const FcChar16 *, int);
extern void XftTextRender16BE(Display *, int, Picture, XftFont *, Picture,
                              int, int, int, int, const FcChar8 *, int);
extern void XftTextRender16LE(Display *, int, Picture, XftFont *, Picture,
                              int, int, int, int, const FcChar8 *, int);
extern void XftTextRender32(Display *, int, Picture, XftFont *, Picture,
                           int, int, int, int, const FcChar32 *, int);
extern void XftTextRender32BE(Display *, int, Picture, XftFont *, Picture,
                              int, int, int, int, const FcChar8 *, int);
extern void XftTextRender32LE(Display *, int, Picture, XftFont *, Picture,
                              int, int, int, int, const FcChar8 *, int);
extern void XftTextRender8(Display *, int, Picture, XftFont *, Picture,
                          int, int, int, int, const FcChar8 *, int);
extern void XftTextRenderUtf16(Display *, int, Picture, XftFont *, Picture,
                              int, int, int, int, const FcChar8 *,
                              FcEndian, int);
extern void XftTextRenderUtf8(Display *, int, Picture, XftFont *, Picture,
                              int, int, int, int, const FcChar8 *, int);
extern void XftUnlockFace(XftFont *);
extern FcPattern *XftXlfdParse(const char *, FcBool, FcBool);

```

13.2.2. X11/Xft/XftCompat.h

```

#define XFT_ENCODING      "encoding"
#define XftConfigSubstitute(p)  FcConfigSubstitute (0, p, FcMatchPattern)
#define XftFontSetDestroy      FcFontSetDestroy
#define XftFontSetMatch        FcFontSetMatch
#define XftMatrixEqual         FcMatrixEqual
#define XftMatrixInit(m)       FcMatrixInit (m)
#define XftMatrixMultiply      FcMatrixMultiply
#define XftMatrixRotate        FcMatrixRotate
#define XftMatrixScale         FcMatrixScale
#define XftMatrixShear         FcMatrixShear
#define XftObjectSetAdd        FcObjectSetAdd
#define XftObjectSetBuild      FcObjectSetBuild
#define XftObjectSetCreate      FcObjectSetCreate
#define XftObjectSetDestroy     FcObjectSetDestroy
#define XftObjectSetVaBuild     FcObjectSetVaBuild
#define XftPatternAdd          FcPatternAdd
#define XftPatternAddBool      FcPatternAddBool
#define XftPatternAddDouble     FcPatternAddDouble
#define XftPatternAddInteger     FcPatternAddInteger
#define XftPatternAddMatrix     FcPatternAddMatrix
#define XftPatternAddString(p,e,s)  FcPatternAddString(p,e,(FcChar8 *) (s))
#define XftPatternBuild        FcPatternBuild
#define XftPatternCreate        FcPatternCreate
#define XftPatternDel          FcPatternDel
#define XftPatternDestroy       FcPatternDestroy
#define XftPatternDuplicate     FcPatternDuplicate
#define XftPatternGet          FcPatternGet
#define XftPatternGetBool      FcPatternGetBool
#define XftPatternGetDouble     FcPatternGetDouble
#define XftPatternGetInteger     FcPatternGetInteger
#define XftPatternGetMatrix     FcPatternGetMatrix

```

```

#define XftPatternGetString(p,e,i,n)      FcPatternGetString(p,e,i,(FcChar8 **) (n))
#define XftPatternVaBuild      FcPatternVaBuild
#define XftResultMatch      FcResultMatch
#define XftResultNoId      FcResultNoId
#define XftResultNoMatch      FcResultNoMatch
#define XftResultTypeMismatch      FcResultTypeMismatch
#define XftTypeBool      FcTypeBool
#define XftTypeDouble      FcTypeDouble
#define XftTypeInteger      FcTypeInteger
#define XftTypeMatrix      FcTypeMatrix
#define XftTypeString      FcTypeString
#define XftTypeVoid      FcTypeVoid
#define XftUtf8Len      FcUtf8Len
#define XftUtf8ToUcs4      FcUtf8ToUcs4
#define XftValueDestroy      FcValueDestroy
#define XFT_ANTIALIAS      FC_ANTIALIAS
#define XFT_CHARCELL      FC_CHARCELL
#define XFT_CHAR_HEIGHT      FC_CHAR_HEIGHT
#define XFT_CHAR_WIDTH      FC_CHAR_WIDTH
#define XFT_DPI      FC_DPI
#define XFT_FAMILY      FC_FAMILY
#define XFT_FILE      FC_FILE
#define XFT_FOUNDRY      FC_FOUNDRY
#define XFT_INDEX      FC_INDEX
#define XFT_MATRIX      FC_MATRIX
#define XFT_MINSPACE      FC_MINSPACE
#define XFT_MONO      FC_MONO
#define XFT_OUTLINE      FC_OUTLINE
#define XFT_PIXEL_SIZE      FC_PIXEL_SIZE
#define XFT_PROPORTIONAL      FC_PROPORTIONAL
#define XFT_RASTERIZER      FC_RASTERIZER
#define XFT_RGBA      FC_RGBA
#define XFT_RGBA_BGR      FC_RGBA_BGR
#define XFT_RGBA_NONE      FC_RGBA_NONE
#define XFT_RGBA_RGB      FC_RGBA_RGB
#define XFT_RGBA_UNKNOWN      FC_RGBA_UNKNOWN
#define XFT_RGBA_VBGR      FC_RGBA_VBGR
#define XFT_RGBA_VRGB      FC_RGBA_VRGB
#define XFT_SCALABLE      FC_SCALABLE
#define XFT_SCALE      FC_SCALE
#define XFT_SIZE      FC_SIZE
#define XFT_SLANT      FC_SLANT
#define XFT_SLANT_ITALIC      FC_SLANT_ITALIC
#define XFT_SLANT_OBLIQUE      FC_SLANT_OBLIQUE
#define XFT_SLANT_ROMAN      FC_SLANT_ROMAN
#define XFT_SPACING      FC_SPACING
#define XFT_STYLE      FC_STYLE
#define XFT_WEIGHT      FC_WEIGHT
#define XFT_WEIGHT_BLACK      FC_WEIGHT_BLACK
#define XFT_WEIGHT_BOLD      FC_WEIGHT_BOLD
#define XFT_WEIGHT_DEMIBOLD      FC_WEIGHT_DEMIBOLD
#define XFT_WEIGHT_LIGHT      FC_WEIGHT_LIGHT
#define XFT_WEIGHT_MEDIUM      FC_WEIGHT_MEDIUM
#define XftGlyphExists      XftCharExists

typedef unsigned char XftChar8;
typedef unsigned short XftChar16;
typedef unsigned int XftChar32;
typedef enum _FcType XftType;
typedef struct _FcMatrix XftMatrix;
typedef enum _FcResult XftResult;
typedef struct _FcValue XftValue;

```

```
typedef struct _FcPattern XftPattern;  
typedef struct _FcFontSet XftFontSet;  
typedef struct _FcObjectSet XftObjectSet;
```

13.3. Interface Definitions for libXft

The interfaces defined on the following pages are included in libXft and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 13.1](#) shall behave as described in the referenced base document.

IX. Xrender library

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14. Libraries

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14.3. Interface Definitions for libXrender

Chapter 14. Libraries

14.1. Interfaces for libXrender

Table 14-1 defines the library name and shared object name for the libXrender library

Table 14-1. libXrender Definition

Library:	libXrender
SONAME:	libXrender.so.1

The behavior of the interfaces in this library is specified by the following specifications:

[LSB] [This Specification](#)

14.1.1. X Rendering Extension

14.1.1.1. Interfaces for X Rendering Extension

An LSB conforming implementation shall provide the generic functions for X Rendering Extension specified in Table 14-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 14-2. libXrender - X Rendering Extension Function Interfaces

XRenderAddGlyphs [LSB]	XRenderAddTraps [LSB]	XRenderChangePicture [LSB]
XRenderComposite [LSB]	XRenderCompositeDoublePoly [LSB]	XRenderCompositeString16 [LSB]
XRenderCompositeString32 [LSB]	XRenderCompositeString8 [LSB]	XRenderCompositeText16 [LSB]
XRenderCompositeText32 [LSB]	XRenderCompositeText8 [LSB]	XRenderCompositeTrapezoids [LSB]
XRenderCompositeTriFan [LSB]	XRenderCompositeTriStrip [LSB]	XRenderCompositeTriangles [LSB]
XRenderCreateAnimCursor [LSB]	XRenderCreateConicalGradient [LSB]	XRenderCreateCursor [LSB]
XRenderCreateGlyphSet [LSB]	XRenderCreateLinearGradient [LSB]	XRenderCreatePicture [LSB]
XRenderCreateRadialGradient [LSB]	XRenderCreateSolidFill [LSB]	XRenderFillRectangle [LSB]
XRenderFillRectangles [LSB]	XRenderFindFormat [LSB]	XRenderFindStandardFormat [LSB]
XRenderFindVisualFormat [LSB]	XRenderFreeGlyphSet [LSB]	XRenderFreeGlyphs [LSB]

XRenderFreePicture [LSB]	XRenderParseColor [LSB]	XRenderQueryExtension [LSB]
XRenderQueryFilters [LSB]	XRenderQueryFormats [LSB]	XRenderQueryPictIndexValues [LSB]
XRenderQuerySubpixelOrder [LSB]	XRenderQueryVersion [LSB]	XRenderReferenceGlyphSet [LSB]
XRenderSetPictureClipRectangles [LSB]	XRenderSetPictureClipRegion [LSB]	XRenderSetPictureFilter [LSB]
XRenderSetPictureTransform [LSB]	XRenderSetSubpixelOrder [LSB]	

14.2. Data Definitions for libXrender

This section defines global identifiers and their values that are associated with interfaces contained in libXrender. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

14.2.1. X11/extensions/Xrender.h

```
#define XFixedToDouble(f)      (((XDouble) (f)) / 65536)
#define XDoubleToFixed(f)     ((XFixed) ((f) * 65536))
#define PictFormatID          (1 << 0)
#define PictFormatType        (1 << 1)
#define PictFormatAlphaMask    (1 << 10)
#define PictFormatColormap     (1 << 11)
#define PictFormatDepth        (1 << 2)
#define PictFormatRed          (1 << 3)
#define PictFormatRedMask      (1 << 4)
#define PictFormatGreen        (1 << 5)
#define PictFormatGreenMask    (1 << 6)
#define PictFormatBlue         (1 << 7)
#define PictFormatBlueMask     (1 << 8)
#define PictFormatAlpha        (1 << 9)
#define PictStandardARGB32     0
#define PictStandardRGB24      1
#define PictStandardA8         2
#define PictStandardA4         3
#define PictStandardA1         4
#define PictStandardNUM        5

typedef long unsigned int GlyphSet;
typedef int XFixed;
typedef struct _XPointFixed {
```

```

    XFixed x;
    XFixed y;
} XPointFixed;
typedef struct _XCircle {
    XFixed x;
    XFixed y;
    XFixed radius;
} XCircle;
typedef double XDouble;
typedef struct _XSpanFix {
    XFixed left;
    XFixed right;
    XFixed y;
} XSpanFix;
typedef struct _XLineFixed {
    XPointFixed p1;
    XPointFixed p2;
} XLineFixed;

typedef struct _XTrapezoid {
    XFixed top;
    XFixed bottom;
    XLineFixed left;
    XLineFixed right;
} XTrapezoid;
typedef struct {
    unsigned short red;
    unsigned short green;
    unsigned short blue;
    unsigned short alpha;
} XRenderColor;
typedef long unsigned int Glyph;
typedef long unsigned int PictFormat;
typedef struct {
    short red;
    short redMask;
    short green;
    short greenMask;
    short blue;
    short blueMask;
    short alpha;
    short alphaMask;
} XRenderDirectFormat;
typedef struct {
    PictFormat id;
    int type;
    int depth;
    XRenderDirectFormat direct;
    Colormap colormap;
} XRenderPictFormat;
typedef struct _XGlyphInfo {
    unsigned short width;
    unsigned short height;
    short x;
    short y;
    short xOff;
    short yOff;
} XGlyphInfo;
typedef struct _XFilters {
    int nfilter;
    char **filter;
    int nalias;

```

```

    short int *alias;
} XFilters;
typedef struct _XTransform {
    XFixed matrix[3][3];
} XTransform;
typedef struct _XAnimCursor {
    Cursor cursor;
    long unsigned int delay;
} XAnimCursor;
typedef struct _XRadialGradient {
    XCircle inner;
    XCircle outer;
} XRadialGradient;
typedef struct _XGlyphElt32 {
    GlyphSet glyphset;
    const unsigned int *chars;
    int nchars;
    int xOff;
    int yOff;
} XGlyphElt32;
typedef struct _XGlyphElt8 {
    GlyphSet glyphset;
    const char *chars;
    int nchars;
    int xOff;
    int yOff;
} XGlyphElt8;
typedef struct _XConicalGradient {
    XPointFixed center;
    XFixed angle;
} XConicalGradient;
typedef struct _XLinearGradient {
    XPointFixed p1;
    XPointFixed p2;
} XLinearGradient;
typedef struct _XPointDouble {
    XDouble x;
    XDouble y;
} XPointDouble;
typedef struct _XRenderPictureAttributes {
    int repeat;
    Picture alpha_map;
    int alpha_x_origin;
    int alpha_y_origin;
    int clip_x_origin;
    int clip_y_origin;
    Pixmap clip_mask;
    int graphics_exposures;
    int subwindow_mode;
    int poly_edge;
    int poly_mode;
    Atom dither;
    int component_alpha;
} XRenderPictureAttributes;
typedef struct _XTrap {
    XSpanFix top;
    XSpanFix bottom;
} XTrap;
typedef struct _XIndexValue {
    long unsigned int pixel;
    unsigned short red;
    unsigned short green;

```



```

    unsigned short blue;
    unsigned short alpha;
} XIndexValue;
typedef struct _XGlyphElt16 {
    GlyphSet glyphset;
    const short unsigned int *chars;
    int nchars;
    int xOff;
    int yOff;
} XGlyphElt16;
typedef struct _XTriangle {
    XPointFixed p1;
    XPointFixed p2;
    XPointFixed p3;
} XTriangle;
extern void XRenderAddGlyphs(Display * dpy, GlyphSet glyphset,
                             const Glyph * gids, const XGlyphInfo * glyphs,
                             int nglyphs, const char *images,
                             int nbyte_images);
extern void XRenderAddTraps(Display * dpy, Picture picture, int xOff,
                             int yOff, const XTrap * traps, int ntrap);
extern void XRenderChangePicture(Display * dpy, Picture picture,
                                  long unsigned int valuemask,
                                  const XRenderPictureAttributes *
                                  attributes);
extern void XRenderComposite(Display * dpy, int op, Picture src,
                             Picture mask, Picture dst, int src_x,
                             int src_y, int mask_x, int mask_y, int dst_x,
                             int dst_y, unsigned int width,
                             unsigned int height);
extern void XRenderCompositeDoublePoly(Display * dpy, int op, Picture src,
                                        Picture dst,
                                        const XRenderPictFormat *
                                        maskFormat, int xSrc, int ySrc,
                                        int xDst, int yDst,
                                        const XPointDouble * fpoints,
                                        int npoints, int winding);
extern void XRenderCompositeString16(Display * dpy, int op, Picture src,
                                     Picture dst,
                                     const XRenderPictFormat * maskFormat,
                                     GlyphSet glyphset, int xSrc, int ySrc,
                                     int xDst, int yDst,
                                     const short unsigned int *string,
                                     int nchar);
extern void XRenderCompositeString32(Display * dpy, int op, Picture src,
                                     Picture dst,
                                     const XRenderPictFormat * maskFormat,
                                     GlyphSet glyphset, int xSrc, int ySrc,
                                     int xDst, int yDst,
                                     const unsigned int *string,
                                     int nchar);
extern void XRenderCompositeString8(Display * dpy, int op, Picture src,
                                    Picture dst,
                                    const XRenderPictFormat * maskFormat,
                                    GlyphSet glyphset, int xSrc, int ySrc,
                                    int xDst, int yDst, const char *string,
                                    int nchar);
extern void XRenderCompositeText16(Display * dpy, int op, Picture src,
                                   Picture dst,
                                   const XRenderPictFormat * maskFormat,
                                   int xSrc, int ySrc, int xDst, int yDst,
                                   const XGlyphElt16 * elts, int nelt);

```

```

extern void XRenderCompositeText32(Display * dpy, int op, Picture src,
                                   Picture dst,
                                   const XRenderPictFormat * maskFormat,
                                   int xSrc, int ySrc, int xDst, int yDst,
                                   const XGlyphElt32 * elts, int nelt);
extern void XRenderCompositeText8(Display * dpy, int op, Picture src,
                                   Picture dst,
                                   const XRenderPictFormat * maskFormat,
                                   int xSrc, int ySrc, int xDst, int yDst,
                                   const XGlyphElt8 * elts, int nelt);
extern void XRenderCompositeTrapezoids(Display * dpy, int op, Picture src,
                                        Picture dst,
                                        const XRenderPictFormat *
                                        maskFormat, int xSrc, int ySrc,
                                        const XTrapezoid * traps,
                                        int ntrap);
extern void XRenderCompositeTriFan(Display * dpy, int op, Picture src,
                                    Picture dst,
                                    const XRenderPictFormat * maskFormat,
                                    int xSrc, int ySrc,
                                    const XPointFixed * points, int npoint);
extern void XRenderCompositeTriStrip(Display * dpy, int op, Picture src,
                                      Picture dst,
                                      const XRenderPictFormat * maskFormat,
                                      int xSrc, int ySrc,
                                      const XPointFixed * points,
                                      int npoint);
extern void XRenderCompositeTriangles(Display * dpy, int op, Picture src,
                                       Picture dst,
                                       const XRenderPictFormat * maskFormat,
                                       int xSrc, int ySrc,
                                       const XTriangle * triangles,
                                       int ntriangle);
extern Cursor XRenderCreateAnimCursor(Display * dpy, int ncursor,
                                       XAnimCursor * cursors);
extern Picture XRenderCreateConicalGradient(Display * dpy,
                                             const XConicalGradient *
                                             gradient, const XFixed * stops,
                                             const XRenderColor * colors,
                                             int nstops);
extern Cursor XRenderCreateCursor(Display * dpy, Picture source,
                                   unsigned int x, unsigned int y);
extern GlyphSet XRenderCreateGlyphSet(Display * dpy,
                                       const XRenderPictFormat * format);
extern Picture XRenderCreateLinearGradient(Display * dpy,
                                           const XLinearGradient *
                                           gradient, const XFixed * stops,
                                           const XRenderColor * colors,
                                           int nstops);
extern Picture XRenderCreatePicture(Display * dpy, Drawable drawable,
                                    const XRenderPictFormat * format,
                                    long unsigned int valuemask,
                                    const XRenderPictureAttributes *
                                    attributes);
extern Picture XRenderCreateRadialGradient(Display * dpy,
                                           const XRadialGradient *
                                           gradient, const XFixed * stops,
                                           const XRenderColor * colors,
                                           int nstops);
extern Picture XRenderCreateSolidFill(Display * dpy,
                                       const XRenderColor * color);
extern void XRenderFillRectangle(Display * dpy, int op, Picture dst,

```

```

                                const XRenderColor * color, int x, int y,
                                unsigned int width, unsigned int height);
extern void XRenderFillRectangles(Display * dpy, int op, Picture dst,
                                const XRenderColor * color,
                                const XRectangle * rectangles,
                                int n_rects);
extern XRenderPictFormat *XRenderFindFormat(Display * dpy,
                                long unsigned int mask,
                                const XRenderPictFormat *
                                templ, int count);
extern XRenderPictFormat *XRenderFindStandardFormat(Display * dpy,
                                int format);
extern XRenderPictFormat *XRenderFindVisualFormat(Display * dpy,
                                const Visual * visual);
extern void XRenderFreeGlyphSet(Display * dpy, GlyphSet glyphset);
extern void XRenderFreeGlyphs(Display * dpy, GlyphSet glyphset,
                                const Glyph * gids, int nglyphs);
extern void XRenderFreePicture(Display * dpy, Picture picture);
extern int XRenderParseColor(Display * dpy, char *spec,
                                XRenderColor * def);
extern int XRenderQueryExtension(Display * dpy, int *event_basep,
                                int *error_basep);
extern XFilters *XRenderQueryFilters(Display * dpy, Drawable drawable);
extern int XRenderQueryFormats(Display * dpy);
extern XIndexValue *XRenderQueryPictIndexValues(Display * dpy,
                                const XRenderPictFormat *
                                format, int *num);
extern int XRenderQuerySubpixelOrder(Display * dpy, int screen);
extern int XRenderQueryVersion(Display * dpy, int *major_versionp,
                                int *minor_versionp);
extern GlyphSet XRenderReferenceGlyphSet(Display * dpy, GlyphSet existing);
extern void XRenderSetPictureClipRectangles(Display * dpy, Picture picture,
                                int xOrigin, int yOrigin,
                                const XRectangle * rects,
                                int n);
extern void XRenderSetPictureClipRegion(Display * dpy, Picture picture,
                                Region r);
extern void XRenderSetPictureFilter(Display * dpy, Picture picture,
                                const char *filter, XFixed * params,
                                int nparams);
extern void XRenderSetPictureTransform(Display * dpy, Picture picture,
                                XTransform * transform);
extern int XRenderSetSubpixelOrder(Display * dpy, int screen,
                                int subpixel);

```

14.2.2. X11/extensions/render.h

```

#define FilterBest      "best"
#define FilterBilinear  "bilinear"
#define FilterConvolution "convolution"
#define FilterFast      "fast"
#define FilterGood      "good"
#define FilterNearest   "nearest"
#define RENDER_NAME     "RENDER"
#define CPRepeat        (1 << 0)
#define CPAlphaMap      (1 << 1)
#define CPPolyMode      (1 << 10)
#define CPDither        (1 << 11)
#define CPComponentAlpha (1 << 12)
#define CPAlphaXOrigin  (1 << 2)
#define CPAlphaYOrigin  (1 << 3)

```

```

#define CPClipXOrigin      (1 << 4)
#define CPClipYOrigin      (1 << 5)
#define CPClipMask         (1 << 6)
#define CPGraphicsExposure (1 << 7)
#define CPSubwindowMode    (1 << 8)
#define CPPolyEdge         (1 << 9)
#define RenderNumberErrors (BadGlyph+1)
#define RenderNumberRequests (X_RenderCreateConicalGradient+1)
#define FilterAliasNone -1
#define BadPictFormat      0
#define PictOpClear        0
#define PictOpMinimum      0
#define PictTypeIndexed    0
#define PolyEdgeSharp      0
#define PolyModePrecise    0
#define RENDER_MAJOR       0
#define RepeatNone         0
#define SubPixelUnknown    0
#define X_RenderQueryVersion 0
#define PictOpDisjointClear 0x10
#define PictOpDisjointMinimum 0x10
#define PictOpDisjointSrc   0x11
#define PictOpDisjointDst   0x12
#define PictOpDisjointOver  0x13
#define PictOpDisjointOverReverse 0x14
#define PictOpDisjointIn    0x15
#define PictOpDisjointInReverse 0x16
#define PictOpDisjointOut   0x17
#define PictOpDisjointOutReverse 0x18
#define PictOpDisjointAtop  0x19
#define PictOpDisjointAtopReverse 0x1a
#define PictOpDisjointMaximum 0x1b
#define PictOpDisjointXor   0x1b
#define PictOpConjointClear 0x20
#define PictOpConjointMinimum 0x20
#define PictOpConjointSrc    0x21
#define PictOpConjointDst    0x22
#define PictOpConjointOver  0x23
#define PictOpConjointOverReverse 0x24
#define PictOpConjointIn    0x25
#define PictOpConjointInReverse 0x26
#define PictOpConjointOut   0x27
#define PictOpConjointOutReverse 0x28
#define PictOpConjointAtop  0x29
#define PictOpConjointAtopReverse 0x2a
#define PictOpConjointMaximum 0x2b
#define PictOpConjointXor    0x2b
#define BadPicture          1
#define PictOpSrc           1
#define PictTypeDirect      1
#define PolyEdgeSmooth      1
#define PolyModeImprecise   1
#define RepeatNormal        1
#define SubPixelHorizontalRGB 1
#define X_RenderQueryPictFormats 1
#define PictOpAtopReverse    10
#define RENDER_MINOR        10
#define X_RenderTrapezoids   10
#define PictOpXor            11
#define X_RenderTriangles    11
#define CPLastBit            12
#define PictOpAdd            12

```

```

#define X_RenderTriStrip      12
#define PictOpMaximum        13
#define PictOpSaturate       13
#define X_RenderTriFan       13
#define X_RenderColorTrapezoids 14
#define X_RenderColorTriangles 15
#define X_RenderCreateGlyphSet 17
#define X_RenderReferenceGlyphSet 18
#define X_RenderFreeGlyphSet 19
#define BadPictOp            2
#define PictOpDst            2
#define RepeatPad            2
#define SubPixelHorizontalBGR 2
#define X_RenderQueryPictIndexValues 2
#define X_RenderAddGlyphs    20
#define X_RenderAddGlyphsFromPicture 21
#define X_RenderFreeGlyphs   22
#define X_RenderCompositeGlyphs8 23
#define X_RenderCompositeGlyphs16 24
#define X_RenderCompositeGlyphs32 25
#define X_RenderFillRectangles 26
#define X_RenderCreateCursor  27
#define X_RenderSetPictureTransform 28
#define X_RenderQueryFilters  29
#define BadGlyphSet          3
#define PictOpOver           3
#define RepeatReflect        3
#define SubPixelVerticalRGB   3
#define X_RenderQueryDithers  3
#define X_RenderSetPictureFilter 30
#define X_RenderCreateAnimCursor 31
#define X_RenderAddTraps      32
#define X_RenderCreateSolidFill 33
#define X_RenderCreateLinearGradient 34
#define X_RenderCreateRadialGradient 35
#define X_RenderCreateConicalGradient 36
#define BadGlyph             4
#define PictOpOverReverse     4
#define SubPixelVerticalBGR   4
#define X_RenderCreatePicture 4
#define PictOpIn              5
#define SubPixelNone          5
#define X_RenderChangePicture 5
#define PictOpInReverse       6
#define X_RenderSetPictureClipRectangles 6
#define PictOpOut             7
#define X_RenderFreePicture   7
#define PictOpOutReverse      8
#define X_RenderComposite     8
#define PictOpAtop            9
#define X_RenderScale         9

typedef long unsigned int Picture;

```

14.3. Interface Definitions for libXrender

The interfaces defined on the following pages are included in libXrender and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 14.1](#) shall behave as described in the referenced base document.

X. Cairo Vector Graphics library

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Chapter 15. Libraries

15.1. Interfaces for libcairo

Table 15-1 defines the library name and shared object name for the libcairo library

Table 15-1. libcairo Definition

Library:	libcairo
SONAME:	libcairo.so.2

The behavior of the interfaces in this library is specified by the following specifications:

[Cairo 1.2.0] [Cairo API Reference](#)

15.1.1. Cairo Vector Graphics Library

15.1.1.1. Interfaces for Cairo Vector Graphics Library

An LSB conforming implementation shall provide the generic functions for Cairo Vector Graphics Library specified in Table 15-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 15-2. libcairo - Cairo Vector Graphics Library Function Interfaces

cairo_append_path [Cairo 1.2.0]	cairo_arc [Cairo 1.2.0]	cairo_arc_negative
cairo_clip [Cairo 1.2.0]	cairo_clip_preserve [Cairo 1.2.0]	cairo_close_path [Cairo 1.2.0]
cairo_copy_page [Cairo 1.2.0]	cairo_copy_path [Cairo 1.2.0]	cairo_copy_path_flatten [Cairo 1.2.0]
cairo_create [Cairo 1.2.0]	cairo_curve_to [Cairo 1.2.0]	cairo_destroy [Cairo 1.2.0]
cairo_device_to_user [Cairo 1.2.0]	cairo_device_to_user_distance [Cairo 1.2.0]	cairo_fill [Cairo 1.2.0]
cairo_fill_extents [Cairo 1.2.0]	cairo_fill_preserve [Cairo 1.2.0]	cairo_font_extents [Cairo 1.2.0]
cairo_font_face_destroy [Cairo 1.2.0]	cairo_font_face_get_type [Cairo 1.2.0]	cairo_font_face_get_user_data [Cairo 1.2.0]
cairo_font_face_reference [Cairo 1.2.0]	cairo_font_face_set_user_data [Cairo 1.2.0]	cairo_font_face_status [Cairo 1.2.0]
cairo_font_options_copy [Cairo 1.2.0]	cairo_font_options_create [Cairo 1.2.0]	cairo_font_options_equal [Cairo 1.2.0]
cairo_font_options_equal [Cairo 1.2.0]	cairo_font_options_get_antialias [Cairo 1.2.0]	cairo_font_options_get_subpixel_order [Cairo 1.2.0]
cairo_font_options_get_hint_style [Cairo 1.2.0]	cairo_font_options_get_subpixel_order [Cairo 1.2.0]	cairo_font_options_status [Cairo 1.2.0]

cairo_font_options_merge [Cairo 1.2.0]	cairo_font_options_set_antialias [Cairo 1.2.0]	cairo_font_options_ [Cairo 1.2.0]
cairo_font_options_set_hint_style [Cairo 1.2.0]	cairo_font_options_set_subpixel_order [Cairo 1.2.0]	cairo_font_options_
cairo_ft_font_face_create_for_ft_face [Cairo 1.2.0]	cairo_ft_font_face_create_for_pattern [Cairo 1.2.0]	cairo_ft_font_optio [Cairo 1.2.0]
cairo_ft_scaled_font_lock_face [Cairo 1.2.0]	cairo_ft_scaled_font_unlock_face [Cairo 1.2.0]	cairo_get_antialias
cairo_get_current_point [Cairo 1.2.0]	cairo_get_fill_rule [Cairo 1.2.0]	cairo_get_font_face
cairo_get_font_matrix [Cairo 1.2.0]	cairo_get_font_options [Cairo 1.2.0]	cairo_get_group_ta
cairo_get_line_cap [Cairo 1.2.0]	cairo_get_line_join [Cairo 1.2.0]	cairo_get_line_wid
cairo_get_matrix [Cairo 1.2.0]	cairo_get_miter_limit [Cairo 1.2.0]	cairo_get_operator
cairo_get_source [Cairo 1.2.0]	cairo_get_target [Cairo 1.2.0]	cairo_get_tolerance
cairo_glyph_extents [Cairo 1.2.0]	cairo_glyph_path [Cairo 1.2.0]	cairo_identity_matr
cairo_image_surface_create [Cairo 1.2.0]	cairo_image_surface_create_for_data [Cairo 1.2.0]	cairo_image_surfac [Cairo 1.2.0]
cairo_image_surface_create_from_png_stream [Cairo 1.2.0]	cairo_image_surface_get_data [Cairo 1.2.0]	cairo_image_surfac [Cairo 1.2.0]
cairo_image_surface_get_height [Cairo 1.2.0]	cairo_image_surface_get_stride [Cairo 1.2.0]	cairo_image_surfac [Cairo 1.2.0]
cairo_in_fill [Cairo 1.2.0]	cairo_in_stroke [Cairo 1.2.0]	cairo_line_to [Cairo 1.2.0]
cairo_mask [Cairo 1.2.0]	cairo_mask_surface [Cairo 1.2.0]	cairo_matrix_init [Cairo 1.2.0]
cairo_matrix_init_identity [Cairo 1.2.0]	cairo_matrix_init_rotate [Cairo 1.2.0]	cairo_matrix_init_s
cairo_matrix_init_translate [Cairo 1.2.0]	cairo_matrix_invert [Cairo 1.2.0]	cairo_matrix_multi
cairo_matrix_rotate [Cairo 1.2.0]	cairo_matrix_scale [Cairo 1.2.0]	cairo_matrix_transf [Cairo 1.2.0]
cairo_matrix_transform_point [Cairo 1.2.0]	cairo_matrix_translate [Cairo 1.2.0]	cairo_move_to [Cairo 1.2.0]
cairo_new_path [Cairo 1.2.0]	cairo_new_sub_path [Cairo 1.2.0]	cairo_paint [Cairo 1.2.0]
cairo_paint_with_alpha [Cairo 1.2.0]	cairo_path_destroy [Cairo 1.2.0]	cairo_pattern_add_ [Cairo 1.2.0]
cairo_pattern_add_color_stop_rgba [Cairo 1.2.0]	cairo_pattern_create_for_surface [Cairo 1.2.0]	cairo_pattern_creat
cairo_pattern_create_radial [Cairo 1.2.0]	cairo_pattern_create_rgb [Cairo 1.2.0]	cairo_pattern_creat
cairo_pattern_destroy [Cairo 1.2.0]	cairo_pattern_get_extend [Cairo 1.2.0]	cairo_pattern_get_f
cairo_pattern_get_matrix [Cairo 1.2.0]	cairo_pattern_get_type [Cairo 1.2.0]	cairo_pattern_refer
cairo_pattern_set_extend [Cairo 1.2.0]	cairo_pattern_set_filter [Cairo 1.2.0]	cairo_pattern_set_n
cairo_pattern_status [Cairo 1.2.0]	cairo_pdf_surface_create [Cairo 1.2.0]	

		cairo_pdf_surface_ [Cairo 1.2.0]
cairo_pdf_surface_set_size [Cairo 1.2.0]	cairo_pop_group [Cairo 1.2.0]	cairo_pop_group_to 1.2.0]
cairo_ps_surface_create [Cairo 1.2.0]	cairo_ps_surface_create_for_stream [Cairo 1.2.0]	cairo_ps_surface_d [Cairo 1.2.0]
cairo_ps_surface_dsc_begin_setup [Cairo 1.2.0]	cairo_ps_surface_dsc_comment [Cairo 1.2.0]	cairo_ps_surface_s
cairo_push_group [Cairo 1.2.0]	cairo_push_group_with_content [Cairo 1.2.0]	cairo_rectangle [Ca
cairo_reference [Cairo 1.2.0]	cairo_rel_curve_to [Cairo 1.2.0]	cairo_rel_line_to [C
cairo_rel_move_to [Cairo 1.2.0]	cairo_reset_clip [Cairo 1.2.0]	cairo_restore [Cairo
cairo_rotate [Cairo 1.2.0]	cairo_save [Cairo 1.2.0]	cairo_scale [Cairo]
cairo_scaled_font_create [Cairo 1.2.0]	cairo_scaled_font_destroy [Cairo 1.2.0]	cairo_scaled_font_e
cairo_scaled_font_get_ctm [Cairo 1.2.0]	cairo_scaled_font_get_font_face [Cairo 1.2.0]	cairo_scaled_font_g [Cairo 1.2.0]
cairo_scaled_font_get_font_options [Cairo 1.2.0]	cairo_scaled_font_get_type [Cairo 1.2.0]	cairo_scaled_font_g 1.2.0]
cairo_scaled_font_reference [Cairo 1.2.0]	cairo_scaled_font_status [Cairo 1.2.0]	cairo_scaled_font_t 1.2.0]
cairo_select_font_face [Cairo 1.2.0]	cairo_set_antialias [Cairo 1.2.0]	cairo_set_dash [Cai
cairo_set_fill_rule [Cairo 1.2.0]	cairo_set_font_face [Cairo 1.2.0]	cairo_set_font_matt
cairo_set_font_options [Cairo 1.2.0]	cairo_set_font_size [Cairo 1.2.0]	cairo_set_line_cap
cairo_set_line_join [Cairo 1.2.0]	cairo_set_line_width [Cairo 1.2.0]	cairo_set_matrix [C
cairo_set_miter_limit [Cairo 1.2.0]	cairo_set_operator [Cairo 1.2.0]	cairo_set_scaled_fo
cairo_set_source [Cairo 1.2.0]	cairo_set_source_rgb [Cairo 1.2.0]	cairo_set_source_rg
cairo_set_source_surface [Cairo 1.2.0]	cairo_set_tolerance [Cairo 1.2.0]	cairo_show_glyphs
cairo_show_page [Cairo 1.2.0]	cairo_show_text [Cairo 1.2.0]	cairo_status [Cairo
cairo_status_to_string [Cairo 1.2.0]	cairo_stroke [Cairo 1.2.0]	cairo_stroke_exten
cairo_stroke_preserve [Cairo 1.2.0]	cairo_surface_create_similar [Cairo 1.2.0]	cairo_surface_destr
cairo_surface_finish [Cairo 1.2.0]	cairo_surface_flush [Cairo 1.2.0]	cairo_surface_get_c
cairo_surface_get_device_offset [Cairo 1.2.0]	cairo_surface_get_font_options [Cairo 1.2.0]	cairo_surface_get_t
cairo_surface_get_user_data [Cairo 1.2.0]	cairo_surface_mark_dirty [Cairo 1.2.0]	cairo_surface_mark [Cairo 1.2.0]
cairo_surface_reference [Cairo 1.2.0]	cairo_surface_set_device_offset [Cairo 1.2.0]	cairo_surface_set_f [Cairo 1.2.0]
cairo_surface_set_user_data [Cairo 1.2.0]	cairo_surface_status [Cairo 1.2.0]	

		cairo_surface_write_to_png_stream [Cairo 1.2.0]
cairo_surface_write_to_png_stream [Cairo 1.2.0]	cairo_svg_get_versions [Cairo 1.2.0]	cairo_svg_surface_create_for_stream [Cairo 1.2.0]
cairo_svg_surface_create_for_stream [Cairo 1.2.0]	cairo_svg_surface_restrict_to_version [Cairo 1.2.0]	cairo_svg_version_string [Cairo 1.2.0]
cairo_text_extents [Cairo 1.2.0]	cairo_text_path [Cairo 1.2.0]	cairo_transform [Cairo 1.2.0]
cairo_translate [Cairo 1.2.0]	cairo_user_to_device [Cairo 1.2.0]	cairo_user_to_device [Cairo 1.2.0]
cairo_version [Cairo 1.2.0]	cairo_version_string [Cairo 1.2.0]	cairo_xlib_surface_create [Cairo 1.2.0]
cairo_xlib_surface_create_for_bitmap [Cairo 1.2.0]	cairo_xlib_surface_create_with_xrender_format [Cairo 1.2.0]	cairo_xlib_surface_create_with_xrender_format [Cairo 1.2.0]
cairo_xlib_surface_get_display [Cairo 1.2.0]	cairo_xlib_surface_get_drawable [Cairo 1.2.0]	cairo_xlib_surface_get_screen [Cairo 1.2.0]
cairo_xlib_surface_get_screen [Cairo 1.2.0]	cairo_xlib_surface_get_visual [Cairo 1.2.0]	cairo_xlib_surface_get_visual [Cairo 1.2.0]
cairo_xlib_surface_set_drawable [Cairo 1.2.0]	cairo_xlib_surface_set_size [Cairo 1.2.0]	

15.2. Data Definitions for libcairo

This section defines global identifiers and their values that are associated with interfaces contained in libcairo. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

15.2.1. cairo/cairo-features.h

```
#define CAIRO_HAS_FT_FONT      1
#define CAIRO_HAS_PDF_SURFACE  1
#define CAIRO_HAS_PNG_FUNCTIONS 1
#define CAIRO_HAS_PS_SURFACE   1
#define CAIRO_HAS_SVG_SURFACE  1
#define CAIRO_HAS_XLIB_SURFACE  1
#define CAIRO_HAS_XLIB_XRENDER_SURFACE  1
#define CAIRO_VERSION_MAJOR    1
#define CAIRO_VERSION_STRING    "1.2.4"
#define CAIRO_VERSION_MINOR    2
```

```
#define CAIRO_VERSION_MICRO 4
```

15.2.2. cairo/cairo-ft.h

```
extern cairo_font_face_t *cairo_ft_font_face_create_for_ft_face(FT_Face
                                                                face,
                                                                int
                                                                load_flags);
extern cairo_font_face_t *cairo_ft_font_face_create_for_pattern(FcPattern *
                                                                pattern);
extern void cairo_ft_font_options_substitute(const cairo_font_options_t *
                                             options, FcPattern * pattern);
extern void cairo_ft_scaled_font_lock_face(cairo_scaled_font_t *
                                           scaled_font);
extern void cairo_ft_scaled_font_unlock_face(cairo_scaled_font_t *
                                             scaled_font);
```

15.2.3. cairo/cairo-pdf.h

```
extern cairo_surface_t *cairo_pdf_surface_create(const char *filename,
                                                  double width_in_points,
                                                  double height_in_points);
extern cairo_surface_t
    *cairo_pdf_surface_create_for_stream(cairo_write_func_t write_func,
                                         void *closure,
                                         double width_in_points,
                                         double height_in_points);
extern void cairo_pdf_surface_set_size(cairo_surface_t * surface,
                                       double width_in_points,
                                       double height_in_points);
```

15.2.4. cairo/cairo-ps.h

```
extern cairo_surface_t *cairo_ps_surface_create(const char *filename,
                                                  double width_in_points,
                                                  double height_in_points);
extern cairo_surface_t
    *cairo_ps_surface_create_for_stream(cairo_write_func_t write_func,
                                         void *closure,
                                         double width_in_points,
                                         double height_in_points);
extern void cairo_ps_surface_dsc_begin_page_setup(cairo_surface_t *
                                                  surface);
extern void cairo_ps_surface_dsc_begin_setup(cairo_surface_t * surface);
extern void cairo_ps_surface_dsc_comment(cairo_surface_t * surface,
                                         const char *comment);
extern void cairo_ps_surface_set_size(cairo_surface_t * surface,
                                       double width_in_points,
                                       double height_in_points);
```

15.2.5. cairo/cairo-svg.h

```
typedef enum _cairo_svg_version {
    CAIRO_SVG_VERSION_1_1,
    CAIRO_SVG_VERSION_1_2 = 1
} cairo_svg_version_t;
```

```
extern void cairo_svg_get_versions(const cairo_svg_version_t * *versions,
                                  int *num_versions);
extern cairo_surface_t *cairo_svg_surface_create(const char *filename,
                                                  double width_in_points,
                                                  double height_in_points);
extern cairo_surface_t
    *cairo_svg_surface_create_for_stream(cairo_write_func_t write_func,
                                         void *closure,
                                         double width_in_points,
                                         double height_in_points);
extern void cairo_svg_surface_restrict_to_version(cairo_surface_t *
                                                  surface,
                                                  cairo_svg_version_t
                                                  version);
extern const char *cairo_svg_version_to_string(cairo_svg_version_t
                                              version);
```

15.2.6. cairo/cairo-xlib-xrender.h

```
extern cairo_surface_t
    *cairo_xlib_surface_create_with_xrender_format(Display * dpy,
                                                    Drawable drawable,
                                                    Screen * screen,
                                                    XRenderPictFormat *
                                                    format, int width,
                                                    int height);
```

15.2.7. cairo/cairo-xlib.h

```
extern cairo_surface_t *cairo_xlib_surface_create(Display * dpy,
                                                  Drawable drawable,
                                                  Visual * visual,
                                                  int width, int height);
extern cairo_surface_t *cairo_xlib_surface_create_for_bitmap(Display * dpy,
                                                             Pixmap bitmap,
                                                             Screen *
                                                             screen,
                                                             int width,
                                                             int height);
extern int cairo_xlib_surface_get_depth(cairo_surface_t * surface);
extern Display *cairo_xlib_surface_get_display(cairo_surface_t * surface);
extern Drawable cairo_xlib_surface_get_drawable(cairo_surface_t * surface);
extern int cairo_xlib_surface_get_height(cairo_surface_t * surface);
extern Screen *cairo_xlib_surface_get_screen(cairo_surface_t * surface);
extern Visual *cairo_xlib_surface_get_visual(cairo_surface_t * surface);
extern int cairo_xlib_surface_get_width(cairo_surface_t * surface);
extern void cairo_xlib_surface_set_drawable(cairo_surface_t * surface,
                                             Drawable drawable, int width,
                                             int height);
extern void cairo_xlib_surface_set_size(cairo_surface_t * surface,
                                         int width, int height);
```

15.2.8. cairo/cairo.h

```
#define CAIRO_VERSION \
    CAIRO_VERSION_ENCODE( CAIRO_VERSION_MAJOR, CAIRO_VERSION_MINOR, \
        CAIRO_VERSION_MICRO)
#define CAIRO_VERSION_ENCODE(major, minor, micro) (\
```

```

    ((major) * 10000) \
+ ((minor) * 100) \
+ ((micro) * 1))

typedef int cairo_bool_t;
typedef struct _cairo cairo_t;
typedef struct _cairo_surface cairo_surface_t;
typedef struct _cairo_matrix {
    double xx;
    double yx;
    double xy;
    double yy;
    double x0;
    double y0;
} cairo_matrix_t;
typedef struct _cairo_pattern cairo_pattern_t;
typedef void (*cairo_destroy_func_t) (void *);
typedef struct _cairo_user_data_key {
    int unused;
} cairo_user_data_key_t;
typedef enum _cairo_status {
    CAIRO_STATUS_SUCCESS,
    CAIRO_STATUS_NO_MEMORY = 1,
    CAIRO_STATUS_INVALID_RESTORE = 2,
    CAIRO_STATUS_INVALID_POP_GROUP = 3,
    CAIRO_STATUS_NO_CURRENT_POINT = 4,
    CAIRO_STATUS_INVALID_MATRIX = 5,
    CAIRO_STATUS_INVALID_STATUS = 6,
    CAIRO_STATUS_NULL_POINTER = 7,
    CAIRO_STATUS_INVALID_STRING = 8,
    CAIRO_STATUS_INVALID_PATH_DATA = 9,
    CAIRO_STATUS_READ_ERROR = 10,
    CAIRO_STATUS_WRITE_ERROR = 11,
    CAIRO_STATUS_SURFACE_FINISHED = 12,
    CAIRO_STATUS_SURFACE_TYPE_MISMATCH = 13,
    CAIRO_STATUS_PATTERN_TYPE_MISMATCH = 14,
    CAIRO_STATUS_INVALID_CONTENT = 15,
    CAIRO_STATUS_INVALID_FORMAT = 16,
    CAIRO_STATUS_INVALID_VISUAL = 17,
    CAIRO_STATUS_FILE_NOT_FOUND = 18,
    CAIRO_STATUS_INVALID_DASH = 19,
    CAIRO_STATUS_INVALID_DSC_COMMENT = 20,
    CAIRO_STATUS_INVALID_INDEX = 21,
    CAIRO_STATUS_CLIP_NOT_REPRESENTABLE = 22
} cairo_status_t;
typedef enum _cairo_content {
    CAIRO_CONTENT_COLOR = 4096,
    CAIRO_CONTENT_ALPHA = 8192,
    CAIRO_CONTENT_COLOR_ALPHA = 12288
} cairo_content_t;
typedef cairo_status_t (*cairo_write_func_t) (void *, const unsigned char *,
                                              unsigned int);
typedef cairo_status_t (*cairo_read_func_t) (void *, unsigned char *,
                                              unsigned int);
typedef enum _cairo_operator {
    CAIRO_OPERATOR_CLEAR,
    CAIRO_OPERATOR_SOURCE = 1,
    CAIRO_OPERATOR_OVER = 2,
    CAIRO_OPERATOR_IN = 3,
    CAIRO_OPERATOR_OUT = 4,
    CAIRO_OPERATOR_ATOP = 5,
    CAIRO_OPERATOR_DEST = 6,

```

```

    CAIRO_OPERATOR_DEST_OVER = 7,
    CAIRO_OPERATOR_DEST_IN = 8,
    CAIRO_OPERATOR_DEST_OUT = 9,
    CAIRO_OPERATOR_DEST_ATOP = 10,
    CAIRO_OPERATOR_XOR = 11,
    CAIRO_OPERATOR_ADD = 12,
    CAIRO_OPERATOR_SATURATE = 13
} cairo_operator_t;
typedef enum _cairo_antialias {
    CAIRO_ANTIALIAS_DEFAULT,
    CAIRO_ANTIALIAS_NONE = 1,
    CAIRO_ANTIALIAS_GRAY = 2,
    CAIRO_ANTIALIAS_SUBPIXEL = 3
} cairo_antialias_t;
typedef enum _cairo_fill_rule {
    CAIRO_FILL_RULE_WINDING,
    CAIRO_FILL_RULE_EVEN_ODD = 1
} cairo_fill_rule_t;
typedef enum _cairo_line_cap {
    CAIRO_LINE_CAP_BUTT,
    CAIRO_LINE_CAP_ROUND = 1,
    CAIRO_LINE_CAP_SQUARE = 2
} cairo_line_cap_t;
typedef enum _cairo_line_join {
    CAIRO_LINE_JOIN_MITER,
    CAIRO_LINE_JOIN_ROUND = 1,
    CAIRO_LINE_JOIN_BEVEL = 2
} cairo_line_join_t;
typedef struct _cairo_scaled_font cairo_scaled_font_t;
typedef struct _cairo_font_face cairo_font_face_t;
typedef struct {
    long unsigned int index;
    double x;
    double y;
} cairo_glyph_t;
typedef struct {
    double x_bearing;
    double y_bearing;
    double width;
    double height;
    double x_advance;
    double y_advance;
} cairo_text_extents_t;
typedef struct {
    double ascent;
    double descent;
    double height;
    double max_x_advance;
    double max_y_advance;
} cairo_font_extents_t;
typedef enum _cairo_font_slant {
    CAIRO_FONT_SLANT_NORMAL,
    CAIRO_FONT_SLANT_ITALIC = 1,
    CAIRO_FONT_SLANT_OBLIQUE = 2
} cairo_font_slant_t;
typedef enum _cairo_font_weight {
    CAIRO_FONT_WEIGHT_NORMAL,
    CAIRO_FONT_WEIGHT_BOLD = 1
} cairo_font_weight_t;
typedef enum _cairo_subpixel_order {
    CAIRO_SUBPIXEL_ORDER_DEFAULT,
    CAIRO_SUBPIXEL_ORDER_RGB = 1,

```

```

    CAIRO_SUBPIXEL_ORDER_BGR = 2,
    CAIRO_SUBPIXEL_ORDER_VRGB = 3,
    CAIRO_SUBPIXEL_ORDER_VBGR = 4
} cairo_subpixel_order_t;
typedef enum _cairo_hint_style {
    CAIRO_HINT_STYLE_DEFAULT,
    CAIRO_HINT_STYLE_NONE = 1,
    CAIRO_HINT_STYLE_SLIGHT = 2,
    CAIRO_HINT_STYLE_MEDIUM = 3,
    CAIRO_HINT_STYLE_FULL = 4
} cairo_hint_style_t;
typedef enum _cairo_hint_metrics {
    CAIRO_HINT_METRICS_DEFAULT,
    CAIRO_HINT_METRICS_OFF = 1,
    CAIRO_HINT_METRICS_ON = 2
} cairo_hint_metrics_t;
typedef struct _cairo_font_options cairo_font_options_t;
typedef enum _cairo_font_type {
    CAIRO_FONT_TYPE_TOY,
    CAIRO_FONT_TYPE_FT = 1,
    CAIRO_FONT_TYPE_WIN32 = 2,
    CAIRO_FONT_TYPE_ATSUI = 3
} cairo_font_type_t;
typedef enum _cairo_path_data_type {
    CAIRO_PATH_MOVE_TO,
    CAIRO_PATH_LINE_TO = 1,
    CAIRO_PATH_CURVE_TO = 2,
    CAIRO_PATH_CLOSE_PATH = 3
} cairo_path_data_type_t;
typedef union _cairo_path_data_t {
    struct {
        cairo_path_data_type_t type;
        int length;
    } header;
    struct {
        double x;
        double y;
    } point;
} cairo_path_data_t;
typedef struct cairo_path {
    cairo_status_t status;
    cairo_path_data_t *data;
    int num_data;
} cairo_path_t;
typedef enum _cairo_surface_type {
    CAIRO_SURFACE_TYPE_IMAGE,
    CAIRO_SURFACE_TYPE_PDF = 1,
    CAIRO_SURFACE_TYPE_PS = 2,
    CAIRO_SURFACE_TYPE_XLIB = 3,
    CAIRO_SURFACE_TYPE_XCB = 4,
    CAIRO_SURFACE_TYPE_GLITZ = 5,
    CAIRO_SURFACE_TYPE_QUARTZ = 6,
    CAIRO_SURFACE_TYPE_WIN32 = 7,
    CAIRO_SURFACE_TYPE_BEOS = 8,
    CAIRO_SURFACE_TYPE_DIRECTFB = 9,
    CAIRO_SURFACE_TYPE_SVG = 10,
    CAIRO_SURFACE_TYPE_OS2 = 11
} cairo_surface_type_t;
typedef enum _cairo_format {
    CAIRO_FORMAT_ARGB32,
    CAIRO_FORMAT_RGB24 = 1,
    CAIRO_FORMAT_A8 = 2,

```



```

    CAIRO_FORMAT_A1 = 3,
    CAIRO_FORMAT_RGB16_565 = 4
} cairo_format_t;
typedef enum _cairo_pattern_type {
    CAIRO_PATTERN_TYPE_SOLID,
    CAIRO_PATTERN_TYPE_SURFACE = 1,
    CAIRO_PATTERN_TYPE_LINEAR = 2,
    CAIRO_PATTERN_TYPE_RADIAL = 3
} cairo_pattern_type_t;
typedef enum _cairo_extend {
    CAIRO_EXTEND_NONE,
    CAIRO_EXTEND_REPEAT = 1,
    CAIRO_EXTEND_REFLECT = 2,
    CAIRO_EXTEND_PAD = 3
} cairo_extend_t;
typedef enum _cairo_filter {
    CAIRO_FILTER_FAST,
    CAIRO_FILTER_GOOD = 1,
    CAIRO_FILTER_BEST = 2,
    CAIRO_FILTER_NEAREST = 3,
    CAIRO_FILTER_BILINEAR = 4,
    CAIRO_FILTER_GAUSSIAN = 5
} cairo_filter_t;
extern void cairo_append_path(cairo_t * cr, const cairo_path_t * path);
extern void cairo_arc(cairo_t * cr, double xc, double yc, double radius,
                     double angle1, double angle2);
extern void cairo_arc_negative(cairo_t * cr, double xc, double yc,
                              double radius, double angle1,
                              double angle2);
extern void cairo_clip(cairo_t * cr);
extern void cairo_clip_preserve(cairo_t * cr);
extern void cairo_close_path(cairo_t * cr);
extern void cairo_copy_page(cairo_t * cr);
extern cairo_path_t *cairo_copy_path(cairo_t * cr);
extern cairo_path_t *cairo_copy_path_flat(cairo_t * cr);
extern cairo_t *cairo_create(cairo_surface_t * target);
extern void cairo_curve_to(cairo_t * cr, double x1, double y1, double x2,
                          double y2, double x3, double y3);
extern void cairo_destroy(cairo_t * cr);
extern void cairo_device_to_user(cairo_t * cr, double *x, double *y);
extern void cairo_device_to_user_distance(cairo_t * cr, double *dx,
                                         double *dy);
extern void cairo_fill(cairo_t * cr);
extern void cairo_fill_extents(cairo_t * cr, double *x1, double *y1,
                              double *x2, double *y2);
extern void cairo_fill_preserve(cairo_t * cr);
extern void cairo_font_extents(cairo_t * cr,
                              cairo_font_extents_t * extents);
extern void cairo_font_face_destroy(cairo_font_face_t * font_face);
extern cairo_font_type_t cairo_font_face_get_type(cairo_font_face_t *
                                                  font_face);
extern void *cairo_font_face_get_user_data(cairo_font_face_t * font_face,
                                           const cairo_user_data_key_t *
                                           key);
extern cairo_font_face_t *cairo_font_face_reference(cairo_font_face_t *
                                                    font_face);
extern cairo_status_t cairo_font_face_set_user_data(cairo_font_face_t *
                                                    font_face,
                                                    const
                                                    cairo_user_data_key_t *
                                                    key, void *user_data,
                                                    cairo_destroy_func_t

```

```

                                destroy);
extern cairo_status_t cairo_font_face_status(cairo_font_face_t *
                                font_face);
extern cairo_font_options_t *cairo_font_options_copy(const
                                cairo_font_options_t *
                                original);
extern cairo_font_options_t *cairo_font_options_create(void);
extern void cairo_font_options_destroy(cairo_font_options_t * options);
extern cairo_bool_t cairo_font_options_equal(const cairo_font_options_t *
                                options,
                                const cairo_font_options_t *
                                other);
extern cairo_antialias_t cairo_font_options_get_antialias(const
                                cairo_font_options_t
                                * options);
extern cairo_hint_metrics_t cairo_font_options_get_hint_metrics(const
                                cairo_font_options_t
                                * options);
extern cairo_hint_style_t cairo_font_options_get_hint_style(const
                                cairo_font_options_t
                                * options);
extern cairo_subpixel_order_t cairo_font_options_get_subpixel_order(const
                                cairo_font_options_t
                                *
                                options);
extern long unsigned int cairo_font_options_hash(const cairo_font_options_t
                                * options);
extern void cairo_font_options_merge(cairo_font_options_t * options,
                                const cairo_font_options_t * other);
extern void cairo_font_options_set_antialias(cairo_font_options_t *
                                options,
                                cairo_antialias_t antialias);
extern void cairo_font_options_set_hint_metrics(cairo_font_options_t *
                                options,
                                cairo_hint_metrics_t
                                hint_metrics);
extern void cairo_font_options_set_hint_style(cairo_font_options_t *
                                options,
                                cairo_hint_style_t
                                hint_style);
extern void cairo_font_options_set_subpixel_order(cairo_font_options_t *
                                options,
                                cairo_subpixel_order_t
                                subpixel_order);
extern cairo_status_t cairo_font_options_status(cairo_font_options_t *
                                options);
extern cairo_antialias_t cairo_get_antialias(cairo_t * cr);
extern void cairo_get_current_point(cairo_t * cr, double *x, double *y);
extern cairo_fill_rule_t cairo_get_fill_rule(cairo_t * cr);
extern cairo_font_face_t *cairo_get_font_face(cairo_t * cr);
extern void cairo_get_font_matrix(cairo_t * cr, cairo_matrix_t * matrix);
extern void cairo_get_font_options(cairo_t * cr,
                                cairo_font_options_t * options);
extern cairo_surface_t *cairo_get_group_target(cairo_t * cr);
extern cairo_line_cap_t cairo_get_line_cap(cairo_t * cr);
extern cairo_line_join_t cairo_get_line_join(cairo_t * cr);
extern double cairo_get_line_width(cairo_t * cr);
extern void cairo_get_matrix(cairo_t * cr, cairo_matrix_t * matrix);
extern double cairo_get_miter_limit(cairo_t * cr);
extern cairo_operator_t cairo_get_operator(cairo_t * cr);
extern cairo_pattern_t *cairo_get_source(cairo_t * cr);
extern cairo_surface_t *cairo_get_target(cairo_t * cr);

```

```

extern double cairo_get_tolerance(cairo_t * cr);
extern void cairo_glyph_extents(cairo_t * cr, const cairo_glyph_t * glyphs,
                                int num_glyphs,
                                cairo_text_extents_t * extents);
extern void cairo_glyph_path(cairo_t * cr, const cairo_glyph_t * glyphs,
                             int num_glyphs);
extern void cairo_identity_matrix(cairo_t * cr);
extern cairo_surface_t *cairo_image_surface_create(cairo_format_t format,
                                                    int width, int height);
extern cairo_surface_t *cairo_image_surface_create_for_data(unsigned char
                                                            *data,
                                                            cairo_format_t
                                                            format,
                                                            int width,
                                                            int height,
                                                            int stride);
extern cairo_surface_t *cairo_image_surface_create_from_png(const char
                                                            *filename);
extern cairo_surface_t
    *cairo_image_surface_create_from_png_stream(cairo_read_func_t
                                                read_func, void *closure);
extern unsigned char *cairo_image_surface_get_data(cairo_surface_t *
                                                    surface);
extern cairo_format_t cairo_image_surface_get_format(cairo_surface_t *
                                                    surface);
extern int cairo_image_surface_get_height(cairo_surface_t * surface);
extern int cairo_image_surface_get_stride(cairo_surface_t * surface);
extern int cairo_image_surface_get_width(cairo_surface_t * surface);
extern cairo_bool_t cairo_in_fill(cairo_t * cr, double x, double y);
extern cairo_bool_t cairo_in_stroke(cairo_t * cr, double x, double y);
extern void cairo_line_to(cairo_t * cr, double x, double y);
extern void cairo_mask(cairo_t * cr, cairo_pattern_t * pattern);
extern void cairo_mask_surface(cairo_t * cr, cairo_surface_t * surface,
                               double surface_x, double surface_y);
extern void cairo_matrix_init(cairo_matrix_t * matrix, double xx,
                              double yx, double xy, double yy, double x0,
                              double y0);
extern void cairo_matrix_init_identity(cairo_matrix_t * matrix);
extern void cairo_matrix_init_rotate(cairo_matrix_t * matrix,
                                     double radians);
extern void cairo_matrix_init_scale(cairo_matrix_t * matrix, double sx,
                                   double sy);
extern void cairo_matrix_init_translate(cairo_matrix_t * matrix, double tx,
                                       double ty);
extern cairo_status_t cairo_matrix_invert(cairo_matrix_t * matrix);
extern void cairo_matrix_multiply(cairo_matrix_t * result,
                                  const cairo_matrix_t * a,
                                  const cairo_matrix_t * b);
extern void cairo_matrix_rotate(cairo_matrix_t * matrix, double radians);
extern void cairo_matrix_scale(cairo_matrix_t * matrix, double sx,
                              double sy);
extern void cairo_matrix_transform_distance(const cairo_matrix_t * matrix,
                                           double *dx, double *dy);
extern void cairo_matrix_transform_point(const cairo_matrix_t * matrix,
                                         double *x, double *y);
extern void cairo_matrix_translate(cairo_matrix_t * matrix, double tx,
                                  double ty);
extern void cairo_move_to(cairo_t * cr, double x, double y);
extern void cairo_new_path(cairo_t * cr);
extern void cairo_new_sub_path(cairo_t * cr);
extern void cairo_paint(cairo_t * cr);
extern void cairo_paint_with_alpha(cairo_t * cr, double alpha);

```

```

extern void cairo_path_destroy(cairo_path_t * path);
extern void cairo_pattern_add_color_stop_rgb(cairo_pattern_t * pattern,
                                             double offset, double red,
                                             double green, double blue);
extern void cairo_pattern_add_color_stop_rgba(cairo_pattern_t * pattern,
                                              double offset, double red,
                                              double green, double blue,
                                              double alpha);
extern cairo_pattern_t *cairo_pattern_create_for_surface(cairo_surface_t *
                                                         surface);
extern cairo_pattern_t *cairo_pattern_create_linear(double x0, double y0,
                                                    double x1, double y1);
extern cairo_pattern_t *cairo_pattern_create_radial(double cx0, double cy0,
                                                    double radius0,
                                                    double cx1, double cy1,
                                                    double radius1);
extern cairo_pattern_t *cairo_pattern_create_rgb(double red, double green,
                                                  double blue);
extern cairo_pattern_t *cairo_pattern_create_rgba(double red, double green,
                                                  double blue,
                                                  double alpha);
extern void cairo_pattern_destroy(cairo_pattern_t * pattern);
extern cairo_extend_t cairo_pattern_get_extend(cairo_pattern_t * pattern);
extern cairo_filter_t cairo_pattern_get_filter(cairo_pattern_t * pattern);
extern void cairo_pattern_get_matrix(cairo_pattern_t * pattern,
                                     cairo_matrix_t * matrix);
extern cairo_pattern_type_t cairo_pattern_get_type(cairo_pattern_t *
                                                    pattern);
extern cairo_pattern_t *cairo_pattern_reference(cairo_pattern_t * pattern);
extern void cairo_pattern_set_extend(cairo_pattern_t * pattern,
                                     cairo_extend_t extend);
extern void cairo_pattern_set_filter(cairo_pattern_t * pattern,
                                     cairo_filter_t filter);
extern void cairo_pattern_set_matrix(cairo_pattern_t * pattern,
                                     const cairo_matrix_t * matrix);
extern cairo_status_t cairo_pattern_status(cairo_pattern_t * pattern);
extern cairo_pattern_t *cairo_pop_group(cairo_t * cr);
extern void cairo_pop_group_to_source(cairo_t * cr);
extern void cairo_push_group(cairo_t * cr);
extern void cairo_push_group_with_content(cairo_t * cr,
                                          cairo_content_t content);
extern void cairo_rectangle(cairo_t * cr, double x, double y, double width,
                           double height);
extern cairo_t *cairo_reference(cairo_t * cr);
extern void cairo_rel_curve_to(cairo_t * cr, double dx1, double dy1,
                              double dx2, double dy2, double dx3,
                              double dy3);
extern void cairo_rel_line_to(cairo_t * cr, double dx, double dy);
extern void cairo_rel_move_to(cairo_t * cr, double dx, double dy);
extern void cairo_reset_clip(cairo_t * cr);
extern void cairo_restore(cairo_t * cr);
extern void cairo_rotate(cairo_t * cr, double angle);
extern void cairo_save(cairo_t * cr);
extern void cairo_scale(cairo_t * cr, double sx, double sy);
extern cairo_scaled_font_t *cairo_scaled_font_create(cairo_font_face_t *
                                                     font_face,
                                                     const cairo_matrix_t *
                                                     font_matrix,
                                                     const cairo_matrix_t *
                                                     ctm,
                                                     const
                                                     cairo_font_options_t *

```

```

options);
extern void cairo_scaled_font_destroy(cairo_scaled_font_t * scaled_font);
extern void cairo_scaled_font_extents(cairo_scaled_font_t * scaled_font,
                                     cairo_font_extents_t * extents);
extern void cairo_scaled_font_get_ctm(cairo_scaled_font_t * scaled_font,
                                     cairo_matrix_t * ctm);
extern cairo_font_face_t
    *cairo_scaled_font_get_font_face(cairo_scaled_font_t * scaled_font);
extern void cairo_scaled_font_get_font_matrix(cairo_scaled_font_t *
                                             scaled_font,
                                             cairo_matrix_t *
                                             font_matrix);
extern void cairo_scaled_font_get_font_options(cairo_scaled_font_t *
                                              scaled_font,
                                              cairo_font_options_t *
                                              options);
extern cairo_font_type_t cairo_scaled_font_get_type(cairo_scaled_font_t *
                                                    scaled_font);
extern void cairo_scaled_font_glyph_extents(cairo_scaled_font_t *
                                             scaled_font,
                                             const cairo_glyph_t * glyphs,
                                             int num_glyphs,
                                             cairo_text_extents_t *
                                             extents);
extern cairo_scaled_font_t *cairo_scaled_font_reference(cairo_scaled_font_t
                                                         * scaled_font);
extern cairo_status_t cairo_scaled_font_status(cairo_scaled_font_t *
                                              scaled_font);
extern void cairo_scaled_font_text_extents(cairo_scaled_font_t *
                                           scaled_font, const char *utf8,
                                           cairo_text_extents_t * extents);
extern void cairo_select_font_face(cairo_t * cr, const char *family,
                                   cairo_font_slant_t slant,
                                   cairo_font_weight_t weight);
extern void cairo_set_antialias(cairo_t * cr, cairo_antialias_t antialias);
extern void cairo_set_dash(cairo_t * cr, const double *dashes,
                           int num_dashes, double offset);
extern void cairo_set_fill_rule(cairo_t * cr, cairo_fill_rule_t fill_rule);
extern void cairo_set_font_face(cairo_t * cr,
                                cairo_font_face_t * font_face);
extern void cairo_set_font_matrix(cairo_t * cr,
                                  const cairo_matrix_t * matrix);
extern void cairo_set_font_options(cairo_t * cr,
                                   const cairo_font_options_t * options);
extern void cairo_set_font_size(cairo_t * cr, double size);
extern void cairo_set_line_cap(cairo_t * cr, cairo_line_cap_t line_cap);
extern void cairo_set_line_join(cairo_t * cr, cairo_line_join_t line_join);
extern void cairo_set_line_width(cairo_t * cr, double width);
extern void cairo_set_matrix(cairo_t * cr, const cairo_matrix_t * matrix);
extern void cairo_set_miter_limit(cairo_t * cr, double limit);
extern void cairo_set_operator(cairo_t * cr, cairo_operator_t op);
extern void cairo_set_scaled_font(cairo_t * cr,
                                  const cairo_scaled_font_t * scaled_font);
extern void cairo_set_source(cairo_t * cr, cairo_pattern_t * source);
extern void cairo_set_source_rgb(cairo_t * cr, double red, double green,
                                double blue);
extern void cairo_set_source_rgba(cairo_t * cr, double red, double green,
                                  double blue, double alpha);
extern void cairo_set_source_surface(cairo_t * cr,
                                    cairo_surface_t * surface, double x,
                                    double y);
extern void cairo_set_tolerance(cairo_t * cr, double tolerance);

```

```

extern void cairo_show_glyphs(cairo_t * cr, const cairo_glyph_t * glyphs,
                              int num_glyphs);
extern void cairo_show_page(cairo_t * cr);
extern void cairo_show_text(cairo_t * cr, const char *utf8);
extern cairo_status_t cairo_status(cairo_t * cr);
extern const char *cairo_status_to_string(cairo_status_t status);
extern void cairo_stroke(cairo_t * cr);
extern void cairo_stroke_extents(cairo_t * cr, double *x1, double *y1,
                                 double *x2, double *y2);
extern void cairo_stroke_preserve(cairo_t * cr);
extern cairo_surface_t *cairo_surface_create_similar(cairo_surface_t *
                                                    other,
                                                    cairo_content_t
                                                    content, int width,
                                                    int height);
extern void cairo_surface_destroy(cairo_surface_t * surface);
extern void cairo_surface_finish(cairo_surface_t * surface);
extern void cairo_surface_flush(cairo_surface_t * surface);
extern cairo_content_t cairo_surface_get_content(cairo_surface_t *
                                                surface);
extern void cairo_surface_get_device_offset(cairo_surface_t * surface,
                                           double *x_offset,
                                           double *y_offset);
extern void cairo_surface_get_font_options(cairo_surface_t * surface,
                                           cairo_font_options_t * options);
extern cairo_surface_type_t cairo_surface_get_type(cairo_surface_t *
                                                  surface);
extern void *cairo_surface_get_user_data(cairo_surface_t * surface,
                                         const cairo_user_data_key_t *
                                         key);
extern void cairo_surface_mark_dirty(cairo_surface_t * surface);
extern void cairo_surface_mark_dirty_rectangle(cairo_surface_t * surface,
                                              int x, int y, int width,
                                              int height);
extern cairo_surface_t *cairo_surface_reference(cairo_surface_t * surface);
extern void cairo_surface_set_device_offset(cairo_surface_t * surface,
                                           double x_offset,
                                           double y_offset);
extern void cairo_surface_set_fallback_resolution(cairo_surface_t *
                                                  surface,
                                                  double x_pixels_per_inch,
                                                  double
                                                  y_pixels_per_inch);
extern cairo_status_t cairo_surface_set_user_data(cairo_surface_t *
                                                  surface,
                                                  const
                                                  cairo_user_data_key_t *
                                                  key, void *user_data,
                                                  cairo_destroy_func_t
                                                  destroy);
extern cairo_status_t cairo_surface_status(cairo_surface_t * surface);
extern cairo_status_t cairo_surface_write_to_png(cairo_surface_t * surface,
                                                const char *filename);
extern cairo_status_t cairo_surface_write_to_png_stream(cairo_surface_t *
                                                       surface,
                                                       cairo_write_func_t
                                                       write_func,
                                                       void *closure);
extern void cairo_text_extents(cairo_t * cr, const char *utf8,
                               cairo_text_extents_t * extents);
extern void cairo_text_path(cairo_t * cr, const char *utf8);
extern void cairo_transform(cairo_t * cr, const cairo_matrix_t * matrix);

```

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```
extern void cairo_translate(cairo_t * cr, double tx, double ty);
extern void cairo_user_to_device(cairo_t * cr, double *x, double *y);
extern void cairo_user_to_device_distance(cairo_t * cr, double *dx,
                                          double *dy);
extern int cairo_version(void);
extern const char *cairo_version_string(void);
```

XI. GTK+ Stack Libraries

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Chapter 16. Libraries

16.1. Introduction

A conforming implementation shall support the following GTK+ stack libraries which provide interfaces for creating rich graphical user interface applications.

GLib	A general-purpose utility library, not specific to graphical user interfaces. GLib provides many useful data types, macros, type conversions, string utilities, file utilities, a main loop abstraction, and so on.
	libglib-2.0
	libgmodule-2.0
	libgobject-2.0
	libgthread-2.0
ATK	ATK is the Accessibility Toolkit. It provides a set of generic interfaces allowing accessibility technologies to interact with a graphical user interface. For example, a screen reader uses ATK to discover the text in an interface and read it to blind users. GTK+ widgets have built-in support for accessibility using the ATK framework.
	libatk-1.0
Pango	Pango is a library for internationalized text handling. It centers around the PangoLayout object, representing a paragraph of text. Pango provides the engine for GtkTextView, GtkLabel, GtkEntry, and other widgets that display text.
	libpango-1.0
	libpangocairo-1.0
	libpangoft2-1.0
GdkPixbuf	This is a small library which allows you to create GdkPixbuf ("pixel buffer") objects from image data or image files. Use a GdkPixbuf in combination with GtkImage to display images.
	libgdk_pixbuf-2.0
	libgdk_pixbuf_xlib-2.0
GDK	GDK is the abstraction layer that allows GTK+ to support multiple windowing systems. GDK provides drawing and window system facilities on X11, Windows, and the Linux framebuffer device.
	libgdk-x11-2.0
GTK+	The GTK+ library contains widgets, that is, GUI components such as GtkButton or GtkTextView.

libgtk-x11-2.0

There are three main parts to the definition of each of these libraries.

The "Interfaces" section defines the required library name and version, and the required public symbols (interfaces and global data), as well as symbol versions, if any.

The "Interface Definitions" section provides complete or partial definitions of certain interfaces where either this specification is the source specification, or where there are variations from the source specification. If an interface definition requires one or more header files, one of those headers shall include the function prototype for the interface.

For source definitions of interfaces which include a reference to a header file, the contents of such header files form a part of the specification. The "Data Definitions" section provides the binary-level details for the header files from the source specifications, such as values for macros and enumerated types, as well as structure layouts, sizes and padding, etc. These data definitions, although presented in the form of header files for convenience, should not be taken as representing complete header files, as they are a supplement to the source specifications. Application developers should follow the guidelines of the source specifications when determining which header files need to be included to completely resolve all references.

Note: While the Data Definitions supplement the source specifications, this specification itself does not require conforming implementations to supply any header files.

16.2. Interfaces for libglib-2.0

Table 16-1 defines the library name and shared object name for the libglib-2.0 library

Table 16-1. libglib-2.0 Definition

Library:	libglib-2.0
SONAME:	libglib-2.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[Glib 2.12] [Glib 2.12.13 Reference Manual](#)

[LSB] [This Specification](#)

16.2.1. GTK General purpose utility library

16.2.1.1. Interfaces for GTK General purpose utility library

An LSB conforming implementation shall provide the generic functions for GTK General purpose utility library specified in Table 16-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 16-2. libglib-2.0 - GTK General purpose utility library Function Interfaces

<code>g_assert_warning</code> [Glib 2.12]	<code>g_once_impl</code> [Glib 2.12]
<code>g_return_if_fail_warning</code> [Glib 2.12]	<code>g_static_mutex_get_mutex_impl</code> [Glib 2.12]

An LSB conforming implementation shall provide the generic data interfaces for GTK General purpose utility library specified in [Table 16-3](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-3. libglib-2.0 - GTK General purpose utility library Data Interfaces

<code>g_ascii_table</code> [Glib 2.12]	<code>g_child_watch_funcs</code> [Glib 2.12]
<code>g_idle_funcs</code> [Glib 2.12]	<code>g_io_watch_funcs</code> [Glib 2.12]
<code>g_thread_functions_for_glib_use</code> [Glib 2.12]	<code>g_thread_use_default_impl</code> [Glib 2.12]
<code>g_threads_got_initialized</code> [Glib 2.12]	<code>g_timeout_funcs</code> [Glib 2.12]
<code>g_utf8_skip</code> [Glib 2.12]	

16.2.2. Glib Arrays

16.2.2.1. Interfaces for Glib Arrays

An LSB conforming implementation shall provide the generic functions for Glib Arrays specified in [Table 16-4](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-4. libglib-2.0 - Glib Arrays Function Interfaces

<code>g_array_append_vals</code> [Glib 2.12]	<code>g_array_free</code> [Glib 2.12]
<code>g_array_insert_vals</code> [Glib 2.12]	<code>g_array_new</code> [Glib 2.12]
<code>g_array_prepend_vals</code> [Glib 2.12]	<code>g_array_remove_index</code> [Glib 2.12]
<code>g_array_remove_index_fast</code> [Glib 2.12]	<code>g_array_remove_range</code> [Glib 2.12]
<code>g_array_set_size</code> [Glib 2.12]	<code>g_array_sized_new</code> [Glib 2.12]
<code>g_array_sort</code> [Glib 2.12]	<code>g_array_sort_with_data</code> [Glib 2.12]

16.2.3. Glib Asynchronous Queues

16.2.3.1. Interfaces for Glib Asynchronous Queues

An LSB conforming implementation shall provide the generic functions for Glib Asynchronous Queues specified in [Table 16-5](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-5. libglib-2.0 - Glib Asynchronous Queues Function Interfaces

g_async_queue_length [Glib 2.12]	g_async_queue_length_unlocked [Glib 2.12]
g_async_queue_lock [Glib 2.12]	g_async_queue_new [Glib 2.12]
g_async_queue_pop [Glib 2.12]	g_async_queue_pop_unlocked [Glib 2.12]
g_async_queue_push [Glib 2.12]	g_async_queue_push_sorted [Glib 2.12]
g_async_queue_push_sorted_unlocked [Glib 2.12]	g_async_queue_push_unlocked [Glib 2.12]
g_async_queue_ref [Glib 2.12]	g_async_queue_sort [Glib 2.12]
g_async_queue_sort_unlocked [Glib 2.12]	g_async_queue_timed_pop [Glib 2.12]
g_async_queue_timed_pop_unlocked [Glib 2.12]	g_async_queue_try_pop [Glib 2.12]
g_async_queue_try_pop_unlocked [Glib 2.12]	g_async_queue_unlock [Glib 2.12]
g_async_queue_unref [Glib 2.12]	

16.2.4. Glib Atomic Operations

16.2.4.1. Interfaces for Glib Atomic Operations

An LSB conforming implementation shall provide the generic functions for Glib Atomic Operations specified in [Table 16-6](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-6. libglib-2.0 - Glib Atomic Operations Function Interfaces

g_atomic_int_add [Glib 2.12]	g_atomic_int_compare_and_exchange [Glib 2.12]
g_atomic_int_exchange_and_add [Glib 2.12]	g_atomic_pointer_compare_and_exchange [Glib 2.12]

16.2.5. Glib Automatic String Completion

16.2.5.1. Interfaces for Glib Automatic String Completion

An LSB conforming implementation shall provide the generic functions for Glib Automatic String Completion specified in [Table 16-7](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-7. libglib-2.0 - Glib Automatic String Completion Function Interfaces

g_completion_add_items [Glib 2.12]	g_completion_clear_items [Glib 2.12]
g_completion_complete [Glib 2.12]	g_completion_complete_utf8 [Glib 2.12]
g_completion_free [Glib 2.12]	g_completion_new [Glib 2.12]
g_completion_remove_items [Glib 2.12]	g_completion_set_compare [Glib 2.12]

An LSB conforming implementation shall provide the generic deprecated functions for Glib Automatic String Completion specified in [Table 16-8](#), with the full mandatory functionality as described in the referenced

underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 16-8. libglib-2.0 - Glib Automatic String Completion Deprecated Function Interfaces

g_completion_add_items [Glib 2.12]	g_completion_clear_items [Glib 2.12]
g_completion_complete [Glib 2.12]	g_completion_complete_utf8 [Glib 2.12]
g_completion_free [Glib 2.12]	g_completion_new [Glib 2.12]
g_completion_remove_items [Glib 2.12]	g_completion_set_compare [Glib 2.12]

16.2.6. Glib Balanced Binary Trees

16.2.6.1. Interfaces for Glib Balanced Binary Trees

An LSB conforming implementation shall provide the generic functions for Glib Balanced Binary Trees specified in [Table 16-9](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-9. libglib-2.0 - Glib Balanced Binary Trees Function Interfaces

g_tree_destroy [Glib 2.12]	g_tree_foreach [Glib 2.12]
g_tree_height [Glib 2.12]	g_tree_insert [Glib 2.12]
g_tree_lookup [Glib 2.12]	g_tree_lookup_extended [Glib 2.12]
g_tree_new [Glib 2.12]	g_tree_new_full [Glib 2.12]
g_tree_new_with_data [Glib 2.12]	g_tree_nnodes [Glib 2.12]
g_tree_remove [Glib 2.12]	g_tree_replace [Glib 2.12]
g_tree_search [Glib 2.12]	g_tree_steal [Glib 2.12]

16.2.7. Glib Byte Arrays

16.2.7.1. Interfaces for Glib Byte Arrays

An LSB conforming implementation shall provide the generic functions for Glib Byte Arrays specified in [Table 16-10](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-10. libglib-2.0 - Glib Byte Arrays Function Interfaces

g_byte_array_append [Glib 2.12]	g_byte_array_free [Glib 2.12]

g_byte_array_new [Glib 2.12]	g_byte_array_prepend [Glib 2.12]
g_byte_array_remove_index [Glib 2.12]	g_byte_array_remove_index_fast [Glib 2.12]
g_byte_array_remove_range [Glib 2.12]	g_byte_array_set_size [Glib 2.12]
g_byte_array_sized_new [Glib 2.12]	g_byte_array_sort [Glib 2.12]
g_byte_array_sort_with_data [Glib 2.12]	

16.2.8. Glib Caches

16.2.8.1. Interfaces for Glib Caches

An LSB conforming implementation shall provide the generic functions for Glib Caches specified in [Table 16-11](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-11. libglib-2.0 - Glib Caches Function Interfaces

g_cache_destroy [Glib 2.12]	g_cache_insert [Glib 2.12]
g_cache_key_foreach [Glib 2.12]	g_cache_new [Glib 2.12]
g_cache_remove [Glib 2.12]	g_cache_value_foreach [LSB]

An LSB conforming implementation shall provide the generic deprecated functions for Glib Caches specified in [Table 16-12](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 16-12. libglib-2.0 - Glib Caches Deprecated Function Interfaces

g_cache_value_foreach [LSB]	

16.2.9. Glib Character Set Conversion

16.2.9.1. Interfaces for Glib Character Set Conversion

An LSB conforming implementation shall provide the generic functions for Glib Character Set Conversion specified in [Table 16-13](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-13. libglib-2.0 - Glib Character Set Conversion Function Interfaces

g_convert [Glib 2.12]	g_convert_error_quark [Glib 2.12]
g_convert_with_fallback [Glib 2.12]	g_convert_with_iconv [Glib 2.12]

g_filename_display_basename [Glib 2.12]	g_filename_display_name [Glib 2.12]
g_filename_from_uri [Glib 2.12]	g_filename_from_utf8 [Glib 2.12]
g_filename_to_uri [Glib 2.12]	g_filename_to_utf8 [Glib 2.12]
g_get_charset [Glib 2.12]	g_get_filename_charsets [Glib 2.12]
g_iconv [Glib 2.12]	g_iconv_close [Glib 2.12]
g_iconv_open [Glib 2.12]	g_locale_from_utf8 [Glib 2.12]
g_locale_to_utf8 [Glib 2.12]	g_uri_list_extract_uris [Glib 2.12]

16.2.10. Glib Commandline Option Parser

16.2.10.1. Interfaces for Glib Commandline Option Parser

An LSB conforming implementation shall provide the generic functions for Glib Commandline Option Parser specified in [Table 16-14](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-14. libglib-2.0 - Glib Commandline Option Parser Function Interfaces

g_option_context_add_group [Glib 2.12]	g_option_context_add_main_entries [Glib 2.12]
g_option_context_free [Glib 2.12]	g_option_context_get_description [Glib 2.12]
g_option_context_get_help_enabled [Glib 2.12]	g_option_context_get_ignore_unknown_options [Glib 2.12]
g_option_context_get_main_group [Glib 2.12]	g_option_context_get_summary [Glib 2.12]
g_option_context_new [Glib 2.12]	g_option_context_parse [Glib 2.12]
g_option_context_set_description [Glib 2.12]	g_option_context_set_help_enabled [Glib 2.12]
g_option_context_set_ignore_unknown_options [Glib 2.12]	g_option_context_set_main_group [Glib 2.12]
g_option_context_set_summary [Glib 2.12]	g_option_context_set_translate_func [Glib 2.12]
g_option_context_set_translation_domain [Glib 2.12]	g_option_error_quark [Glib 2.12]
g_option_group_add_entries [Glib 2.12]	g_option_group_free [Glib 2.12]
g_option_group_new [Glib 2.12]	g_option_group_set_error_hook [Glib 2.12]
g_option_group_set_parse_hooks [Glib 2.12]	g_option_group_set_translate_func [Glib 2.12]
g_option_group_set_translation_domain [Glib 2.12]	

16.2.11. Glib Datasets

16.2.11.1. Interfaces for Glib Datasets

An LSB conforming implementation shall provide the generic functions for Glib Datasets specified in [Table 16-15](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-15. libglib-2.0 - Glib Datasets Function Interfaces

g_dataset_destroy [Glib 2.12]	g_dataset_foreach [Glib 2.12]
g_dataset_id_get_data [Glib 2.12]	g_dataset_id_remove_no_notify [Glib 2.12]
g_dataset_id_set_data_full [Glib 2.12]	

16.2.12. Glib Date and Time Functions

16.2.12.1. Interfaces for Glib Date and Time Functions

An LSB conforming implementation shall provide the generic functions for Glib Date and Time Functions specified in [Table 16-16](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-16. libglib-2.0 - Glib Date and Time Functions Function Interfaces

g_date_add_days [Glib 2.12]	g_date_add_months [Glib 2.12]
g_date_add_years [Glib 2.12]	g_date_clamp [Glib 2.12]
g_date_clear [Glib 2.12]	g_date_compare [Glib 2.12]
g_date_days_between [Glib 2.12]	g_date_free [Glib 2.12]
g_date_get_day [Glib 2.12]	g_date_get_day_of_year [Glib 2.12]
g_date_get_days_in_month [Glib 2.12]	g_date_get_iso8601_week_of_year [Glib 2.12]
g_date_get_julian [Glib 2.12]	g_date_get_monday_week_of_year [Glib 2.12]
g_date_get_monday_weeks_in_year [Glib 2.12]	g_date_get_month [Glib 2.12]
g_date_get_sunday_week_of_year [Glib 2.12]	g_date_get_sunday_weeks_in_year [Glib 2.12]
g_date_get_weekday [Glib 2.12]	g_date_get_year [Glib 2.12]
g_date_is_first_of_month [Glib 2.12]	g_date_is_last_of_month [Glib 2.12]
g_date_is_leap_year [Glib 2.12]	g_date_new [Glib 2.12]
g_date_new_dmy [Glib 2.12]	g_date_new_julian [Glib 2.12]
g_date_order [Glib 2.12]	g_date_set_day [Glib 2.12]
g_date_set_dmy [Glib 2.12]	g_date_set_julian [Glib 2.12]

<code>g_date_set_month</code> [Glib 2.12]	<code>g_date_set_parse</code> [Glib 2.12]
<code>g_date_set_time</code> [Glib 2.12]	<code>g_date_set_time_t</code> [Glib 2.12]
<code>g_date_set_time_val</code> [Glib 2.12]	<code>g_date_set_year</code> [Glib 2.12]
<code>g_date_strftime</code> [Glib 2.12]	<code>g_date_subtract_days</code> [Glib 2.12]
<code>g_date_subtract_months</code> [Glib 2.12]	<code>g_date_subtract_years</code> [Glib 2.12]
<code>g_date_to_struct_tm</code> [Glib 2.12]	<code>g_date_valid</code> [Glib 2.12]
<code>g_date_valid_day</code> [Glib 2.12]	<code>g_date_valid_dmy</code> [Glib 2.12]
<code>g_date_valid_julian</code> [Glib 2.12]	<code>g_date_valid_month</code> [Glib 2.12]
<code>g_date_valid_weekday</code> [Glib 2.12]	<code>g_date_valid_year</code> [Glib 2.12]
<code>g_get_current_time</code> [Glib 2.12]	<code>g_time_val_add</code> [Glib 2.12]
<code>g_time_val_from_iso8601</code> [Glib 2.12]	<code>g_time_val_to_iso8601</code> [Glib 2.12]
<code>g_usleep</code> [Glib 2.12]	

An LSB conforming implementation shall provide the generic deprecated functions for Glib Date and Time Functions specified in [Table 16-17](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 16-17. libglib-2.0 - Glib Date and Time Functions Deprecated Function Interfaces

<code>g_date_set_time</code> [Glib 2.12]	

16.2.13. Glib Double-Ended Queues

16.2.13.1. Interfaces for Glib Double-Ended Queues

An LSB conforming implementation shall provide the generic functions for Glib Double-Ended Queues specified in [Table 16-18](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-18. libglib-2.0 - Glib Double-Ended Queues Function Interfaces

<code>g_queue_copy</code> [Glib 2.12]	<code>g_queue_delete_link</code> [Glib 2.12]
<code>g_queue_find</code> [Glib 2.12]	<code>g_queue_find_custom</code> [Glib 2.12]
<code>g_queue_foreach</code> [Glib 2.12]	<code>g_queue_free</code> [Glib 2.12]
<code>g_queue_get_length</code> [Glib 2.12]	<code>g_queue_index</code> [Glib 2.12]

<code>g_queue_insert_after</code> [Glib 2.12]	<code>g_queue_insert_before</code> [Glib 2.12]
<code>g_queue_insert_sorted</code> [Glib 2.12]	<code>g_queue_is_empty</code> [Glib 2.12]
<code>g_queue_link_index</code> [Glib 2.12]	<code>g_queue_new</code> [Glib 2.12]
<code>g_queue_peek_head</code> [Glib 2.12]	<code>g_queue_peek_head_link</code> [Glib 2.12]
<code>g_queue_peek_nth</code> [Glib 2.12]	<code>g_queue_peek_nth_link</code> [Glib 2.12]
<code>g_queue_peek_tail</code> [Glib 2.12]	<code>g_queue_peek_tail_link</code> [Glib 2.12]
<code>g_queue_pop_head</code> [Glib 2.12]	<code>g_queue_pop_head_link</code> [Glib 2.12]
<code>g_queue_pop_nth</code> [Glib 2.12]	<code>g_queue_pop_nth_link</code> [Glib 2.12]
<code>g_queue_pop_tail</code> [Glib 2.12]	<code>g_queue_pop_tail_link</code> [Glib 2.12]
<code>g_queue_push_head</code> [Glib 2.12]	<code>g_queue_push_head_link</code> [Glib 2.12]
<code>g_queue_push_nth</code> [Glib 2.12]	<code>g_queue_push_nth_link</code> [Glib 2.12]
<code>g_queue_push_tail</code> [Glib 2.12]	<code>g_queue_push_tail_link</code> [Glib 2.12]
<code>g_queue_remove</code> [Glib 2.12]	<code>g_queue_remove_all</code> [Glib 2.12]
<code>g_queue_reverse</code> [Glib 2.12]	<code>g_queue_sort</code> [Glib 2.12]
<code>g_queue_unlink</code> [Glib 2.12]	

16.2.14. Glib Doubly-Linked Lists

16.2.14.1. Interfaces for Glib Doubly-Linked Lists

An LSB conforming implementation shall provide the generic functions for Glib Doubly-Linked Lists specified in [Table 16-19](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-19. libglib-2.0 - Glib Doubly-Linked Lists Function Interfaces

<code>g_list_alloc</code> [Glib 2.12]	<code>g_list_append</code> [Glib 2.12]
<code>g_list_concat</code> [Glib 2.12]	<code>g_list_copy</code> [Glib 2.12]

g_list_delete_link [Glib 2.12]	g_list_find [Glib 2.12]
g_list_find_custom [Glib 2.12]	g_list_first [Glib 2.12]
g_list_foreach [Glib 2.12]	g_list_free [Glib 2.12]
g_list_free_1 [Glib 2.12]	g_list_index [Glib 2.12]
g_list_insert [Glib 2.12]	g_list_insert_before [Glib 2.12]
g_list_insert_sorted [Glib 2.12]	g_list_insert_sorted_with_data [Glib 2.12]
g_list_last [Glib 2.12]	g_list_length [Glib 2.12]
g_list_nth [Glib 2.12]	g_list_nth_data [Glib 2.12]
g_list_nth_prev [Glib 2.12]	g_list_pop_allocator [Glib 2.12]
g_list_position [Glib 2.12]	g_list_prepend [Glib 2.12]
g_list_push_allocator [Glib 2.12]	g_list_remove [Glib 2.12]
g_list_remove_all [Glib 2.12]	g_list_remove_link [Glib 2.12]
g_list_reverse [Glib 2.12]	g_list_sort [Glib 2.12]
g_list_sort_with_data [Glib 2.12]	

An LSB conforming implementation shall provide the generic deprecated functions for Glib Doubly-Linked Lists specified in [Table 16-20](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 16-20. libglib-2.0 - Glib Doubly-Linked Lists Deprecated Function Interfaces

g_list_pop_allocator [Glib 2.12]	g_list_push_allocator [Glib 2.12]

16.2.15. Glib Error Reporting

16.2.15.1. Interfaces for Glib Error Reporting

An LSB conforming implementation shall provide the generic functions for Glib Error Reporting specified in [Table 16-21](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-21. libglib-2.0 - Glib Error Reporting Function Interfaces

g_clear_error [Glib 2.12]	g_error_copy [Glib 2.12]
g_error_free [Glib 2.12]	g_error_matches [Glib 2.12]
g_error_new [Glib 2.12]	g_error_new_literal [Glib 2.12]
g_propagate_error [Glib 2.12]	g_set_error [Glib 2.12]

16.2.16. Glib File Utilities

16.2.16.1. Interfaces for Glib File Utilities

An LSB conforming implementation shall provide the generic functions for Glib File Utilities specified in [Table 16-22](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-22. libglib-2.0 - Glib File Utilities Function Interfaces

g_dir_close [Glib 2.12]	g_dir_open [Glib 2.12]
g_dir_read_name [Glib 2.12]	g_dir_rewind [Glib 2.12]
g_file_error_from_errno [Glib 2.12]	g_file_error_quark [Glib 2.12]
g_file_get_contents [Glib 2.12]	g_file_open_tmp [Glib 2.12]
g_file_read_link [Glib 2.12]	g_file_set_contents [Glib 2.12]
g_file_test [Glib 2.12]	g_mapped_file_free [Glib 2.12]
g_mapped_file_get_contents [Glib 2.12]	g_mapped_file_get_length [Glib 2.12]
g_mapped_file_new [Glib 2.12]	g_mkstemp [Glib 2.12]

16.2.17. Glib Glob-Style Pattern Matching

16.2.17.1. Interfaces for Glib Glob-Style Pattern Matching

An LSB conforming implementation shall provide the generic functions for Glib Glob-Style Pattern Matching specified in [Table 16-23](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-23. libglib-2.0 - Glib Glob-Style Pattern Matching Function Interfaces

g_pattern_match [Glib 2.12]	g_pattern_match_simple [Glib 2.12]
g_pattern_match_string [Glib 2.12]	g_pattern_spec_equal [Glib 2.12]
g_pattern_spec_free [Glib 2.12]	g_pattern_spec_new [Glib 2.12]

16.2.18. Glib Hash Tables

16.2.18.1. Interfaces for Glib Hash Tables

An LSB conforming implementation shall provide the generic functions for Glib Hash Tables specified in [Table 16-24](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-24. libglib-2.0 - Glib Hash Tables Function Interfaces

g_direct_equal [Glib 2.12]	g_direct_hash [Glib 2.12]
g_hash_table_destroy [Glib 2.12]	g_hash_table_find [Glib 2.12]
g_hash_table_foreach [Glib 2.12]	g_hash_table_foreach_remove [Glib 2.12]
g_hash_table_foreach_steal [Glib 2.12]	g_hash_table_insert [Glib 2.12]
g_hash_table_lookup [Glib 2.12]	g_hash_table_lookup_extended [Glib 2.12]
g_hash_table_new [Glib 2.12]	g_hash_table_new_full [Glib 2.12]
g_hash_table_ref [Glib 2.12]	g_hash_table_remove [Glib 2.12]
g_hash_table_remove_all [Glib 2.12]	g_hash_table_replace [Glib 2.12]
g_hash_table_size [Glib 2.12]	g_hash_table_steal [Glib 2.12]
g_hash_table_steal_all [Glib 2.12]	g_hash_table_unref [Glib 2.12]
g_int_equal [Glib 2.12]	g_int_hash [Glib 2.12]
g_str_equal [Glib 2.12]	g_str_hash [Glib 2.12]

16.2.19. Glib Hook Functions

16.2.19.1. Interfaces for Glib Hook Functions

An LSB conforming implementation shall provide the generic functions for Glib Hook Functions specified in [Table 16-25](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-25. libglib-2.0 - Glib Hook Functions Function Interfaces

g_hook_alloc [Glib 2.12]	g_hook_compare_ids [Glib 2.12]
g_hook_destroy [Glib 2.12]	g_hook_destroy_link [Glib 2.12]
g_hook_find [Glib 2.12]	g_hook_find_data [Glib 2.12]
g_hook_find_func [Glib 2.12]	g_hook_find_func_data [Glib 2.12]
g_hook_first_valid [Glib 2.12]	g_hook_free [Glib 2.12]
g_hook_get [Glib 2.12]	g_hook_insert_before [Glib 2.12]
g_hook_insert_sorted [Glib 2.12]	g_hook_list_clear [Glib 2.12]
g_hook_list_init [Glib 2.12]	g_hook_list_invoke [Glib 2.12]
g_hook_list_invoke_check [Glib 2.12]	g_hook_list_marshall [Glib 2.12]
g_hook_list_marshall_check [Glib 2.12]	g_hook_next_valid [Glib 2.12]
g_hook_prepend [Glib 2.12]	g_hook_ref [Glib 2.12]
g_hook_unref [Glib 2.12]	

16.2.20. Glib IO Channels

16.2.20.1. Interfaces for Glib IO Channels

An LSB conforming implementation shall provide the generic functions for Glib IO Channels specified in [Table 16-26](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-26. libglib-2.0 - Glib IO Channels Function Interfaces

g_io_add_watch [Glib 2.12]	g_io_add_watch_full [Glib 2.12]
g_io_channel_error_from_errno [Glib 2.12]	g_io_channel_error_quark [Glib 2.12]
g_io_channel_flush [Glib 2.12]	g_io_channel_get_buffer_condition [Glib 2.12]
g_io_channel_get_buffer_size [Glib 2.12]	g_io_channel_get_buffered [Glib 2.12]
g_io_channel_get_close_on_unref [Glib 2.12]	g_io_channel_get_encoding [Glib 2.12]
g_io_channel_get_flags [Glib 2.12]	g_io_channel_get_line_term [Glib 2.12]
g_io_channel_init [Glib 2.12]	g_io_channel_new_file [Glib 2.12]
g_io_channel_read_chars [Glib 2.12]	g_io_channel_read_line [Glib 2.12]
g_io_channel_read_line_string [Glib 2.12]	g_io_channel_read_to_end [Glib 2.12]
g_io_channel_read_unichar [Glib 2.12]	g_io_channel_ref [Glib 2.12]
g_io_channel_seek_position [Glib 2.12]	g_io_channel_set_buffer_size [Glib 2.12]
g_io_channel_set_buffered [Glib 2.12]	g_io_channel_set_close_on_unref [Glib 2.12]
g_io_channel_set_encoding [Glib 2.12]	g_io_channel_set_flags [Glib 2.12]
g_io_channel_set_line_term [Glib 2.12]	g_io_channel_shutdown [Glib 2.12]
g_io_channel_unix_get_fd [Glib 2.12]	g_io_channel_unix_new [Glib 2.12]
g_io_channel_unref [Glib 2.12]	g_io_channel_write_chars [Glib 2.12]
g_io_channel_write_unichar [Glib 2.12]	g_io_create_watch [Glib 2.12]

16.2.21. Glib Internationalization

16.2.21.1. Interfaces for Glib Internationalization

An LSB conforming implementation shall provide the generic functions for Glib Internationalization specified in [Table 16-27](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-27. libglib-2.0 - Glib Internationalization Function Interfaces

g_get_language_names [Glib 2.12]	g_strip_context [Glib 2.12]

16.2.22. Glib Key-Value File Parser

16.2.22.1. Interfaces for Glib Key-Value File Parser

An LSB conforming implementation shall provide the generic functions for Glib Key-Value File Parser specified in [Table 16-28](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-28. libglib-2.0 - Glib Key-Value File Parser Function Interfaces

g_key_file_error_quark [Glib 2.12]	g_key_file_free [Glib 2.12]
g_key_file_get_boolean [Glib 2.12]	g_key_file_get_boolean_list [Glib 2.12]
g_key_file_get_comment [Glib 2.12]	g_key_file_get_double [Glib 2.12]
g_key_file_get_double_list [Glib 2.12]	g_key_file_get_groups [Glib 2.12]
g_key_file_get_integer [Glib 2.12]	g_key_file_get_integer_list [Glib 2.12]
g_key_file_get_keys [Glib 2.12]	g_key_file_get_locale_string [Glib 2.12]
g_key_file_get_locale_string_list [Glib 2.12]	g_key_file_get_start_group [Glib 2.12]
g_key_file_get_string [Glib 2.12]	g_key_file_get_string_list [Glib 2.12]
g_key_file_get_value [Glib 2.12]	g_key_file_has_group [Glib 2.12]
g_key_file_has_key [Glib 2.12]	g_key_file_load_from_data [Glib 2.12]
g_key_file_load_from_data_dirs [Glib 2.12]	g_key_file_load_from_file [Glib 2.12]
g_key_file_new [Glib 2.12]	g_key_file_remove_comment [Glib 2.12]
g_key_file_remove_group [Glib 2.12]	g_key_file_remove_key [Glib 2.12]
g_key_file_set_boolean [Glib 2.12]	g_key_file_set_boolean_list [Glib 2.12]
g_key_file_set_comment [Glib 2.12]	g_key_file_set_double [Glib 2.12]
g_key_file_set_double_list [Glib 2.12]	g_key_file_set_integer [Glib 2.12]
g_key_file_set_integer_list [Glib 2.12]	g_key_file_set_list_separator [Glib 2.12]
g_key_file_set_locale_string [Glib 2.12]	g_key_file_set_locale_string_list [Glib 2.12]
g_key_file_set_string [Glib 2.12]	g_key_file_set_string_list [Glib 2.12]
g_key_file_set_value [Glib 2.12]	g_key_file_to_data [Glib 2.12]

16.2.23. Glib Keyed Data Lists

16.2.23.1. Interfaces for Glib Keyed Data Lists

An LSB conforming implementation shall provide the generic functions for Glib Keyed Data Lists specified in [Table 16-29](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-29. libglib-2.0 - Glib Keyed Data Lists Function Interfaces

g_datalist_clear [Glib 2.12]	g_datalist_foreach [Glib 2.12]
g_datalist_get_flags [Glib 2.12]	g_datalist_id_get_data [Glib 2.12]
g_datalist_id_remove_no_notify [Glib 2.12]	g_datalist_id_set_data_full [Glib 2.12]
g_datalist_init [Glib 2.12]	g_datalist_set_flags [Glib 2.12]
g_datalist_unset_flags [Glib 2.12]	

16.2.24. Glib Lexical Scanner

16.2.24.1. Interfaces for Glib Lexical Scanner

An LSB conforming implementation shall provide the generic functions for Glib Lexical Scanner specified in [Table 16-30](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-30. libglib-2.0 - Glib Lexical Scanner Function Interfaces

g_scanner_cur_line [Glib 2.12]	g_scanner_cur_position [Glib 2.12]
g_scanner_cur_token [Glib 2.12]	g_scanner_cur_value [Glib 2.12]
g_scanner_destroy [Glib 2.12]	g_scanner_eof [Glib 2.12]
g_scanner_error [Glib 2.12]	g_scanner_get_next_token [Glib 2.12]
g_scanner_input_file [Glib 2.12]	g_scanner_input_text [Glib 2.12]
g_scanner_lookup_symbol [Glib 2.12]	g_scanner_new [Glib 2.12]
g_scanner_peek_next_token [Glib 2.12]	g_scanner_scope_add_symbol [Glib 2.12]
g_scanner_scope_foreach_symbol [Glib 2.12]	g_scanner_scope_lookup_symbol [Glib 2.12]
g_scanner_scope_remove_symbol [Glib 2.12]	g_scanner_set_scope [Glib 2.12]
g_scanner_sync_file_offset [Glib 2.12]	g_scanner_unexp_token [Glib 2.12]
g_scanner_warn [Glib 2.12]	

16.2.25. Glib Memory Allocation

16.2.25.1. Interfaces for Glib Memory Allocation

An LSB conforming implementation shall provide the generic functions for Glib Memory Allocation specified in [Table 16-31](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-31. libglib-2.0 - Glib Memory Allocation Function Interfaces

g_free [Glib 2.12]	g_malloc [Glib 2.12]
g_malloc0 [Glib 2.12]	g_mem_is_system_malloc [Glib 2.12]
g_mem_profile [Glib 2.12]	g_mem_set_vtable [Glib 2.12]
g_memdup [Glib 2.12]	g_realloc [Glib 2.12]
g_try_malloc [Glib 2.12]	g_try_realloc [Glib 2.12]

An LSB conforming implementation shall provide the generic data interfaces for Glib Memory Allocation specified in [Table 16-32](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-32. libglib-2.0 - Glib Memory Allocation Data Interfaces

g_mem_gc_friendly [Glib 2.12]	

16.2.26. Glib Memory Allocators

16.2.26.1. Interfaces for Glib Memory Allocators

An LSB conforming implementation shall provide the generic functions for Glib Memory Allocators specified in [Table 16-33](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-33. libglib-2.0 - Glib Memory Allocators Function Interfaces

g_allocator_free [Glib 2.12]	g_allocator_new [Glib 2.12]

16.2.27. Glib Memory Chunks

16.2.27.1. Interfaces for Glib Memory Chunks

An LSB conforming implementation shall provide the generic functions for Glib Memory Chunks specified in [Table 16-34](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-34. libglib-2.0 - Glib Memory Chunks Function Interfaces

<code>g_blow_chunks</code> [Glib 2.12]	<code>g_mem_chunk_alloc</code> [Glib 2.12]
<code>g_mem_chunk_alloc0</code> [Glib 2.12]	<code>g_mem_chunk_clean</code> [Glib 2.12]
<code>g_mem_chunk_destroy</code> [Glib 2.12]	<code>g_mem_chunk_free</code> [Glib 2.12]
<code>g_mem_chunk_info</code> [Glib 2.12]	<code>g_mem_chunk_new</code> [Glib 2.12]
<code>g_mem_chunk_print</code> [Glib 2.12]	<code>g_mem_chunk_reset</code> [Glib 2.12]

An LSB conforming implementation shall provide the generic deprecated functions for Glib Memory Chunks specified in [Table 16-35](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 16-35. libglib-2.0 - Glib Memory Chunks Deprecated Function Interfaces

<code>g_blow_chunks</code> [Glib 2.12]	<code>g_mem_chunk_alloc</code> [Glib 2.12]
<code>g_mem_chunk_alloc0</code> [Glib 2.12]	<code>g_mem_chunk_clean</code> [Glib 2.12]
<code>g_mem_chunk_destroy</code> [Glib 2.12]	<code>g_mem_chunk_free</code> [Glib 2.12]
<code>g_mem_chunk_info</code> [Glib 2.12]	<code>g_mem_chunk_new</code> [Glib 2.12]
<code>g_mem_chunk_print</code> [Glib 2.12]	<code>g_mem_chunk_reset</code> [Glib 2.12]

16.2.28. Glib Message Logging

16.2.28.1. Interfaces for Glib Message Logging

An LSB conforming implementation shall provide the generic functions for Glib Message Logging specified in [Table 16-36](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-36. libglib-2.0 - Glib Message Logging Function Interfaces

<code>g_log</code> [Glib 2.12]	<code>g_log_default_handler</code> [Glib 2.12]
<code>g_log_remove_handler</code> [Glib 2.12]	<code>g_log_set_always_fatal</code> [Glib 2.12]
<code>g_log_set_default_handler</code> [Glib 2.12]	<code>g_log_set_fatal_mask</code> [Glib 2.12]
<code>g_log_set_handler</code> [Glib 2.12]	<code>g_logv</code> [Glib 2.12]

16.2.29. Glib Message Output and Debugging Functions

16.2.29.1. Interfaces for Glib Message Output and Debugging Functions

An LSB conforming implementation shall provide the generic functions for Glib Message Output and Debugging Functions specified in [Table 16-37](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-37. libglib-2.0 - Glib Message Output and Debugging Functions Function Interfaces

g_on_error_query [Glib 2.12]	g_on_error_stack_trace [Glib 2.12]
g_print [Glib 2.12]	g_printerr [Glib 2.12]
g_set_print_handler [Glib 2.12]	g_set_printerr_handler [Glib 2.12]

16.2.30. Glib Miscellaneous Utility Functions

16.2.30.1. Interfaces for Glib Miscellaneous Utility Functions

An LSB conforming implementation shall provide the generic functions for Glib Miscellaneous Utility Functions specified in [Table 16-38](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-38. libglib-2.0 - Glib Miscellaneous Utility Functions Function Interfaces

g_atexit [Glib 2.12]	g_bit_nth_lsf [Glib 2.12]
g_bit_nth_msf [Glib 2.12]	g_bit_storage [Glib 2.12]
g_build_filename [Glib 2.12]	g_build_filenamev [Glib 2.12]
g_build_path [Glib 2.12]	g_build_pathv [Glib 2.12]
g_find_program_in_path [Glib 2.12]	g_get_application_name [Glib 2.12]
g_get_current_dir [Glib 2.12]	g_get_home_dir [Glib 2.12]
g_get_host_name [Glib 2.12]	g_get_prpname [Glib 2.12]
g_get_real_name [Glib 2.12]	g_get_system_config_dirs [Glib 2.12]
g_get_system_data_dirs [Glib 2.12]	g_get_tmp_dir [Glib 2.12]
g_get_user_cache_dir [Glib 2.12]	g_get_user_config_dir [Glib 2.12]
g_get_user_data_dir [Glib 2.12]	g_get_user_name [Glib 2.12]
g_getenv [Glib 2.12]	g_listenv [Glib 2.12]
g_nullify_pointer [Glib 2.12]	g_parse_debug_string [Glib 2.12]
g_path_get_basename [Glib 2.12]	g_path_get_dirname [Glib 2.12]

g_path_is_absolute [Glib 2.12]	g_path_skip_root [Glib 2.12]
g_qsort_with_data [Glib 2.12]	g_set_application_name [Glib 2.12]
g_set_prgrname [Glib 2.12]	g_setenv [Glib 2.12]
g_spaced_primes_closest [Glib 2.12]	g_unsetenv [Glib 2.12]

16.2.31. Glib N-ary Trees

16.2.31.1. Interfaces for Glib N-ary Trees

An LSB conforming implementation shall provide the generic functions for Glib N-ary Trees specified in [Table 16-39](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-39. libglib-2.0 - Glib N-ary Trees Function Interfaces

g_node_child_index [Glib 2.12]	g_node_child_position [Glib 2.12]
g_node_children_foreach [Glib 2.12]	g_node_copy [Glib 2.12]
g_node_copy_deep [Glib 2.12]	g_node_depth [Glib 2.12]
g_node_destroy [Glib 2.12]	g_node_find [Glib 2.12]
g_node_find_child [Glib 2.12]	g_node_first_sibling [Glib 2.12]
g_node_get_root [Glib 2.12]	g_node_insert [Glib 2.12]
g_node_insert_after [Glib 2.12]	g_node_insert_before [Glib 2.12]
g_node_is_ancestor [Glib 2.12]	g_node_last_child [Glib 2.12]
g_node_last_sibling [Glib 2.12]	g_node_max_height [Glib 2.12]
g_node_n_children [Glib 2.12]	g_node_n_nodes [Glib 2.12]
g_node_new [Glib 2.12]	g_node_nth_child [Glib 2.12]
g_node_pop_allocator [Glib 2.12]	g_node_prepend [Glib 2.12]
g_node_push_allocator [Glib 2.12]	g_node_reverse_children [Glib 2.12]
g_node_traverse [Glib 2.12]	g_node_unlink [Glib 2.12]

An LSB conforming implementation shall provide the generic deprecated functions for Glib N-ary Trees specified in [Table 16-40](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 16-40. libglib-2.0 - Glib N-ary Trees Deprecated Function Interfaces

g_node_pop_allocator [Glib 2.12]	g_node_push_allocator [Glib 2.12]

16.2.32. Glib Pointer Arrays

16.2.32.1. Interfaces for Glib Pointer Arrays

An LSB conforming implementation shall provide the generic functions for Glib Pointer Arrays specified in [Table 16-41](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-41. libglib-2.0 - Glib Pointer Arrays Function Interfaces

g_ptr_array_add [Glib 2.12]	g_ptr_array_foreach [Glib 2.12]
g_ptr_array_free [Glib 2.12]	g_ptr_array_new [Glib 2.12]
g_ptr_array_remove [Glib 2.12]	g_ptr_array_remove_fast [Glib 2.12]
g_ptr_array_remove_index [Glib 2.12]	g_ptr_array_remove_index_fast [Glib 2.12]
g_ptr_array_remove_range [Glib 2.12]	g_ptr_array_set_size [Glib 2.12]
g_ptr_array_sized_new [Glib 2.12]	g_ptr_array_sort [Glib 2.12]
g_ptr_array_sort_with_data [Glib 2.12]	

16.2.33. Glib Quarks

16.2.33.1. Interfaces for Glib Quarks

An LSB conforming implementation shall provide the generic functions for Glib Quarks specified in [Table 16-42](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-42. libglib-2.0 - Glib Quarks Function Interfaces

g_intern_static_string [Glib 2.12]	g_intern_string [Glib 2.12]
g_quark_from_static_string [Glib 2.12]	g_quark_from_string [Glib 2.12]
g_quark_to_string [Glib 2.12]	g_quark_try_string [Glib 2.12]

16.2.34. Glib Random Numbers

16.2.34.1. Interfaces for Glib Random Numbers

An LSB conforming implementation shall provide the generic functions for Glib Random Numbers specified in [Table 16-43](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-43. libglib-2.0 - Glib Random Numbers Function Interfaces

<code>g_rand_copy</code> [Glib 2.12]	<code>g_rand_double</code> [Glib 2.12]
<code>g_rand_double_range</code> [Glib 2.12]	<code>g_rand_free</code> [Glib 2.12]
<code>g_rand_int</code> [Glib 2.12]	<code>g_rand_int_range</code> [Glib 2.12]
<code>g_rand_new</code> [Glib 2.12]	<code>g_rand_new_with_seed</code> [Glib 2.12]
<code>g_rand_new_with_seed_array</code> [Glib 2.12]	<code>g_rand_set_seed</code> [Glib 2.12]
<code>g_rand_set_seed_array</code> [Glib 2.12]	<code>g_random_double</code> [Glib 2.12]
<code>g_random_double_range</code> [Glib 2.12]	<code>g_random_int</code> [Glib 2.12]
<code>g_random_int_range</code> [Glib 2.12]	<code>g_random_set_seed</code> [Glib 2.12]

16.2.35. Glib Relations and Tuples

16.2.35.1. Interfaces for Glib Relations and Tuples

An LSB conforming implementation shall provide the generic functions for Glib Relations and Tuples specified in [Table 16-44](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-44. libglib-2.0 - Glib Relations and Tuples Function Interfaces

<code>g_relation_count</code> [Glib 2.12]	<code>g_relation_delete</code> [Glib 2.12]
<code>g_relation_destroy</code> [Glib 2.12]	<code>g_relation_exists</code> [Glib 2.12]
<code>g_relation_index</code> [Glib 2.12]	<code>g_relation_insert</code> [Glib 2.12]
<code>g_relation_new</code> [Glib 2.12]	<code>g_relation_print</code> [Glib 2.12]
<code>g_relation_select</code> [Glib 2.12]	<code>g_tuples_destroy</code> [Glib 2.12]
<code>g_tuples_index</code> [Glib 2.12]	

An LSB conforming implementation shall provide the generic deprecated functions for Glib Relations and Tuples specified in [Table 16-45](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 16-45. libglib-2.0 - Glib Relations and Tuples Deprecated Function Interfaces

<code>g_relation_count</code> [Glib 2.12]	<code>g_relation_delete</code> [Glib 2.12]
<code>g_relation_destroy</code> [Glib 2.12]	<code>g_relation_exists</code> [Glib 2.12]
<code>g_relation_index</code> [Glib 2.12]	<code>g_relation_insert</code> [Glib 2.12]
<code>g_relation_new</code> [Glib 2.12]	<code>g_relation_print</code> [Glib 2.12]

<code>g_relation_select</code> [Glib 2.12]	<code>g_tuples_destroy</code> [Glib 2.12]
<code>g_tuples_index</code> [Glib 2.12]	

16.2.36. Glib Shell-related Utilities

16.2.36.1. Interfaces for Glib Shell-related Utilities

An LSB conforming implementation shall provide the generic functions for Glib Shell-related Utilities specified in [Table 16-46](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-46. libglib-2.0 - Glib Shell-related Utilities Function Interfaces

<code>g_shell_error_quark</code> [Glib 2.12]	<code>g_shell_parse_argv</code> [Glib 2.12]
<code>g_shell_quote</code> [Glib 2.12]	<code>g_shell_unquote</code> [Glib 2.12]

16.2.37. Glib Simple XML Subset Parser

16.2.37.1. Interfaces for Glib Simple XML Subset Parser

An LSB conforming implementation shall provide the generic functions for Glib Simple XML Subset Parser specified in [Table 16-47](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-47. libglib-2.0 - Glib Simple XML Subset Parser Function Interfaces

<code>g_markup_error_quark</code> [Glib 2.12]	<code>g_markup_escape_text</code> [Glib 2.12]
<code>g_markup_parse_context_end_parse</code> [Glib 2.12]	<code>g_markup_parse_context_free</code> [Glib 2.12]
<code>g_markup_parse_context_get_element</code> [Glib 2.12]	<code>g_markup_parse_context_get_position</code> [Glib 2.12]
<code>g_markup_parse_context_new</code> [Glib 2.12]	<code>g_markup_parse_context_parse</code> [Glib 2.12]
<code>g_markup_printf_escaped</code> [Glib 2.12]	<code>g_markup_vprintf_escaped</code> [Glib 2.12]

16.2.38. Glib Singly-Linked Lists

16.2.38.1. Interfaces for Glib Singly-Linked Lists

An LSB conforming implementation shall provide the generic functions for Glib Singly-Linked Lists specified in [Table 16-48](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-48. libglib-2.0 - Glib Singly-Linked Lists Function Interfaces

g_slist_alloc [Glib 2.12]	g_slist_append [Glib 2.12]
g_slist_concat [Glib 2.12]	g_slist_copy [Glib 2.12]
g_slist_delete_link [Glib 2.12]	g_slist_find [Glib 2.12]
g_slist_find_custom [Glib 2.12]	g_slist_foreach [Glib 2.12]
g_slist_free [Glib 2.12]	g_slist_free_1 [Glib 2.12]
g_slist_index [Glib 2.12]	g_slist_insert [Glib 2.12]
g_slist_insert_before [Glib 2.12]	g_slist_insert_sorted [Glib 2.12]
g_slist_insert_sorted_with_data [Glib 2.12]	g_slist_last [Glib 2.12]
g_slist_length [Glib 2.12]	g_slist_nth [Glib 2.12]
g_slist_nth_data [Glib 2.12]	g_slist_pop_allocator [Glib 2.12]
g_slist_position [Glib 2.12]	g_slist_prepend [Glib 2.12]
g_slist_push_allocator [Glib 2.12]	g_slist_remove [Glib 2.12]
g_slist_remove_all [Glib 2.12]	g_slist_remove_link [Glib 2.12]
g_slist_reverse [Glib 2.12]	g_slist_sort [Glib 2.12]
g_slist_sort_with_data [Glib 2.12]	

An LSB conforming implementation shall provide the generic deprecated functions for Glib Singly-Linked Lists specified in [Table 16-49](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 16-49. libglib-2.0 - Glib Singly-Linked Lists Deprecated Function Interfaces

g_slist_pop_allocator [Glib 2.12]	g_slist_push_allocator [Glib 2.12]

16.2.39. Glib Spawning Processes

16.2.39.1. Interfaces for Glib Spawning Processes

An LSB conforming implementation shall provide the generic functions for Glib Spawning Processes specified in [Table 16-50](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-50. libglib-2.0 - Glib Spawning Processes Function Interfaces

g_spawn_async [Glib 2.12]	g_spawn_async_with_pipes [Glib 2.12]
g_spawn_close_pid [Glib 2.12]	g_spawn_command_line_async [Glib 2.12]

g_spawn_command_line_sync [Glib 2.12]	g_spawn_error_quark [Glib 2.12]
g_spawn_sync [Glib 2.12]	

16.2.40. Glib String Chunks

16.2.40.1. Interfaces for Glib String Chunks

An LSB conforming implementation shall provide the generic functions for Glib String Chunks specified in [Table 16-51](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-51. libglib-2.0 - Glib String Chunks Function Interfaces

g_string_chunk_free [Glib 2.12]	g_string_chunk_insert [Glib 2.12]
g_string_chunk_insert_const [Glib 2.12]	g_string_chunk_insert_len [Glib 2.12]
g_string_chunk_new [Glib 2.12]	

16.2.41. Glib String Utility Functions

16.2.41.1. Interfaces for Glib String Utility Functions

An LSB conforming implementation shall provide the generic functions for Glib String Utility Functions specified in [Table 16-52](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-52. libglib-2.0 - Glib String Utility Functions Function Interfaces

g_ascii_digit_value [Glib 2.12]	g_ascii_dtostr [Glib 2.12]
g_ascii_formatd [Glib 2.12]	g_ascii_strcasecmp [Glib 2.12]
g_ascii_strdown [Glib 2.12]	g_ascii_strncasecmp [Glib 2.12]
g_ascii_strtod [Glib 2.12]	g_ascii_strtoll [Glib 2.12]
g_ascii_strtoul [Glib 2.12]	g_ascii_strup [Glib 2.12]
g_ascii_tolower [Glib 2.12]	g_ascii_toupper [Glib 2.12]
g_ascii_xdigit_value [Glib 2.12]	g_fprintf [Glib 2.12]
g_printf [Glib 2.12]	g_printf_string_upper_bound [Glib 2.12]
g_snprintf [Glib 2.12]	g_sprintf [Glib 2.12]
g_stpcpy [Glib 2.12]	g_str_has_prefix [Glib 2.12]
g_str_has_suffix [Glib 2.12]	g_strcanon [Glib 2.12]
g_strchomp [Glib 2.12]	g_strchug [Glib 2.12]

g_strcompress [Glib 2.12]	g_strconcat [Glib 2.12]
g_strdelimit [Glib 2.12]	g_strdup [Glib 2.12]
g_strdup_printf [Glib 2.12]	g_strdup_vprintf [Glib 2.12]
g_strdupv [Glib 2.12]	g_strerror [Glib 2.12]
g_strescape [Glib 2.12]	g_strfreev [Glib 2.12]
g_string_ascii_down [Glib 2.12]	g_string_ascii_up [Glib 2.12]
g_strjoin [Glib 2.12]	g_strjoinv [Glib 2.12]
g_strlcat [Glib 2.12]	g_strlcpy [Glib 2.12]
g_strndup [Glib 2.12]	g_strnfill [Glib 2.12]
g_strreverse [Glib 2.12]	g_strrstr [Glib 2.12]
g_strstr_len [Glib 2.12]	g_strsignal [Glib 2.12]
g_strsplit [Glib 2.12]	g_strsplit_set [Glib 2.12]
g_strstr_len [Glib 2.12]	g_strtod [Glib 2.12]
g_strv_length [Glib 2.12]	g_vasprintf [Glib 2.12]
g_vfprintf [Glib 2.12]	g_vprintf [Glib 2.12]
g_vsnprintf [Glib 2.12]	g_vsprintf [Glib 2.12]

16.2.42. Glib Strings

16.2.42.1. Interfaces for Glib Strings

An LSB conforming implementation shall provide the generic functions for Glib Strings specified in [Table 16-53](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-53. libglib-2.0 - Glib Strings Function Interfaces

g_string_append [Glib 2.12]	g_string_append_c [Glib 2.12]
g_string_append_len [Glib 2.12]	g_string_append_printf [Glib 2.12]
g_string_append_unichar [Glib 2.12]	g_string_assign [Glib 2.12]
g_string_equal [Glib 2.12]	g_string_erase [Glib 2.12]
g_string_free [Glib 2.12]	g_string_hash [Glib 2.12]
g_string_insert [Glib 2.12]	g_string_insert_c [Glib 2.12]
g_string_insert_len [Glib 2.12]	g_string_insert_unichar [Glib 2.12]
g_string_new [Glib 2.12]	g_string_new_len [Glib 2.12]
g_string_prepend [Glib 2.12]	g_string_prepend_c [Glib 2.12]

g_string_prepend_len [Glib 2.12]	g_string_prepend_unichar [Glib 2.12]
g_string_printf [Glib 2.12]	g_string_set_size [Glib 2.12]
g_string_sized_new [Glib 2.12]	g_string_truncate [Glib 2.12]

16.2.43. Glib - The Main Event Loop

16.2.43.1. Interfaces for Glib - The Main Event Loop

An LSB conforming implementation shall provide the generic functions for Glib - The Main Event Loop specified in [Table 16-54](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-54. libglib-2.0 - Glib - The Main Event Loop Function Interfaces

g_child_watch_add [Glib 2.12]	g_child_watch_add_full [Glib 2.12]
g_child_watch_source_new [Glib 2.12]	g_idle_add [Glib 2.12]
g_idle_add_full [Glib 2.12]	g_idle_remove_by_data [Glib 2.12]
g_idle_source_new [Glib 2.12]	g_main_context_acquire [Glib 2.12]
g_main_context_add_poll [Glib 2.12]	g_main_context_check [Glib 2.12]
g_main_context_default [Glib 2.12]	g_main_context_dispatch [Glib 2.12]
g_main_context_find_source_by_funcs_user_data [Glib 2.12]	g_main_context_find_source_by_id [Glib 2.12]
g_main_context_find_source_by_user_data [Glib 2.12]	g_main_context_get_poll_func [Glib 2.12]
g_main_context_is_owner [Glib 2.12]	g_main_context_iteration [Glib 2.12]
g_main_context_new [Glib 2.12]	g_main_context_pending [Glib 2.12]
g_main_context_prepare [Glib 2.12]	g_main_context_query [Glib 2.12]
g_main_context_ref [Glib 2.12]	g_main_context_release [Glib 2.12]
g_main_context_remove_poll [Glib 2.12]	g_main_context_set_poll_func [Glib 2.12]
g_main_context_unref [Glib 2.12]	g_main_context_wait [Glib 2.12]
g_main_context_wakeup [Glib 2.12]	g_main_current_source [Glib 2.12]
g_main_depth [Glib 2.12]	g_main_loop_get_context [Glib 2.12]
g_main_loop_is_running [Glib 2.12]	g_main_loop_new [Glib 2.12]
g_main_loop_quit [Glib 2.12]	g_main_loop_ref [Glib 2.12]
g_main_loop_run [Glib 2.12]	g_main_loop_unref [Glib 2.12]
g_source_add_poll [Glib 2.12]	g_source_attach [Glib 2.12]
g_source_destroy [Glib 2.12]	g_source_get_can_recurse [Glib 2.12]

g_source_get_context [Glib 2.12]	g_source_get_current_time [Glib 2.12]
g_source_get_id [Glib 2.12]	g_source_get_priority [Glib 2.12]
g_source_is_destroyed [Glib 2.12]	g_source_new [Glib 2.12]
g_source_ref [Glib 2.12]	g_source_remove [Glib 2.12]
g_source_remove_by_funcs_user_data [Glib 2.12]	g_source_remove_by_user_data [Glib 2.12]
g_source_remove_poll [Glib 2.12]	g_source_set_callback [Glib 2.12]
g_source_set_callback_indirect [Glib 2.12]	g_source_set_can_recurse [Glib 2.12]
g_source_set_funcs [Glib 2.12]	g_source_set_priority [Glib 2.12]
g_source_unref [Glib 2.12]	g_timeout_add [Glib 2.12]
g_timeout_add_full [Glib 2.12]	g_timeout_source_new [Glib 2.12]

16.2.44. Glib Thread Pools

16.2.44.1. Interfaces for Glib Thread Pools

An LSB conforming implementation shall provide the generic functions for Glib Thread Pools specified in [Table 16-55](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-55. libglib-2.0 - Glib Thread Pools Function Interfaces

g_thread_pool_free [Glib 2.12]	g_thread_pool_get_max_idle_time [Glib 2.12]
g_thread_pool_get_max_threads [Glib 2.12]	g_thread_pool_get_max_unused_threads [Glib 2.12]
g_thread_pool_get_num_threads [Glib 2.12]	g_thread_pool_get_num_unused_threads [Glib 2.12]
g_thread_pool_new [Glib 2.12]	g_thread_pool_push [Glib 2.12]
g_thread_pool_set_max_idle_time [Glib 2.12]	g_thread_pool_set_max_threads [Glib 2.12]
g_thread_pool_set_max_unused_threads [Glib 2.12]	g_thread_pool_set_sort_function [Glib 2.12]
g_thread_pool_stop_unused_threads [Glib 2.12]	g_thread_pool_unprocessed [Glib 2.12]

16.2.45. Glib Threads

16.2.45.1. Interfaces for Glib Threads

An LSB conforming implementation shall provide the generic functions for Glib Threads specified in [Table 16-56](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-56. libglib-2.0 - Glib Threads Function Interfaces

g_static_mutex_free [Glib 2.12]	g_static_mutex_init [Glib 2.12]

g_static_private_free [Glib 2.12]	g_static_private_get [Glib 2.12]
g_static_private_init [Glib 2.12]	g_static_private_set [Glib 2.12]
g_static_rec_mutex_free [Glib 2.12]	g_static_rec_mutex_init [Glib 2.12]
g_static_rec_mutex_lock [Glib 2.12]	g_static_rec_mutex_lock_full [Glib 2.12]
g_static_rec_mutex_trylock [Glib 2.12]	g_static_rec_mutex_unlock [Glib 2.12]
g_static_rec_mutex_unlock_full [Glib 2.12]	g_static_rw_lock_free [Glib 2.12]
g_static_rw_lock_init [Glib 2.12]	g_static_rw_lock_reader_lock [Glib 2.12]
g_static_rw_lock_reader_trylock [Glib 2.12]	g_static_rw_lock_reader_unlock [Glib 2.12]
g_static_rw_lock_writer_lock [Glib 2.12]	g_static_rw_lock_writer_trylock [Glib 2.12]
g_static_rw_lock_writer_unlock [Glib 2.12]	g_thread_create_full [Glib 2.12]
g_thread_error_quark [Glib 2.12]	g_thread_exit [Glib 2.12]
g_thread_foreach [Glib 2.12]	g_thread_join [Glib 2.12]
g_thread_self [Glib 2.12]	g_thread_set_priority [Glib 2.12]

16.2.46. Glib Timers

16.2.46.1. Interfaces for Glib Timers

An LSB conforming implementation shall provide the generic functions for Glib Timers specified in [Table 16-57](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-57. libglib-2.0 - Glib Timers Function Interfaces

g_timer_continue [Glib 2.12]	g_timer_destroy [Glib 2.12]
g_timer_elapsed [Glib 2.12]	g_timer_new [Glib 2.12]
g_timer_reset [Glib 2.12]	g_timer_start [Glib 2.12]
g_timer_stop [Glib 2.12]	

16.2.47. Glib Trash Stacks

16.2.47.1. Interfaces for Glib Trash Stacks

An LSB conforming implementation shall provide the generic functions for Glib Trash Stacks specified in [Table 16-58](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-58. libglib-2.0 - Glib Trash Stacks Function Interfaces

g_trash_stack_height [Glib 2.12]	g_trash_stack_peek [Glib 2.12]

g_trash_stack_pop [Glib 2.12]	g_trash_stack_push [Glib 2.12]

16.2.48. Glib Unicode Manipulation

16.2.48.1. Interfaces for Glib Unicode Manipulation

An LSB conforming implementation shall provide the generic functions for Glib Unicode Manipulation specified in [Table 16-59](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-59. libglib-2.0 - Glib Unicode Manipulation Function Interfaces

g_mkdir_with_parents [Glib 2.12]	g_ucs4_to_utf16 [Glib 2.12]
g_ucs4_to_utf8 [Glib 2.12]	g_unichar_break_type [Glib 2.12]
g_unichar_digit_value [Glib 2.12]	g_unichar_get_mirror_char [Glib 2.12]
g_unichar_isalnum [Glib 2.12]	g_unichar_isalpha [Glib 2.12]
g_unichar_iscntrl [Glib 2.12]	g_unichar_isdefined [Glib 2.12]
g_unichar_isdigit [Glib 2.12]	g_unichar_isgraph [Glib 2.12]
g_unichar_islower [Glib 2.12]	g_unichar_isprint [Glib 2.12]
g_unichar_isspace [Glib 2.12]	g_unichar_isspace [Glib 2.12]
g_unichar_istitle [Glib 2.12]	g_unichar_isupper [Glib 2.12]
g_unichar_iswide [Glib 2.12]	g_unichar_iswide_cjk [Glib 2.12]
g_unichar_isxdigit [Glib 2.12]	g_unichar_to_utf8 [Glib 2.12]
g_unichar_tolower [Glib 2.12]	g_unichar_totitle [Glib 2.12]
g_unichar_toupper [Glib 2.12]	g_unichar_type [Glib 2.12]
g_unichar_validate [Glib 2.12]	g_unichar_xdigit_value [Glib 2.12]
g_unicode_canonical_decomposition [Glib 2.12]	g_unicode_canonical_ordering [Glib 2.12]
g_utf16_to_ucs4 [Glib 2.12]	g_utf16_to_utf8 [Glib 2.12]
g_utf8_casefold [Glib 2.12]	g_utf8_collate [Glib 2.12]
g_utf8_collate_key [Glib 2.12]	g_utf8_collate_key_for_filename [Glib 2.12]
g_utf8_find_next_char [Glib 2.12]	g_utf8_find_prev_char [Glib 2.12]
g_utf8_get_char [Glib 2.12]	g_utf8_get_char_validated [Glib 2.12]
g_utf8_normalize [Glib 2.12]	g_utf8_offset_to_pointer [Glib 2.12]
g_utf8_pointer_to_offset [Glib 2.12]	g_utf8_prev_char [Glib 2.12]
g_utf8_strchr [Glib 2.12]	g_utf8_strdown [Glib 2.12]
g_utf8_strlen [Glib 2.12]	g_utf8_strncpy [Glib 2.12]

g_utf8_strchr [Glib 2.12]	g_utf8_streverse [Glib 2.12]
g_utf8_strup [Glib 2.12]	g_utf8_to_ucs4 [Glib 2.12]
g_utf8_to_ucs4_fast [Glib 2.12]	g_utf8_to_utf16 [Glib 2.12]
g_utf8_validate [Glib 2.12]	

16.2.49. Glib Version Information

16.2.49.1. Interfaces for Glib Version Information

An LSB conforming implementation shall provide the generic functions for Glib Version Information specified in [Table 16-60](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-60. libglib-2.0 - Glib Version Information Function Interfaces

glib_check_version [Glib 2.12]	

An LSB conforming implementation shall provide the generic data interfaces for Glib Version Information specified in [Table 16-61](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-61. libglib-2.0 - Glib Version Information Data Interfaces

glib_binary_age [Glib 2.12]	glib_interface_age [Glib 2.12]
glib_major_version [Glib 2.12]	glib_mem_profiler_table [Glib 2.12]
glib_micro_version [Glib 2.12]	glib_minor_version [Glib 2.12]

16.2.50. Glib Bookmark File Parser

16.2.50.1. Interfaces for Glib Bookmark File Parser

An LSB conforming implementation shall provide the generic functions for Glib Bookmark File Parser specified in [Table 16-62](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-62. libglib-2.0 - Glib Bookmark File Parser Function Interfaces

g_bookmark_file_add_application [Glib 2.12]	g_bookmark_file_add_group [Glib 2.12]
g_bookmark_file_error_quark [Glib 2.12]	g_bookmark_file_free [Glib 2.12]
g_bookmark_file_get_added [Glib 2.12]	g_bookmark_file_get_app_info [Glib 2.12]
g_bookmark_file_get_applications [Glib 2.12]	g_bookmark_file_get_description [Glib 2.12]

g_bookmark_file_get_groups [Glib 2.12]	g_bookmark_file_get_icon [Glib 2.12]
g_bookmark_file_get_is_private [Glib 2.12]	g_bookmark_file_get_mime_type [Glib 2.12]
g_bookmark_file_get_modified [Glib 2.12]	g_bookmark_file_get_size [Glib 2.12]
g_bookmark_file_get_title [Glib 2.12]	g_bookmark_file_get_uris [Glib 2.12]
g_bookmark_file_get_visited [Glib 2.12]	g_bookmark_file_has_application [Glib 2.12]
g_bookmark_file_has_group [Glib 2.12]	g_bookmark_file_has_item [Glib 2.12]
g_bookmark_file_load_from_data [Glib 2.12]	g_bookmark_file_load_from_data_dirs [Glib 2.12]
g_bookmark_file_load_from_file [Glib 2.12]	g_bookmark_file_move_item [Glib 2.12]
g_bookmark_file_new [Glib 2.12]	g_bookmark_file_remove_application [Glib 2.12]
g_bookmark_file_remove_group [Glib 2.12]	g_bookmark_file_remove_item [Glib 2.12]
g_bookmark_file_set_added [Glib 2.12]	g_bookmark_file_set_app_info [Glib 2.12]
g_bookmark_file_set_description [Glib 2.12]	g_bookmark_file_set_groups [Glib 2.12]
g_bookmark_file_set_icon [Glib 2.12]	g_bookmark_file_set_is_private [Glib 2.12]
g_bookmark_file_set_mime_type [Glib 2.12]	g_bookmark_file_set_modified [Glib 2.12]
g_bookmark_file_set_title [Glib 2.12]	g_bookmark_file_set_visited [Glib 2.12]
g_bookmark_file_to_data [Glib 2.12]	g_bookmark_file_to_file [Glib 2.12]

16.2.51. Glib Memory Slices

16.2.51.1. Interfaces for Glib Memory Slices

An LSB conforming implementation shall provide the generic functions for Glib Memory Slices specified in [Table 16-63](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-63. libglib-2.0 - Glib Memory Slices Function Interfaces

g_slice_alloc [Glib 2.12]	g_slice_alloc0 [Glib 2.12]
g_slice_free1 [Glib 2.12]	g_slice_free_chain_with_offset [Glib 2.12]

16.2.52. Glib Base64 Encoding

16.2.52.1. Interfaces for Glib Base64 Encoding

An LSB conforming implementation shall provide the generic functions for Glib Base64 Encoding specified in [Table 16-64](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-64. libglib-2.0 - Glib Base64 Encoding Function Interfaces

<code>g_base64_decode</code> [Glib 2.12]	<code>g_base64_decode_step</code> [Glib 2.12]
<code>g_base64_encode</code> [Glib 2.12]	<code>g_base64_encode_close</code> [Glib 2.12]
<code>g_base64_encode_step</code> [Glib 2.12]	

16.3. Data Definitions for libglib-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libglib-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.3.1. glib-2.0/glib.h

```
#define GLIB_HAVE_ALLOCA_H
#define GLIB_HAVE_SYS_POLL_H
#ifdef __cplusplus
# define G_BEGIN_DECLS extern "C" {
#else
# define G_BEGIN_DECLS
#endif
#ifdef __cplusplus
# define G_END_DECLS }
#else
# define G_END_DECLS
#endif
#define G_GINT32_MODIFIER ""
#define G_GNUC_FUNCTION ""
#define G_GNUC_PRETTY_FUNCTION ""
#define G_OPTION_REMAINING ""
#define G_OS_UNIX
#define G_THREADS_ENABLED
#define G_THREADS_IMPL_POSIX
#define G_WIN32_DLLMAIN_FOR_DLL_NAME(static,dll_name)
#define G_CSET_LATINC \
    "\300\301\302\303\304\305\306" \
    "\307\310\311\312\313\314\315\316\317\320" "\321\322\323\324\325\326" \
    "\330\331\332\333\334\335\336"
#define G_CSET_LATINS \
    "\337\340\341\342\343\344\345\346" \
    "\347\350\351\352\353\354\355\356\357\360" "\361\362\363\364\365\366" \
    "\370\371\372\373\374\375\376\377"
#define g_mem_chunk_create(type,pre_alloc,alloc_type) \
    ( g_mem_chunk_new (#type " mem chunks (" #pre_alloc ")", sizeof \
        (type), sizeof (type) * (pre_alloc), (alloc_type)) )
#define G_NODE_IS_ROOT(node) \
```

```

        (((GNode*) (node))->parent == NULL && ((GNode*) (node))->prev == NULL \
        && ((GNode*) (node))->next == NULL)
#define g_once(once,func,arg) \
        (((once)->status == G_ONCE_STATUS_READY) ? (once)->retval : \
        g_once_impl ((once), (func), (arg)))
#define CLAMP(x,low,high) \
        (((x) > (high)) ? (high) : (((x) < (low)) ? (low) : (x)))
#define G_STRUCT_OFFSET(struct_type,member) \
        ((glong) ((guint8*) &((struct_type*) 0)->member))
#define G_STRUCT_MEMBER_P(struct_p,struct_offset) \
        ((gpointer) ((guint8*) (struct_p) + (glong) (struct_offset)))
#define GUINT16_SWAP_LE_BE_CONSTANT(val) \
        (((guint16) ( (guint16) ((guint16) (val) >> 8) | (guint16) ((guint16) \
        (val) << 8))))
#define GUINT32_SWAP_LE_BE_CONSTANT(val) \
        (((guint32) ( (((guint32) (val) & (guint32) 0x000000ffU) << 24) | \
        (((guint32) (val) & (guint32) 0x0000ff00U) << 8) | (((guint32) (val) & \
        (guint32) 0x00ff0000U) >> 8) | (((guint32) (val) & (guint32) \
        0xff000000U) >> 24))))
#define GUINT32_SWAP_LE_PDP(val) \
        (((guint32) ( (((guint32) (val) & (guint32) 0x0000ffffU) << 16) | \
        (((guint32) (val) & (guint32) 0xffff0000U) >> 16))))
#define GUINT32_SWAP_BE_PDP(val) \
        (((guint32) ( (((guint32) (val) & (guint32) 0x00ff00ffU) << 8) | \
        (((guint32) (val) & (guint32) 0xff00ff00U) >> 8))))
#define GUINT64_SWAP_LE_BE_CONSTANT(val) \
        (((guint64) ( (((guint64) (val) & (guint64) G_GINT64_CONSTANT \
        (0x00000000000000ffU)) << 56) | (((guint64) (val) & (guint64) \
        G_GINT64_CONSTANT (0x0000000000000ff00U)) << 40) | (((guint64) (val) & \
        (guint64) G_GINT64_CONSTANT (0x0000000000ff0000U)) << 24) | \
        (((guint64) (val) & (guint64) G_GINT64_CONSTANT (0x00000000ff000000U)) \
        << 8) | (((guint64) (val) & (guint64) G_GINT64_CONSTANT \
        (0x000000ff00000000U)) >> 8) | (((guint64) (val) & (guint64) \
        G_GINT64_CONSTANT (0x0000ff0000000000U)) >> 24) | (((guint64) (val) & \
        (guint64) G_GINT64_CONSTANT (0x00ff000000000000U)) >> 40) | \
        (((guint64) (val) & (guint64) G_GINT64_CONSTANT (0xff00000000000000U)) \
        >> 56))))
#define g_ascii_isalnum(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_ALNUM) != 0)
#define g_ascii_isalpha(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_ALPHA) != 0)
#define g_ascii_iscntrl(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_CNTRL) != 0)
#define g_ascii_isdigit(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_DIGIT) != 0)
#define g_ascii_isgraph(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_GRAPH) != 0)
#define g_ascii_islower(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_LOWER) != 0)
#define g_ascii_isprint(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_PRINT) != 0)
#define g_ascii ispunct(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_PUNCT) != 0)
#define g_ascii_isspace(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_SPACE) != 0)
#define g_ascii_isupper(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_UPPER) != 0)
#define g_ascii_isxdigit(c) \
        ((g_ascii_table[(guchar) (c)] & G_ASCII_XDIGIT) != 0)
#define G_HOOK_ACTIVE(hook) \
        ((G_HOOK_FLAGS (hook) & G_HOOK_FLAG_ACTIVE) != 0)
#define G_HOOK_IN_CALL(hook) \

```

```

        ((G_HOOK_FLAGS (hook) & G_HOOK_FLAG_IN_CALL) != 0)
#define g_node_first_child(node) \
    ((node) ? ((GNode*) (node))->children : NULL)
#define g_node_next_sibling(node) \
    ((node) ? ((GNode*) (node))->next : NULL)
#define g_node_prev_sibling(node) \
    ((node) ? ((GNode*) (node))->prev : NULL)
#define g_new(struct_type,n_structs) \
    ((struct_type *) g_malloc (((gsize) sizeof (struct_type)) * ((gsize) \
    (n_structs))))
#define g_new0(struct_type,n_structs) \
    ((struct_type *) g_malloc0 (((gsize) sizeof (struct_type)) * ((gsize) \
    (n_structs))))
#define g_renew(struct_type,mem,n_structs) \
    ((struct_type *) g_realloc ((mem), ((gsize) sizeof (struct_type)) * \
    ((gsize) (n_structs))))
#define g_newa(struct_type,n_structs) \
    ((struct_type*) g_alloca (sizeof (struct_type) * (gsize) \
    (n_structs)))
#define G_STRUCT_MEMBER(member_type,struct_p,struct_offset) \
    (*(member_type*) G_STRUCT_MEMBER_P ((struct_p), (struct_offset)))
#define G_THREAD_UF(op,arglist) \
    (*g_thread_functions_for_glib_use . op) arglist
#define GLIB_CHECK_VERSION(major,minor,micro) \
    (GLIB_MAJOR_VERSION > (major) || (GLIB_MAJOR_VERSION == (major) && \
    GLIB_MINOR_VERSION > (minor)) || (GLIB_MAJOR_VERSION == (major) && \
    GLIB_MINOR_VERSION == (minor) && GLIB_MICRO_VERSION >= (micro)))
#define g_atomic_int_dec_and_test(atomic) \
    (g_atomic_int_exchange_and_add ((atomic), -1) == 1)
#define g_static_mutex_get_mutex_impl_shortcut(mutex) \
    (g_atomic_pointer_get ((gpointer*)mutex) ? *(mutex) : \
    g_static_mutex_get_mutex_impl (mutex))
#define g_datalist_get_data(dl,k) \
    (g_datalist_id_get_data ((dl), g_quark_try_string (k)))
#define g_dataset_get_data(l,k) \
    (g_dataset_id_get_data ((l), g_quark_try_string (k)))
#define G_HOOK_IS_VALID(hook) \
    (G_HOOK (hook)->hook_id != 0 && (G_HOOK_FLAGS (hook) & \
    G_HOOK_FLAG_ACTIVE))
#define G_HOOK_IS_UNLINKED(hook) \
    (G_HOOK (hook)->next == NULL && G_HOOK (hook)->prev == NULL && G_HOOK \
    (hook)->hook_id == 0 && G_HOOK (hook)->ref_count == 0)
#define g_thread_create(func,data,joinable,error) \
    (g_thread_create_full (func, data, 0, joinable, FALSE, \
    G_THREAD_PRIORITY_NORMAL, error))
#define G_THREAD_ECF(op,fail,mutex,type) \
    (g_thread_supported () ? ((type*)(GMutex*, gulong, gchar*)) \
    (*g_thread_functions_for_glib_use . op) (mutex, G_MUTEX_DEBUG_MAGIC, \
    G_STRLOC) : (fail))
#define G_THREAD_CF(op,fail,arg) \
    (g_thread_supported () ? G_THREAD_UF (op, arg) : (fail))
#define g_static_mutex_get_mutex(mutex) \
    (g_thread_use_default_impl ? ((GMutex*) &((mutex)->static_mutex)) : \
    g_static_mutex_get_mutex_impl_shortcut (&((mutex)->runtime_mutex)))
#define G_LOCK_DEFINE(name) \
    GStaticMutex G_LOCK_NAME (name) = G_STATIC_MUTEX_INIT
#define g_datalist_remove_no_notify(dl,k) \
    g_datalist_id_remove_no_notify ((dl), g_quark_try_string (k))
#define g_datalist_id_remove_data(dl,q) \
    g_datalist_id_set_data ((dl), (q), NULL)
#define g_datalist_remove_data(dl,k) \
    g_datalist_id_set_data ((dl), g_quark_try_string (k), NULL)

```

```

#define g_datalist_id_set_data(dl,q,d) \
    g_datalist_id_set_data_full ((dl), (q), (d), NULL)
#define g_datalist_set_data_full(dl,k,d,f) \
    g_datalist_id_set_data_full ((dl), g_quark_from_string (k), (d), (f))
#define g_datalist_set_data(dl,k,d) \
    g_datalist_set_data_full ((dl), (k), (d), NULL)
#define g_dataset_remove_no_notify(l,k) \
    g_dataset_id_remove_no_notify ((l), g_quark_try_string (k))
#define g_dataset_id_remove_data(l,k) \
    g_dataset_id_set_data ((l), (k), NULL)
#define g_dataset_remove_data(l,k) \
    g_dataset_id_set_data ((l), g_quark_try_string (k), NULL)
#define g_dataset_id_set_data(l,k,d) \
    g_dataset_id_set_data_full ((l), (k), (d), NULL)
#define g_dataset_set_data_full(l,k,d,f) \
    g_dataset_id_set_data_full ((l), g_quark_from_string (k), (d), (f))
#define g_dataset_set_data(l,k,d) \
    g_dataset_set_data_full ((l), (k), (d), NULL)
#define g_hook_append(hook_list,hook) \
    g_hook_insert_before ((hook_list), NULL, (hook))
#define g_critical(...) \
    g_log (G_LOG_DOMAIN, G_LOG_LEVEL_CRITICAL, __VA_ARGS__)
#define g_message(...) \
    g_log (G_LOG_DOMAIN, G_LOG_LEVEL_MESSAGE, __VA_ARGS__)
#define g_warning(...) \
    g_log (G_LOG_DOMAIN, G_LOG_LEVEL_WARNING, __VA_ARGS__)
#define g_static_mutex_lock(mutex) \
    g_mutex_lock (g_static_mutex_get_mutex (mutex))
#define g_static_mutex_trylock(mutex) \
    g_mutex_trylock (g_static_mutex_get_mutex (mutex))
#define g_static_mutex_unlock(mutex) \
    g_mutex_unlock (g_static_mutex_get_mutex (mutex))
#define g_node_insert_data(parent,position,data) \
    g_node_insert ((parent), (position), g_node_new (data))
#define g_node_insert_data_before(parent,sibling,data) \
    g_node_insert_before ((parent), (sibling), g_node_new (data))
#define g_node_append(parent,node) \
    g_node_insert_before ((parent), NULL, (node))
#define g_node_append_data(parent,data) \
    g_node_insert_before ((parent), NULL, g_node_new (data))
#define g_node_prepend_data(parent,data) \
    g_node_prepend ((parent), g_node_new (data))
#define g_chunk_free(mem,mem_chunk) \
    G_STMT_START { g_mem_chunk_free ((mem_chunk), (mem)); } G_STMT_END
#define g_memmove(d,s,n) \
    G_STMT_START { memmove ((d), (s), (n)); } G_STMT_END
#define g_assert_not_reached() \
    G_STMT_START{ g_assert_warning (G_LOG_DOMAIN, __FILE__, __LINE__, \
    __PRETTY_FUNCTION__, NULL); }G_STMT_END
#define g_return_val_if_reached(val) \
    G_STMT_START{ g_log (G_LOG_DOMAIN, G_LOG_LEVEL_CRITICAL, "file %s: \
    line %d (%s): should not be reached", __FILE__, __LINE__, \
    __PRETTY_FUNCTION__); return (val); }G_STMT_END
#define g_return_if_reached() \
    G_STMT_START{ g_log (G_LOG_DOMAIN, G_LOG_LEVEL_CRITICAL, "file %s: \
    line %d (%s): should not be reached", __FILE__, __LINE__, \
    __PRETTY_FUNCTION__); return; }G_STMT_END
#define g_assert(expr) \
    G_STMT_START{ if G_LIKELY(expr) { } else g_assert_warning \
    (G_LOG_DOMAIN, __FILE__, __LINE__, __PRETTY_FUNCTION__, #expr); \
    }G_STMT_END
#define g_return_val_if_fail(expr,val) \

```

```

    G_STMT_START{ if G_LIKELY(expr) { } else { g_return_if_fail_warning \
    (G_LOG_DOMAIN, __PRETTY_FUNCTION__, #expr); return (val); }; \
    }G_STMT_END
#define g_return_if_fail(expr) \
    G_STMT_START{ if G_LIKELY(expr) { } else { g_return_if_fail_warning \
    (G_LOG_DOMAIN, __PRETTY_FUNCTION__, #expr); return; }; }G_STMT_END
#define g_cond_broadcast(cond) \
    G_THREAD_CF (cond_broadcast, (void)0, (cond))
#define g_cond_timed_wait(cond,mutex,abs_time) \
    G_THREAD_CF (cond_timed_wait, TRUE, (cond, mutex, abs_time))
#define g_cond_wait(cond,mutex) \
    G_THREAD_CF (cond_wait, (void)0, (cond, mutex))
#define g_private_get(private_key) \
    G_THREAD_CF (private_get, ((gpointer)private_key), (private_key))
#define g_private_set(private_key,value) \
    G_THREAD_CF (private_set, (void) (private_key = (GPrivate*) (value)), \
    (private_key, value))
#define G_GNUC_PRINTF(format_idx,arg_idx) \
    __attribute__((__format__ (__printf__, format_idx, arg_idx)))
#define G_GNUC_SCANF(format_idx,arg_idx) \
    __attribute__((__format__ (__scanf__, format_idx, arg_idx)))
#define G_STATIC_RW_LOCK_INIT \
    { G_STATIC_MUTEX_INIT, NULL, NULL, 0, FALSE, 0, 0 }
#define G_STRINGIFY_ARG(contents) #contents
#define G_DIR_SEPARATOR '/'
#define G_SEARCHPATH_SEPARATOR ':'
#define g_chunk_new(type,chunk) ( (type *) g_mem_chunk_alloc (chunk) )
#define g_chunk_new0(type,chunk) ( (type *) g_mem_chunk_alloc0 (chunk) )
#define MIN(a,b) ((a) < (b)) ? (a) : (b)
#define ABS(a) ((a) < 0) ? -(a) : (a)
#define MAX(a,b) ((a) > (b)) ? (a) : (b)
#define G_NODE_IS_LEAF(node) (((GNode*) (node))->children == NULL)
#define g_array_index(a,t,i) (((t*) (void *) (a)->data) [(i)])
#define g_ptr_array_index(array,index_) ((array)->pdata)[index_]
#define G_IS_DIR_SEPARATOR(c) ((c) == G_DIR_SEPARATOR)
#define G_STRFUNC ((const char*) (__PRETTY_FUNCTION__))
#define G_LOG_DOMAIN ((gchar*) 0)
#define G_HOOK(hook) ((GHook*) (hook))
#define GINT_TO_BE(val) ((gint) GINT32_TO_BE (val))
#define GINT_TO_LE(val) ((gint) GINT32_TO_LE (val))
#define GINT16_TO_LE(val) ((gint16) (val))
#define G_MAXINT16 ((gint16) 0x7fff)
#define G_MININT16 ((gint16) 0x8000)
#define GINT16_TO_BE(val) ((gint16) GUINT16_SWAP_LE_BE (val))
#define GINT32_TO_LE(val) ((gint32) (val))
#define G_MAXINT32 ((gint32) 0x7fffffff)
#define G_MININT32 ((gint32) 0x80000000)
#define GINT32_TO_BE(val) ((gint32) GUINT32_SWAP_LE_BE (val))
#define GINT64_TO_LE(val) ((gint64) (val))
#define GINT64_TO_BE(val) ((gint64) GUINT64_SWAP_LE_BE (val))
#define G_MAXINT8 ((gint8) 0x7f)
#define G_MININT8 ((gint8) 0x80)
#define GSIZE_TO_POINTER(s) ((gpointer) (gsize) (s))
#define GPOINTER_TO_SIZE(p) ((gsize) (p))
#define GUINT_TO_BE(val) ((guint) GUINT32_TO_BE (val))
#define GUINT_TO_LE(val) ((guint) GUINT32_TO_LE (val))
#define GUINT16_SWAP_LE_PDP(val) ((guint16) (val))
#define GUINT16_TO_LE(val) ((guint16) (val))
#define G_MAXUINT16 ((guint16) 0xffff)
#define GUINT32_TO_LE(val) ((guint32) (val))
#define G_MAXUINT32 ((guint32) 0xffffffff)
#define GUINT64_TO_LE(val) ((guint64) (val))

```

```

#define G_MAXUINT8      ((guint8) 0xff)
#define g_random_boolean() ((g_random_int () & (1 << 15)) != 0)
#define g_rand_boolean(rand_) ((g_rand_int (rand_) & (1 << 15)) != 0)
#define g_list_next(list) ((list) ? (((GList *) (list))->next) : NULL)
#define g_list_previous(list) ((list) ? (((GList *) (list))->prev) : NULL)
#define g_slist_next(slist) ((slist) ? (((GSList *) (slist))->next) : NULL)
#define g_atomic_int_set(atomic, newval) ((void) (*(atomic) = (newval)))
#define g_atomic_pointer_set(atomic, newval) ((void) (*(atomic) = (newval)))
#define g_atomic_int_get(atomic) (*(atomic))
#define g_atomic_pointer_get(atomic) (*(atomic))
#define G_LOG_2_BASE_10 (0.30102999566398119521)
#define G_ALLOCATOR_LIST (1)
#define G_IEEE754_DOUBLE_BIAS (1023)
#define G_IEEE754_FLOAT_BIAS (127)
#define G_ALLOCATOR_SLIST (2)
#define G_ASCII_DTOSTR_BUF_SIZE (29 + 10)
#define G_ALLOCATOR_NODE (3)
#define G_HOOK_FLAG_USER_SHIFT (4)
#define G_LOG_LEVEL_USER_SHIFT (8)
#define g_ATEXIT(proc) (atexit (proc))
#define g_utf8_next_char(p) (char *) ((p) + g_utf8_skip[*(const gchar *) (p)])
#define G_LIKELY(expr) (expr)
#define G_UNLIKELY(expr) (expr)
#define GINT16_FROM_BE(val) (GINT16_TO_BE (val))
#define GINT16_FROM_LE(val) (GINT16_TO_LE (val))
#define GINT32_FROM_BE(val) (GINT32_TO_BE (val))
#define GINT32_FROM_LE(val) (GINT32_TO_LE (val))
#define GINT64_FROM_BE(val) (GINT64_TO_BE (val))
#define GINT64_FROM_LE(val) (GINT64_TO_LE (val))
#define GINT_FROM_BE(val) (GINT_TO_BE (val))
#define GINT_FROM_LE(val) (GINT_TO_LE (val))
#define GLONG_FROM_BE(val) (GLONG_TO_BE (val))
#define GLONG_FROM_LE(val) (GLONG_TO_LE (val))
#define g_ntohs(val) (GUINT16_FROM_BE (val))
#define GUINT16_SWAP_BE_PDP(val) (GUINT16_SWAP_LE_BE (val))
#define GUINT16_TO_BE(val) (GUINT16_SWAP_LE_BE (val))
#define GUINT16_SWAP_LE_BE(val) (GUINT16_SWAP_LE_BE_CONSTANT (val))
#define GUINT16_FROM_BE(val) (GUINT16_TO_BE (val))
#define g_htons(val) (GUINT16_TO_BE (val))
#define GUINT16_FROM_LE(val) (GUINT16_TO_LE (val))
#define g_ntohl(val) (GUINT32_FROM_BE (val))
#define GUINT32_TO_BE(val) (GUINT32_SWAP_LE_BE (val))
#define GUINT32_SWAP_LE_BE(val) (GUINT32_SWAP_LE_BE_CONSTANT (val))
#define GUINT32_FROM_BE(val) (GUINT32_TO_BE (val))
#define g_htonl(val) (GUINT32_TO_BE (val))
#define GUINT32_FROM_LE(val) (GUINT32_TO_LE (val))
#define GUINT64_TO_BE(val) (GUINT64_SWAP_LE_BE (val))
#define GUINT64_SWAP_LE_BE(val) (GUINT64_SWAP_LE_BE_CONSTANT (val))
#define GUINT64_FROM_BE(val) (GUINT64_TO_BE (val))
#define GUINT64_FROM_LE(val) (GUINT64_TO_LE (val))
#define GUINT_FROM_BE(val) (GUINT_TO_BE (val))
#define GUINT_FROM_LE(val) (GUINT_TO_LE (val))
#define GULONG_FROM_BE(val) (GULONG_TO_BE (val))
#define GULONG_FROM_LE(val) (GULONG_TO_LE (val))
#define g_atomic_int_inc(atomic) (g_atomic_int_add ((atomic), 1))
#define G_HOOK_FLAGS(hook) (G_HOOK (hook)->flags)
#define G_LOG_FATAL_MASK (G_LOG_FLAG_RECURSION | G_LOG_LEVEL_ERROR)
#define G_OPTION_ERROR (g_option_error_quark ())
#define g_thread_supported() (g_threads_got_initialized)
#define G_N_ELEMENTS(arr) (sizeof (arr) / sizeof ((arr)[0]))
#define G_STMT_START (void) __extension__ (
#define G_STMT_END )

```


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```
#define G_PRIORITY_HIGH -100
#define G_DIR_SEPARATOR_S "/"
#define G_HAVE_GROWING_STACK 0
#define G_PRIORITY_DEFAULT 0
#define G_LN2 0.69314718055994530941723212145817656807550013436026
#define G_PI_4 0.78539816339744830961566084581987572104929234984378
#define G_CSET_DIGITS "0123456789"
#define G_DATE_BAD_DAY 0U
#define G_DATE_BAD_JULIAN 0U
#define G_DATE_BAD_YEAR 0U
#define G_MUTEX_DEBUG_MAGIC 0xf8e18ad7
#define G_ALLOC_ONLY 1
#define G_CAN_INLINE 1
#define G_HAVE_GINT64 1
#define G_HAVE_GNUC_VARARGS 1
#define G_HAVE_GNUC_VISIBILITY 1
#define G_HAVE_INLINE 1
#define G_HAVE_ISO_VARARGS 1
#define G_HAVE___INLINE 1
#define G_HAVE___INLINE__ 1
#define G_SQRT2 1.4142135623730950488016887242096980785696718753769
#define G_PI_2 1.5707963267948966192313216916397514420985846996876
#define G_PRIORITY_HIGH_IDLE 100
#define G_USEC_PER_SEC 1000000
#define GLIB_MINOR_VERSION 12
#define G_LITTLE_ENDIAN 1234
#define GLIB_MAJOR_VERSION 2
#define G_ALLOC_AND_FREE 2
#define G_LN10 2.3025850929940456840179914546843642076011014886288
#define G_E 2.7182818284590452353602874713526624977572470937000
#define G_PRIORITY_DEFAULT_IDLE 200
#define GLIB_MICRO_VERSION 3
#define G_PI 3.1415926535897932384626433832795028841971693993751
#define G_PRIORITY_LOW 300
#define G_PDP_ENDIAN 3412
#define G_BIG_ENDIAN 4321
#define G_SEARCHPATH_SEPARATOR_S ":"
#define GLIB_SYSDEF_POLLIN =1
#define GLIB_SYSDEF_POLLHUP =16
#define GLIB_SYSDEF_POLLPRI =2
#define GLIB_SYSDEF_POLLNVAL =32
#define GLIB_SYSDEF_POLLOUT =4
#define GLIB_SYSDEF_POLLERR =8
#define G_CSET_A_2_Z "ABCDEFGHIJKLMNOPQRSTUVWXYZ"
#define G_CSET_a_2_z "abcdefghijklmnopqrstuvwxyz"
#define g_alloca(size) alloca (size)
#define G_CONST_RETURN const
#define G_MAXDOUBLE DBL_MAX
#define G_MINDOUBLE DBL_MIN
#define GLIB_VAR extern
#define G_LOCK_EXTERN(name) extern GStaticMutex G_LOCK_NAME (name)
#define G_INLINE_FUNC extern inline
#define G_MAXFLOAT FLT_MAX
#define G_MINFLOAT FLT_MIN
#define G_MEM_ALIGN GLIB_SIZEOF_LONG
#define g_array_append_val(a,v) g_array_append_vals (a, &(v), 1)
#define g_array_insert_val(a,i,v) g_array_insert_vals (a, i, &(v), 1)
#define g_array_prepend_val(a,v) g_array_prepend_vals (a, &(v), 1)
#define ATEXTIT(proc) g_ATEXTIT(proc)
#define G_CONVERT_ERROR g_convert_error_quark()
#define g_date_day g_date_get_day
#define g_date_days_in_month g_date_get_days_in_month
```

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```
#define g_date_day_of_year      g_date_get_day_of_year
#define g_date_julian          g_date_get_julian
#define g_date_monday_weeks_in_year  g_date_get_monday_weeks_in_year
#define g_date_monday_week_of_year  g_date_get_monday_week_of_year
#define g_date_month           g_date_get_month
#define g_date_sunday_weeks_in_year  g_date_get_sunday_weeks_in_year
#define g_date_sunday_week_of_year  g_date_get_sunday_week_of_year
#define g_date_weekday         g_date_get_weekday
#define g_date_year            g_date_get_year
#define G_FILE_ERROR           g_file_error_quark ()
#define G_MAXINT64             G_GINT64_CONSTANT(0x7fffffffffffffff)
#define G_MININT64             G_GINT64_CONSTANT(0x8000000000000000)
#define G_MAXUINT64            G_GINT64_CONSTANT(0xffffffffffffffffU)
#define G_IO_CHANNEL_ERROR     g_io_channel_error_quark()
#define G_KEY_FILE_ERROR       g_key_file_error_quark()
#define g_debug(...)           g_log (G_LOG_DOMAIN, G_LOG_LEVEL_DEBUG, __VA_ARGS__)
#define g_error(...)           g_log (G_LOG_DOMAIN, G_LOG_LEVEL_ERROR, __VA_ARGS__)
#define G_MARKUP_ERROR         g_markup_error_quark ()
#define G_SHELL_ERROR          g_shell_error_quark ()
#define G_SPAWN_ERROR          g_spawn_error_quark ()
#define G_LOCK(name)           g_static_mutex_lock (&G_LOCK_NAME (name))
#define G_TRYLOCK(name)        g_static_mutex_trylock (&G_LOCK_NAME (name))
#define G_UNLOCK(name)         g_static_mutex_unlock (&G_LOCK_NAME (name))
#define g_strstrip(string)      g_strchomp (g_strchug (string))
#define G_STRINGIFY(macro_or_string)  G_STRINGIFY_ARG (macro_or_string)
#define g_cond_free(cond)      G_THREAD_CF (cond_free, (void)0, (cond))
#define g_cond_signal(cond)    G_THREAD_CF (cond_signal, (void)0, (cond))
#define g_mutex_free(mutex)    G_THREAD_CF (mutex_free, (void)0, (mutex))
#define g_mutex_lock(mutex)    G_THREAD_CF (mutex_lock, (void)0, (mutex))
#define g_mutex_trylock(mutex) G_THREAD_CF (mutex_trylock, TRUE, (mutex))
#define g_mutex_unlock(mutex)  G_THREAD_CF (mutex_unlock, (void)0, (mutex))
#define g_thread_yield()       G_THREAD_CF (thread_yield, (void)0, ())
#define G_THREAD_ERROR         g_thread_error_quark ()
#define g_cond_new()           G_THREAD_UF (cond_new, ())
#define g_mutex_new()          G_THREAD_UF (mutex_new, ())
#define g_private_new(destructor)  G_THREAD_UF (private_new, (destructor))
#define G_LOCK_NAME(name)      g_ ## name ## _lock
#define G_GINT16_MODIFIER      "h"
#define G_GINT16_FORMAT        "hi"
#define G_GUINT16_FORMAT       "hu"
#define G_GINT32_FORMAT        "i"
#define G_MAXINT                INT_MAX
#define G_MININT                INT_MIN
#define G_MAXLONG               LONG_MAX
#define G_MINLONG               LONG_MIN
#define G_MAXSHORT              SHRT_MAX
#define G_MINSHORT              SHRT_MIN
#define G_MODULE_SUFFIX         "so"
#define G_LOCK_DEFINE_STATIC(name)  static G_LOCK_DEFINE (name)
#define G_GUINT32_FORMAT       "u"
#define G_MAXUINT               UINT_MAX
#define G_MAXULONG              ULONG_MAX
#define G_MAXUSHORT             USHRT_MAX
#define G_VA_COPY               va_copy
#define G_STR_DELIMITERS        "-|> <."
#define G_GNUC_INTERNAL         __attribute__((visibility("hidden")))
#define G_GNUC_CONST            __attribute__((__const__))
#define G_GNUC_DEPRECATED       __attribute__((__deprecated__))
#define G_GNUC_FORMAT(arg_idx)  __attribute__((__format_arg__ (arg_idx)))
#define G_GNUC_MALLOC           __attribute__((__malloc__))
#define G_GNUC_NORETURN         __attribute__((__noreturn__))
#define G_GNUC_NO_INSTRUMENT    __attribute__((__no_instrument_function__))
```

```

#define G_GNUC_PURE      __attribute__((__pure__))
#define G_GNUC_UNUSED    __attribute__((__unused__))
#define alloca(size)     __builtin_alloca (size)
#define G_GNUC_EXTENSION __extension__
#define G_STRLOC         __FILE__ ":" G_STRINGIFY (__LINE__)
#define G_STATIC_PRIVATE_INIT { 0 }
#define G_ONCE_INIT      { G_ONCE_STATUS_NOTCALLED, NULL }
#define G_STATIC_REC_MUTEX_INIT { G_STATIC_MUTEX_INIT }

#define __G_BOOKMARK_FILE_H__
#define __G_SLICE_H__
#define g_slice_new(type)      ((type*) g_slice_alloc (sizeof (type)))
#define g_slice_new0(type)     ((type*) g_slice_alloc0 (sizeof (type)))
#define g_slice_dup(type,mem)  (1 ? (type*) g_slice_copy (sizeof (type), (mem)) : ((void) ((type*) 0)))
#define G_BOOKMARK_FILE_ERROR (g_bookmark_file_error_quark ())
#define g_slice_free(type,mem) do { if (1) g_slice_free1 (sizeof (type), (mem)); else (void) ((type*) 0); } while (0)
#define g_slice_free_chain(type,mem_chain,next) do { if (1) g_slice_free_chain_with_offset (sizeof (type), mem_chain, next); else (void) 0; } while (0)

typedef short unsigned int guint16;
typedef int gint;
typedef gint gboolean;
typedef unsigned int guint;
typedef void *gpointer;
typedef gpointer(*GThreadFunc) (gpointer);
typedef enum {
    G_THREAD_PRIORITY_LOW = 0,
    G_THREAD_PRIORITY_NORMAL = 1,
    G_THREAD_PRIORITY_HIGH = 2,
    G_THREAD_PRIORITY_URGENT = 3
} GThreadPriority;
typedef struct _GThread {
    GThreadFunc func;
    gpointer data;
    gboolean joinable;
    GThreadPriority priority;
} GThread;
typedef unsigned int guint32;
typedef guint32 GQuark;
typedef char gchar;
typedef struct _GError {
    GQuark domain;
    gint code;
    gchar *message;
} GError;
typedef void (*GPrintFunc) (const gchar *);
typedef struct _GMemChunk GMemChunk;
typedef long unsigned int gulong;
typedef struct _GList {
    gpointer data;
    GList *next;
    GList *prev;
} GList;
typedef struct _GMainLoop GMainLoop;
typedef struct _GHook {
    gpointer data;
    GHook *next;
    GHook *prev;
    guint ref_count;
    gulong hook_id;
    guint flags;
    gpointer func;
    GDestroyNotify destroy;

```

```

} GHook;
typedef void (*GDestroyNotify) (gpointer);
typedef struct _GHookList {
    gulong seq_id;
    guint hook_size:16;
    guint is_setup:1;
    GHook *hooks;
    gpointer dummy3;
    GHookFinalizeFunc finalize_hook;
    gpointer dummy[2];
} GHookList;
typedef void (*GHookFinalizeFunc) (GHookList *, GHook *);
typedef struct _GQueue {
    GList *head;
    GList *tail;
    guint length;
} GQueue;
typedef struct _GSList {
    gpointer data;
    GSList *next;
} GSList;
typedef struct _GString {
    gchar *str;
    gsize len;
    gsize allocated_len;
} GString;
typedef struct _GPtrArray {
    gpointer *pdata;
    guint len;
} GPtrArray;
typedef struct _GRand GRand;
typedef struct _GDir GDir;
typedef struct _GRelation GRelation;
typedef struct _GOptionContext GOptionContext;
typedef struct _GKeyFile GKeyFile;
typedef struct _GPatternSpec GPatternSpec;
typedef guint32 gunichar;
typedef gchar *(*GCompletionFunc) (gpointer);
typedef gint(*GCompletionStrncmpFunc) (const gchar *, const gchar *,
                                       gsize);
typedef struct _GCompletion {
    GList *items;
    GCompletionFunc func;
    gchar *prefix;
    GList *cache;
    GCompletionStrncmpFunc strncmp_func;
} GCompletion;
typedef struct _GTimer GTimer;
typedef struct _GHashTable GHashTable;
typedef const void *gconstpointer;
typedef guint(*GHashFunc) (gconstpointer);
typedef gboolean(*GEqualFunc) (gconstpointer, gconstpointer);
typedef struct _GStaticMutex {
    struct _GMutex *runtime_mutex;
    union {
        char pad[GLIB_LSB_PADDING_SIZE];
        double dummy_double;
        void *dummy_pointer;
        long int dummy_long;
    } static_mutex;
} GStaticMutex;
typedef union _GSystemThread {

```

```

    char data[GLIB_LSB_DATA_SIZE];
    double dummy_double;
    void *dummy_pointer;
    long int dummy_long;
} GSystemThread;
typedef struct _GStaticRecMutex {
    GStaticMutex mutex;
    guint depth;
    GSystemThread owner;
} GStaticRecMutex;
typedef struct _GMarkupParseContext GMarkupParseContext;
typedef struct _GData GData;
typedef enum {
    G_IO_STATUS_ERROR = 0,
    G_IO_STATUS_NORMAL = 1,
    G_IO_STATUS_EOF = 2,
    G_IO_STATUS_AGAIN = 3
} GIOStatus;
typedef struct _GIOChannel {
    guint ref_count;
    GIOFuncs *funcs;
    gchar *encoding;
    GIconv read_cd;
    GIconv write_cd;
    gchar *line_term;
    guint line_term_len;
    gsize buf_size;
    GString *read_buf;
    GString *encoded_read_buf;
    GString *write_buf;
    gchar partial_write_buf[6];
    guint use_buffer:1;
    guint do_encode:1;
    guint close_on_unref:1;
    guint is_readable:1;
    guint is_writable:1;
    guint is_seekable:1;
    gpointer reserved1;
    gpointer reserved2;
} GIOChannel;
typedef enum {
    G_SEEK_CUR = 0,
    G_SEEK_SET = 1,
    G_SEEK_END = 2
} GSeekType;
typedef struct _GSource {
    gpointer callback_data;
    GSourceCallbackFuncs *callback_funcs;
    GSourceFuncs *source_funcs;
    guint ref_count;
    GMainContext *context;
    gint priority;
    guint flags;
    guint source_id;
    GSList *poll_fds;
    GSource *prev;
    GSource *next;
    gpointer reserved1;
    gpointer reserved2;
} GSource;
typedef gboolean(*GSourceFunc) (gpointer);
typedef struct _GSourceCallbackFuncs {

```

```

    void (*ref) (gpointer);
    void (*unref) (gpointer);
    void (*get) (gpointer, GSource *, GSourceFunc *, gpointer *);
} GSourceCallbackFuncs;
typedef void (*GSourceDummyMarshal) (void);
typedef struct _GSourceFuncs {
    gboolean(*prepare) (GSource *, gint *);
    gboolean(*check) (GSource *);
    gboolean(*dispatch) (GSource *, GSourceFunc, gpointer);
    void (*finalize) (GSource *);
    GSourceFunc closure_callback;
    GSourceDummyMarshal closure_marshal;
} GSourceFuncs;
typedef struct _GMainContext GMainContext;
typedef enum {
    G_IO_IN = 1,
    G_IO_OUT = 4,
    G_IO_PRI = 2,
    G_IO_ERR = 8,
    G_IO_HUP = 16,
    G_IO_NVAL = 32
} GIOCondition;
typedef enum {
    G_IO_FLAG_APPEND = 1,
    G_IO_FLAG_NONBLOCK = 2,
    G_IO_FLAG_IS_READABLE = 4,
    G_IO_FLAG_IS_WRITEABLE = 8,
    G_IO_FLAG_IS_SEEKABLE = 16,
    G_IO_FLAG_MASK = 31,
    G_IO_FLAG_GET_MASK = 31,
    G_IO_FLAG_SET_MASK = 3
} GIOFlags;
typedef struct _GIOFuncs {
    GIOStatus(*io_read) (GIOChannel *, gchar *, gsize, gsize *,
                        GError * *);
    GIOStatus(*io_write) (GIOChannel *, const gchar *, gsize, gsize *,
                        GError * *);
    GIOStatus(*io_seek) (GIOChannel *, gint64, GSeekType, GError * *);
    GIOStatus(*io_close) (GIOChannel *, GError * *);
    GSource *(*io_create_watch) (GIOChannel *, GIOCondition);
    void (*io_free) (GIOChannel *);
    GIOStatus(*io_set_flags) (GIOChannel *, GIOFlags, GError * *);
    GIOFlags(*io_get_flags) (GIOChannel *);
} GIOFuncs;
typedef struct _GIconv *GIconv;
typedef struct _GOptionGroup GOptionGroup;
typedef enum {
    G_SPAWN_LEAVE_DESCRIPTOR_OPEN = 1,
    G_SPAWN_DO_NOT_REAP_CHILD = 2,
    G_SPAWN_SEARCH_PATH = 4,
    G_SPAWN_STDOUT_TO_DEV_NULL = 8,
    G_SPAWN_STDERR_TO_DEV_NULL = 16,
    G_SPAWN_CHILD_INHERITS_STDIN = 32,
    G_SPAWN_FILE_AND_ARGV_ZERO = 64
} GSpawnFlags;
typedef void (*GSpawnChildSetupFunc) (gpointer);
typedef int GPid;
typedef void (*GFunc) (gpointer, gpointer);
typedef struct _GThreadPool {
    GFunc func;
    gpointer user_data;
    gboolean exclusive;

```

```

} GThreadPool;
typedef struct _GDate {
    guint julian_days:32;
    guint julian:1;
    guint dmy:1;
    guint day:6;
    guint month:4;
    guint year:16;
} GDate;
typedef enum {
    G_DATE_BAD_MONTH = 0,
    G_DATE_JANUARY = 1,
    G_DATE_FEBRUARY = 2,
    G_DATE_MARCH = 3,
    G_DATE_APRIL = 4,
    G_DATE_MAY = 5,
    G_DATE_JUNE = 6,
    G_DATE_JULY = 7,
    G_DATE_AUGUST = 8,
    G_DATE_SEPTEMBER = 9,
    G_DATE_OCTOBER = 10,
    G_DATE_NOVEMBER = 11,
    G_DATE_DECEMBER = 12
} GDateMonth;
typedef struct _GAsyncQueue GAsyncQueue;
typedef short unsigned int gushort;
typedef struct _GPollFD {
    gint fd;
    gushort events;
    gushort revents;
} GPollFD;
typedef double gdouble;
typedef struct _GTree GTree;
typedef gint (*GCompareDataFunc) (gconstpointer, gconstpointer, gpointer);
typedef unsigned char guint8;
typedef guint16 GDateYear;
typedef struct _GCache GCache;
typedef void (*GHFunc) (gpointer, gpointer, gpointer);
typedef struct _GScannerConfig {
    gchar *cset_skip_characters;
    gchar *cset_identifier_first;
    gchar *cset_identifier_nth;
    gchar *cpair_comment_single;
    guint case_sensitive:1;
    guint skip_comment_multi:1;
    guint skip_comment_single:1;
    guint scan_comment_multi:1;
    guint scan_identifier:1;
    guint scan_identifier_lchar:1;
    guint scan_identifier_NULL:1;
    guint scan_symbols:1;
    guint scan_binary:1;
    guint scan_octal:1;
    guint scan_float:1;
    guint scan_hex:1;
    guint scan_hex_dollar:1;
    guint scan_string_sq:1;
    guint scan_string_dq:1;
    guint numbers_2_int:1;
    guint int_2_float:1;
    guint identifier_2_string:1;
    guint char_2_token:1;

```

```

    quint symbol_2_token:1;
    quint scope_0_fallback:1;
    quint store_int64:1;
    quint padding_dummy;
} GScannerConfig;
typedef enum {
    G_TOKEN_EOF = 0,
    G_TOKEN_LEFT_PAREN = 40,
    G_TOKEN_RIGHT_PAREN = 41,
    G_TOKEN_LEFT_CURLY = 123,
    G_TOKEN_RIGHT_CURLY = 125,
    G_TOKEN_LEFT_BRACE = 91,
    G_TOKEN_RIGHT_BRACE = 93,
    G_TOKEN_EQUAL_SIGN = 61,
    G_TOKEN_COMMA = 44,
    G_TOKEN_NONE = 256,
    G_TOKEN_ERROR = 257,
    G_TOKEN_CHAR = 258,
    G_TOKEN_BINARY = 259,
    G_TOKEN_OCTAL = 260,
    G_TOKEN_INT = 261,
    G_TOKEN_HEX = 262,
    G_TOKEN_FLOAT = 263,
    G_TOKEN_STRING = 264,
    G_TOKEN_SYMBOL = 265,
    G_TOKEN_IDENTIFIER = 266,
    G_TOKEN_IDENTIFIER_NULL = 267,
    G_TOKEN_COMMENT_SINGLE = 268,
    G_TOKEN_COMMENT_MULTI = 269,
    G_TOKEN_LAST = 270
} GTokenType;
typedef unsigned char guchar;
typedef union _GTokenValue {
    gpointer v_symbol;
    gchar *v_identifier;
    gulong v_binary;
    gulong v_octal;
    gulong v_int;
    quint64 v_int64;
    gdouble v_float;
    gulong v_hex;
    gchar *v_string;
    gchar *v_comment;
    guchar v_char;
    quint v_error;
} GTokenValue;
typedef struct _GScanner {
    gpointer user_data;
    quint max_parse_errors;
    quint parse_errors;
    const gchar *input_name;
    GData *qdata;
    GScannerConfig *config;
    GTokenType token;
    GTokenValue value;
    quint line;
    quint position;
    GTokenType next_token;
    GTokenValue next_value;
    quint next_line;
    quint next_position;
    GHashTable *symbol_table;

```



```

    gint input_fd;
    const gchar *text;
    const gchar *text_end;
    gchar *buffer;
    guint scope_id;
    GScannerMsgFunc msg_handler;
} GScanner;
typedef void (*GScannerMsgFunc) (GScanner *, gchar *, gboolean);
typedef struct _GByteArray {
    guint8 *data;
    guint len;
} GByteArray;
typedef enum {
    G_KEY_FILE_NONE = 0,
    G_KEY_FILE_KEEP_COMMENTS = 1,
    G_KEY_FILE_KEEP_TRANSLATIONS = 2
} GKeyFileFlags;
typedef struct _GTrashStack {
    GTrashStack *next;
} GTrashStack;
typedef guint16 gunichar2;
typedef long int glong;
typedef struct _GArray {
    gchar *data;
    guint len;
} GArray;
typedef struct _GNode {
    gpointer data;
    GNode *next;
    GNode *prev;
    GNode *parent;
    GNode *children;
} GNode;
typedef gboolean(*GHRFunc) (gpointer, gpointer, gpointer);
typedef gint(*GCompareFunc) (gconstpointer, gconstpointer);
typedef int gint32;
typedef gint32 GTime;
typedef gint(*GPollFunc) (GPollFD *, guint, gint);
typedef guint8 GDateDay;
typedef enum {
    G_UNICODE_BREAK_MANDATORY = 0,
    G_UNICODE_BREAK_CARRIAGE_RETURN = 1,
    G_UNICODE_BREAK_LINE_FEED = 2,
    G_UNICODE_BREAK_COMBINING_MARK = 3,
    G_UNICODE_BREAK_SURROGATE = 4,
    G_UNICODE_BREAK_ZERO_WIDTH_SPACE = 5,
    G_UNICODE_BREAK_INSEPARABLE = 6,
    G_UNICODE_BREAK_NON_BREAKING_GLUE = 7,
    G_UNICODE_BREAK_CONTINGENT = 8,
    G_UNICODE_BREAK_SPACE = 9,
    G_UNICODE_BREAK_AFTER = 10,
    G_UNICODE_BREAK_BEFORE = 11,
    G_UNICODE_BREAK_BEFORE_AND_AFTER = 12,
    G_UNICODE_BREAK_HYPHEN = 13,
    G_UNICODE_BREAK_NON_STARTER = 14,
    G_UNICODE_BREAK_OPEN_PUNCTUATION = 15,
    G_UNICODE_BREAK_CLOSE_PUNCTUATION = 16,
    G_UNICODE_BREAK_QUOTATION = 17,
    G_UNICODE_BREAK_EXCLAMATION = 18,
    G_UNICODE_BREAK_IDEOGRAPHIC = 19,
    G_UNICODE_BREAK_NUMERIC = 20,
    G_UNICODE_BREAK_INFIX_SEPARATOR = 21,

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```

    G_UNICODE_BREAK_SYMBOL = 22,
    G_UNICODE_BREAK_ALPHABETIC = 23,
    G_UNICODE_BREAK_PREFIX = 24,
    G_UNICODE_BREAK_POSTFIX = 25,
    G_UNICODE_BREAK_COMPLEX_CONTEXT = 26,
    G_UNICODE_BREAK_AMBIGUOUS = 27,
    G_UNICODE_BREAK_UNKNOWN = 28,
    G_UNICODE_BREAK_NEXT_LINE = 29,
    G_UNICODE_BREAK_WORD_JOINER = 30
} GUnicodeBreakType;
typedef struct _GStringChunk GStringChunk;
typedef struct _GCond GCond;
typedef struct _GStaticRWLock {
    GStaticMutex mutex;
    GCond *read_cond;
    GCond *write_cond;
    guint read_counter;
    gboolean have_writer;
    guint want_to_read;
    guint want_to_write;
} GStaticRWLock;
typedef void (*GChildWatchFunc) (GPid, gint, gpointer);
typedef struct _GTimeVal {
    glong tv_sec;
    glong tv_usec;
} GTimeVal;
typedef enum {
    G_LOG_FLAG_RECURSION = 1,
    G_LOG_FLAG_FATAL = 2,
    G_LOG_LEVEL_ERROR = 4,
    G_LOG_LEVEL_CRITICAL = 8,
    G_LOG_LEVEL_WARNING = 16,
    G_LOG_LEVEL_MESSAGE = 32,
    G_LOG_LEVEL_INFO = 64,
    G_LOG_LEVEL_DEBUG = 128,
    G_LOG_LEVEL_MASK = -4
} GLogLevelFlags;
typedef enum {
    G_DATE_BAD_WEEKDAY = 0,
    G_DATE_MONDAY = 1,
    G_DATE_TUESDAY = 2,
    G_DATE_WEDNESDAY = 3,
    G_DATE_THURSDAY = 4,
    G_DATE_FRIDAY = 5,
    G_DATE_SATURDAY = 6,
    G_DATE_SUNDAY = 7
} GDateWeekday;
typedef enum {
    G_IN_ORDER = 0,
    G_PRE_ORDER = 1,
    G_POST_ORDER = 2,
    G_LEVEL_ORDER = 3
} GTraverseType;
typedef enum {
    G_TRAVERSE_LEAVES = 1,
    G_TRAVERSE_NON_LEAVES = 2,
    G_TRAVERSE_ALL = 3,
    G_TRAVERSE_MASK = 3,
    G_TRAVERSE_LEAFS = 1,
    G_TRAVERSE_NON_LEAFS = 2
} GTraverseFlags;
typedef struct _GMarkupParser {

```

```

void (*start_element) (GMarkupParseContext *, const gchar *,
                      const gchar * *, const gchar * *, gpointer,
                      GError * *);
void (*end_element) (GMarkupParseContext *, const gchar *, gpointer,
                    GError * *);
void (*text) (GMarkupParseContext *, const gchar *, gsize, gpointer,
             GError * *);
void (*passthrough) (GMarkupParseContext *, const gchar *, gsize,
                    gpointer, GError * *);
void (*error) (GMarkupParseContext *, GError *, gpointer);
} GMarkupParser;
typedef enum {
    G_MARKUP_DO_NOT_USE_THIS_UNSUPPORTED_FLAG = 1
} GMarkupParseFlags;
typedef gboolean(*GHookCheckMarshaller) (GHook *, gpointer);
typedef gboolean(*GNodeTraverseFunc) (GNode *, gpointer);
typedef enum {
    G_NORMALIZE_DEFAULT = 0,
    G_NORMALIZE_NFD = 0,
    G_NORMALIZE_DEFAULT_COMPOSE = 1,
    G_NORMALIZE_NFC = 1,
    G_NORMALIZE_ALL = 2,
    G_NORMALIZE_NFKD = 2,
    G_NORMALIZE_ALL_COMPOSE = 3,
    G_NORMALIZE_NFKC = 3
} GNormalizeMode;
typedef struct _GMutex GMutex;
typedef struct _GStaticPrivate {
    guint index;
} GStaticPrivate;
typedef enum {
    G_FILE_ERROR_EXIST = 0,
    G_FILE_ERROR_ISDIR = 1,
    G_FILE_ERROR_ACCES = 2,
    G_FILE_ERROR_NAMETOOLONG = 3,
    G_FILE_ERROR_NOENT = 4,
    G_FILE_ERROR_NOTDIR = 5,
    G_FILE_ERROR_NXIO = 6,
    G_FILE_ERROR_NODEV = 7,
    G_FILE_ERROR_ROFS = 8,
    G_FILE_ERROR_TXTBSY = 9,
    G_FILE_ERROR_FAULT = 10,
    G_FILE_ERROR_LOOP = 11,
    G_FILE_ERROR_NOSPC = 12,
    G_FILE_ERROR_NOMEM = 13,
    G_FILE_ERROR_MFILE = 14,
    G_FILE_ERROR_NFILE = 15,
    G_FILE_ERROR_BADF = 16,
    G_FILE_ERROR_INVAL = 17,
    G_FILE_ERROR_PIPE = 18,
    G_FILE_ERROR_AGAIN = 19,
    G_FILE_ERROR_INTR = 20,
    G_FILE_ERROR_IO = 21,
    G_FILE_ERROR_PERM = 22,
    G_FILE_ERROR_NOSYS = 23,
    G_FILE_ERROR_FAILED = 24
} GFileError;
typedef void (*GDataForeachFunc) (GQuark, gpointer, gpointer);
typedef struct _GMemVTable {
    gpointer(*malloc) (gsize);
    gpointer(*realloc) (gpointer, gsize);
    void(*free) (gpointer);

```

```

    gpointer(*calloc) (gsize, gsize);
    gpointer(*try_malloc) (gsize);
    gpointer(*try_realloc) (gpointer, gsize);
} GMemVTable;
typedef enum {
    G_OPTION_ARG_NONE = 0,
    G_OPTION_ARG_STRING = 1,
    G_OPTION_ARG_INT = 2,
    G_OPTION_ARG_CALLBACK = 3,
    G_OPTION_ARG_FILENAME = 4,
    G_OPTION_ARG_STRING_ARRAY = 5,
    G_OPTION_ARG_FILENAME_ARRAY = 6
} GOptionArg;
typedef struct _GOptionEntry {
    const gchar *long_name;
    gchar short_name;
    gint flags;
    GOptionArg arg;
    gpointer arg_data;
    const gchar *description;
    const gchar *arg_description;
} GOptionEntry;
typedef enum {
    G_UNICODE_CONTROL = 0,
    G_UNICODE_FORMAT = 1,
    G_UNICODE_UNASSIGNED = 2,
    G_UNICODE_PRIVATE_USE = 3,
    G_UNICODE_SURROGATE = 4,
    G_UNICODE_LOWERCASE_LETTER = 5,
    G_UNICODE_MODIFIER_LETTER = 6,
    G_UNICODE_OTHER_LETTER = 7,
    G_UNICODE_TITLECASE_LETTER = 8,
    G_UNICODE_UPPERCASE_LETTER = 9,
    G_UNICODE_COMBINING_MARK = 10,
    G_UNICODE_ENCLOSING_MARK = 11,
    G_UNICODE_NON_SPACING_MARK = 12,
    G_UNICODE_DECIMAL_NUMBER = 13,
    G_UNICODE_LETTER_NUMBER = 14,
    G_UNICODE_OTHER_NUMBER = 15,
    G_UNICODE_CONNECT_PUNCTUATION = 16,
    G_UNICODE_DASH_PUNCTUATION = 17,
    G_UNICODE_CLOSE_PUNCTUATION = 18,
    G_UNICODE_FINAL_PUNCTUATION = 19,
    G_UNICODE_INITIAL_PUNCTUATION = 20,
    G_UNICODE_OTHER_PUNCTUATION = 21,
    G_UNICODE_OPEN_PUNCTUATION = 22,
    G_UNICODE_CURRENCY_SYMBOL = 23,
    G_UNICODE_MODIFIER_SYMBOL = 24,
    G_UNICODE_MATH_SYMBOL = 25,
    G_UNICODE_OTHER_SYMBOL = 26,
    G_UNICODE_LINE_SEPARATOR = 27,
    G_UNICODE_PARAGRAPH_SEPARATOR = 28,
    G_UNICODE_SPACE_SEPARATOR = 29
} GUnicodeType;
typedef void (*GLogFunc) (const gchar *, GLogLevelFlags, const gchar *,
                          gpointer);
typedef struct _GAllocator GAllocator;
typedef const gchar *(*GTranslateFunc) (const gchar *, gpointer);
typedef gboolean(*GOptionParseFunc) (GOptionContext *, GOptionGroup *,
                                     gpointer, GError * *);
typedef void (*GVoidFunc) (void);
typedef gboolean(*GHookFindFunc) (GHook *, gpointer);

```

```

typedef struct _GTuples {
    guint len;
} GTuples;
typedef gpointer(*GCopyFunc) (gconstpointer, gpointer);
typedef void (*GOptionErrorFunc) (GOptionContext *, GOptionGroup *,
                                   gpointer, GError * *);
typedef gpointer(*GCacheNewFunc) (gpointer);
typedef void (*GCacheDestroyFunc) (gpointer);
typedef gpointer(*GCacheDupFunc) (gpointer);
typedef enum {
    G_FILE_TEST_IS_REGULAR = 1,
    G_FILE_TEST_IS_SYMLINK = 2,
    G_FILE_TEST_IS_DIR = 4,
    G_FILE_TEST_IS_EXECUTABLE = 8,
    G_FILE_TEST_EXISTS = 16
} GFileTest;
typedef enum {
    G_ONCE_STATUS_NOTCALLED = 0,
    G_ONCE_STATUS_PROGRESS = 1,
    G_ONCE_STATUS_READY = 2
} GOnceStatus;
typedef struct _GOnce {
    volatile GOnceStatus status;
    volatile gpointer retval;
} GOnce;
typedef gboolean(*GTraverseFunc) (gpointer, gpointer, gpointer);
typedef gint(*GHookCompareFunc) (GHook *, GHook *);
typedef void (*GNodeForeachFunc) (GNode *, gpointer);
typedef struct _GDebugKey {
    gchar *key;
    guint value;
} GDebugKey;
typedef struct _GPrivate GPrivate;
typedef struct _GThreadFunctions {
    GMutex *(*mutex_new) (void);
    void (*mutex_lock) (GMutex *);
    gboolean(*mutex_trylock) (GMutex *);
    void (*mutex_unlock) (GMutex *);
    void (*mutex_free) (GMutex *);
    GCond *(*cond_new) (void);
    void (*cond_signal) (GCond *);
    void (*cond_broadcast) (GCond *);
    void (*cond_wait) (GCond *, GMutex *);
    gboolean(*cond_timed_wait) (GCond *, GMutex *, GTimeVal *);
    void (*cond_free) (GCond *);
    GPrivate *(*private_new) (GDestroyNotify);
    gpointer(*private_get) (GPrivate *);
    void (*private_set) (GPrivate *, gpointer);
    void (*thread_create) (GThreadFunc, gpointer, gulong, gboolean,
                          gboolean, GThreadPriority, gpointer,
                          GError * *);
    void (*thread_yield) (void);
    void (*thread_join) (gpointer);
    void (*thread_exit) (void);
    void (*thread_set_priority) (gpointer, GThreadPriority);
    void (*thread_self) (gpointer);
    gboolean(*thread_equal) (gpointer, gpointer);
} GThreadFunctions;
typedef void (*GHookMarshaller) (GHook *, gpointer);
typedef enum {
    G_IO_CHANNEL_ERROR_FBIG = 0,
    G_IO_CHANNEL_ERROR_INVAL = 1,

```

```

    G_IO_CHANNEL_ERROR_IO = 2,
    G_IO_CHANNEL_ERROR_ISDIR = 3,
    G_IO_CHANNEL_ERROR_NOSPC = 4,
    G_IO_CHANNEL_ERROR_NXIO = 5,
    G_IO_CHANNEL_ERROR_OVERFLOW = 6,
    G_IO_CHANNEL_ERROR_PIPE = 7,
    G_IO_CHANNEL_ERROR_FAILED = 8
} GIOChannelError;
typedef gboolean(*GIOFunc) (GIOChannel *, GIOCondition, gpointer);
typedef void (*GFreeFunc) (gpointer);
typedef gboolean(*GHookCheckFunc) (gpointer);
typedef void (*GHookFunc) (gpointer);
typedef short int gint16;
typedef enum {
    G_DATE_DAY = 0,
    G_DATE_MONTH = 1,
    G_DATE_YEAR = 2
} GDateDMY;
typedef signed char gint8;
typedef enum {
    G_MARKUP_ERROR_BAD_UTF8 = 0,
    G_MARKUP_ERROR_EMPTY = 1,
    G_MARKUP_ERROR_PARSE = 2,
    G_MARKUP_ERROR_UNKNOWN_ELEMENT = 3,
    G_MARKUP_ERROR_UNKNOWN_ATTRIBUTE = 4,
    G_MARKUP_ERROR_INVALID_CONTENT = 5
} GMarkupError;
typedef enum {
    G_IO_ERROR_NONE = 0,
    G_IO_ERROR_AGAIN = 1,
    G_IO_ERROR_INVALID = 2,
    G_IO_ERROR_UNKNOWN = 3
} GIOError;
typedef gboolean(*GOptionArgFunc) (const gchar *, const gchar *, gpointer,
                                   GError * *);
typedef enum {
    G_OPTION_FLAG_HIDDEN = 1 << 0,
    G_OPTION_FLAG_IN_MAIN = 1 << 1,
    G_OPTION_FLAG_REVERSE = 1 << 2
} GOptionFlags;
typedef enum {
    G_CONVERT_ERROR_NO_CONVERSION,
    G_CONVERT_ERROR_ILLEGAL_SEQUENCE,
    G_CONVERT_ERROR_FAILED,
    G_CONVERT_ERROR_PARTIAL_INPUT,
    G_CONVERT_ERROR_BAD_URI,
    G_CONVERT_ERROR_NOT_ABSOLUTE_PATH
} GConvertError;
typedef enum {
    G_ERR_UNKNOWN,
    G_ERR_UNEXP_EOF,
    G_ERR_UNEXP_EOF_IN_STRING,
    G_ERR_UNEXP_EOF_IN_COMMENT,
    G_ERR_NON_DIGIT_IN_CONST,
    G_ERR_DIGIT_RADIX,
    G_ERR_FLOAT_RADIX,
    G_ERR_FLOAT_MALFORMED
} GErrorType;
typedef enum {
    G_KEY_FILE_ERROR_UNKNOWN_ENCODING,
    G_KEY_FILE_ERROR_PARSE,
    G_KEY_FILE_ERROR_NOT_FOUND,

```

```

    G_KEY_FILE_ERROR_KEY_NOT_FOUND,
    G_KEY_FILE_ERROR_GROUP_NOT_FOUND,
    G_KEY_FILE_ERROR_INVALID_VALUE
} GKeyFileError;
typedef enum {
    G_SPAWN_ERROR_FORK,
    G_SPAWN_ERROR_READ,
    G_SPAWN_ERROR_CHDIR,
    G_SPAWN_ERROR_ACCES,
    G_SPAWN_ERROR_PERM,
    G_SPAWN_ERROR_2BIG,
    G_SPAWN_ERROR_NOEXEC,
    G_SPAWN_ERROR_NAMETOOLONG,
    G_SPAWN_ERROR_NOENT,
    G_SPAWN_ERROR_NOMEM,
    G_SPAWN_ERROR_NOTDIR,
    G_SPAWN_ERROR_LOOP,
    G_SPAWN_ERROR_TXTBUSY,
    G_SPAWN_ERROR_IO,
    G_SPAWN_ERROR_NFILE,
    G_SPAWN_ERROR_MFILE,
    G_SPAWN_ERROR_INVALID,
    G_SPAWN_ERROR_ISDIR,
    G_SPAWN_ERROR_LIBBAD,
    G_SPAWN_ERROR_FAILED
} GSpawnError;
typedef enum {
    G_HOOK_FLAG_ACTIVE = 1 << 0,
    G_HOOK_FLAG_IN_CALL = 1 << 1,
    G_HOOK_FLAG_MASK = 0x0f
} GHookFlagMask;
typedef enum {
    G_THREAD_ERROR_AGAIN
} GThreadError;
typedef enum {
    G_OPTION_ERROR_UNKNOWN_OPTION,
    G_OPTION_ERROR_BAD_VALUE,
    G_OPTION_ERROR_FAILED
} GOptionError;
typedef enum {
    G_ASCII_ALNUM = 1 << 0,
    G_ASCII_ALPHA = 1 << 1,
    G_ASCII_CNTRL = 1 << 2,
    G_ASCII_DIGIT = 1 << 3,
    G_ASCII_GRAPH = 1 << 4,
    G_ASCII_LOWER = 1 << 5,
    G_ASCII_PRINT = 1 << 6,
    G_ASCII_PUNCT = 1 << 7,
    G_ASCII_SPACE = 1 << 8,
    G_ASCII_UPPER = 1 << 9,
    G_ASCII_XDIGIT = 1 << 10
} GAsciiType;
typedef enum {
    G_SHELL_ERROR_BAD_QUOTING,
    G_SHELL_ERROR_EMPTY_STRING,
    G_SHELL_ERROR_FAILED
} GShellError;
typedef struct _GMappedFile GMappedFile;
typedef enum {
    G_BOOKMARK_FILE_ERROR_INVALID_URI,
    G_BOOKMARK_FILE_ERROR_INVALID_VALUE,
    G_BOOKMARK_FILE_ERROR_APP_NOT_REGISTERED,

```

```

    G_BOOKMARK_FILE_ERROR_URI_NOT_FOUND,
    G_BOOKMARK_FILE_ERROR_READ,
    G_BOOKMARK_FILE_ERROR_UNKNOWN_ENCODING,
    G_BOOKMARK_FILE_ERROR_WRITE,
    G_BOOKMARK_FILE_ERROR_FILE_NOT_FOUND
} GBookmarkFileError;
typedef struct _GBookmarkFile GBookmarkFile;
extern void g_allocator_free(GAllocator * allocator);
extern GAllocator *g_allocator_new(const gchar * name, guint n_preallocs);
extern GArray *g_array_append_vals(GArray * array, gconstpointer data,
                                   guint len);
extern gchar *g_array_free(GArray * array, gboolean free_segment);
extern GArray *g_array_insert_vals(GArray * array, guint index_,
                                   gconstpointer data, guint len);
extern GArray *g_array_new(gboolean zero_terminated, gboolean clear_,
                           guint element_size);
extern GArray *g_array_prepend_vals(GArray * array, gconstpointer data,
                                    guint len);
extern GArray *g_array_remove_index(GArray * array, guint index_);
extern GArray *g_array_remove_index_fast(GArray * array, guint index_);
extern GArray *g_array_remove_range(GArray * array, guint index_,
                                    guint length);
extern GArray *g_array_set_size(GArray * array, guint length);
extern GArray *g_array_sized_new(gboolean zero_terminated, gboolean clear_,
                                guint element_size, guint reserved_size);
extern void g_array_sort(GArray * array, GCompareFunc compare_func);
extern void g_array_sort_with_data(GArray * array,
                                   GCompareDataFunc compare_func,
                                   gpointer user_data);
extern gint g_ascii_digit_value(gchar c);
extern gchar *g_ascii_dtostr(gchar * buffer, gint buf_len, gdouble d);
extern gchar *g_ascii_formatd(gchar * buffer, gint buf_len,
                              const gchar * format, gdouble d);
extern gint g_ascii_strcasecmp(const gchar * s1, const gchar * s2);
extern gchar *g_ascii_strdown(const gchar * str, gssize len);
extern gint g_ascii_strncasecmp(const gchar * s1, const gchar * s2,
                                gsize n);
extern gdouble g_ascii_strtod(const gchar * nptr, gchar * *endptr);
extern gint64 g_ascii_strtoll(const gchar * nptr, gchar * *endptr,
                             guint base);
extern guint64 g_ascii_strtoull(const gchar * nptr, gchar * *endptr,
                                guint base);
extern gchar *g_ascii_strup(const gchar * str, gssize len);
extern const guint16 *const g_ascii_table;
extern gchar g_ascii_tolower(gchar c);
extern gchar g_ascii_toupper(gchar c);
extern gint g_ascii_xdigit_value(gchar c);
extern void g_assert_warning(const char *log_domain, const char *file,
                            const int line, const char *pretty_function,
                            const char *expression);
extern gint g_async_queue_length(GAsyncQueue * queue);
extern gint g_async_queue_length_unlocked(GAsyncQueue * queue);
extern void g_async_queue_lock(GAsyncQueue * queue);
extern GAsyncQueue *g_async_queue_new(void);
extern gpointer g_async_queue_pop(GAsyncQueue * queue);
extern gpointer g_async_queue_pop_unlocked(GAsyncQueue * queue);
extern void g_async_queue_push(GAsyncQueue * queue, gpointer data);
extern void g_async_queue_push_sorted(GAsyncQueue * queue, gpointer data,
                                      GCompareDataFunc func,
                                      gpointer user_data);
extern void g_async_queue_push_sorted_unlocked(GAsyncQueue * queue,
                                              gpointer data,

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                                GCompareDataFunc func,
                                gpointer user_data);
extern void g_async_queue_push_unlocked(GAsyncQueue * queue,
                                gpointer data);
extern GAsyncQueue *g_async_queue_ref(GAsyncQueue * queue);
extern void g_async_queue_sort(GAsyncQueue * queue, GCompareDataFunc func,
                                gpointer user_data);
extern void g_async_queue_sort_unlocked(GAsyncQueue * queue,
                                GCompareDataFunc func,
                                gpointer user_data);
extern gpointer g_async_queue_timed_pop(GAsyncQueue * queue,
                                GTimeVal * end_time);
extern gpointer g_async_queue_timed_pop_unlocked(GAsyncQueue * queue,
                                GTimeVal * end_time);
extern gpointer g_async_queue_try_pop(GAsyncQueue * queue);
extern gpointer g_async_queue_try_pop_unlocked(GAsyncQueue * queue);
extern void g_async_queue_unlock(GAsyncQueue * queue);
extern void g_async_queue_unref(GAsyncQueue * queue);
extern void g_atexit(GVoidFunc func);
extern void g_atomic_int_add(gint * volatile atomic, gint val);
extern gboolean g_atomic_int_compare_and_exchange(gint * volatile atomic,
                                gint oldval,
                                gint newval);
extern gint g_atomic_int_exchange_and_add(gint * volatile atomic,
                                gint val);
extern gboolean g_atomic_pointer_compare_and_exchange(gpointer *
                                volatile atomic,
                                gpointer oldval,
                                gpointer newval);
extern guchar *g_base64_decode(const char *text, gsize * out_len);
extern gsize g_base64_decode_step(const char *in, gsize len, guchar * out,
                                gint * state, guint * save);
extern gchar *g_base64_encode(const unsigned char *data, gsize len);
extern gsize g_base64_encode_close(gboolean break_lines, gchar * out,
                                gint * state, gint * save);
extern gsize g_base64_encode_step(const unsigned char *in, gsize len,
                                gboolean break_lines, gchar * out,
                                gint * state, gint * save);
extern gint g_bit_nth_lsf(gulong mask, gint nth_bit);
extern gint g_bit_nth_msf(gulong mask, gint nth_bit);
extern guint g_bit_storage(gulong number);
extern void g_blow_chunks(void);
extern void g_bookmark_file_add_application(GBookmarkFile * bookmark,
                                const char *uri,
                                const char *name,
                                const char *exec);
extern void g_bookmark_file_add_group(GBookmarkFile * bookmark,
                                const char *uri, const char *group);
extern GQuark g_bookmark_file_error_quark(void);
extern void g_bookmark_file_free(GBookmarkFile * bookmark);
extern time_t g_bookmark_file_get_added(GBookmarkFile * bookmark,
                                const char *uri, GError * *error);
extern gboolean g_bookmark_file_get_app_info(GBookmarkFile * bookmark,
                                const char *uri,
                                const char *name,
                                gchar * *exec, guint * count,
                                time_t * stamp,
                                GError * *error);
extern gchar **g_bookmark_file_get_applications(GBookmarkFile * bookmark,
                                const char *uri,
                                gsize * length,
                                GError * *error);

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extern gchar *g_bookmark_file_get_description(GBookmarkFile * bookmark,
                                              const char *uri,
                                              GError * *error);
extern gchar **g_bookmark_file_get_groups(GBookmarkFile * bookmark,
                                          const char *uri, gsize * length,
                                          GError * *error);
extern gboolean g_bookmark_file_get_icon(GBookmarkFile * bookmark,
                                          const char *uri, gchar * *href,
                                          gchar * *mime_type,
                                          GError * *error);
extern gboolean g_bookmark_file_get_is_private(GBookmarkFile * bookmark,
                                              const char *uri,
                                              GError * *error);
extern gchar *g_bookmark_file_get_mime_type(GBookmarkFile * bookmark,
                                             const char *uri,
                                             GError * *error);
extern time_t g_bookmark_file_get_modified(GBookmarkFile * bookmark,
                                           const char *uri,
                                           GError * *error);
extern gint g_bookmark_file_get_size(GBookmarkFile * bookmark);
extern gchar *g_bookmark_file_get_title(GBookmarkFile * bookmark,
                                        const char *uri, GError * *error);
extern gchar **g_bookmark_file_get_uris(GBookmarkFile * bookmark,
                                         gsize * length);
extern time_t g_bookmark_file_get_visited(GBookmarkFile * bookmark,
                                           const char *uri,
                                           GError * *error);
extern gboolean g_bookmark_file_has_application(GBookmarkFile * bookmark,
                                              const char *uri,
                                              const char *name,
                                              GError * *error);
extern gboolean g_bookmark_file_has_group(GBookmarkFile * bookmark,
                                          const char *uri,
                                          const char *group,
                                          GError * *error);
extern gboolean g_bookmark_file_has_item(GBookmarkFile * bookmark,
                                         const char *uri);
extern gboolean g_bookmark_file_load_from_data(GBookmarkFile * bookmark,
                                              const char *data,
                                              gsize length,
                                              GError * *error);
extern gboolean g_bookmark_file_load_from_data_dirs(GBookmarkFile *
                                                    bookmark,
                                                    const char *file,
                                                    gchar * *full_path,
                                                    GError * *error);
extern gboolean g_bookmark_file_load_from_file(GBookmarkFile * bookmark,
                                              const char *filename,
                                              GError * *error);
extern gboolean g_bookmark_file_move_item(GBookmarkFile * bookmark,
                                          const char *old_uri,
                                          const char *new_uri,
                                          GError * *error);
extern GBookmarkFile *g_bookmark_file_new(void);
extern gboolean g_bookmark_file_remove_application(GBookmarkFile *
                                                  bookmark,
                                                  const char *uri,
                                                  const char *name,
                                                  GError * *error);
extern gboolean g_bookmark_file_remove_group(GBookmarkFile * bookmark,
                                             const char *uri,
                                             const char *group,

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        GError * *error);
extern gboolean g_bookmark_file_remove_item(GBookmarkFile * bookmark,
        const char *uri,
        GError * *error);
extern void g_bookmark_file_set_added(GBookmarkFile * bookmark,
        const char *uri, time_t added);
extern gboolean g_bookmark_file_set_app_info(GBookmarkFile * bookmark,
        const char *uri,
        const char *name,
        const char *exec, gint count,
        time_t stamp,
        GError * *error);
extern void g_bookmark_file_set_description(GBookmarkFile * bookmark,
        const char *uri,
        const char *description);
extern void g_bookmark_file_set_groups(GBookmarkFile * bookmark,
        const char *uri,
        const char **groups, gsize length);
extern void g_bookmark_file_set_icon(GBookmarkFile * bookmark,
        const char *uri, const char *href,
        const char *mime_type);
extern void g_bookmark_file_set_is_private(GBookmarkFile * bookmark,
        const char *uri,
        gboolean is_private);
extern void g_bookmark_file_set_mime_type(GBookmarkFile * bookmark,
        const char *uri,
        const char *mime_type);
extern void g_bookmark_file_set_modified(GBookmarkFile * bookmark,
        const char *uri, time_t modified);
extern void g_bookmark_file_set_title(GBookmarkFile * bookmark,
        const char *uri, const char *title);
extern void g_bookmark_file_set_visited(GBookmarkFile * bookmark,
        const char *uri, time_t visited);
extern gchar *g_bookmark_file_to_data(GBookmarkFile * bookmark,
        gsize * length, GError * *error);
extern gboolean g_bookmark_file_to_file(GBookmarkFile * bookmark,
        const char *filename,
        GError * *error);
extern gchar *g_build_filename(const gchar * first_element, ...);
extern gchar *g_build_filenamev(gchar * *args);
extern gchar *g_build_path(const gchar * separator,
        const gchar * first_element, ...);
extern gchar *g_build_pathv(const gchar * separator, gchar * *args);
extern GByteArray *g_byte_array_append(GByteArray * array,
        const guint8 * data, guint len);
extern guint8 *g_byte_array_free(GByteArray * array,
        gboolean free_segment);
extern GByteArray *g_byte_array_new(void);
extern GByteArray *g_byte_array_prepend(GByteArray * array,
        const guint8 * data, guint len);
extern GByteArray *g_byte_array_remove_index(GByteArray * array,
        guint index_);
extern GByteArray *g_byte_array_remove_index_fast(GByteArray * array,
        guint index_);
extern GByteArray *g_byte_array_remove_range(GByteArray * array,
        guint index_, guint length);
extern GByteArray *g_byte_array_set_size(GByteArray * array, guint length);
extern GByteArray *g_byte_array_sized_new(guint reserved_size);
extern void g_byte_array_sort(GByteArray * array,
        GCompareFunc compare_func);
extern void g_byte_array_sort_with_data(GByteArray * array,
        GCompareDataFunc compare_func,

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                                gpointer user_data);
extern void g_cache_destroy(GCache * cache);
extern gpointer g_cache_insert(GCache * cache, gpointer key);
extern void g_cache_key_foreach(GCache * cache, GHFunc func,
                                gpointer user_data);
extern GCache *g_cache_new(GCacheNewFunc value_new_func,
                           GCacheDestroyFunc value_destroy_func,
                           GCacheDupFunc key_dup_func,
                           GCacheDestroyFunc key_destroy_func,
                           GHashFunc hash_key_func,
                           GHashFunc hash_value_func,
                           GEqualFunc key_equal_func);
extern void g_cache_remove(GCache * cache, gconstpointer value);
extern void g_cache_value_foreach(GCache * cache, GHFunc func,
                                gpointer user_data);
extern guint g_child_watch_add(GPid pid, GChildWatchFunc function,
                                gpointer data);
extern guint g_child_watch_add_full(gint priority, GPid pid,
                                    GChildWatchFunc function,
                                    gpointer data, GDestroyNotify notify);
extern GSourceFuncs g_child_watch_funcs;
extern GSource *g_child_watch_source_new(GPid pid);
extern void g_clear_error(GError * *err);
extern void g_completion_add_items(GCompletion * cmp, GList * items);
extern void g_completion_clear_items(GCompletion * cmp);
extern GList *g_completion_complete(GCompletion * cmp,
                                    const gchar * prefix,
                                    gchar * *new_prefix);
extern GList *g_completion_complete_utf8(GCompletion * cmp,
                                         const gchar * prefix,
                                         gchar * *new_prefix);
extern void g_completion_free(GCompletion * cmp);
extern GCompletion *g_completion_new(GCompletionFunc func);
extern void g_completion_remove_items(GCompletion * cmp, GList * items);
extern void g_completion_set_compare(GCompletion * cmp,
                                     GCompletionStrncmpFunc strncmp_func);
extern gchar *g_convert(const gchar * str, gssize len,
                        const gchar * to_codeset,
                        const gchar * from_codeset, gsize * bytes_read,
                        gsize * bytes_written, GError * *error);
extern GQuark g_convert_error_quark(void);
extern gchar *g_convert_with_fallback(const gchar * str, gssize len,
                                     const gchar * to_codeset,
                                     const gchar * from_codeset,
                                     gchar * fallback, gsize * bytes_read,
                                     gsize * bytes_written,
                                     GError * *error);
extern gchar *g_convert_with_iconv(const gchar * str, gssize len,
                                   GIconv converter, gsize * bytes_read,
                                   gsize * bytes_written, GError * *error);
extern void g_datalist_clear(GData * *datalist);
extern void g_datalist_foreach(GData * *datalist, GDataForeachFunc func,
                                gpointer user_data);
extern guint g_datalist_get_flags(GData * *datalist);
extern gpointer g_datalist_id_get_data(GData * *datalist, GQuark key_id);
extern gpointer g_datalist_id_remove_no_notify(GData * *datalist,
                                                GQuark key_id);
extern void g_datalist_id_set_data_full(GData * *datalist, GQuark key_id,
                                         gpointer data,
                                         GDestroyNotify destroy_func);
extern void g_datalist_init(GData * *datalist);
extern void g_datalist_set_flags(GData * *datalist, guint flags);

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extern void g_datalist_unset_flags(GData * *datalist, guint flags);
extern void g_dataset_destroy(gconstpointer dataset_location);
extern void g_dataset_foreach(gconstpointer dataset_location,
                             GDataForeachFunc func, gpointer user_data);
extern gpointer g_dataset_id_get_data(gconstpointer dataset_location,
                                     GQuark key_id);
extern gpointer g_dataset_id_remove_no_notify(gconstpointer
                                             dataset_location,
                                             GQuark key_id);
extern void g_dataset_id_set_data_full(gconstpointer dataset_location,
                                       GQuark key_id, gpointer data,
                                       GDestroyNotify destroy_func);
extern void g_date_add_days(GDate * date, guint n_days);
extern void g_date_add_months(GDate * date, guint n_months);
extern void g_date_add_years(GDate * date, guint n_years);
extern void g_date_clamp(GDate * date, const GDate * min_date,
                        const GDate * max_date);
extern void g_date_clear(GDate * date, guint n_dates);
extern gint g_date_compare(const GDate * lhs, const GDate * rhs);
extern gint g_date_days_between(const GDate * date1, const GDate * date2);
extern void g_date_free(GDate * date);
extern GDateDay g_date_get_day(const GDate * date);
extern guint g_date_get_day_of_year(const GDate * date);
extern guint8 g_date_get_days_in_month(GDateMonth month, GDateYear year);
extern guint g_date_get_iso8601_week_of_year(const GDate * date);
extern guint32 g_date_get_julian(const GDate * date);
extern guint g_date_get_monday_week_of_year(const GDate * date);
extern guint8 g_date_get_monday_weeks_in_year(GDateYear year);
extern GDateMonth g_date_get_month(const GDate * date);
extern guint g_date_get_sunday_week_of_year(const GDate * date);
extern guint8 g_date_get_sunday_weeks_in_year(GDateYear year);
extern GDateWeekday g_date_get_weekday(const GDate * date);
extern GDateYear g_date_get_year(const GDate * date);
extern gboolean g_date_is_first_of_month(const GDate * date);
extern gboolean g_date_is_last_of_month(const GDate * date);
extern gboolean g_date_is_leap_year(GDateYear year);
extern GDate *g_date_new(void);
extern GDate *g_date_new_dmy(GDateDay day, GDateMonth month,
                             GDateYear year);
extern GDate *g_date_new_julian(guint32 julian_day);
extern void g_date_order(GDate * date1, GDate * date2);
extern void g_date_set_day(GDate * date, GDateDay day);
extern void g_date_set_dmy(GDate * date, GDateDay day, GDateMonth month,
                           GDateYear y);
extern void g_date_set_julian(GDate * date, guint32 julian_date);
extern void g_date_set_month(GDate * date, GDateMonth month);
extern void g_date_set_parse(GDate * date, const gchar * str);
extern void g_date_set_time(GDate * date, GTime time_);
extern void g_date_set_time_t(GDate * date, time_t timet);
extern void g_date_set_time_val(GDate * date, GTimeVal * timeval);
extern void g_date_set_year(GDate * date, GDateYear year);
extern gsize g_date_strftime(gchar * s, gsize slen, const gchar * format,
                             const GDate * date);
extern void g_date_subtract_days(GDate * date, guint n_days);
extern void g_date_subtract_months(GDate * date, guint n_months);
extern void g_date_subtract_years(GDate * date, guint n_years);
extern void g_date_to_struct_tm(const GDate * date, struct tm *tm);
extern gboolean g_date_valid(const GDate * date);
extern gboolean g_date_valid_day(GDateDay day);
extern gboolean g_date_valid_dmy(GDateDay day, GDateMonth month,
                                 GDateYear year);
extern gboolean g_date_valid_julian(guint32 julian_date);

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extern gboolean g_date_valid_month(GDateMonth month);
extern gboolean g_date_valid_weekday(GDateWeekday weekday);
extern gboolean g_date_valid_year(GDateYear year);
extern void g_dir_close(GDir * dir);
extern GDir *g_dir_open(const gchar * path, guint flags, GError * *error);
extern const gchar *g_dir_read_name(GDir * dir);
extern void g_dir_rewind(GDir * dir);
extern gboolean g_direct_equal(gconstpointer v1, gconstpointer v2);
extern guint g_direct_hash(gconstpointer v);
extern GError *g_error_copy(const GError * error);
extern void g_error_free(GError * error);
extern gboolean g_error_matches(const GError * error, GQuark domain,
                                gint code);
extern GError *g_error_new(GQuark domain, gint code, const gchar * format,
                            ...);
extern GError *g_error_new_literal(GQuark domain, gint code,
                                   const gchar * message);
extern GFileError g_file_error_from_errno(gint err_no);
extern GQuark g_file_error_quark(void);
extern gboolean g_file_get_contents(const gchar * filename,
                                    gchar * *contents, gsize * length,
                                    GError * *error);
extern gint g_file_open_tmp(const gchar * tmpl, gchar * *name_used,
                            GError * *error);
extern gchar *g_file_read_link(const gchar * filename, GError * *error);
extern gboolean g_file_set_contents(const gchar * filename,
                                    const gchar * contents, gssize length,
                                    GError * *error);
extern gboolean g_file_test(const gchar * filename, GFileTest test);
extern gchar *g_filename_display_basename(const gchar * filename);
extern gchar *g_filename_display_name(const gchar * filename);
extern gchar *g_filename_from_uri(const gchar * uri, gchar * *hostname,
                                   GError * *error);
extern gchar *g_filename_from_utf8(const gchar * utf8string, gssize len,
                                    gsize * bytes_read,
                                    gsize * bytes_written, GError * *error);
extern gchar *g_filename_to_uri(const gchar * filename,
                                const gchar * hostname, GError * *error);
extern gchar *g_filename_to_utf8(const gchar * opsysstring, gssize len,
                                   gsize * bytes_read, gsize * bytes_written,
                                   GError * *error);
extern gchar *g_find_program_in_path(const gchar * program);
extern void g_free(gpointer mem);
extern const gchar *g_get_application_name(void);
extern gboolean g_get_charset(const char **charset);
extern gchar *g_get_current_dir(void);
extern void g_get_current_time(GTimeVal * result);
extern gboolean g_get_filename_charsets(const gchar * **charsets);
extern const gchar *g_get_home_dir(void);
extern const gchar *g_get_host_name(void);
extern const gchar *const *g_get_language_names(void);
extern gchar *g_get_prpname(void);
extern const gchar *g_get_real_name(void);
extern const gchar *const *g_get_system_config_dirs(void);
extern const gchar *const *g_get_system_data_dirs(void);
extern const gchar *g_get_tmp_dir(void);
extern const gchar *g_get_user_cache_dir(void);
extern const gchar *g_get_user_config_dir(void);
extern const gchar *g_get_user_data_dir(void);
extern const gchar *g_get_user_name(void);
extern const gchar *g_getenv(const gchar * variable);
extern void g_hash_table_destroy(GHashTable * hash_table);

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extern gpointer g_hash_table_find(GHashTable * hash_table,
                                   GHRFunc predicate, gpointer user_data);
extern void g_hash_table_foreach(GHashTable * hash_table, GHFunc func,
                                   gpointer user_data);
extern guint g_hash_table_foreach_remove(GHashTable * hash_table,
                                           GHRFunc func, gpointer user_data);
extern guint g_hash_table_foreach_steal(GHashTable * hash_table,
                                           GHRFunc func, gpointer user_data);
extern void g_hash_table_insert(GHashTable * hash_table, gpointer key,
                                   gpointer value);
extern gpointer g_hash_table_lookup(GHashTable * hash_table,
                                   gconstpointer key);
extern gboolean g_hash_table_lookup_extended(GHashTable * hash_table,
                                              gconstpointer lookup_key,
                                              gpointer * orig_key,
                                              gpointer * value);
extern GHashTable *g_hash_table_new(GHashFunc hash_func,
                                   GEqualFunc key_equal_func);
extern GHashTable *g_hash_table_new_full(GHashFunc hash_func,
                                           GEqualFunc key_equal_func,
                                           GDestroyNotify key_destroy_func,
                                           GDestroyNotify
                                           value_destroy_func);
extern GHashTable *g_hash_table_ref(GHashTable * hash_table);
extern gboolean g_hash_table_remove(GHashTable * hash_table,
                                   gconstpointer key);
extern void g_hash_table_remove_all(GHashTable * hash_table);
extern void g_hash_table_replace(GHashTable * hash_table, gpointer key,
                                   gpointer value);
extern guint g_hash_table_size(GHashTable * hash_table);
extern gboolean g_hash_table_steal(GHashTable * hash_table,
                                   gconstpointer key);
extern void g_hash_table_steal_all(GHashTable * hash_table);
extern void g_hash_table_unref(GHashTable * hash_table);
extern GHook *g_hook_alloc(GHookList * hook_list);
extern gint g_hook_compare_ids(GHook * new_hook, GHook * sibling);
extern gboolean g_hook_destroy(GHookList * hook_list, gulong hook_id);
extern void g_hook_destroy_link(GHookList * hook_list, GHook * hook);
extern GHook *g_hook_find(GHookList * hook_list, gboolean need_valids,
                           GHookFindFunc func, gpointer data);
extern GHook *g_hook_find_data(GHookList * hook_list, gboolean need_valids,
                               gpointer data);
extern GHook *g_hook_find_func(GHookList * hook_list, gboolean need_valids,
                               gpointer func);
extern GHook *g_hook_find_func_data(GHookList * hook_list,
                                     gboolean need_valids, gpointer func,
                                     gpointer data);
extern GHook *g_hook_first_valid(GHookList * hook_list,
                                  gboolean may_be_in_call);
extern void g_hook_free(GHookList * hook_list, GHook * hook);
extern GHook *g_hook_get(GHookList * hook_list, gulong hook_id);
extern void g_hook_insert_before(GHookList * hook_list, GHook * sibling,
                                 GHook * hook);
extern void g_hook_insert_sorted(GHookList * hook_list, GHook * hook,
                                 GHookCompareFunc func);
extern void g_hook_list_clear(GHookList * hook_list);
extern void g_hook_list_init(GHookList * hook_list, guint hook_size);
extern void g_hook_list_invoke(GHookList * hook_list,
                               gboolean may_recurse);
extern void g_hook_list_invoke_check(GHookList * hook_list,
                                     gboolean may_recurse);
extern void g_hook_list_marshall(GHookList * hook_list,

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        gboolean may_recurse,
        GHookMarshaller marshaller,
        gpointer marshal_data);
extern void g_hook_list_marshall_check(GHookList * hook_list,
        gboolean may_recurse,
        GHookCheckMarshaller marshaller,
        gpointer marshal_data);
extern GHook *g_hook_next_valid(GHookList * hook_list, GHook * hook,
        gboolean may_be_in_call);
extern void g_hook_prepend(GHookList * hook_list, GHook * hook);
extern GHook *g_hook_ref(GHookList * hook_list, GHook * hook);
extern void g_hook_unref(GHookList * hook_list, GHook * hook);
extern size_t g_iconv(GIconv converter, gchar * *inbuf,
        gsize * inbytes_left, gchar * *outbuf,
        gsize * outbytes_left);
extern gint g_iconv_close(GIconv converter);
extern GIconv g_iconv_open(const gchar * to_codeset,
        const gchar * from_codeset);
extern guint g_idle_add(GSourceFunc function, gpointer data);
extern guint g_idle_add_full(gint priority, GSourceFunc function,
        gpointer data, GDestroyNotify notify);
extern GSourceFuncs g_idle_funcs;
extern gboolean g_idle_remove_by_data(gpointer data);
extern GSource *g_idle_source_new(void);
extern gboolean g_int_equal(gconstpointer v1, gconstpointer v2);
extern guint g_int_hash(gconstpointer v);
extern const gchar *g_intern_static_string(const gchar * string);
extern const gchar *g_intern_string(const gchar * string);
extern guint g_io_add_watch(GIOChannel * channel, GIOCondition condition,
        GIOFunc func, gpointer user_data);
extern guint g_io_add_watch_full(GIOChannel * channel, gint priority,
        GIOCondition condition, GIOFunc func,
        gpointer user_data,
        GDestroyNotify notify);
extern GIOChannelError g_io_channel_error_from_errno(gint en);
extern GQuark g_io_channel_error_quark(void);
extern GIOStatus g_io_channel_flush(GIOChannel * channel, GError * *error);
extern GIOCondition g_io_channel_get_buffer_condition(GIOChannel *
        channel);
extern gsize g_io_channel_get_buffer_size(GIOChannel * channel);
extern gboolean g_io_channel_get_buffered(GIOChannel * channel);
extern gboolean g_io_channel_get_close_on_unref(GIOChannel * channel);
extern const gchar *g_io_channel_get_encoding(GIOChannel * channel);
extern GIOFlags g_io_channel_get_flags(GIOChannel * channel);
extern const gchar *g_io_channel_get_line_term(GIOChannel * channel,
        gint * length);
extern void g_io_channel_init(GIOChannel * channel);
extern GIOChannel *g_io_channel_new_file(const gchar * filename,
        const gchar * mode,
        GError * *error);
extern GIOStatus g_io_channel_read_chars(GIOChannel * channel, gchar * buf,
        gsize count, gsize * bytes_read,
        GError * *error);
extern GIOStatus g_io_channel_read_line(GIOChannel * channel,
        gchar * *str_return,
        gsize * length,
        gsize * terminator_pos,
        GError * *error);
extern GIOStatus g_io_channel_read_line_string(GIOChannel * channel,
        GString * buffer,
        gsize * terminator_pos,
        GError * *error);

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extern GIOStatus g_io_channel_read_to_end(GIOChannel * channel,
                                           gchar * *str_return,
                                           gsize * length, GError * *error);
extern GIOStatus g_io_channel_read_unichar(GIOChannel * channel,
                                           gunichar * thechar,
                                           GError * *error);
extern GIOChannel *g_io_channel_ref(GIOChannel * channel);
extern GIOStatus g_io_channel_seek_position(GIOChannel * channel,
                                           gint64 offset, GSeekType type,
                                           GError * *error);
extern void g_io_channel_set_buffer_size(GIOChannel * channel, gsize size);
extern void g_io_channel_set_buffered(GIOChannel * channel,
                                       gboolean buffered);
extern void g_io_channel_set_close_on_unref(GIOChannel * channel,
                                             gboolean do_close);
extern GIOStatus g_io_channel_set_encoding(GIOChannel * channel,
                                           const gchar * encoding,
                                           GError * *error);
extern GIOStatus g_io_channel_set_flags(GIOChannel * channel,
                                       GIOFlags flags, GError * *error);
extern void g_io_channel_set_line_term(GIOChannel * channel,
                                       const gchar * line_term,
                                       gint length);
extern GIOStatus g_io_channel_shutdown(GIOChannel * channel,
                                       gboolean flush, GError * *err);
extern gint g_io_channel_unix_get_fd(GIOChannel * channel);
extern GIOChannel *g_io_channel_unix_new(gint fd);
extern void g_io_channel_unref(GIOChannel * channel);
extern GIOStatus g_io_channel_write_chars(GIOChannel * channel,
                                           const gchar * buf, gssize count,
                                           gsize * bytes_written,
                                           GError * *error);
extern GIOStatus g_io_channel_write_unichar(GIOChannel * channel,
                                           gunichar thechar,
                                           GError * *error);
extern GSource *g_io_create_watch(GIOChannel * channel,
                                  GIOCondition condition);
extern GSourceFuncs g_io_watch_funcs;
extern GQuark g_key_file_error_quark(void);
extern void g_key_file_free(GKeyFile * key_file);
extern gboolean g_key_file_get_boolean(GKeyFile * key_file,
                                       const gchar * group_name,
                                       const gchar * key, GError * *error);
extern gboolean *g_key_file_get_boolean_list(GKeyFile * key_file,
                                              const gchar * group_name,
                                              const gchar * key,
                                              gsize * length,
                                              GError * *error);
extern gchar *g_key_file_get_comment(GKeyFile * key_file,
                                     const gchar * group_name,
                                     const gchar * key, GError * *error);
extern gdouble g_key_file_get_double(GKeyFile * key_file,
                                     const gchar * group_name,
                                     const gchar * key, GError * *error);
extern gdouble *g_key_file_get_double_list(GKeyFile * key_file,
                                            const gchar * group_name,
                                            const gchar * key,
                                            gsize * length,
                                            GError * *error);
extern gchar **g_key_file_get_groups(GKeyFile * key_file, gsize * length);
extern gint g_key_file_get_integer(GKeyFile * key_file,
                                   const gchar * group_name,

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        const gchar * key, GError * *error);
extern gint *g_key_file_get_integer_list(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, gsize * length,
        GError * *error);
extern gchar **g_key_file_get_keys(GKeyFile * key_file,
        const gchar * group_name,
        gsize * length, GError * *error);
extern gchar *g_key_file_get_locale_string(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key,
        const gchar * locale,
        GError * *error);
extern gchar **g_key_file_get_locale_string_list(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key,
        const gchar * locale,
        gsize * length,
        GError * *error);
extern gchar *g_key_file_get_start_group(GKeyFile * key_file);
extern gchar *g_key_file_get_string(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, GError * *error);
extern gchar **g_key_file_get_string_list(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key,
        gsize * length, GError * *error);
extern gchar *g_key_file_get_value(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, GError * *error);
extern gboolean g_key_file_has_group(GKeyFile * key_file,
        const gchar * group_name);
extern gboolean g_key_file_has_key(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, GError * *error);
extern gboolean g_key_file_load_from_data(GKeyFile * key_file,
        const gchar * data, gsize length,
        GKeyFileFlags flags,
        GError * *error);
extern gboolean g_key_file_load_from_data_dirs(GKeyFile * key_file,
        const gchar * file,
        gchar * *full_path,
        GKeyFileFlags flags,
        GError * *error);
extern gboolean g_key_file_load_from_file(GKeyFile * key_file,
        const gchar * file,
        GKeyFileFlags flags,
        GError * *error);
extern GKeyFile *g_key_file_new(void);
extern void g_key_file_remove_comment(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, GError * *error);
extern void g_key_file_remove_group(GKeyFile * key_file,
        const gchar * group_name,
        GError * *error);
extern void g_key_file_remove_key(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, GError * *error);
extern void g_key_file_set_boolean(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, gboolean value);
extern void g_key_file_set_boolean_list(GKeyFile * key_file,

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        const gchar * group_name,
        const gchar * key, gboolean * list,
        gsize length);
extern void g_key_file_set_comment(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key,
        const gchar * comment, GError * *error);
extern void g_key_file_set_double(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, gdouble value);
extern void g_key_file_set_double_list(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, gdouble * list,
        gsize length);
extern void g_key_file_set_integer(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, gint value);
extern void g_key_file_set_integer_list(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, gint * list,
        gsize length);
extern void g_key_file_set_list_separator(GKeyFile * key_file,
        gchar separator);
extern void g_key_file_set_locale_string(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key,
        const gchar * locale,
        const gchar * string);
extern void g_key_file_set_locale_string_list(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key,
        const gchar * locale,
        const gchar * const *list,
        gsize length);
extern void g_key_file_set_string(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, const gchar * string);
extern void g_key_file_set_string_list(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key,
        const gchar * const *list,
        gsize length);
extern void g_key_file_set_value(GKeyFile * key_file,
        const gchar * group_name,
        const gchar * key, const gchar * value);
extern gchar *g_key_file_to_data(GKeyFile * key_file, gsize * length,
        GError * *error);

extern GList *g_list_alloc(void);
extern GList *g_list_append(GList * list, gpointer data);
extern GList *g_list_concat(GList * list1, GList * list2);
extern GList *g_list_copy(GList * list);
extern GList *g_list_delete_link(GList * list, GList * link_);
extern GList *g_list_find(GList * list, gconstpointer data);
extern GList *g_list_find_custom(GList * list, gconstpointer data,
        GCompareFunc func);
extern GList *g_list_first(GList * list);
extern void g_list_foreach(GList * list, GFunc func, gpointer user_data);
extern void g_list_free(GList * list);
extern void g_list_free_1(GList * list);
extern gint g_list_index(GList * list, gconstpointer data);
extern GList *g_list_insert(GList * list, gpointer data, gint position);
extern GList *g_list_insert_before(GList * list, GList * sibling,

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                                gpointer data);
extern GList *g_list_insert_sorted(GList * list, gpointer data,
                                GCompareFunc func);
extern GList *g_list_insert_sorted_with_data(GList * list, gpointer data,
                                GCompareDataFunc func,
                                gpointer user_data);

extern GList *g_list_last(GList * list);
extern guint g_list_length(GList * list);
extern GList *g_list_nth(GList * list, guint n);
extern gpointer g_list_nth_data(GList * list, guint n);
extern GList *g_list_nth_prev(GList * list, guint n);
extern void g_list_pop_allocator(void);
extern gint g_list_position(GList * list, GList * llink);
extern GList *g_list_prepend(GList * list, gpointer data);
extern void g_list_push_allocator(GAllocator * allocator);
extern GList *g_list_remove(GList * list, gpointer data);
extern GList *g_list_remove_all(GList * list, gpointer data);
extern GList *g_list_remove_link(GList * list, GList * llink);
extern GList *g_list_reverse(GList * list);
extern GList *g_list_sort(GList * list, GCompareFunc compare_func);
extern GList *g_list_sort_with_data(GList * list,
                                GCompareDataFunc compare_func,
                                gpointer user_data);

extern gchar **g_listenv(void);
extern gchar *g_locale_from_utf8(const gchar * utf8string, gssize len,
                                gsize * bytes_read, gsize * bytes_written,
                                GError * *error);
extern gchar *g_locale_to_utf8(const gchar * opsysstring, gssize len,
                                gsize * bytes_read, gsize * bytes_written,
                                GError * *error);
extern void g_log(const gchar * log_domain, GLogLevelFlags log_level,
                 const gchar * format, ...);
extern void g_log_default_handler(const gchar * log_domain,
                                GLogLevelFlags log_level,
                                const gchar * message,
                                gpointer unused_data);
extern void g_log_remove_handler(const gchar * log_domain,
                                guint handler_id);
extern GLogLevelFlags g_log_set_always_fatal(GLogLevelFlags fatal_mask);
extern GLogFunc g_log_set_default_handler(GLogFunc log_func,
                                         gpointer user_data);
extern GLogLevelFlags g_log_set_fatal_mask(const gchar * log_domain,
                                         GLogLevelFlags fatal_mask);
extern guint g_log_set_handler(const gchar * log_domain,
                              GLogLevelFlags log_levels,
                              GLogFunc log_func, gpointer user_data);
extern void g_logv(const gchar * log_domain, GLogLevelFlags log_level,
                  const gchar * format, va_list args);
extern gboolean g_main_context_acquire(GMainContext * context);
extern void g_main_context_add_poll(GMainContext * context, GPollFD * fd,
                                   gint priority);
extern gint g_main_context_check(GMainContext * context, gint max_priority,
                                GPollFD * fds, gint n_fds);
extern GMainContext *g_main_context_default(void);
extern void g_main_context_dispatch(GMainContext * context);
extern GSource *g_main_context_find_source_by_funcs_user_data(GMainContext
                                                             * context,
                                                             GSourceFuncs
                                                             * funcs,
                                                             gpointer
                                                             user_data);
extern GSource *g_main_context_find_source_by_id(GMainContext * context,

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                                guint source_id);
extern GSource *g_main_context_find_source_by_user_data(GMainContext *
                                                        context,
                                                        gpointer
                                                        user_data);
extern GPollFunc g_main_context_get_poll_func(GMainContext * context);
extern gboolean g_main_context_is_owner(GMainContext * context);
extern gboolean g_main_context_iteration(GMainContext * context,
                                        gboolean may_block);
extern GMainContext *g_main_context_new(void);
extern gboolean g_main_context_pending(GMainContext * context);
extern gboolean g_main_context_prepare(GMainContext * context,
                                       gint * priority);
extern gint g_main_context_query(GMainContext * context, gint max_priority,
                                gint * timeout_, GPollFD * fds,
                                gint n_fds);
extern GMainContext *g_main_context_ref(GMainContext * context);
extern void g_main_context_release(GMainContext * context);
extern void g_main_context_remove_poll(GMainContext * context,
                                       GPollFD * fd);
extern void g_main_context_set_poll_func(GMainContext * context,
                                       GPollFunc func);
extern void g_main_context_unref(GMainContext * context);
extern gboolean g_main_context_wait(GMainContext * context, GCond * cond,
                                    GMutex * mutex);
extern void g_main_context_wakeup(GMainContext * context);
extern GSource *g_main_current_source(void);
extern int g_main_depth(void);
extern GMainContext *g_main_loop_get_context(GMainLoop * loop);
extern gboolean g_main_loop_is_running(GMainLoop * loop);
extern GMainLoop *g_main_loop_new(GMainContext * context,
                                   gboolean is_running);
extern void g_main_loop_quit(GMainLoop * loop);
extern GMainLoop *g_main_loop_ref(GMainLoop * loop);
extern void g_main_loop_run(GMainLoop * loop);
extern void g_main_loop_unref(GMainLoop * loop);
extern gpointer g_malloc(gulong n_bytes);
extern gpointer g_malloc0(gulong n_bytes);
extern void g_mapped_file_free(GMappedFile * file);
extern gchar *g_mapped_file_get_contents(GMappedFile * file);
extern gsize g_mapped_file_get_length(GMappedFile * file);
extern GMappedFile *g_mapped_file_new(const gchar * filename,
                                       gboolean writable, GError * *error);
extern GQuark g_markup_error_quark(void);
extern gchar *g_markup_escape_text(const gchar * text, gssize length);
extern gboolean g_markup_parse_context_end_parse(GMarkupParseContext *
                                                context, GError * *error);
extern void g_markup_parse_context_free(GMarkupParseContext * context);
extern const gchar *g_markup_parse_context_get_element(GMarkupParseContext
                                                       * context);
extern void g_markup_parse_context_get_position(GMarkupParseContext *
                                                context,
                                                gint * line_number,
                                                gint * char_number);
extern GMarkupParseContext *g_markup_parse_context_new(const GMarkupParser
                                                       * parser,
                                                       GMarkupParseFlags
                                                       flags,
                                                       gpointer user_data,
                                                       GDestroyNotify
                                                       user_data_dnotify);
extern gboolean g_markup_parse_context_parse(GMarkupParseContext * context,

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                                const gchar * text,
                                gssize text_len,
                                GError * *error);
extern char *g_markup_printf_escaped(const char *format, ...);
extern char *g_markup_vprintf_escaped(const char *format, va_list args);
extern gpointer g_mem_chunk_alloc(GMemChunk * mem_chunk);
extern gpointer g_mem_chunk_alloc0(GMemChunk * mem_chunk);
extern void g_mem_chunk_clean(GMemChunk * mem_chunk);
extern void g_mem_chunk_destroy(GMemChunk * mem_chunk);
extern void g_mem_chunk_free(GMemChunk * mem_chunk, gpointer mem);
extern void g_mem_chunk_info(void);
extern GMemChunk *g_mem_chunk_new(const gchar * name, gint atom_size,
                                gulong area_size, gint type);
extern void g_mem_chunk_print(GMemChunk * mem_chunk);
extern void g_mem_chunk_reset(GMemChunk * mem_chunk);
extern gboolean g_mem_gc_friendly;
extern gboolean g_mem_is_system_malloc(void);
extern void g_mem_profile(void);
extern void g_mem_set_vtable(GMemVTable * vtable);
extern gpointer g_memdup(gconstpointer mem, guint byte_size);
extern int g_mkdir_with_parents(const gchar * pathname, int mode);
extern gint g_mkstemp(gchar * tmpl);
extern gint g_node_child_index(GNode * node, gpointer data);
extern gint g_node_child_position(GNode * node, GNode * child);
extern void g_node_children_foreach(GNode * node, GTraverseFlags flags,
                                GNodeForeachFunc func, gpointer data);
extern GNode *g_node_copy(GNode * node);
extern GNode *g_node_copy_deep(GNode * node, GCopyFunc copy_func,
                                gpointer data);
extern guint g_node_depth(GNode * node);
extern void g_node_destroy(GNode * root);
extern GNode *g_node_find(GNode * root, GTraverseType order,
                                GTraverseFlags flags, gpointer data);
extern GNode *g_node_find_child(GNode * node, GTraverseFlags flags,
                                gpointer data);
extern GNode *g_node_first_sibling(GNode * node);
extern GNode *g_node_get_root(GNode * node);
extern GNode *g_node_insert(GNode * parent, gint position, GNode * node);
extern GNode *g_node_insert_after(GNode * parent, GNode * sibling,
                                GNode * node);
extern GNode *g_node_insert_before(GNode * parent, GNode * sibling,
                                GNode * node);
extern gboolean g_node_is_ancestor(GNode * node, GNode * descendant);
extern GNode *g_node_last_child(GNode * node);
extern GNode *g_node_last_sibling(GNode * node);
extern guint g_node_max_height(GNode * root);
extern guint g_node_n_children(GNode * node);
extern guint g_node_n_nodes(GNode * root, GTraverseFlags flags);
extern GNode *g_node_new(gpointer data);
extern GNode *g_node_nth_child(GNode * node, guint n);
extern void g_node_pop_allocator(void);
extern GNode *g_node_prepend(GNode * parent, GNode * node);
extern void g_node_push_allocator(GAllocator * dummy);
extern void g_node_reverse_children(GNode * node);
extern void g_node_traverse(GNode * root, GTraverseType order,
                                GTraverseFlags flags, gint max_depth,
                                GNodeTraverseFunc func, gpointer data);
extern void g_node_unlink(GNode * node);
extern void g_nullify_pointer(gpointer * nullify_location);
extern void g_on_error_query(const gchar * prg_name);
extern void g_on_error_stack_trace(const gchar * prg_name);
extern gpointer g_once_impl(GOnce * once, GThreadFunc func, gpointer arg);

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extern void g_option_context_add_group(GOptionContext * context,
                                       GOptionGroup * group);
extern void g_option_context_add_main_entries(GOptionContext * context,
                                              const GOptionEntry * entries,
                                              const gchar *
                                              translation_domain);
extern void g_option_context_free(GOptionContext * context);
extern const gchar *g_option_context_get_description(GOptionContext *
                                                    context);
extern gboolean g_option_context_get_help_enabled(GOptionContext *
                                                  context);
extern gboolean g_option_context_get_ignore_unknown_options(GOptionContext
                                                           * context);
extern GOptionGroup *g_option_context_get_main_group(GOptionContext *
                                                    context);
extern const gchar *g_option_context_get_summary(GOptionContext * context);
extern GOptionContext *g_option_context_new(const gchar *
                                           parameter_string);
extern gboolean g_option_context_parse(GOptionContext * context,
                                       gint * argc, gchar * **argv,
                                       GError * *error);
extern void g_option_context_set_description(GOptionContext * context,
                                             const gchar * description);
extern void g_option_context_set_help_enabled(GOptionContext * context,
                                              gboolean help_enabled);
extern void g_option_context_set_ignore_unknown_options(GOptionContext *
                                                       context,
                                                       gboolean
                                                       ignore_unknown);
extern void g_option_context_set_main_group(GOptionContext * context,
                                             GOptionGroup * group);
extern void g_option_context_set_summary(GOptionContext * context,
                                         const gchar * summary);
extern void g_option_context_set_translate_func(GOptionContext * context,
                                                GTranslateFunc func,
                                                gpointer data,
                                                GDestroyNotify
                                                destroy_notify);
extern void g_option_context_set_translation_domain(GOptionContext *
                                                  context,
                                                  const gchar * domain);

extern GQuark g_option_error_quark(void);
extern void g_option_group_add_entries(GOptionGroup * group,
                                       const GOptionEntry * entries);
extern void g_option_group_free(GOptionGroup * group);
extern GOptionGroup *g_option_group_new(const gchar * name,
                                       const gchar * description,
                                       const gchar * help_description,
                                       gpointer user_data,
                                       GDestroyNotify destroy);
extern void g_option_group_set_error_hook(GOptionGroup * group,
                                          GOptionErrorFunc error_func);
extern void g_option_group_set_parse_hooks(GOptionGroup * group,
                                           GOptionParseFunc pre_parse_func,
                                           GOptionParseFunc
                                           post_parse_func);
extern void g_option_group_set_translate_func(GOptionGroup * group,
                                              GTranslateFunc func,
                                              gpointer data,
                                              GDestroyNotify
                                              destroy_notify);
extern void g_option_group_set_translation_domain(GOptionGroup * group,

```

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                                const gchar * domain);
extern guint g_parse_debug_string(const gchar * string,
                                const GDebugKey * keys, guint nkeys);
extern gchar *g_path_get_basename(const gchar * file_name);
extern gchar *g_path_get_dirname(const gchar * file_name);
extern gboolean g_path_is_absolute(const gchar * file_name);
extern const gchar *g_path_skip_root(const gchar * file_name);
extern gboolean g_pattern_match(GPatternSpec * pspec, guint string_length,
                                const gchar * string,
                                const gchar * string_reversed);
extern gboolean g_pattern_match_simple(const gchar * pattern,
                                      const gchar * string);
extern gboolean g_pattern_match_string(GPatternSpec * pspec,
                                      const gchar * string);
extern gboolean g_pattern_spec_equal(GPatternSpec * pspec1,
                                    GPatternSpec * pspec2);
extern void g_pattern_spec_free(GPatternSpec * pspec);
extern GPatternSpec *g_pattern_spec_new(const gchar * pattern);
extern void g_print(const gchar * format, ...);
extern void g_printerr(const gchar * format, ...);
extern gsize g_printf_string_upper_bound(const gchar * format,
                                         va_list args);
extern void g_propagate_error(GError * *dest, GError * src);
extern void g_ptr_array_add(GPtrArray * array, gpointer data);
extern void g_ptr_array_foreach(GPtrArray * array, GFunc func,
                                gpointer user_data);
extern gpointer *g_ptr_array_free(GPtrArray * array, gboolean free_seg);
extern GPtrArray *g_ptr_array_new(void);
extern gboolean g_ptr_array_remove(GPtrArray * array, gpointer data);
extern gboolean g_ptr_array_remove_fast(GPtrArray * array, gpointer data);
extern gpointer g_ptr_array_remove_index(GPtrArray * array, guint index_);
extern gpointer g_ptr_array_remove_index_fast(GPtrArray * array,
                                              guint index_);
extern void g_ptr_array_remove_range(GPtrArray * array, guint index_,
                                    guint length);
extern void g_ptr_array_set_size(GPtrArray * array, gint length);
extern GPtrArray *g_ptr_array_sized_new(guint reserved_size);
extern void g_ptr_array_sort(GPtrArray * array, GCompareFunc compare_func);
extern void g_ptr_array_sort_with_data(GPtrArray * array,
                                       GCompareDataFunc compare_func,
                                       gpointer user_data);
extern void g_qsort_with_data(gconstpointer pbase, gint total_elems,
                              gsize size, GCompareDataFunc compare_func,
                              gpointer user_data);
extern GQuark g_quark_from_static_string(const gchar * string);
extern GQuark g_quark_from_string(const gchar * string);
extern const gchar *g_quark_to_string(GQuark quark);
extern GQuark g_quark_try_string(const gchar * string);
extern GQueue *g_queue_copy(GQueue * queue);
extern void g_queue_delete_link(GQueue * queue, GList * link_);
extern GList *g_queue_find(GQueue * queue, gconstpointer data);
extern GList *g_queue_find_custom(GQueue * queue, gconstpointer data,
                                  GCompareFunc func);
extern void g_queue_foreach(GQueue * queue, GFunc func,
                            gpointer user_data);
extern void g_queue_free(GQueue * queue);
extern guint g_queue_get_length(GQueue * queue);
extern gint g_queue_index(GQueue * queue, gconstpointer data);
extern void g_queue_insert_after(GQueue * queue, GList * sibling,
                                gpointer data);
extern void g_queue_insert_before(GQueue * queue, GList * sibling,
                                gpointer data);

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extern void g_queue_insert_sorted(GQueue * queue, gpointer data,
                                GCompareDataFunc func,
                                gpointer user_data);
extern gboolean g_queue_is_empty(GQueue * queue);
extern gint g_queue_link_index(GQueue * queue, GList * link_);
extern GQueue *g_queue_new(void);
extern gpointer g_queue_peek_head(GQueue * queue);
extern GList *g_queue_peek_head_link(GQueue * queue);
extern gpointer g_queue_peek_nth(GQueue * queue, guint n);
extern GList *g_queue_peek_nth_link(GQueue * queue, guint n);
extern gpointer g_queue_peek_tail(GQueue * queue);
extern GList *g_queue_peek_tail_link(GQueue * queue);
extern gpointer g_queue_pop_head(GQueue * queue);
extern GList *g_queue_pop_head_link(GQueue * queue);
extern gpointer g_queue_pop_nth(GQueue * queue, guint n);
extern GList *g_queue_pop_nth_link(GQueue * queue, guint n);
extern gpointer g_queue_pop_tail(GQueue * queue);
extern GList *g_queue_pop_tail_link(GQueue * queue);
extern void g_queue_push_head(GQueue * queue, gpointer data);
extern void g_queue_push_head_link(GQueue * queue, GList * link_);
extern void g_queue_push_nth(GQueue * queue, gpointer data, gint n);
extern void g_queue_push_nth_link(GQueue * queue, gint n, GList * link_);
extern void g_queue_push_tail(GQueue * queue, gpointer data);
extern void g_queue_push_tail_link(GQueue * queue, GList * link_);
extern void g_queue_remove(GQueue * queue, gconstpointer data);
extern void g_queue_remove_all(GQueue * queue, gconstpointer data);
extern void g_queue_reverse(GQueue * queue);
extern void g_queue_sort(GQueue * queue, GCompareDataFunc compare_func,
                        gpointer user_data);
extern void g_queue_unlink(GQueue * queue, GList * link_);
extern GRandom *g_rand_copy(GRandom * rand_);
extern gdouble g_rand_double(GRandom * rand_);
extern gdouble g_rand_double_range(GRandom * rand_, gdouble begin,
                                   gdouble end);
extern void g_rand_free(GRandom * rand_);
extern guint32 g_rand_int(GRandom * rand_);
extern gint32 g_rand_int_range(GRandom * rand_, gint32 begin, gint32 end);
extern GRandom *g_rand_new(void);
extern GRandom *g_rand_new_with_seed(guint32 seed);
extern GRandom *g_rand_new_with_seed_array(const guint32 * seed,
                                           guint seed_length);
extern void g_rand_set_seed(GRandom * rand_, guint32 seed);
extern void g_rand_set_seed_array(GRandom * rand_, const guint32 * seed,
                                   guint seed_length);
extern gdouble g_random_double(void);
extern gdouble g_random_double_range(gdouble begin, gdouble end);
extern guint32 g_random_int(void);
extern gint32 g_random_int_range(gint32 begin, gint32 end);
extern void g_random_set_seed(guint32 seed);
extern gpointer g_realloc(gpointer mem, gulong n_bytes);
extern gint g_relation_count(GRelation * relation, gconstpointer key,
                             gint field);
extern gint g_relation_delete(GRelation * relation, gconstpointer key,
                              gint field);
extern void g_relation_destroy(GRelation * relation);
extern gboolean g_relation_exists(GRelation * relation, ...);
extern void g_relation_index(GRelation * relation, gint field,
                             GHashFunc hash_func,
                             GEqualFunc key_equal_func);
extern void g_relation_insert(GRelation * relation, ...);
extern GRelation *g_relation_new(gint fields);
extern void g_relation_print(GRelation * relation);

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extern GTuples *g_relation_select(GRelation * relation, gconstpointer key,
                                gint field);
extern void g_return_if_fail_warning(const char *log_domain,
                                    const char *pretty_function,
                                    const char *expression);
extern guint g_scanner_cur_line(GScanner * scanner);
extern guint g_scanner_cur_position(GScanner * scanner);
extern GTokenType g_scanner_cur_token(GScanner * scanner);
extern GTokenValue g_scanner_cur_value(GScanner * scanner);
extern void g_scanner_destroy(GScanner * scanner);
extern gboolean g_scanner_eof(GScanner * scanner);
extern void g_scanner_error(GScanner * scanner, const gchar * format, ...);
extern GTokenType g_scanner_get_next_token(GScanner * scanner);
extern void g_scanner_input_file(GScanner * scanner, gint input_fd);
extern void g_scanner_input_text(GScanner * scanner, const gchar * text,
                                guint text_len);
extern gpointer g_scanner_lookup_symbol(GScanner * scanner,
                                       const gchar * symbol);
extern GScanner *g_scanner_new(const GScannerConfig * config_template);
extern GTokenType g_scanner_peek_next_token(GScanner * scanner);
extern void g_scanner_scope_add_symbol(GScanner * scanner, guint scope_id,
                                       const gchar * symbol,
                                       gpointer value);
extern void g_scanner_scope_foreach_symbol(GScanner * scanner,
                                           guint scope_id, GHFunc func,
                                           gpointer user_data);
extern gpointer g_scanner_scope_lookup_symbol(GScanner * scanner,
                                              guint scope_id,
                                              const gchar * symbol);
extern void g_scanner_scope_remove_symbol(GScanner * scanner,
                                           guint scope_id,
                                           const gchar * symbol);
extern guint g_scanner_set_scope(GScanner * scanner, guint scope_id);
extern void g_scanner_sync_file_offset(GScanner * scanner);
extern void g_scanner_unexp_token(GScanner * scanner,
                                  GTokenType expected_token,
                                  const gchar * identifier_spec,
                                  const gchar * symbol_spec,
                                  const gchar * symbol_name,
                                  const gchar * message, gint is_error);
extern void g_scanner_warn(GScanner * scanner, const gchar * format, ...);
extern void g_set_application_name(const gchar * application_name);
extern void g_set_error(GError * *err, GQuark domain, gint code,
                       const gchar * format, ...);
extern void g_set_prgname(const gchar * prgname);
extern GPrintFunc g_set_print_handler(GPrintFunc func);
extern GPrintFunc g_set_printerr_handler(GPrintFunc func);
extern gboolean g_setenv(const gchar * variable, const gchar * value,
                        gboolean overwrite);
extern GQuark g_shell_error_quark(void);
extern gboolean g_shell_parse_argv(const gchar * command_line,
                                  gint * argcp, gchar * **argvp,
                                  GError * *error);
extern gchar *g_shell_quote(const gchar * unquoted_string);
extern gchar *g_shell_unquote(const gchar * quoted_string,
                              GError * *error);
extern gpointer g_slice_alloc(gsize block_size);
extern gpointer g_slice_alloc0(gsize block_size);
extern void g_slice_free1(gsize block_size, gpointer mem_block);
extern void g_slice_free_chain_with_offset(gsize block_size,
                                           gpointer mem_chain,
                                           gsize next_offset);

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extern GSList *g_slist_alloc(void);
extern GSList *g_slist_append(GSList * list, gpointer data);
extern GSList *g_slist_concat(GSList * list1, GSList * list2);
extern GSList *g_slist_copy(GSList * list);
extern GSList *g_slist_delete_link(GSList * list, GSList * link_);
extern GSList *g_slist_find(GSList * list, gconstpointer data);
extern GSList *g_slist_find_custom(GSList * list, gconstpointer data,
                                   GCompareFunc func);
extern void g_slist_foreach(GSList * list, GFunc func, gpointer user_data);
extern void g_slist_free(GSList * list);
extern void g_slist_free_1(GSList * list);
extern gint g_slist_index(GSList * list, gconstpointer data);
extern GSList *g_slist_insert(GSList * list, gpointer data, gint position);
extern GSList *g_slist_insert_before(GSList * slist, GSList * sibling,
                                     gpointer data);
extern GSList *g_slist_insert_sorted(GSList * list, gpointer data,
                                     GCompareFunc func);
extern GSList *g_slist_insert_sorted_with_data(GSList * list,
                                                gpointer data,
                                                GCompareDataFunc func,
                                                gpointer user_data);

extern GSList *g_slist_last(GSList * list);
extern guint g_slist_length(GSList * list);
extern GSList *g_slist_nth(GSList * list, guint n);
extern gpointer g_slist_nth_data(GSList * list, guint n);
extern void g_slist_pop_allocator(void);
extern gint g_slist_position(GSList * list, GSList * llink);
extern GSList *g_slist_prepend(GSList * list, gpointer data);
extern void g_slist_push_allocator(GAllocator * dummy);
extern GSList *g_slist_remove(GSList * list, gconstpointer data);
extern GSList *g_slist_remove_all(GSList * list, gconstpointer data);
extern GSList *g_slist_remove_link(GSList * list, GSList * link_);
extern GSList *g_slist_reverse(GSList * list);
extern GSList *g_slist_sort(GSList * list, GCompareFunc compare_func);
extern GSList *g_slist_sort_with_data(GSList * list,
                                       GCompareDataFunc compare_func,
                                       gpointer user_data);

extern void g_source_add_poll(GSource * source, GPollFD * fd);
extern guint g_source_attach(GSource * source, GMainContext * context);
extern void g_source_destroy(GSource * source);
extern gboolean g_source_get_can_recurse(GSource * source);
extern GMainContext *g_source_get_context(GSource * source);
extern void g_source_get_current_time(GSource * source,
                                       GTimeVal * timeval);
extern guint g_source_get_id(GSource * source);
extern gint g_source_get_priority(GSource * source);
extern gboolean g_source_is_destroyed(GSource * source);
extern GSource *g_source_new(GSourceFuncs * source_funcs,
                             guint struct_size);
extern GSource *g_source_ref(GSource * source);
extern gboolean g_source_remove(guint tag);
extern gboolean g_source_remove_by_funcs_user_data(GSourceFuncs * funcs,
                                                    gpointer user_data);
extern gboolean g_source_remove_by_user_data(gpointer user_data);
extern void g_source_remove_poll(GSource * source, GPollFD * fd);
extern void g_source_set_callback(GSource * source, GSourceFunc func,
                                  gpointer data, GDestroyNotify notify);
extern void g_source_set_callback_indirect(GSource * source,
                                           gpointer callback_data,
                                           GSourceCallbackFuncs *
                                           callback_funcs);
extern void g_source_set_can_recurse(GSource * source,

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                                gboolean can_recurse);
extern void g_source_set_funcs(GSource * source, GSourceFuncs * funcs);
extern void g_source_set_priority(GSource * source, gint priority);
extern void g_source_unref(GSource * source);
extern guint g_spaced_primes_closest(guint num);
extern gboolean g_spawn_async(const gchar * working_directory,
                                gchar * *argv, gchar * *envp,
                                GSpawnFlags flags,
                                GSpawnChildSetupFunc child_setup,
                                gpointer user_data, GPid * child_pid,
                                GError * *error);
extern gboolean g_spawn_async_with_pipes(const gchar * working_directory,
                                gchar * *argv, gchar * *envp,
                                GSpawnFlags flags,
                                GSpawnChildSetupFunc child_setup,
                                gpointer user_data,
                                GPid * child_pid,
                                gint * standard_input,
                                gint * standard_output,
                                gint * standard_error,
                                GError * *error);

extern void g_spawn_close_pid(GPid pid);
extern gboolean g_spawn_command_line_async(const gchar * command_line,
                                GError * *error);
extern gboolean g_spawn_command_line_sync(const gchar * command_line,
                                gchar * *standard_output,
                                gchar * *standard_error,
                                gint * exit_status,
                                GError * *error);

extern GQuark g_spawn_error_quark(void);
extern gboolean g_spawn_sync(const gchar * working_directory,
                                gchar * *argv, gchar * *envp,
                                GSpawnFlags flags,
                                GSpawnChildSetupFunc child_setup,
                                gpointer user_data, gchar * *standard_output,
                                gchar * *standard_error, gint * exit_status,
                                GError * *error);

extern void g_static_mutex_free(GStaticMutex * mutex);
extern GMutex *g_static_mutex_get_mutex_impl(GMutex * *mutex);
extern void g_static_mutex_init(GStaticMutex * mutex);
extern void g_static_private_free(GStaticPrivate * private_key);
extern gpointer g_static_private_get(GStaticPrivate * private_key);
extern void g_static_private_init(GStaticPrivate * private_key);
extern void g_static_private_set(GStaticPrivate * private_key,
                                gpointer data, GDestroyNotify notify);
extern void g_static_rec_mutex_free(GStaticRecMutex * mutex);
extern void g_static_rec_mutex_init(GStaticRecMutex * mutex);
extern void g_static_rec_mutex_lock(GStaticRecMutex * mutex);
extern void g_static_rec_mutex_lock_full(GStaticRecMutex * mutex,
                                guint depth);
extern gboolean g_static_rec_mutex_trylock(GStaticRecMutex * mutex);
extern void g_static_rec_mutex_unlock(GStaticRecMutex * mutex);
extern guint g_static_rec_mutex_unlock_full(GStaticRecMutex * mutex);
extern void g_static_rwlock_free(GStaticRWLock * lock);
extern void g_static_rwlock_init(GStaticRWLock * lock);
extern void g_static_rwlock_reader_lock(GStaticRWLock * lock);
extern gboolean g_static_rwlock_reader_trylock(GStaticRWLock * lock);
extern void g_static_rwlock_reader_unlock(GStaticRWLock * lock);
extern void g_static_rwlock_writer_lock(GStaticRWLock * lock);
extern gboolean g_static_rwlock_writer_trylock(GStaticRWLock * lock);
extern void g_static_rwlock_writer_unlock(GStaticRWLock * lock);
extern gchar *g_stpcpy(gchar * dest, const gchar * src);

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extern gboolean g_str_equal(gconstpointer v1, gconstpointer v2);
extern gboolean g_str_has_prefix(const gchar * str, const gchar * prefix);
extern gboolean g_str_has_suffix(const gchar * str, const gchar * suffix);
extern guint g_str_hash(gconstpointer v);
extern gchar *g_strcanon(gchar * string, const gchar * valid_chars,
                        gchar substitutor);
extern gchar *g_strchomp(gchar * string);
extern gchar *g_strchug(gchar * string);
extern gchar *g_strcompress(const gchar * source);
extern gchar *g_strconcat(const gchar * string1, ...);
extern gchar *g_strdelimit(gchar * string, const gchar * delimiters,
                        gchar new_delimiter);
extern gchar *g_strdup(const gchar * str);
extern gchar *g_strdup_printf(const gchar * format, ...);
extern gchar *g_strdup_vprintf(const gchar * format, va_list args);
extern gchar **g_strdupv(gchar * *str_array);
extern const gchar *g_strerror(gint errnum);
extern gchar *g_strescape(const gchar * source, const gchar * exceptions);
extern void g_strfreev(gchar * *str_array);
extern GString *g_string_append(GString * string, const gchar * val);
extern GString *g_string_append_c(GString * string, gchar c);
extern GString *g_string_append_len(GString * string, const gchar * val,
                        gssize len);
extern void g_string_append_printf(GString * string, const gchar * format,
                        ...);
extern GString *g_string_append_unichar(GString * string, gunichar wc);
extern GString *g_string_ascii_down(GString * string);
extern GString *g_string_ascii_up(GString * string);
extern GString *g_string_assign(GString * string, const gchar * rval);
extern void g_string_chunk_free(GStringChunk * chunk);
extern gchar *g_string_chunk_insert(GStringChunk * chunk,
                        const gchar * string);
extern gchar *g_string_chunk_insert_const(GStringChunk * chunk,
                        const gchar * string);
extern gchar *g_string_chunk_insert_len(GStringChunk * chunk,
                        const gchar * string, gssize len);
extern GStringChunk *g_string_chunk_new(gsize size);
extern gboolean g_string_equal(const GString * v, const GString * v2);
extern GString *g_string_erase(GString * string, gssize pos, gssize len);
extern gchar *g_string_free(GString * string, gboolean free_segment);
extern guint g_string_hash(const GString * str);
extern GString *g_string_insert(GString * string, gssize pos,
                        const gchar * val);
extern GString *g_string_insert_c(GString * string, gssize pos, gchar c);
extern GString *g_string_insert_len(GString * string, gssize pos,
                        const gchar * val, gssize len);
extern GString *g_string_insert_unichar(GString * string, gssize pos,
                        gunichar wc);
extern GString *g_string_new(const gchar * init);
extern GString *g_string_new_len(const gchar * init, gssize len);
extern GString *g_string_prepend(GString * string, const gchar * val);
extern GString *g_string_prepend_c(GString * string, gchar c);
extern GString *g_string_prepend_len(GString * string, const gchar * val,
                        gssize len);
extern GString *g_string_prepend_unichar(GString * string, gunichar wc);
extern void g_string_printf(GString * string, const gchar * format, ...);
extern GString *g_string_set_size(GString * string, gsize len);
extern GString *g_string_sized_new(gsize dfl_size);
extern GString *g_string_truncate(GString * string, gsize len);
extern const gchar *g_strip_context(const gchar * msgid,
                        const gchar * msgval);
extern gchar *g_strjoin(const gchar * separator, ...);

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extern gchar *g_strjoinv(const gchar * separator, gchar * *str_array);
extern gsize g_strlcat(gchar * dest, const gchar * src, gsize dest_size);
extern gsize g_strlcpy(gchar * dest, const gchar * src, gsize dest_size);
extern gchar *g_strndup(const gchar * str, gsize n);
extern gchar *g_strnfill(gsize length, gchar fill_char);
extern gchar *g_strreverse(gchar * string);
extern gchar *g_strrstr(const gchar * haystack, const gchar * needle);
extern gchar *g_strrstr_len(const gchar * haystack, gssize haystack_len,
                           const gchar * needle);
extern const gchar *g_strsignal(gint signum);
extern gchar **g_strsplit(const gchar * string, const gchar * delimiter,
                          gint max_tokens);
extern gchar **g_strsplit_set(const gchar * string,
                              const gchar * delimiters, gint max_tokens);
extern gchar *g_strstr_len(const gchar * haystack, gssize haystack_len,
                           const gchar * needle);
extern gdouble g_strtod(const gchar * nptr, gchar * *endptr);
extern guint g_strv_length(gchar * *str_array);
extern GThread *g_thread_create_full(GThreadFunc func, gpointer data,
                                     gulong stack_size, gboolean joinable,
                                     gboolean bound,
                                     GThreadPriority priority,
                                     GError * *error);

extern GQuark g_thread_error_quark(void);
extern void g_thread_exit(gpointer retval);
extern void g_thread_foreach(GFunc thread_func, gpointer user_data);
extern GThreadFunctions g_thread_functions_for_glib_use;
extern void g_thread_init(GThreadFunctions * vtable);
extern void g_thread_init_with_errorcheck_mutexes(GThreadFunctions *
                                                  vtable);

extern gpointer g_thread_join(GThread * thread);
extern void g_thread_pool_free(GThreadPool * pool, gboolean immediate,
                               gboolean wait_);

extern guint g_thread_pool_get_max_idle_time(void);
extern gint g_thread_pool_get_max_threads(GThreadPool * pool);
extern gint g_thread_pool_get_max_unused_threads(void);
extern guint g_thread_pool_get_num_threads(GThreadPool * pool);
extern guint g_thread_pool_get_num_unused_threads(void);
extern GThreadPool *g_thread_pool_new(GFunc func, gpointer user_data,
                                     gint max_threads, gboolean exclusive,
                                     GError * *error);

extern void g_thread_pool_push(GThreadPool * pool, gpointer data,
                               GError * *error);

extern void g_thread_pool_set_max_idle_time(guint interval);
extern void g_thread_pool_set_max_threads(GThreadPool * pool,
                                           gint max_threads,
                                           GError * *error);

extern void g_thread_pool_set_max_unused_threads(gint max_threads);
extern void g_thread_pool_set_sort_function(GThreadPool * pool,
                                           GCompareDataFunc func,
                                           gpointer user_data);

extern void g_thread_pool_stop_unused_threads(void);
extern guint g_thread_pool_unprocessed(GThreadPool * pool);
extern GThread *g_thread_self(void);
extern void g_thread_set_priority(GThread * thread,
                                  GThreadPriority priority);

extern gboolean g_thread_use_default_impl;
extern gboolean g_threads_got_initialized;
extern void g_time_val_add(GTimeVal * time_, glong microseconds);
extern gboolean g_time_val_from_iso8601(const gchar * iso_date,
                                         GTimeVal * time);
extern gchar *g_time_val_to_iso8601(GTimeVal * time);

```

```

extern guint g_timeout_add(guint32 interval, GSourceFunc function,
                           gpointer data);
extern guint g_timeout_add_full(gint priority, guint interval,
                                GSourceFunc function, gpointer data,
                                GDestroyNotify notify);
extern GSourceFuncs g_timeout_funcs;
extern GSource *g_timeout_source_new(guint interval);
extern void g_timer_continue(GTimer * timer);
extern void g_timer_destroy(GTimer * timer);
extern gdouble g_timer_elapsed(GTimer * timer, gulong * microseconds);
extern GTimer *g_timer_new(void);
extern void g_timer_reset(GTimer * timer);
extern void g_timer_start(GTimer * timer);
extern void g_timer_stop(GTimer * timer);
extern guint g_trash_stack_height(GTrashStack * *stack_p);
extern gpointer g_trash_stack_peek(GTrashStack * *stack_p);
extern gpointer g_trash_stack_pop(GTrashStack * *stack_p);
extern void g_trash_stack_push(GTrashStack * *stack_p, gpointer data_p);
extern void g_tree_destroy(GTree * tree);
extern void g_tree_foreach(GTree * tree, GTraverseFunc func,
                           gpointer user_data);
extern gint g_tree_height(GTree * tree);
extern void g_tree_insert(GTree * tree, gpointer key, gpointer value);
extern gpointer g_tree_lookup(GTree * tree, gconstpointer key);
extern gboolean g_tree_lookup_extended(GTree * tree,
                                       gconstpointer lookup_key,
                                       gpointer * orig_key,
                                       gpointer * value);
extern GTree *g_tree_new(GCompareFunc key_compare_func);
extern GTree *g_tree_new_full(GCompareDataFunc key_compare_func,
                              gpointer key_compare_data,
                              GDestroyNotify key_destroy_func,
                              GDestroyNotify value_destroy_func);
extern GTree *g_tree_new_with_data(GCompareDataFunc key_compare_func,
                                   gpointer key_compare_data);
extern gint g_tree_nnodes(GTree * tree);
extern gboolean g_tree_remove(GTree * tree, gconstpointer key);
extern void g_tree_replace(GTree * tree, gpointer key, gpointer value);
extern gpointer g_tree_search(GTree * tree, GCompareFunc search_func,
                              gconstpointer user_data);
extern gboolean g_tree_steal(GTree * tree, gconstpointer key);
extern gpointer g_try_malloc(gulong n_bytes);
extern gpointer g_try_realloc(gpointer mem, gulong n_bytes);
extern void g_tuples_destroy(GTuples * tuples);
extern gpointer g_tuples_index(GTuples * tuples, gint index_, gint field);
extern gunichar2 *g_ucs4_to_utf16(const gunichar * str, glong len,
                                  glong * items_read,
                                  glong * items_written, GError * *error);
extern gchar *g_ucs4_to_utf8(const gunichar * str, glong len,
                              glong * items_read, glong * items_written,
                              GError * *error);
extern GUnicodeBreakType g_unichar_break_type(gunichar c);
extern gint g_unichar_digit_value(gunichar c);
extern gboolean g_unichar_get_mirror_char(gunichar ch,
                                           gunichar * mirrored_ch);
extern gboolean g_unichar_isalnum(gunichar c);
extern gboolean g_unichar_isalpha(gunichar c);
extern gboolean g_unichar_iscntrl(gunichar c);
extern gboolean g_unichar_isdefined(gunichar c);
extern gboolean g_unichar_isdigit(gunichar c);
extern gboolean g_unichar_isgraph(gunichar c);
extern gboolean g_unichar_islower(gunichar c);

```

```

extern gboolean g_unichar_isprint(gunichar c);
extern gboolean g_unichar_ispunct(gunichar c);
extern gboolean g_unichar_isspace(gunichar c);
extern gboolean g_unichar_istitle(gunichar c);
extern gboolean g_unichar_isupper(gunichar c);
extern gboolean g_unichar_iswide(gunichar c);
extern gboolean g_unichar_iswide_cjk(gunichar c);
extern gboolean g_unichar_isxdigit(gunichar c);
extern gint g_unichar_to_utf8(gunichar c, gchar * outbuf);
extern gunichar g_unichar_tolower(gunichar c);
extern gunichar g_unichar_totitle(gunichar c);
extern gunichar g_unichar_toupper(gunichar c);
extern GUnicodeType g_unichar_type(gunichar c);
extern gboolean g_unichar_validate(gunichar ch);
extern gint g_unichar_xdigit_value(gunichar c);
extern gunichar *g_unicode_canonical_decomposition(gunichar ch,
                                                    gsize * result_len);
extern void g_unicode_canonical_ordering(gunichar * string, gsize len);
extern void g_unsetenv(const gchar * variable);
extern gchar **g_uri_list_extract_uris(const gchar * uri_list);
extern void g_usleep(gulong microseconds);
extern gunichar *g_utf16_to_ucs4(const gunichar2 * str, glong len,
                                glong * items_read, glong * items_written,
                                GError * *error);
extern gchar *g_utf16_to_utf8(const gunichar2 * str, glong len,
                              glong * items_read, glong * items_written,
                              GError * *error);
extern gchar *g_utf8_casefold(const gchar * str, gssize len);
extern gint g_utf8_collate(const gchar * str1, const gchar * str2);
extern gchar *g_utf8_collate_key(const gchar * str, gssize len);
extern gchar *g_utf8_collate_key_for_filename(const gchar * str,
                                              gssize len);
extern gchar *g_utf8_find_next_char(const gchar * p, const gchar * end);
extern gchar *g_utf8_find_prev_char(const char *str, const char *p);
extern gunichar g_utf8_get_char(const gchar * p);
extern gunichar g_utf8_get_char_validated(const gchar * p, gssize max_len);
extern gchar *g_utf8_normalize(const gchar * str, gssize len,
                              GNormalizeMode mode);
extern gchar *g_utf8_offset_to_pointer(const gchar * str, glong offset);
extern glong g_utf8_pointer_to_offset(const gchar * str,
                                     const gchar * pos);
extern gchar *g_utf8_prev_char(const gchar * p);
extern const gchar *const g_utf8_skip;
extern gchar *g_utf8_strchr(const char *p, gssize len, gunichar c);
extern gchar *g_utf8_strdown(const gchar * str, gssize len);
extern glong g_utf8_strlen(const gchar * p, gssize max);
extern gchar *g_utf8_strncpy(gchar * dest, const gchar * src, gsize n);
extern gchar *g_utf8_strrchr(const char *p, gssize len, gunichar c);
extern gchar *g_utf8_strreverse(const gchar * str, gssize len);
extern gchar *g_utf8_strup(const gchar * str, gssize len);
extern gunichar *g_utf8_to_ucs4(const gchar * str, glong len,
                                glong * items_read, glong * items_written,
                                GError * *error);
extern gunichar *g_utf8_to_ucs4_fast(const gchar * str, glong len,
                                    glong * items_written);
extern gunichar2 *g_utf8_to_utf16(const gchar * str, glong len,
                                  glong * items_read,
                                  glong * items_written, GError * *error);
extern gboolean g_utf8_validate(const char *str, gssize max_len,
                               const gchar * *end);
extern const quint glib_binary_age;
extern const gchar *glib_check_version(quint required_major,

```



```

                                quint required_minor,
                                quint required_micro);
extern const quint glib_interface_age;
extern const quint glib_major_version;
extern GMemVTable *glib_mem_profiler_table;
extern const quint glib_micro_version;
extern const quint glib_minor_version;

```

16.3.2. glib-2.0/glib/gi18n.h

```

#define __G_I18N_H__
#define NC_(Context,String)      (String)
#define N_(String)              (String)
#define _(String)               gettext (String)
#define Q_(String)              g_strip_context ((String), gettext (String))

```

16.3.3. glib-2.0/glib/gprintf.h

```

extern gint g_fprintf(FILE * file, const gchar * format, ...);
extern gint g_printf(const gchar * format, ...);
extern gint g_snprintf(gchar * string, gulong n, const gchar * format,
                      ...);
extern gint g_sprintf(gchar * string, const gchar * format, ...);
extern gint g_vasprintf(gchar * *string, const gchar * format,
                      va_list args);
extern gint g_vfprintf(FILE * file, const gchar * format, va_list args);
extern gint g_vprintf(const gchar * format, va_list args);
extern gint g_vsnprintf(gchar * string, gulong n, const gchar * format,
                      va_list args);
extern gint g_vsprintf(gchar * string, const gchar * format, va_list args);

```

16.3.4. glib-2.0/glib/gstdio.h

```

#define g_access      access
#define g_chdir      chdir
#define g_chmod      chmod
#define g_creat      creat
#define g_fopen      fopen
#define g_freopen    freopen
#define g_lstat      lstat
#define g_mkdir      mkdir
#define g_open       open
#define g_remove     remove
#define g_rename     rename
#define g_rmdir      rmdir
#define g_stat       stat
#define g_unlink     unlink

```

16.4. Interface Definitions for libglib-2.0

Table of Contents

[g_cache_value_foreach](#) -- call specified interface for each value in GCache (DEPRECATED)

The interfaces defined on the following pages are included in libglib-2.0 and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 16.2](#) shall behave as described in the referenced base document.

g_cache_value_foreach

Name

`g_cache_value_foreach` -- call specified interface for each value in GCache (DEPRECATED)

Synopsis

```
#include <glib-2.0/glib.h>

void g_cache_value_foreach(GCache * cache, GHFunc func, gpointer
user_data);
```

Description

The interface `g_cache_value_foreach()` shall behave as described in [Glib 2.12.13 Reference Manual](#). However, this interface is deprecated and should not be used in newly-written code, because it passes pointers to unspecified internal data structures to `func`. Use `g_cache_key_foreach()` instead.

16.5. Interfaces for libgobject-2.0

[Table 16-65](#) defines the library name and shared object name for the libgobject-2.0 library

Table 16-65. libgobject-2.0 Definition

Library:	libgobject-2.0
SONAME:	libgobject-2.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[GObject 2.12] [Gobject 2.12.13 Reference Manual](#)

[LSB] [This Specification](#)

16.5.1. GObject GTypeModule

16.5.1.1. Interfaces for GObject GTypeModule

An LSB conforming implementation shall provide the generic functions for GObject GTypeModule specified in [Table 16-66](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-66. libgobject-2.0 - GObject GTypeModule Function Interfaces

g_type_module_add_interface [GObject 2.12]	g_type_module_get_type [GObject 2.12]
g_type_module_register_enum [GObject 2.12]	g_type_module_register_flags [GObject 2.12]
g_type_module_register_type [GObject 2.12]	g_type_module_set_name [GObject 2.12]
g_type_module_unuse [GObject 2.12]	g_type_module_use [GObject 2.12]

16.5.2. GObject Enums and Flags

16.5.2.1. Interfaces for GObject Enums and Flags

An LSB conforming implementation shall provide the generic functions for GObject Enums and Flags specified in [Table 16-67](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-67. libgobject-2.0 - GObject Enums and Flags Function Interfaces

g_enum_complete_type_info [GObject 2.12]	g_enum_get_value [GObject 2.12]
g_enum_get_value_by_name [GObject 2.12]	g_enum_get_value_by_nick [GObject 2.12]
g_enum_register_static [GObject 2.12]	g_flags_complete_type_info [GObject 2.12]
g_flags_get_first_value [GObject 2.12]	g_flags_get_value_by_name [GObject 2.12]
g_flags_get_value_by_nick [GObject 2.12]	g_flags_register_static [GObject 2.12]

16.5.3. GObject Signals

16.5.3.1. Interfaces for GObject Signals

An LSB conforming implementation shall provide the generic functions for GObject Signals specified in [Table 16-68](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-68. libgobject-2.0 - GObject Signals Function Interfaces

g_signal_accumulator_true_handled [GObject 2.12]	g_signal_add_emission_hook [GObject 2.12]
g_signal_chain_from_overridden [GObject 2.12]	g_signal_connect_closure [GObject 2.12]
g_signal_connect_closure_by_id [GObject 2.12]	g_signal_connect_data [GObject 2.12]
g_signal_connect_object [GObject 2.12]	g_signal_emit [GObject 2.12]
g_signal_emit_by_name [GObject 2.12]	g_signal_emit_valist [GObject 2.12]
g_signal_emitv [GObject 2.12]	g_signal_get_invocation_hint [GObject 2.12]
g_signal_handler_block [GObject 2.12]	g_signal_handler_disconnect [GObject 2.12]
g_signal_handler_find [GObject 2.12]	g_signal_handler_is_connected [GObject 2.12]

g_signal_handler_unblock [GObject 2.12]	g_signal_handlers_block_matched [GObject 2.12]
g_signal_handlers_destroy [GObject 2.12]	g_signal_handlers_disconnect_matched [GObject 2.12]
g_signal_handlers_unblock_matched [GObject 2.12]	g_signal_has_handler_pending [GObject 2.12]
g_signal_list_ids [GObject 2.12]	g_signal_lookup [GObject 2.12]
g_signal_name [GObject 2.12]	g_signal_new [GObject 2.12]
g_signal_new_valist [GObject 2.12]	g_signal_newv [GObject 2.12]
g_signal_override_class_closure [GObject 2.12]	g_signal_parse_name [GObject 2.12]
g_signal_query [GObject 2.12]	g_signal_remove_emission_hook [GObject 2.12]
g_signal_stop_emission [GObject 2.12]	g_signal_stop_emission_by_name [GObject 2.12]
g_signal_type_cclosure_new [GObject 2.12]	

16.5.4. GObject Value arrays

16.5.4.1. Interfaces for GObject Value arrays

An LSB conforming implementation shall provide the generic functions for GObject Value arrays specified in [Table 16-69](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-69. libgobject-2.0 - GObject Value arrays Function Interfaces

g_value_array_append [GObject 2.12]	g_value_array_copy [GObject 2.12]
g_value_array_free [GObject 2.12]	g_value_array_get_nth [GObject 2.12]
g_value_array_insert [GObject 2.12]	g_value_array_new [GObject 2.12]
g_value_array_prepend [GObject 2.12]	g_value_array_remove [GObject 2.12]
g_value_array_sort [GObject 2.12]	g_value_array_sort_with_data [GObject 2.12]

16.5.5. GObject Generic Values

16.5.5.1. Interfaces for GObject Generic Values

An LSB conforming implementation shall provide the generic functions for GObject Generic Values specified in [Table 16-70](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-70. libgobject-2.0 - GObject Generic Values Function Interfaces

g_strdup_value_contents [GObject 2.12]	g_value_array_get_type [GObject 2.12]
g_value_copy [GObject 2.12]	g_value_fits_pointer [GObject 2.12]
g_value_get_type [GObject 2.12]	g_value_init [GObject 2.12]
g_value_peek_pointer [GObject 2.12]	g_value_register_transform_func [GObject 2.12]
g_value_reset [GObject 2.12]	g_value_set_instance [LSB]
g_value_transform [GObject 2.12]	g_value_type_compatible [GObject 2.12]
g_value_type_transformable [GObject 2.12]	g_value_unset [GObject 2.12]

16.5.6. GObject Parameters and Values

16.5.6.1. Interfaces for GObject Parameters and Values

An LSB conforming implementation shall provide the generic functions for GObject Parameters and Values specified in [Table 16-71](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-71. libgobject-2.0 - GObject Parameters and Values Function Interfaces

g_param_spec_boolean [GObject 2.12]	g_param_spec_boxed [GObject 2.12]
g_param_spec_char [GObject 2.12]	g_param_spec_double [GObject 2.12]
g_param_spec_enum [GObject 2.12]	g_param_spec_flags [GObject 2.12]
g_param_spec_float [GObject 2.12]	g_param_spec_int [GObject 2.12]
g_param_spec_int64 [GObject 2.12]	g_param_spec_long [GObject 2.12]
g_param_spec_object [GObject 2.12]	g_param_spec_override [GObject 2.12]
g_param_spec_param [GObject 2.12]	g_param_spec_pointer [GObject 2.12]
g_param_spec_string [GObject 2.12]	g_param_spec_uchar [GObject 2.12]
g_param_spec_uint [GObject 2.12]	g_param_spec_uint64 [GObject 2.12]
g_param_spec_ulong [GObject 2.12]	g_param_spec_unichar [GObject 2.12]
g_param_spec_value_array [GObject 2.12]	g_value_dup_boxed [GObject 2.12]
g_value_dup_object [GObject 2.12]	g_value_dup_param [GObject 2.12]
g_value_dup_string [GObject 2.12]	g_value_get_boolean [GObject 2.12]
g_value_get_boxed [GObject 2.12]	g_value_get_char [GObject 2.12]
g_value_get_double [GObject 2.12]	g_value_get_enum [GObject 2.12]
g_value_get_flags [GObject 2.12]	g_value_get_float [GObject 2.12]
g_value_get_gtype [GObject 2.12]	g_value_get_int [GObject 2.12]

g_value_get_int64 [GObject 2.12]	g_value_get_long [GObject 2.12]
g_value_get_object [GObject 2.12]	g_value_get_param [GObject 2.12]
g_value_get_pointer [GObject 2.12]	g_value_get_string [GObject 2.12]
g_value_get_uchar [GObject 2.12]	g_value_get_uint [GObject 2.12]
g_value_get_uint64 [GObject 2.12]	g_value_get_ulong [GObject 2.12]
g_value_set_boolean [GObject 2.12]	g_value_set_boxed [GObject 2.12]
g_value_set_char [GObject 2.12]	g_value_set_double [GObject 2.12]
g_value_set_enum [GObject 2.12]	g_value_set_flags [GObject 2.12]
g_value_set_float [GObject 2.12]	g_value_set_gtype [GObject 2.12]
g_value_set_int [GObject 2.12]	g_value_set_int64 [GObject 2.12]
g_value_set_long [GObject 2.12]	g_value_set_object [GObject 2.12]
g_value_set_param [GObject 2.12]	g_value_set_pointer [GObject 2.12]
g_value_set_static_boxed [GObject 2.12]	g_value_set_static_string [GObject 2.12]
g_value_set_string [GObject 2.12]	g_value_set_uchar [GObject 2.12]
g_value_set_uint [GObject 2.12]	g_value_set_uint64 [GObject 2.12]
g_value_set_ulong [GObject 2.12]	g_value_take_boxed [GObject 2.12]
g_value_take_object [GObject 2.12]	g_value_take_param [GObject 2.12]
g_value_take_string [GObject 2.12]	

An LSB conforming implementation shall provide the generic data interfaces for GObject Parameters and Values specified in [Table 16-72](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-72. libgobject-2.0 - GObject Parameters and Values Data Interfaces

g_param_spec_types [GObject 2.12]	

16.5.7. GObject GParamSpec

16.5.7.1. Interfaces for GObject GParamSpec

An LSB conforming implementation shall provide the generic functions for GObject GParamSpec specified in [Table 16-73](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-73. libgobject-2.0 - GObject GParamSpec Function Interfaces

g_param_spec_get_blurb [GObject 2.12]	g_param_spec_get_name [GObject 2.12]
g_param_spec_get_nick [GObject 2.12]	g_param_spec_get_qdata [GObject 2.12]

g_param_spec_get_redirect_target [GObject 2.12]	g_param_spec_gtype [GObject 2.12]
g_param_spec_internal [GObject 2.12]	g_param_spec_pool_insert [GObject 2.12]
g_param_spec_pool_list [GObject 2.12]	g_param_spec_pool_list_owned [GObject 2.12]
g_param_spec_pool_lookup [GObject 2.12]	g_param_spec_pool_new [GObject 2.12]
g_param_spec_pool_remove [GObject 2.12]	g_param_spec_ref [GObject 2.12]
g_param_spec_ref_sink [GObject 2.12]	g_param_spec_set_qdata [GObject 2.12]
g_param_spec_set_qdata_full [GObject 2.12]	g_param_spec_sink [GObject 2.12]
g_param_spec_steal_qdata [GObject 2.12]	g_param_spec_unref [GObject 2.12]
g_param_type_register_static [GObject 2.12]	g_param_value_convert [GObject 2.12]
g_param_value_defaults [GObject 2.12]	g_param_value_set_default [GObject 2.12]
g_param_value_validate [GObject 2.12]	g_param_values_cmp [GObject 2.12]

16.5.8. GObject GBoxed

16.5.8.1. Interfaces for GObject GBoxed

An LSB conforming implementation shall provide the generic functions for GObject GBoxed specified in [Table 16-74](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-74. libgobject-2.0 - GObject GBoxed Function Interfaces

g_boxed_copy [GObject 2.12]	g_boxed_free [GObject 2.12]
g_boxed_type_register_static [GObject 2.12]	g_gstring_get_type [GObject 2.12]
g_pointer_type_register_static [GObject 2.12]	g_strv_get_type [GObject 2.12]

16.5.9. GObject Closures

16.5.9.1. Interfaces for GObject Closures

An LSB conforming implementation shall provide the generic functions for GObject Closures specified in [Table 16-75](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-75. libgobject-2.0 - GObject Closures Function Interfaces

g_cclosure_marshal_BOOLEAN__FLAGS [GObject 2.12]	g_cclosure_marshal_STRING__OBJECT_POINTER [GObject 2.12]
g_cclosure_marshal_VOID__BOOLEAN [GObject 2.12]	g_cclosure_marshal_VOID__BOXED [GObject 2.12]

g_cclosure_marshal_VOID__CHAR [GObject 2.12]	g_cclosure_marshal_VOID__DOUBLE [GObject 2.12]
g_cclosure_marshal_VOID__ENUM [GObject 2.12]	g_cclosure_marshal_VOID__FLAGS [GObject 2.12]
g_cclosure_marshal_VOID__FLOAT [GObject 2.12]	g_cclosure_marshal_VOID__INT [GObject 2.12]
g_cclosure_marshal_VOID__LONG [GObject 2.12]	g_cclosure_marshal_VOID__OBJECT [GObject 2.12]
g_cclosure_marshal_VOID__PARAM [GObject 2.12]	g_cclosure_marshal_VOID__POINTER [GObject 2.12]
g_cclosure_marshal_VOID__STRING [GObject 2.12]	g_cclosure_marshal_VOID__UCHAR [GObject 2.12]
g_cclosure_marshal_VOID__UINT [GObject 2.12]	g_cclosure_marshal_VOID__UINT_POINTER [GObject 2.12]
g_cclosure_marshal_VOID__ULONG [GObject 2.12]	g_cclosure_marshal_VOID__VOID [GObject 2.12]
g_cclosure_new [GObject 2.12]	g_cclosure_new_object [GObject 2.12]
g_cclosure_new_object_swap [GObject 2.12]	g_cclosure_new_swap [GObject 2.12]
g_closure_add_finalize_notifier [GObject 2.12]	g_closure_add_invalidate_notifier [GObject 2.12]
g_closure_add_marshal_guards [GObject 2.12]	g_closure_invalidate [GObject 2.12]
g_closure_invoke [GObject 2.12]	g_closure_new_object [GObject 2.12]
g_closure_new_simple [GObject 2.12]	g_closure_ref [GObject 2.12]
g_closure_remove_finalize_notifier [GObject 2.12]	g_closure_remove_invalidate_notifier [GObject 2.12]
g_closure_set_marshal [GObject 2.12]	g_closure_set_meta_marshal [GObject 2.12]
g_closure_sink [GObject 2.12]	g_closure_unref [GObject 2.12]
g_source_set_closure [GObject 2.12]	

16.5.10. GObject GObject

16.5.10.1. Interfaces for GObject GObject

An LSB conforming implementation shall provide the generic functions for GObject GObject specified in [Table 16-76](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-76. libgobject-2.0 - GObject GObject Function Interfaces

g_object_add_toggle_ref [GObject 2.12]	g_object_add_weak_pointer [GObject 2.12]

g_object_class_find_property [GObject 2.12]	g_object_class_install_property [GObject 2.12]
g_object_class_list_properties [GObject 2.12]	g_object_class_override_property [GObject 2.12]
g_object_connect [GObject 2.12]	g_object_disconnect [GObject 2.12]
g_object_force_floating [GObject 2.12]	g_object_freeze_notify [GObject 2.12]
g_object_get [GObject 2.12]	g_object_get_data [GObject 2.12]
g_object_get_property [GObject 2.12]	g_object_get_qdata [GObject 2.12]
g_object_get_valist [GObject 2.12]	g_object_interface_find_property [GObject 2.12]
g_object_interface_install_property [GObject 2.12]	g_object_interface_list_properties [GObject 2.12]
g_object_is_floating [GObject 2.12]	g_object_new [GObject 2.12]
g_object_new_valist [GObject 2.12]	g_object_newv [GObject 2.12]
g_object_notify [GObject 2.12]	g_object_ref [GObject 2.12]
g_object_ref_sink [GObject 2.12]	g_object_remove_toggle_ref [GObject 2.12]
g_object_remove_weak_pointer [GObject 2.12]	g_object_run_dispose [GObject 2.12]
g_object_set [GObject 2.12]	g_object_set_data [GObject 2.12]
g_object_set_data_full [GObject 2.12]	g_object_set_property [GObject 2.12]
g_object_set_qdata [GObject 2.12]	g_object_set_qdata_full [GObject 2.12]
g_object_set_valist [GObject 2.12]	g_object_steal_data [GObject 2.12]
g_object_steal_qdata [GObject 2.12]	g_object_thaw_notify [GObject 2.12]
g_object_unref [GObject 2.12]	g_object_watch_closure [GObject 2.12]
g_object_weak_ref [GObject 2.12]	g_object_weak_unref [GObject 2.12]

16.5.11. GObject GType

16.5.11.1. Interfaces for GObject GType

An LSB conforming implementation shall provide the generic functions for GObject GType specified in [Table 16-77](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-77. libgobject-2.0 - GObject GType Function Interfaces

g_closure_get_type [GObject 2.12]	g_gtype_get_type [GObject 2.12]
g_hash_table_get_type [GObject 2.12]	

	g_initially_unowned_get_type [GObject 2.12]
g_io_channel_get_type [GObject 2.12]	g_io_condition_get_type [GObject 2.12]
g_type_add_class_cache_func [GObject 2.12]	g_type_add_interface_check [GObject 2.12]
g_type_add_interface_dynamic [GObject 2.12]	g_type_add_interface_static [GObject 2.12]
g_type_check_class_cast [GObject 2.12]	g_type_check_class_is_a [GObject 2.12]
g_type_check_instance [GObject 2.12]	g_type_check_instance_cast [GObject 2.12]
g_type_check_instance_is_a [GObject 2.12]	g_type_check_is_value_type [GObject 2.12]
g_type_check_value [GObject 2.12]	g_type_check_value_holds [GObject 2.12]
g_type_children [GObject 2.12]	g_type_class_add_private [GObject 2.12]
g_type_class_peek [GObject 2.12]	g_type_class_peek_parent [GObject 2.12]
g_type_class_peek_static [GObject 2.12]	g_type_class_ref [GObject 2.12]
g_type_class_unref [GObject 2.12]	g_type_class_unref_uncached [GObject 2.12]
g_type_create_instance [GObject 2.12]	g_type_default_interface_peek [GObject 2.12]
g_type_default_interface_ref [GObject 2.12]	g_type_default_interface_unref [GObject 2.12]
g_type_depth [GObject 2.12]	g_type_free_instance [GObject 2.12]
g_type_from_name [GObject 2.12]	g_type_fundamental [GObject 2.12]
g_type_fundamental_next [GObject 2.12]	g_type_get_plugin [GObject 2.12]
g_type_get_qdata [GObject 2.12]	g_type_init [GObject 2.12]
g_type_init_with_debug_flags [GObject 2.12]	g_type_instance_get_private [GObject 2.12]
g_type_interface_add_prerequisite [GObject 2.12]	g_type_interface_get_plugin [GObject 2.12]
g_type_interface_peek [GObject 2.12]	g_type_interface_peek_parent [GObject 2.12]
g_type_interface_prerequisites [GObject 2.12]	g_type_interfaces [GObject 2.12]
g_type_is_a [GObject 2.12]	g_type_name [GObject 2.12]

<code>g_type_name_from_class</code> [LSB]	<code>g_type_name_from_instance</code> [LSB]
<code>g_type_next_base</code> [GObject 2.12]	<code>g_type_parent</code> [GObject 2.12]
<code>g_type_qname</code> [GObject 2.12]	<code>g_type_query</code> [GObject 2.12]
<code>g_type_register_dynamic</code> [GObject 2.12]	<code>g_type_register_fundamental</code> [GObject 2.12]
<code>g_type_register_static</code> [GObject 2.12]	<code>g_type_register_static_simple</code> [GObject 2.12]
<code>g_type_remove_class_cache_func</code> [GObject 2.12]	<code>g_type_remove_interface_check</code> [GObject 2.12]
<code>g_type_set_qdata</code> [GObject 2.12]	<code>g_type_test_flags</code> [GObject 2.12]
<code>g_type_value_table_peek</code> [GObject 2.12]	

16.5.12. GObject GTypePlugin

16.5.12.1. Interfaces for GObject GTypePlugin

An LSB conforming implementation shall provide the generic functions for GObject GTypePlugin specified in [Table 16-78](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-78. libgobject-2.0 - GObject GTypePlugin Function Interfaces

<code>g_type_plugin_complete_interface_info</code> [GObject 2.12]	<code>g_type_plugin_complete_type_info</code> [GObject 2.12]
<code>g_type_plugin_get_type</code> [GObject 2.12]	<code>g_type_plugin_unuse</code> [GObject 2.12]
<code>g_type_plugin_use</code> [GObject 2.12]	

16.6. Data Definitions for libgobject-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libgobject-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.6.1. glib-2.0/glib-object.h

```

#define G_CLOSURE_NEEDS_MARSHAL(closure) \
    (((GClosure*) (closure))->marshal == NULL)
#define G_TYPE_FROM_INTERFACE(g_iface) \
    (((GTypeInterface*) (g_iface))->g_type)
#define G_CLOSURE_N_NOTIFIERS(cl) \
    ((cl)->meta_marshal + ((cl)->n_guards << 1L) + (cl)->n_fnotifiers + \
    (cl)->n_inotifiers)
#define _G_TYPE_CCC(cp,gt,ct) \
    ((ct*) g_type_check_class_cast ((GTypeClass*) cp, gt))
#define _G_TYPE_CIC(ip,gt,ct) \
    ((ct*) g_type_check_instance_cast ((GTypeInstance*) ip, gt))
#define _G_TYPE_IGI(ip,gt,ct) \
    ((ct*) g_type_interface_peek (((GTypeInstance*) ip)->g_class, gt))
#define G_TYPE_INSTANCE_GET_PRIVATE(instance,g_type,c_type) \
    ((c_type*) g_type_instance_get_private ((GTypeInstance*) (instance), \
    (g_type)))
#define G_TYPE_MAKE_FUNDAMENTAL(x) \
    ((GType) ((x) << G_TYPE_FUNDAMENTAL_SHIFT))
#define _G_TYPE_CCT(cp,gt) \
    (G_GNUC_EXTENSION ({ GTypeClass *__class = (GTypeClass*) cp; GType \
    __t = gt; gboolean __r; if (__class && __class->g_type == __t) __r = \
    TRUE; else __r = g_type_check_class_is_a (__class, __t); __r; }))
#define _G_TYPE_CIT(ip,gt) \
    (G_GNUC_EXTENSION ({ GTypeInstance *__inst = (GTypeInstance*) ip; \
    GType __t = gt; gboolean __r; if (__inst && __inst->g_class && \
    __inst->g_class->g_type == __t) __r = TRUE; else __r = \
    g_type_check_instance_is_a (__inst, __t); __r; }))
#define _G_TYPE_CVH(vl,gt) \
    (G_GNUC_EXTENSION ({ GValue *__val = (GValue*) vl; GType __t = gt; \
    gboolean __r; if (__val && __val->g_type == __t) __r = TRUE; else __r = \
    g_type_check_value_holds (__val, __t); __r; }))
#define G_ENUM_CLASS(class) \
    (G_TYPE_CHECK_CLASS_CAST ((class), G_TYPE_ENUM, GEnumClass))
#define G_FLAGS_CLASS(class) \
    (G_TYPE_CHECK_CLASS_CAST ((class), G_TYPE_FLAGS, GFlagsClass))
#define G_OBJECT_CLASS(class) \
    (G_TYPE_CHECK_CLASS_CAST ((class), G_TYPE_OBJECT, GObjectClass))
#define G_TYPE_MODULE_CLASS(class) \
    (G_TYPE_CHECK_CLASS_CAST ((class), G_TYPE_TYPE_MODULE, \
    GTypeModuleClass))
#define G_PARAM_SPEC_CLASS(pclass) \
    (G_TYPE_CHECK_CLASS_CAST ((pclass), G_TYPE_PARAM, GParamSpecClass))
#define G_TYPE_PLUGIN_CLASS(vtable) \
    (G_TYPE_CHECK_CLASS_CAST ((vtable), G_TYPE_TYPE_PLUGIN, \
    GTypePluginClass))
#define G_IS_ENUM_CLASS(class) \
    (G_TYPE_CHECK_CLASS_TYPE ((class), G_TYPE_ENUM))
#define G_IS_FLAGS_CLASS(class) \
    (G_TYPE_CHECK_CLASS_TYPE ((class), G_TYPE_FLAGS))
#define G_IS_OBJECT_CLASS(class) \
    (G_TYPE_CHECK_CLASS_TYPE ((class), G_TYPE_OBJECT))
#define G_IS_TYPE_MODULE_CLASS(class) \
    (G_TYPE_CHECK_CLASS_TYPE ((class), G_TYPE_TYPE_MODULE))
#define G_IS_PARAM_SPEC_CLASS(pclass) \
    (G_TYPE_CHECK_CLASS_TYPE ((pclass), G_TYPE_PARAM))
#define G_IS_TYPE_PLUGIN_CLASS(vtable) \
    (G_TYPE_CHECK_CLASS_TYPE ((vtable), G_TYPE_TYPE_PLUGIN))
#define G_TYPE_PLUGIN(inst) \
    (G_TYPE_CHECK_INSTANCE_CAST ((inst), G_TYPE_TYPE_PLUGIN, \

```

```

    GTypePlugin))
#define G_TYPE_MODULE(module) \
    (G_TYPE_CHECK_INSTANCE_CAST ((module), G_TYPE_TYPE_MODULE, \
    GTypeModule))
#define G_OBJECT(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), G_TYPE_OBJECT, GObject))
#define G_PARAM_SPEC(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM, GParamSpec))
#define G_PARAM_SPEC_BOOLEAN(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_BOOLEAN, \
    GParamSpecBoolean))
#define G_PARAM_SPEC_BOXED(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_BOXED, \
    GParamSpecBoxed))
#define G_PARAM_SPEC_CHAR(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_CHAR, \
    GParamSpecChar))
#define G_PARAM_SPEC_DOUBLE(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_DOUBLE, \
    GParamSpecDouble))
#define G_PARAM_SPEC_ENUM(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_ENUM, \
    GParamSpecEnum))
#define G_PARAM_SPEC_FLAGS(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_FLAGS, \
    GParamSpecFlags))
#define G_PARAM_SPEC_FLOAT(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_FLOAT, \
    GParamSpecFloat))
#define G_PARAM_SPEC_INT(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_INT, \
    GParamSpecInt))
#define G_PARAM_SPEC_INT64(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_INT64, \
    GParamSpecInt64))
#define G_PARAM_SPEC_LONG(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_LONG, \
    GParamSpecLong))
#define G_PARAM_SPEC_OBJECT(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_OBJECT, \
    GParamSpecObject))
#define G_PARAM_SPEC_OVERRIDE(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_OVERRIDE, \
    GParamSpecOverride))
#define G_PARAM_SPEC_PARAM(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_PARAM, \
    GParamSpecParam))
#define G_PARAM_SPEC_POINTER(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_POINTER, \
    GParamSpecPointer))
#define G_PARAM_SPEC_STRING(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_STRING, \
    GParamSpecString))
#define G_PARAM_SPEC_UCHAR(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_UCHAR, \
    GParamSpecUChar))
#define G_PARAM_SPEC_UINT(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_UINT, \
    GParamSpecUInt))
#define G_PARAM_SPEC_UINT64(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_UINT64, \
    GParamSpecUInt64))

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#define G_PARAM_SPEC_ULONG(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_ULONG, \
    GParamSpecUlong))
#define G_PARAM_SPEC_UNICHAR(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_UNICHAR, \
    GParamSpecUnichar))
#define G_PARAM_SPEC_VALUE_ARRAY(pspec) \
    (G_TYPE_CHECK_INSTANCE_CAST ((pspec), G_TYPE_PARAM_VALUE_ARRAY, \
    GParamSpecValueArray))
#define G_IS_TYPE_PLUGIN(inst) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((inst), G_TYPE_TYPE_PLUGIN))
#define G_IS_TYPE_MODULE(module) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((module), G_TYPE_TYPE_MODULE))
#define G_IS_OBJECT(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), G_TYPE_OBJECT))
#define G_IS_PARAM_SPEC(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM))
#define G_IS_PARAM_SPEC_BOOLEAN(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_BOOLEAN))
#define G_IS_PARAM_SPEC_BOXED(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_BOXED))
#define G_IS_PARAM_SPEC_CHAR(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_CHAR))
#define G_IS_PARAM_SPEC_DOUBLE(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_DOUBLE))
#define G_IS_PARAM_SPEC_ENUM(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_ENUM))
#define G_IS_PARAM_SPEC_FLAGS(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_FLAGS))
#define G_IS_PARAM_SPEC_FLOAT(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_FLOAT))
#define G_IS_PARAM_SPEC_INT(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_INT))
#define G_IS_PARAM_SPEC_INT64(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_INT64))
#define G_IS_PARAM_SPEC_LONG(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_LONG))
#define G_IS_PARAM_SPEC_OBJECT(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_OBJECT))
#define G_IS_PARAM_SPEC_OVERRIDE(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_OVERRIDE))
#define G_IS_PARAM_SPEC_PARAM(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_PARAM))
#define G_IS_PARAM_SPEC_POINTER(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_POINTER))
#define G_IS_PARAM_SPEC_STRING(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_STRING))
#define G_IS_PARAM_SPEC_UCHAR(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_UCHAR))
#define G_IS_PARAM_SPEC_UINT(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_UINT))
#define G_IS_PARAM_SPEC_UINT64(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_UINT64))
#define G_IS_PARAM_SPEC_ULONG(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_ULONG))
#define G_IS_PARAM_SPEC_UNICHAR(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_UNICHAR))
#define G_IS_PARAM_SPEC_VALUE_ARRAY(pspec) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((pspec), G_TYPE_PARAM_VALUE_ARRAY))
#define G_VALUE HOLDS(value,type) \
    (G_TYPE_CHECK_VALUE_TYPE ((value), (type)))
#define G_VALUE HOLDS_BOOLEAN(value) \

```

```

        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_BOOLEAN))
#define G_VALUE_HOLDS_BOXED(value)      \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_BOXED))
#define G_VALUE_HOLDS_CHAR(value)       \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_CHAR))
#define G_VALUE_HOLDS_DOUBLE(value)     \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_DOUBLE))
#define G_VALUE_HOLDS_ENUM(value)       \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_ENUM))
#define G_VALUE_HOLDS_FLAGS(value)      \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_FLAGS))
#define G_VALUE_HOLDS_FLOAT(value)      \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_FLOAT))
#define G_VALUE_HOLDS_INT(value)        \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_INT))
#define G_VALUE_HOLDS_INT64(value)      \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_INT64))
#define G_VALUE_HOLDS_LONG(value)       \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_LONG))
#define G_VALUE_HOLDS_OBJECT(value)     \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_OBJECT))
#define G_VALUE_HOLDS_PARAM(value)      \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_PARAM))
#define G_VALUE_HOLDS_POINTER(value)    \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_POINTER))
#define G_VALUE_HOLDS_STRING(value)     \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_STRING))
#define G_VALUE_HOLDS_UCHAR(value)      \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_UCHAR))
#define G_VALUE_HOLDS_UINT(value)       \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_UINT))
#define G_VALUE_HOLDS_UINT64(value)     \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_UINT64))
#define G_VALUE_HOLDS_ULONG(value)      \
        (G_TYPE_CHECK_VALUE_TYPE ((value), G_TYPE_ULONG))
#define G_TYPE_FROM_INSTANCE(instance)  \
        (G_TYPE_FROM_CLASS ((GTypeInstance*) (instance))->g_class))
#define G_TYPE_IS_INTERFACE(type)      \
        (G_TYPE_FUNDAMENTAL (type) == G_TYPE_INTERFACE)
#define G_TYPE_IS_OBJECT(type)         \
        (G_TYPE_FUNDAMENTAL (type) == G_TYPE_OBJECT)
#define G_TYPE_MODULE_GET_CLASS(module) \
        (G_TYPE_INSTANCE_GET_CLASS ((module), G_TYPE_TYPE_MODULE, \
        GTypeModuleClass))
#define G_OBJECT_GET_CLASS(object)     \
        (G_TYPE_INSTANCE_GET_CLASS ((object), G_TYPE_OBJECT, GObjectClass))
#define G_PARAM_SPEC_GET_CLASS(pspec) \
        (G_TYPE_INSTANCE_GET_CLASS ((pspec), G_TYPE_PARAM, GParamSpecClass))
#define G_TYPE_PLUGIN_GET_CLASS(inst)  \
        (G_TYPE_INSTANCE_GET_INTERFACE ((inst), G_TYPE_TYPE_PLUGIN, \
        GTypePluginClass))
#define G_ENUM_CLASS_TYPE_NAME(class)  \
        (g_type_name (G_ENUM_CLASS_TYPE (class)))
#define G_FLAGS_CLASS_TYPE_NAME(class) \
        (g_type_name (G_FLAGS_TYPE (class)))
#define G_OBJECT_CLASS_NAME(class)     \
        (g_type_name (G_OBJECT_CLASS_TYPE (class)))
#define G_PARAM_SPEC_TYPE_NAME(pspec)  \
        (g_type_name (G_PARAM_SPEC_TYPE (pspec)))
#define G_TYPE_IS_ABSTRACT(type)       \
        (g_type_test_flags ((type), G_TYPE_FLAG_ABSTRACT))
#define G_TYPE_IS_CLASSED(type)        \

```



```

        (g_type_test_flags ((type), G_TYPE_FLAG_CLASSSED))
#define G_TYPE_IS_DEEP_DERIVABLE(type) \
        (g_type_test_flags ((type), G_TYPE_FLAG_DEEP_DERIVABLE))
#define G_TYPE_IS_DERIVABLE(type) \
        (g_type_test_flags ((type), G_TYPE_FLAG_DERIVABLE))
#define G_TYPE_IS_INSTANTIATABLE(type) \
        (g_type_test_flags ((type), G_TYPE_FLAG_INSTANTIATABLE))
#define G_TYPE_IS_VALUE_ABSTRACT(type) \
        (g_type_test_flags ((type), G_TYPE_FLAG_VALUE_ABSTRACT))
#define G_TYPE_HAS_VALUE_TABLE(type) \
        (g_type_value_table_peek (type) != NULL)
#define G_TYPE_CHECK_CLASS_CAST(g_class,g_type,c_type) \
        (_G_TYPE_CCC ((g_class), (g_type), c_type))
#define G_TYPE_CHECK_CLASS_TYPE(g_class,g_type) \
        (_G_TYPE_CCT ((g_class), (g_type)))
#define G_TYPE_CHECK_INSTANCE(instance) \
        (_G_TYPE_CHI ((GTypeInstance*) (instance)))
#define G_TYPE_CHECK_INSTANCE_CAST(instance,g_type,c_type) \
        (_G_TYPE_CIC ((instance), (g_type), c_type))
#define G_TYPE_CHECK_INSTANCE_TYPE(instance,g_type) \
        (_G_TYPE_CIT ((instance), (g_type)))
#define G_TYPE_CHECK_VALUE_TYPE(value,g_type) \
        (_G_TYPE_CVH ((value), (g_type)))
#define G_TYPE_INSTANCE_GET_CLASS(instance,g_type,c_type) \
        (_G_TYPE_IGC ((instance), (g_type), c_type))
#define G_TYPE_INSTANCE_GET_INTERFACE(instance,g_type,c_type) \
        (_G_TYPE_IGI ((instance), (g_type), c_type))
#define G_DEFINE_TYPE_WITH_CODE(TN,t_n,T_P,_C_) \
        G_DEFINE_TYPE_EXTENDED (TN, t_n, T_P, 0, _C_)
#define G_DEFINE_TYPE(TN,t_n,T_P) \
        G_DEFINE_TYPE_EXTENDED (TN, t_n, T_P, 0, {})
#define G_DEFINE_ABSTRACT_TYPE_WITH_CODE(TN,t_n,T_P,_C_) \
        G_DEFINE_TYPE_EXTENDED (TN, t_n, T_P, G_TYPE_FLAG_ABSTRACT, _C_)
#define G_DEFINE_ABSTRACT_TYPE(TN,t_n,T_P) \
        G_DEFINE_TYPE_EXTENDED (TN, t_n, T_P, G_TYPE_FLAG_ABSTRACT, {})
#define G_OBJECT_WARN_INVALID_PROPERTY_ID(object,property_id,pspec) \
        G_OBJECT_WARN_INVALID_PSPEC ((object), "property", (property_id), \
        (pspec))
#define g_signal_connect(instance,detailed_signal,c_handler,data) \
        g_signal_connect_data ((instance), (detailed_signal), (c_handler), \
        (data), NULL, (GConnectFlags) 0)
#define g_signal_connect_after(instance,detailed_signal,c_handler,data) \
        g_signal_connect_data ((instance), (detailed_signal), (c_handler), \
        (data), NULL, G_CONNECT_AFTER)
#define g_signal_connect_swapped(instance,detailed_signal,c_handler,data) \
        g_signal_connect_data ((instance), (detailed_signal), (c_handler), \
        (data), NULL, G_CONNECT_SWAPPED)
#define g_signal_handlers_block_by_func(instance,func,data) \
        g_signal_handlers_block_matched ((instance), (GSignalMatchType) \
        (G_SIGNAL_MATCH_FUNC | G_SIGNAL_MATCH_DATA), 0, 0, NULL, (func), \
        (data))
#define g_signal_handlers_disconnect_by_func(instance,func,data) \
        g_signal_handlers_disconnect_matched ((instance), (GSignalMatchType) \
        (G_SIGNAL_MATCH_FUNC | G_SIGNAL_MATCH_DATA), 0, 0, NULL, (func), \
        (data))
#define g_signal_handlers_unblock_by_func(instance,func,data) \
        g_signal_handlers_unblock_matched ((instance), (GSignalMatchType) \
        (G_SIGNAL_MATCH_FUNC | G_SIGNAL_MATCH_DATA), 0, 0, NULL, (func), \
        (data))
#define G_OBJECT_WARN_INVALID_PSPEC(object,pname,property_id,pspec) \
        G_STMT_START { GObject *_object = (GObject*) (object); GParamSpec \
        *_pspec = (GParamSpec*) (pspec); guint _property_id = (property_id); \

```

```

    g_warning ("%s: invalid %s id %u for \"%s\" of type %s in %s", \
    G_STRLOC, (pname), _property_id, _pspec->name, g_type_name \
    (G_PARAM_SPEC_TYPE (_pspec)), G_OBJECT_TYPE_NAME (_object)); } \
    G_STMT_END
#define G_DEFINE_TYPE_EXTENDED (TypeName, type_name, TYPE_PARENT, flags, CODE) \
    static void type_name##_init (TypeName *self); static void type_name \
    ##_class_init (TypeName ##Class *klass); static gpointer type_name \
    ##_parent_class = NULL; static void type_name##_class_intern_init \
    (gpointer klass) { type_name##_parent_class = \
    g_type_class_peek_parent (klass); type_name##_class_init ((TypeName \
    ##Class*) klass); } GType type_name##_get_type (void) { static GType \
    g_define_type_id = 0; if (G_UNLIKELY (g_define_type_id == 0)) { static \
    const GTypeInfo g_define_type_info = { sizeof (TypeName ##Class), \
    (GBaseInitFunc) NULL, (GBaseFinalizeFunc) NULL, (GClassInitFunc) \
    type_name##_class_intern_init, (GClassFinalizeFunc) NULL, NULL, \
    sizeof (TypeName), 0, (GInstanceInitFunc) type_name##_init, NULL }; \
    g_define_type_id = g_type_register_static (TYPE_PARENT, #TypeName, \
    &g_define_type_info, (GTypeFlags) flags); { CODE ; } } return \
    g_define_type_id; }
#define G_IMPLEMENT_INTERFACE (TYPE_IFACE, iface_init) \
    { static const GInterfaceInfo g_implement_interface_info = { \
    (GInterfaceInitFunc) iface_init }; g_type_add_interface_static \
    (g_define_type_id, TYPE_IFACE, &g_implement_interface_info); }
#define G_CCLOSURE_SWAP_DATA (cclosure) \
    (((GClosure*) (cclosure))->derivative_flag)
#define G_TYPE_FROM_CLASS (g_class) (((GTypeClass*) (g_class))->g_type)
#define G_VALUE_TYPE (value) (((GValue*) (value))->g_type)
#define G_TYPE_IGC (ip, gt, ct) ((ct*) ((GTypeInstance*) ip)->g_class)
#define G_CALLBACK (f) ((GCallback) (f))
#define G_TYPE_FLAG_RESERVED_ID_BIT ((GType) (1 << 0))
#define G_TYPE_IS_FUNDAMENTAL (type) ((type) <= G_TYPE_FUNDAMENTAL_MAX)
#define G_TYPE_IS_DERIVED (type) ((type) > G_TYPE_FUNDAMENTAL_MAX)
#define G_PARAM_MASK (0x000000ff)
#define G_VALUE_NOCOPY_CONTENTS (1 << 27)
#define G_TYPE_FUNDAMENTAL_SHIFT (2)
#define G_TYPE_RESERVED_GLIB_FIRST (21)
#define G_TYPE_FUNDAMENTAL_MAX (255 << G_TYPE_FUNDAMENTAL_SHIFT)
#define G_TYPE_RESERVED_GLIB_LAST (31)
#define G_TYPE_RESERVED_BSE_FIRST (32)
#define G_TYPE_RESERVED_BSE_LAST (48)
#define G_TYPE_RESERVED_USER_FIRST (49)
#define G_PARAM_USER_SHIFT (8)
#define G_TYPE_CLOSURE (g_closure_get_type ())
#define G_TYPE_GSTRING (g_gstring_get_type ())
#define G_TYPE_GTYPE (g_gtype_get_type ())
#define G_TYPE_HASH_TABLE (g_hash_table_get_type ())
#define G_TYPE_INITIALLY_UNOWNED (g_initially_unowned_get_type ())
#define G_TYPE_IO_CHANNEL (g_io_channel_get_type ())
#define G_TYPE_IO_CONDITION (g_io_condition_get_type ())
#define G_PARAM_READWRITE (G_PARAM_READABLE | G_PARAM_WRITABLE)
#define G_PARAM_SPEC_VALUE_TYPE (pspec) (G_PARAM_SPEC (pspec)->value_type)
#define G_TYPE_PARAM_CHAR (g_param_spec_types[0])
#define G_TYPE_PARAM_ENUM (g_param_spec_types[10])
#define G_TYPE_PARAM_FLAGS (g_param_spec_types[11])
#define G_TYPE_PARAM_FLOAT (g_param_spec_types[12])
#define G_TYPE_PARAM_DOUBLE (g_param_spec_types[13])
#define G_TYPE_PARAM_STRING (g_param_spec_types[14])
#define G_TYPE_PARAM_PARAM (g_param_spec_types[15])
#define G_TYPE_PARAM_BOXED (g_param_spec_types[16])
#define G_TYPE_PARAM_POINTER (g_param_spec_types[17])
#define G_TYPE_PARAM_VALUE_ARRAY (g_param_spec_types[18])
#define G_TYPE_PARAM_OBJECT (g_param_spec_types[19])

```

```

#define G_TYPE_PARAM_UCHAR      (g_param_spec_types[1])
#define G_TYPE_PARAM_OVERRIDE   (g_param_spec_types[20])
#define G_TYPE_PARAM_BOOLEAN    (g_param_spec_types[2])
#define G_TYPE_PARAM_INT        (g_param_spec_types[3])
#define G_TYPE_PARAM_UINT       (g_param_spec_types[4])
#define G_TYPE_PARAM_LONG       (g_param_spec_types[5])
#define G_TYPE_PARAM_ULONG      (g_param_spec_types[6])
#define G_TYPE_PARAM_INT64      (g_param_spec_types[7])
#define G_TYPE_PARAM_UINT64     (g_param_spec_types[8])
#define G_TYPE_PARAM_UNICHAR    (g_param_spec_types[9])
#define G_TYPE_STRV             (g_strv_get_type ())
#define _G_TYPE_CHI(ip)         (g_type_check_instance ((GTypeInstance*) ip))
#define G_TYPE_IS_VALUE(type)   (g_type_check_is_value_type (type))
#define G_TYPE_IS_VALUE_TYPE(type) (g_type_check_is_value_type (type))
#define _G_TYPE_CHV(vl)         (g_type_check_value ((GValue*) vl))
#define G_IS_VALUE(value)       (G_TYPE_CHECK_VALUE (value))
#define G_SIGNAL_TYPE_STATIC_SCOPE (G_TYPE_FLAG_RESERVED_ID_BIT)
#define G_ENUM_CLASS_TYPE(class) (G_TYPE_FROM_CLASS (class))
#define G_FLAGS_CLASS_TYPE(class) (G_TYPE_FROM_CLASS (class))
#define G_OBJECT_CLASS_TYPE(class) (G_TYPE_FROM_CLASS (class))
#define G_OBJECT_TYPE(object)   (G_TYPE_FROM_INSTANCE (object))
#define G_PARAM_SPEC_TYPE(pspec) (G_TYPE_FROM_INSTANCE (pspec))
#define G_TYPE_IS_BOXED(type)   (G_TYPE_FUNDAMENTAL (type) == G_TYPE_BOXED)
#define G_TYPE_IS_ENUM(type)    (G_TYPE_FUNDAMENTAL (type) == G_TYPE_ENUM)
#define G_TYPE_IS_FLAGS(type)   (G_TYPE_FUNDAMENTAL (type) == G_TYPE_FLAGS)
#define G_TYPE_IS_PARAM(type)   (G_TYPE_FUNDAMENTAL (type) == G_TYPE_PARAM)
#define G_TYPE_FUNDAMENTAL(type) (g_type_fundamental (type))
#define G_TYPE_TYPE_MODULE      (g_type_module_get_type ())
#define G_OBJECT_TYPE_NAME(object) (g_type_name (G_OBJECT_TYPE (object)))
#define G_VALUE_TYPE_NAME(value) (g_type_name (G_VALUE_TYPE (value)))
#define G_TYPE_TYPE_PLUGIN      (g_type_plugin_get_type ())
#define G_TYPE_VALUE_ARRAY      (g_value_array_get_type ())
#define G_TYPE_VALUE            (g_value_get_type ())
#define G_TYPE_CHECK_VALUE(value) (_G_TYPE_CHV ((value)))
#define G_SIGNAL_MATCH_MASK     0x3f
#define G_SIGNAL_FLAGS_MASK     0x7f
#define G_OBJECT_VAR            extern
#define g_cclosure_marshal_BOOLEAN__FLAGS g_cclosure_marshal_BOOLEAN__FLAGS
#define G_TYPE_INVALID          G_TYPE_MAKE_FUNDAMENTAL (0)
#define G_TYPE_NONE             G_TYPE_MAKE_FUNDAMENTAL (1)
#define G_TYPE_INT64            G_TYPE_MAKE_FUNDAMENTAL (10)
#define G_TYPE_UINT64           G_TYPE_MAKE_FUNDAMENTAL (11)
#define G_TYPE_ENUM             G_TYPE_MAKE_FUNDAMENTAL (12)
#define G_TYPE_FLAGS            G_TYPE_MAKE_FUNDAMENTAL (13)
#define G_TYPE_FLOAT            G_TYPE_MAKE_FUNDAMENTAL (14)
#define G_TYPE_DOUBLE           G_TYPE_MAKE_FUNDAMENTAL (15)
#define G_TYPE_STRING           G_TYPE_MAKE_FUNDAMENTAL (16)
#define G_TYPE_POINTER          G_TYPE_MAKE_FUNDAMENTAL (17)
#define G_TYPE_BOXED            G_TYPE_MAKE_FUNDAMENTAL (18)
#define G_TYPE_PARAM            G_TYPE_MAKE_FUNDAMENTAL (19)
#define G_TYPE_INTERFACE        G_TYPE_MAKE_FUNDAMENTAL (2)
#define G_TYPE_OBJECT           G_TYPE_MAKE_FUNDAMENTAL (20)
#define G_TYPE_CHAR             G_TYPE_MAKE_FUNDAMENTAL (3)
#define G_TYPE_UCHAR            G_TYPE_MAKE_FUNDAMENTAL (4)
#define G_TYPE_BOOLEAN          G_TYPE_MAKE_FUNDAMENTAL (5)
#define G_TYPE_INT              G_TYPE_MAKE_FUNDAMENTAL (6)
#define G_TYPE_UINT             G_TYPE_MAKE_FUNDAMENTAL (7)
#define G_TYPE_LONG             G_TYPE_MAKE_FUNDAMENTAL (8)
#define G_TYPE_ULONG            G_TYPE_MAKE_FUNDAMENTAL (9)

typedef gulong GType;
typedef struct _GTypeClass {

```

```

    GType g_type;
} GTypeClass;
typedef struct _GTypeInstance {
    GTypeClass *g_class;
} GTypeInstance;
typedef struct _GObject {
    GTypeInstance g_type_instance;
    volatile guint ref_count;
    GData *qdata;
} GObject;
typedef float gfloat;
typedef struct _GValue {
    GType g_type;
    union {
        gint v_int;
        guint v_uint;
        glong v_long;
        gulong v_ulong;
        gint64 v_int64;
        guint64 v_uint64;
        gfloat v_float;
        gdouble v_double;
        gpointer v_pointer;
    } data[2];
} GValue;
typedef enum {
    G_PARAM_READABLE = 1,
    G_PARAM_WRITABLE = 2,
    G_PARAM_CONSTRUCT = 4,
    G_PARAM_CONSTRUCT_ONLY = 8,
    G_PARAM_LAX_VALIDATION = 16,
    G_PARAM_STATIC_NAME = 32,
    G_PARAM_PRIVATE = G_PARAM_STATIC_NAME,
    G_PARAM_STATIC_NICK = 64,
    G_PARAM_STATIC_BLURB = 128
} GParamFlags;
typedef struct _GParamSpec {
    GTypeInstance g_type_instance;
    gchar *name;
    GParamFlags flags;
    GType value_type;
    GType owner_type;
    gchar *_nick;
    gchar *_blurb;
    GData *qdata;
    guint ref_count;
    guint param_id;
} GParamSpec;
typedef struct _GObjectConstructParam {
    GParamSpec *pspec;
    GValue *value;
} GObjectConstructParam;
typedef struct _GObjectClass {
    GTypeClass g_type_class;
    GSList *construct_properties;
    GObject *(*constructor) (GType, guint, GObjectConstructParam *);
    void (*set_property) (GObject *, guint, const GValue *, GParamSpec *);
    void (*get_property) (GObject *, guint, GValue *, GParamSpec *);
    void (*dispose) (GObject *);
    void (*finalize) (GObject *);
    void (*dispatch_properties_changed) (GObject *, guint, GParamSpec * *);
    void (*notify) (GObject *, GParamSpec *);

```

```

    gpointer pdummy[8];
} GObjectClass;
typedef struct _GClosure {
    volatile guint ref_count:15;
    volatile guint meta_marshall:1;
    volatile guint n_guards:1;
    volatile guint n_fnotifiers:2;
    volatile guint n_inotifiers:8;
    volatile guint in_inotify:1;
    volatile guint floating:1;
    volatile guint derivative_flag:1;
    volatile guint in_marshall:1;
    volatile guint is_invalid:1;
    void (*marshal) (GClosure *, GValue *, guint, const GValue *, gpointer,
                    gpointer);
    gpointer data;
    GClosureNotifyData *notifiers;
} GClosure;
typedef void (*GClosureNotify) (gpointer, GClosure *);
typedef struct _GClosureNotifyData {
    gpointer data;
    GClosureNotify notify;
} GClosureNotifyData;
typedef void (*GTypeInterfaceCheckFunc) (gpointer, gpointer);
typedef struct _GValueArray {
    guint n_values;
    GValue *values;
    guint n_preallocated;
} GValueArray;
typedef struct _GEnumValue {
    gint value;
    gchar *value_name;
    gchar *value_nick;
} GEnumValue;
typedef struct _GEnumClass {
    GTypeClass g_type_class;
    gint minimum;
    gint maximum;
    guint n_values;
    GEnumValue *values;
} GEnumClass;
typedef struct _GParamSpecPool GParamSpecPool;
typedef enum {
    G_TYPE_DEBUG_NONE = 0,
    G_TYPE_DEBUG_OBJECTS = 1,
    G_TYPE_DEBUG_SIGNALS = 2,
    G_TYPE_DEBUG_MASK = 3
} GTypeDebugFlags;
typedef struct _GTypePlugin GTypePlugin;
typedef enum {
    G_SIGNAL_MATCH_ID = 1,
    G_SIGNAL_MATCH_DETAIL = 2,
    G_SIGNAL_MATCH_CLOSURE = 4,
    G_SIGNAL_MATCH_FUNC = 8,
    G_SIGNAL_MATCH_DATA = 16,
    G_SIGNAL_MATCH_UNBLOCKED = 32
} GSignalMatchType;
typedef struct _GFlagsValue {
    guint value;
    gchar *value_name;
    gchar *value_nick;
} GFlagsValue;

```

```

typedef void (*GClosureMarshal) (GClosure *, GValue *, guint,
                                const GValue *, gpointer, gpointer);
typedef void (*GCallback) (void);
typedef struct _GFlagsClass {
    GTypeClass g_type_class;
    guint mask;
    guint n_values;
    GFlagsValue *values;
} GFlagsClass;
typedef gboolean(*GTypeClassCacheFunc) (gpointer, GTypeClass *);
typedef enum {
    G_SIGNAL_RUN_FIRST = 1,
    G_SIGNAL_RUN_LAST = 2,
    G_SIGNAL_RUN_CLEANUP = 4,
    G_SIGNAL_NO_RECURSE = 8,
    G_SIGNAL_DETAILED = 16,
    G_SIGNAL_ACTION = 32,
    G_SIGNAL_NO_HOOKS = 64
} GSignalFlags;
typedef struct _GSignalInvocationHint {
    guint signal_id;
    GQuark detail;
    GSignalFlags run_type;
} GSignalInvocationHint;
typedef void (*GWeakNotify) (gpointer, GObject *);
typedef void (*GBaseInitFunc) (gpointer);
typedef void (*GBaseFinalizeFunc) (gpointer);
typedef void (*GClassInitFunc) (gpointer, gpointer);
typedef void (*GClassFinalizeFunc) (gpointer, gpointer);
typedef void (*GInstanceInitFunc) (GTypeInstance *, gpointer);
typedef union _GTypeCValue {
    gint v_int;
    glong v_long;
    gint64 v_int64;
    gdouble v_double;
    gpointer v_pointer;
} GTypeCValue;
typedef struct _GTypeValueTable {
    void (*value_init) (GValue *);
    void (*value_free) (GValue *);
    void (*value_copy) (const GValue *, GValue *);
    gpointer(*value_peek_pointer) (const GValue *);
    gchar *collect_format;
    gchar *(*collect_value) (GValue *, guint, GTypeCValue *, guint);
    gchar *lcopy_format;
    gchar *(*lcopy_value) (const GValue *, guint, GTypeCValue *, guint);
} GTypeValueTable;
typedef struct _GTypeInfo {
    guint16 class_size;
    GBaseInitFunc base_init;
    GBaseFinalizeFunc base_finalize;
    GClassInitFunc class_init;
    GClassFinalizeFunc class_finalize;
    gconstpointer class_data;
    guint16 instance_size;
    guint16 n_preallocs;
    GInstanceInitFunc instance_init;
    const GTypeValueTable *value_table;
} GTypeInfo;
typedef enum {
    G_TYPE_FLAG_ABSTRACT = 16,
    G_TYPE_FLAG_VALUE_ABSTRACT = 32

```

```

} GTypeFlags;
typedef struct _GTypeModule {
    GObject parent_instance;
    guint use_count;
    GSList *type_infos;
    GSList *interface_infos;
    gchar *name;
} GTypeModule;
typedef void (*GInterfaceInitFunc) (gpointer, gpointer);
typedef void (*GInterfaceFinalizeFunc) (gpointer, gpointer);
typedef struct _GInterfaceInfo {
    GInterfaceInitFunc interface_init;
    GInterfaceFinalizeFunc interface_finalize;
    gpointer interface_data;
} GInterfaceInfo;
typedef gboolean(*GSignalAccumulator) (GSignalInvocationHint *, GValue *,
                                       const GValue *, gpointer);
typedef GClosureMarshal GSignalCMarshaller;
typedef enum {
    G_CONNECT_AFTER = 1,
    G_CONNECT_SWAPPED = 2
} GConnectFlags;
typedef enum {
    G_TYPE_FLAG_CLASSSED = 1,
    G_TYPE_FLAG_INSTANTIATABLE = 2,
    G_TYPE_FLAG_DERIVABLE = 4,
    G_TYPE_FLAG_DEEP_DERIVABLE = 8
} GTypeFundamentalFlags;
typedef struct _GTypeFundamentalInfo {
    GTypeFundamentalFlags type_flags;
} GTypeFundamentalInfo;
typedef struct _GTypeQuery {
    GType type;
    const gchar *type_name;
    guint class_size;
    guint instance_size;
} GTypeQuery;
typedef gboolean(*GSignalEmissionHook) (GSignalInvocationHint *, guint,
                                       const GValue *, gpointer);
typedef void (*GValueTransform) (const GValue *, GValue *);
typedef struct _GParameter {
    const gchar *name;
    GValue value;
} GParameter;
typedef struct _GParamSpecTypeInfo {
    guint16 instance_size;
    guint16 n_preallocs;
    void (*instance_init) (GParamSpec *);
    GType value_type;
    void (*finalize) (GParamSpec *);
    void (*value_set_default) (GParamSpec *, GValue *);
    gboolean(*value_validate) (GParamSpec *, GValue *);
    gint(*values_cmp) (GParamSpec *, const GValue *, const GValue *);
} GParamSpecTypeInfo;
typedef gpointer(*GBoxedCopyFunc) (gpointer);
typedef void (*GBoxedFreeFunc) (gpointer);
typedef struct _GSignalQuery {
    guint signal_id;
    const gchar *signal_name;
    GType itype;
    GSignalFlags signal_flags;
    GType return_type;

```

```

    guint n_params;
    const GType *param_types;
} GSignalQuery;
typedef struct _GTypeInterface {
    GType g_type;
    GType g_instance_type;
} GTypeInterface;
typedef void (*GTypePluginCompleteInterfaceInfo) (GTypePlugin *, GType,
                                                    GType, GInterfaceInfo *);
typedef struct _GParamSpecObject {
    GParamSpec parent_instance;
} GParamSpecObject;
typedef void (*GTypePluginUnuse) (GTypePlugin *);
typedef void (*GTypePluginUse) (GTypePlugin *);
typedef void (*GTypePluginCompleteTypeInfo) (GTypePlugin *, GType,
                                              GTypeInfo *,
                                              GTypeValueTable *);
typedef struct _GTypePluginClass {
    GTypeInterface base_iface;
    GTypePluginUse use_plugin;
    GTypePluginUnuse unuse_plugin;
    GTypePluginCompleteTypeInfo complete_type_info;
    GTypePluginCompleteInterfaceInfo complete_interface_info;
} GTypePluginClass;
typedef struct _GCClosure {
    GClosure closure;
    gpointer callback;
} GCClosure;
typedef struct _GParamSpecUnichar {
    GParamSpec parent_instance;
    gunichar default_value;
} GParamSpecUnichar;
typedef struct _GParamSpecUInt64 {
    GParamSpec parent_instance;
    guint64 minimum;
    guint64 maximum;
    guint64 default_value;
} GParamSpecUInt64;
typedef struct _GParamSpecBoxed {
    GParamSpec parent_instance;
} GParamSpecBoxed;
typedef struct _GParamSpecOverride {
    GParamSpec parent_instance;
    GParamSpec *overridden;
} GParamSpecOverride;
typedef struct _GParamSpecClass {
    GTypeClass g_type_class;
    GType value_type;
    void (*finalize) (GParamSpec *);
    void (*value_set_default) (GParamSpec *, GValue *);
    gboolean(*value_validate) (GParamSpec *, GValue *);
    gint(*values_cmp) (GParamSpec *, const GValue *, const GValue *);
    gpointer dummy[4];
} GParamSpecClass;
typedef struct _GParamSpecLong {
    GParamSpec parent_instance;
    glong minimum;
    glong maximum;
    glong default_value;
} GParamSpecLong;
typedef struct _GParamSpecEnum {
    GParamSpec parent_instance;

```



```

    GEnumClass *enum_class;
    gint default_value;
} GParamSpecEnum;
typedef struct _GParamSpecFloat {
    GParamSpec parent_instance;
    gfloat minimum;
    gfloat maximum;
    gfloat default_value;
    gfloat epsilon;
} GParamSpecFloat;
typedef struct _GParamSpecString {
    GParamSpec parent_instance;
    gchar *default_value;
    gchar *cset_first;
    gchar *cset_nth;
    gchar substitutor;
    guint null_fold_if_empty:1;
    guint ensure_non_null:1;
} GParamSpecString;
typedef struct _GParamSpecDouble {
    GParamSpec parent_instance;
    gdouble minimum;
    gdouble maximum;
    gdouble default_value;
    gdouble epsilon;
} GParamSpecDouble;
typedef struct _GParamSpecParam {
    GParamSpec parent_instance;
} GParamSpecParam;
typedef struct _GParamSpecValueArray {
    GParamSpec parent_instance;
    GParamSpec *element_spec;
    guint fixed_n_elements;
} GParamSpecValueArray;
typedef struct _GParamSpecFlags {
    GParamSpec parent_instance;
    GFlagsClass *flags_class;
    guint default_value;
} GParamSpecFlags;
typedef struct _GParamSpecInt64 {
    GParamSpec parent_instance;
    gint64 minimum;
    gint64 maximum;
    gint64 default_value;
} GParamSpecInt64;
typedef struct _GParamSpecPointer {
    GParamSpec parent_instance;
} GParamSpecPointer;
typedef struct _GParamSpecInt {
    GParamSpec parent_instance;
    gint minimum;
    gint maximum;
    gint default_value;
} GParamSpecInt;
typedef struct _GTypeModuleClass {
    GObjectClass parent_class;
    gboolean(*load) (GTypeModule *);
    void (*unload) (GTypeModule *);
    void (*reserved1) (void);
    void (*reserved2) (void);
    void (*reserved3) (void);
    void (*reserved4) (void);

```

```

} GTypeModuleClass;
typedef struct _GParamSpecUInt {
    GParamSpec parent_instance;
    guint minimum;
    guint maximum;
    guint default_value;
} GParamSpecUInt;
typedef struct _GParamSpecUChar {
    GParamSpec parent_instance;
    guint8 minimum;
    guint8 maximum;
    guint8 default_value;
} GParamSpecUChar;
typedef struct _GParamSpecULong {
    GParamSpec parent_instance;
    gulong minimum;
    gulong maximum;
    gulong default_value;
} GParamSpecULong;
typedef struct _GParamSpecChar {
    GParamSpec parent_instance;
    gint8 minimum;
    gint8 maximum;
    gint8 default_value;
} GParamSpecChar;
typedef struct _GParamSpecBoolean {
    GParamSpec parent_instance;
    gboolean default_value;
} GParamSpecBoolean;
typedef void (*GObjectFinalizeFunc) (GObject *);
typedef void (*GObjectGetPropertyFunc) (GObject *, guint, GValue *,
                                         GParamSpec *);
typedef void (*GObjectSetPropertyFunc) (GObject *, guint, const GValue *,
                                         GParamSpec *);

typedef gchar *gchararray;
typedef gchar **GStrv;
typedef void (*GToggleNotify) (gpointer, GObject *, gboolean);
extern gpointer g_boxed_copy(GType, gpointer);
extern void g_boxed_free(GType, gpointer);
extern GType g_boxed_type_register_static(const gchar *, GBoxedCopyFunc,
                                           GBoxedFreeFunc);
extern void g_cclosure_marshal_BOOLEAN__FLAGS(GClosure *, GValue *, guint,
                                              const GValue *, gpointer,
                                              gpointer);
extern void g_cclosure_marshal_STRING__OBJECT_POINTER(GClosure *, GValue *,
                                                      guint,
                                                      const GValue *,
                                                      gpointer, gpointer);
extern void g_cclosure_marshal_VOID__BOOLEAN(GClosure *, GValue *, guint,
                                              const GValue *, gpointer,
                                              gpointer);
extern void g_cclosure_marshal_VOID__BOXED(GClosure *, GValue *, guint,
                                           const GValue *, gpointer,
                                           gpointer);
extern void g_cclosure_marshal_VOID__CHAR(GClosure *, GValue *, guint,
                                           const GValue *, gpointer,
                                           gpointer);
extern void g_cclosure_marshal_VOID__DOUBLE(GClosure *, GValue *, guint,
                                           const GValue *, gpointer,
                                           gpointer);
extern void g_cclosure_marshal_VOID__ENUM(GClosure *, GValue *, guint,
                                           const GValue *, gpointer,

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                                gpointer);
extern void g_cclosure_marshal_VOID__FLAGS(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__FLOAT(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__INT(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__LONG(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__OBJECT(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__PARAM(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__POINTER(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__STRING(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__UCHAR(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__UINT(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__UINT_POINTER(GClosure *, GValue *,
                                guint, const GValue *,
                                gpointer, gpointer);
extern void g_cclosure_marshal_VOID__ULONG(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);
extern void g_cclosure_marshal_VOID__VOID(GClosure *, GValue *, guint,
                                const GValue *, gpointer,
                                gpointer);

extern GClosure *g_cclosure_new(GCallback, gpointer, GClosureNotify);
extern GClosure *g_cclosure_new_object(GCallback, GObject *);
extern GClosure *g_cclosure_new_object_swap(GCallback, GObject *);
extern GClosure *g_cclosure_new_swap(GCallback, gpointer, GClosureNotify);
extern void g_closure_add_finalize_notifier(GClosure *, gpointer,
                                GClosureNotify);
extern void g_closure_add_invalidate_notifier(GClosure *, gpointer,
                                GClosureNotify);
extern void g_closure_add_marshal_guards(GClosure *, gpointer,
                                GClosureNotify, gpointer,
                                GClosureNotify);

extern GType g_closure_get_type(void);
extern void g_closure_invalidate(GClosure *);
extern void g_closure_invoke(GClosure *, GValue *, guint, const GValue *,
                                gpointer);
extern GClosure *g_closure_new_object(guint, GObject *);
extern GClosure *g_closure_new_simple(guint, gpointer);
extern GClosure *g_closure_ref(GClosure *);
extern void g_closure_remove_finalize_notifier(GClosure *, gpointer,
                                GClosureNotify);
extern void g_closure_remove_invalidate_notifier(GClosure *, gpointer,
                                GClosureNotify);

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extern void g_closure_set_marshal(GClosure *, GClosureMarshal);
extern void g_closure_set_meta_marshal(GClosure *, gpointer,
                                       GClosureMarshal);

extern void g_closure_sink(GClosure *);
extern void g_closure_unref(GClosure *);
extern void g_enum_complete_type_info(GType, GTypeInfo *,
                                       const GEnumValue *);

extern GEnumValue *g_enum_get_value(GEnumClass *, gint);
extern GEnumValue *g_enum_get_value_by_name(GEnumClass *, const gchar *);
extern GEnumValue *g_enum_get_value_by_nick(GEnumClass *, const gchar *);
extern GType g_enum_register_static(const gchar *, const GEnumValue *);
extern void g_flags_complete_type_info(GType, GTypeInfo *,
                                       const GFlagsValue *);

extern GFlagsValue *g_flags_get_first_value(GFlagsClass *, guint);
extern GFlagsValue *g_flags_get_value_by_name(GFlagsClass *,
                                              const gchar *);
extern GFlagsValue *g_flags_get_value_by_nick(GFlagsClass *,
                                              const gchar *);

extern GType g_flags_register_static(const gchar *, const GFlagsValue *);
extern GType g_gstring_get_type(void);
extern GType g_gtype_get_type(void);
extern GType g_hash_table_get_type(void);
extern GType g_initially_unowned_get_type(void);
extern GType g_io_channel_get_type(void);
extern GType g_io_condition_get_type(void);
extern void g_object_add_toggle_ref(GObject *, GToggleNotify, gpointer);
extern void g_object_add_weak_pointer(GObject *, gpointer *);
extern GParamSpec *g_object_class_find_property(GObjectClass *,
                                              const gchar *);
extern void g_object_class_install_property(GObjectClass *, guint,
                                           GParamSpec *);
extern GParamSpec **g_object_class_list_properties(GObjectClass *,
                                                  guint *);
extern void g_object_class_override_property(GObjectClass *, guint,
                                           const gchar *);
extern gpointer g_object_connect(gpointer, const gchar *, ...);
extern void g_object_disconnect(gpointer, const gchar *, ...);
extern void g_object_force_floating(GObject * object);
extern void g_object_freeze_notify(GObject *);
extern void g_object_get(gpointer, const gchar *, ...);
extern gpointer g_object_get_data(GObject *, const gchar *);
extern void g_object_get_property(GObject *, const gchar *, GValue *);
extern gpointer g_object_get_qdata(GObject *, GQuark);
extern void g_object_get_valist(GObject *, const gchar *, va_list);
extern GParamSpec *g_object_interface_find_property(gpointer,
                                                    const gchar *);
extern void g_object_interface_install_property(gpointer, GParamSpec *);
extern GParamSpec **g_object_interface_list_properties(gpointer, guint *);
extern gboolean g_object_is_floating(gpointer object);
extern gpointer g_object_new(GType, const gchar *, ...);
extern GObject *g_object_new_valist(GType, const gchar *, va_list);
extern gpointer g_object_newv(GType, guint, GParameter *);
extern void g_object_notify(GObject *, const gchar *);
extern gpointer g_object_ref(gpointer);
extern gpointer g_object_ref_sink(gpointer object);
extern void g_object_remove_toggle_ref(GObject *, GToggleNotify, gpointer);
extern void g_object_remove_weak_pointer(GObject *, gpointer *);
extern void g_object_run_dispose(GObject *);
extern void g_object_set(gpointer, const gchar *, ...);
extern void g_object_set_data(GObject *, const gchar *, gpointer);
extern void g_object_set_data_full(GObject *, const gchar *, gpointer,
                                   GDestroyNotify);

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extern void g_object_set_property(GObject *, const gchar *,
                                const GValue *);
extern void g_object_set_qdata(GObject *, GQuark, gpointer);
extern void g_object_set_qdata_full(GObject *, GQuark, gpointer,
                                    GDestroyNotify);
extern void g_object_set_valist(GObject *, const gchar *, va_list);
extern gpointer g_object_steal_data(GObject *, const gchar *);
extern gpointer g_object_steal_qdata(GObject *, GQuark);
extern void g_object_thaw_notify(GObject *);
extern void g_object_unref(gpointer);
extern void g_object_watch_closure(GObject *, GClosure *);
extern void g_object_weak_ref(GObject *, GWeakNotify, gpointer);
extern void g_object_weak_unref(GObject *, GWeakNotify, gpointer);
extern GParamSpec *g_param_spec_boolean(const gchar *, const gchar *,
                                         const gchar *, gboolean,
                                         GParamFlags);
extern GParamSpec *g_param_spec_boxed(const gchar *, const gchar *,
                                       const gchar *, GType, GParamFlags);
extern GParamSpec *g_param_spec_char(const gchar *, const gchar *,
                                      const gchar *, gint8, gint8, gint8,
                                      GParamFlags);
extern GParamSpec *g_param_spec_double(const gchar *, const gchar *,
                                        const gchar *, gdouble, gdouble,
                                        gdouble, GParamFlags);
extern GParamSpec *g_param_spec_enum(const gchar *, const gchar *,
                                      const gchar *, GType, gint,
                                      GParamFlags);
extern GParamSpec *g_param_spec_flags(const gchar *, const gchar *,
                                       const gchar *, GType, guint,
                                       GParamFlags);
extern GParamSpec *g_param_spec_float(const gchar *, const gchar *,
                                       const gchar *, gfloat, gfloat,
                                       gfloat, GParamFlags);
extern const gchar *g_param_spec_get_blurb(GParamSpec *);
extern const gchar *g_param_spec_get_name(GParamSpec *);
extern const gchar *g_param_spec_get_nick(GParamSpec *);
extern gpointer g_param_spec_get_qdata(GParamSpec *, GQuark);
extern GParamSpec *g_param_spec_get_redirect_target(GParamSpec *);
extern GParamSpec *g_param_spec_gtype(const gchar * name,
                                       const gchar * nick,
                                       const gchar * blurb, GType is_a_type,
                                       GParamFlags flags);
extern GParamSpec *g_param_spec_int(const gchar *, const gchar *,
                                    const gchar *, gint, gint, gint,
                                    GParamFlags);
extern GParamSpec *g_param_spec_int64(const gchar *, const gchar *,
                                       const gchar *, gint64, gint64,
                                       gint64, GParamFlags);
extern gpointer g_param_spec_internal(GType, const gchar *, const gchar *,
                                      const gchar *, GParamFlags);
extern GParamSpec *g_param_spec_long(const gchar *, const gchar *,
                                      const gchar *, glong, glong, glong,
                                      GParamFlags);
extern GParamSpec *g_param_spec_object(const gchar *, const gchar *,
                                       const gchar *, GType, GParamFlags);
extern GParamSpec *g_param_spec_override(const gchar *, GParamSpec *);
extern GParamSpec *g_param_spec_param(const gchar *, const gchar *,
                                       const gchar *, GType, GParamFlags);
extern GParamSpec *g_param_spec_pointer(const gchar *, const gchar *,
                                         const gchar *, GParamFlags);
extern void g_param_spec_pool_insert(GParamSpecPool *, GParamSpec *,
                                     GType);

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extern GParamSpec **g_param_spec_pool_list(GParamSpecPool *, GType,
                                           guint *);
extern GList *g_param_spec_pool_list_owned(GParamSpecPool *, GType);
extern GParamSpec *g_param_spec_pool_lookup(GParamSpecPool *,
                                           const gchar *, GType,
                                           gboolean);
extern GParamSpecPool *g_param_spec_pool_new(gboolean);
extern void g_param_spec_pool_remove(GParamSpecPool *, GParamSpec *);
extern GParamSpec *g_param_spec_ref(GParamSpec *);
extern GParamSpec *g_param_spec_ref_sink(GParamSpec * pspec);
extern void g_param_spec_set_qdata(GParamSpec *, GQuark, gpointer);
extern void g_param_spec_set_qdata_full(GParamSpec *, GQuark, gpointer,
                                       GDestroyNotify);
extern void g_param_spec_sink(GParamSpec *);
extern gpointer g_param_spec_steal_qdata(GParamSpec *, GQuark);
extern GParamSpec *g_param_spec_string(const gchar *, const gchar *,
                                       const gchar *, const gchar *,
                                       GParamFlags);
extern GType *g_param_spec_types;
extern GParamSpec *g_param_spec_uchar(const gchar *, const gchar *,
                                       const gchar *, guint8, guint8,
                                       guint8, GParamFlags);
extern GParamSpec *g_param_spec_uint(const gchar *, const gchar *,
                                       const gchar *, guint, guint, guint,
                                       GParamFlags);
extern GParamSpec *g_param_spec_uint64(const gchar *, const gchar *,
                                       const gchar *, guint64, guint64,
                                       guint64, GParamFlags);
extern GParamSpec *g_param_spec_ulong(const gchar *, const gchar *,
                                       const gchar *, gulong, gulong,
                                       gulong, GParamFlags);
extern GParamSpec *g_param_spec_unichar(const gchar *, const gchar *,
                                       const gchar *, gunichar,
                                       GParamFlags);
extern void g_param_spec_unref(GParamSpec *);
extern GParamSpec *g_param_spec_value_array(const gchar *, const gchar *,
                                           const gchar *, GParamSpec *,
                                           GParamFlags);
extern GType g_param_type_register_static(const gchar *,
                                           const GParamSpecTypeInfo *);
extern gboolean g_param_value_convert(GParamSpec *, const GValue *,
                                       GValue *, gboolean);
extern gboolean g_param_value_defaults(GParamSpec *, GValue *);
extern void g_param_value_set_default(GParamSpec *, GValue *);
extern gboolean g_param_value_validate(GParamSpec *, GValue *);
extern gint g_param_values_cmp(GParamSpec *, const GValue *,
                               const GValue *);
extern GType g_pointer_type_register_static(const gchar *);
extern gboolean g_signal_accumulator_true_handled(GSignalInvocationHint *,
                                                  GValue *, const GValue *,
                                                  gpointer);
extern gulong g_signal_add_emission_hook(guint, GQuark,
                                         GSignalEmissionHook, gpointer,
                                         GDestroyNotify);
extern void g_signal_chain_from_overridden(const GValue *, GValue *);
extern gulong g_signal_connect_closure(gpointer, const gchar *, GClosure *,
                                       gboolean);
extern gulong g_signal_connect_closure_by_id(gpointer, guint, GQuark,
                                              GClosure *, gboolean);
extern gulong g_signal_connect_data(gpointer, const gchar *, GCallback,
                                    gpointer, GClosureNotify,
                                    GConnectFlags);

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extern gulong g_signal_connect_object(gpointer, const gchar *, GCallback,
                                     gpointer, GConnectFlags);
extern void g_signal_emit(gpointer, guint, GQuark, ...);
extern void g_signal_emit_by_name(gpointer, const gchar *, ...);
extern void g_signal_emit_valist(gpointer, guint, GQuark, va_list);
extern void g_signal_emitv(const GValue *, guint, GQuark, GValue *);
extern GSignalInvocationHint *g_signal_get_invocation_hint(gpointer);
extern void g_signal_handler_block(gpointer, gulong);
extern void g_signal_handler_disconnect(gpointer, gulong);
extern gulong g_signal_handler_find(gpointer, GSignalMatchType, guint,
                                   GQuark, GClosure *, gpointer,
                                   gpointer);
extern gboolean g_signal_handler_is_connected(gpointer, gulong);
extern void g_signal_handler_unblock(gpointer, gulong);
extern guint g_signal_handlers_block_matched(gpointer, GSignalMatchType,
                                             guint, GQuark, GClosure *,
                                             gpointer, gpointer);
extern void g_signal_handlers_destroy(gpointer);
extern guint g_signal_handlers_disconnect_matched(gpointer,
                                                  GSignalMatchType, guint,
                                                  GQuark, GClosure *,
                                                  gpointer, gpointer);
extern guint g_signal_handlers_unblock_matched(gpointer, GSignalMatchType,
                                               guint, GQuark, GClosure *,
                                               gpointer, gpointer);
extern gboolean g_signal_has_handler_pending(gpointer, guint, GQuark,
                                             gboolean);
extern guint *g_signal_list_ids(GType, guint *);
extern guint g_signal_lookup(const gchar *, GType);
extern const gchar *g_signal_name(guint);
extern guint g_signal_new(const gchar *, GType, GSignalFlags, guint,
                         GSignalAccumulator, gpointer, GSignalCMarshaller,
                         GType, guint, ...);
extern guint g_signal_new_valist(const gchar *, GType, GSignalFlags,
                                GClosure *, GSignalAccumulator, gpointer,
                                GSignalCMarshaller, GType, guint,
                                va_list);
extern guint g_signal_newv(const gchar *, GType, GSignalFlags, GClosure *,
                           GSignalAccumulator, gpointer,
                           GSignalCMarshaller, GType, guint, GType *);
extern void g_signal_override_class_closure(guint, GType, GClosure *);
extern gboolean g_signal_parse_name(const gchar *, GType, guint *,
                                   GQuark *, gboolean);
extern void g_signal_query(guint, GSignalQuery *);
extern void g_signal_remove_emission_hook(guint, gulong);
extern void g_signal_stop_emission(gpointer, guint, GQuark);
extern void g_signal_stop_emission_by_name(gpointer, const gchar *);
extern GClosure *g_signal_type_cclosure_new(GType, guint);
extern void g_source_set_closure(GSource *, GClosure *);
extern gchar *g_strdup_value_contents(const GValue *);
extern GType g_strv_get_type(void);
extern void g_type_add_class_cache_func(gpointer, GTypeClassCacheFunc);
extern void g_type_add_interface_check(gpointer, GTypeInterfaceCheckFunc);
extern void g_type_add_interface_dynamic(GType, GType, GTypePlugin *);
extern void g_type_add_interface_static(GType, GType,
                                         const GInterfaceInfo *);
extern GTypeClass *g_type_check_class_cast(GTypeClass *, GType);
extern gboolean g_type_check_class_is_a(GTypeClass *, GType);
extern gboolean g_type_check_instance(GTypeInstance *);
extern GTypeInstance *g_type_check_instance_cast(GTypeInstance *, GType);
extern gboolean g_type_check_instance_is_a(GTypeInstance *, GType);
extern gboolean g_type_check_is_value_type(GType);

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extern gboolean g_type_check_value(GValue *);
extern gboolean g_type_check_value_holds(GValue *, GType);
extern GType *g_type_children(GType, guint *);
extern void g_type_class_add_private(gpointer, gsize);
extern gpointer g_type_class_peek(GType);
extern gpointer g_type_class_peek_parent(gpointer);
extern gpointer g_type_class_peek_static(GType);
extern gpointer g_type_class_ref(GType);
extern void g_type_class_unref(gpointer);
extern void g_type_class_unref_uncached(gpointer);
extern GTypeInstance *g_type_create_instance(GType);
extern gpointer g_type_default_interface_peek(GType);
extern gpointer g_type_default_interface_ref(GType);
extern void g_type_default_interface_unref(gpointer);
extern guint g_type_depth(GType);
extern void g_type_free_instance(GTypeInstance *);
extern GType g_type_from_name(const gchar *);
extern GType g_type_fundamental(GType);
extern GType g_type_fundamental_next(void);
extern GTypePlugin *g_type_get_plugin(GType);
extern gpointer g_type_get_qdata(GType, GQuark);
extern void g_type_init(void);
extern void g_type_init_with_debug_flags(GTypeDebugFlags);
extern gpointer g_type_instance_get_private(GTypeInstance *, GType);
extern void g_type_interface_add_prerequisite(GType, GType);
extern GTypePlugin *g_type_interface_get_plugin(GType, GType);
extern gpointer g_type_interface_peek(gpointer, GType);
extern gpointer g_type_interface_peek_parent(gpointer);
extern GType *g_type_interface_prerequisites(GType, guint *);
extern GType *g_type_interfaces(GType, guint *);
extern gboolean g_type_is_a(GType, GType);
extern void g_type_module_add_interface(GTypeModule *, GType, GType,
                                         const GInterfaceInfo *);
extern GType g_type_module_get_type(void);
extern GType g_type_module_register_enum(GTypeModule *, const gchar *,
                                         const GEnumValue *);
extern GType g_type_module_register_flags(GTypeModule *, const gchar *,
                                         const GFlagsValue *);
extern GType g_type_module_register_type(GTypeModule *, GType,
                                         const gchar *, const GTypeInfo *,
                                         GTypeFlags);
extern void g_type_module_set_name(GTypeModule *, const gchar *);
extern void g_type_module_unuse(GTypeModule *);
extern gboolean g_type_module_use(GTypeModule *);
extern const gchar *g_type_name(GType);
extern const gchar *g_type_name_from_class(GTypeClass *);
extern const gchar *g_type_name_from_instance(GTypeInstance *);
extern GType g_type_next_base(GType, GType);
extern GType g_type_parent(GType);
extern void g_type_plugin_complete_interface_info(GTypePlugin *, GType,
                                                  GType, GInterfaceInfo *);
extern void g_type_plugin_complete_type_info(GTypePlugin *, GType,
                                              GTypeInfo *,
                                              GTypeValueTable *);
extern GType g_type_plugin_get_type(void);
extern void g_type_plugin_unuse(GTypePlugin *);
extern void g_type_plugin_use(GTypePlugin *);
extern GQuark g_type_qname(GType);
extern void g_type_query(GType, GTypeQuery *);
extern GType g_type_register_dynamic(GType, const gchar *, GTypePlugin *,
                                     GTypeFlags);
extern GType g_type_register_fundamental(GType, const gchar *,

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                                const GTypeInfo *,
                                const GTypeFundamentalInfo *,
                                GTypeFlags);
extern GType g_type_register_static(GType, const gchar *,
                                const GTypeInfo *, GTypeFlags);
extern GType g_type_register_static_simple(GType parent_type,
                                const gchar * type_name,
                                guint class_size,
                                GClassInitFunc class_init,
                                guint instance_size,
                                GInstanceInitFunc instance_init,
                                GTypeFlags flags);
extern void g_type_remove_class_cache_func(gpointer, GTypeClassCacheFunc);
extern void g_type_remove_interface_check(gpointer,
                                GTypeInterfaceCheckFunc);
extern void g_type_set_qdata(GType, GQuark, gpointer);
extern gboolean g_type_test_flags(GType, guint);
extern GTypeValueTable *g_type_value_table_peek(GType);
extern GValueArray *g_value_array_append(GValueArray *, const GValue *);
extern GValueArray *g_value_array_copy(const GValueArray *);
extern void g_value_array_free(GValueArray *);
extern GValue *g_value_array_get_nth(GValueArray *, guint);
extern GType g_value_array_get_type(void);
extern GValueArray *g_value_array_insert(GValueArray *, guint,
                                const GValue *);
extern GValueArray *g_value_array_new(guint);
extern GValueArray *g_value_array_prepend(GValueArray *, const GValue *);
extern GValueArray *g_value_array_remove(GValueArray *, guint);
extern GValueArray *g_value_array_sort(GValueArray *, GCompareFunc);
extern GValueArray *g_value_array_sort_with_data(GValueArray *,
                                GCompareDataFunc,
                                gpointer);
extern void g_value_copy(const GValue *, GValue *);
extern gpointer g_value_dup_boxed(const GValue *);
extern GObject *g_value_dup_object(const GValue *);
extern GParamSpec *g_value_dup_param(const GValue *);
extern gchar *g_value_dup_string(const GValue *);
extern gboolean g_value_fits_pointer(const GValue *);
extern gboolean g_value_get_boolean(const GValue *);
extern gpointer g_value_get_boxed(const GValue *);
extern gchar g_value_get_char(const GValue *);
extern gdouble g_value_get_double(const GValue *);
extern gint g_value_get_enum(const GValue *);
extern guint g_value_get_flags(const GValue *);
extern gfloat g_value_get_float(const GValue *);
extern GType g_value_get_gtype(const GValue * value);
extern gint g_value_get_int(const GValue *);
extern gint64 g_value_get_int64(const GValue *);
extern glong g_value_get_long(const GValue *);
extern gpointer g_value_get_object(const GValue *);
extern GParamSpec *g_value_get_param(const GValue *);
extern gpointer g_value_get_pointer(const GValue *);
extern const gchar *g_value_get_string(const GValue *);
extern GType g_value_get_type(void);
extern gchar g_value_get_uchar(const GValue *);
extern guint g_value_get_uint(const GValue *);
extern guint64 g_value_get_uint64(const GValue *);
extern gulong g_value_get_ulong(const GValue *);
extern GValue *g_value_init(GValue *, GType);
extern gpointer g_value_peek_pointer(const GValue *);
extern void g_value_register_transform_func(GType, GType, GValueTransform);
extern GValue *g_value_reset(GValue *);

```

```

extern void g_value_set_boolean(GValue *, gboolean);
extern void g_value_set_boxed(GValue *, gconstpointer);
extern void g_value_set_char(GValue *, gchar);
extern void g_value_set_double(GValue *, gdouble);
extern void g_value_set_enum(GValue *, gint);
extern void g_value_set_flags(GValue *, guint);
extern void g_value_set_float(GValue *, gfloat);
extern void g_value_set_gtype(GValue * value, GType v_gtype);
extern void g_value_set_instance(GValue *, gpointer);
extern void g_value_set_int(GValue *, gint);
extern void g_value_set_int64(GValue *, gint64);
extern void g_value_set_long(GValue *, glong);
extern void g_value_set_object(GValue *, gpointer);
extern void g_value_set_param(GValue *, GParamSpec *);
extern void g_value_set_pointer(GValue *, gpointer);
extern void g_value_set_static_boxed(GValue *, gconstpointer);
extern void g_value_set_static_string(GValue *, const gchar *);
extern void g_value_set_string(GValue *, const gchar *);
extern void g_value_set_uchar(GValue *, guchar);
extern void g_value_set_uint(GValue *, guint);
extern void g_value_set_uint64(GValue *, guint64);
extern void g_value_set_ulong(GValue *, gulong);
extern void g_value_take_boxed(GValue *, gconstpointer);
extern void g_value_take_object(GValue *, gpointer);
extern void g_value_take_param(GValue *, GParamSpec *);
extern void g_value_take_string(GValue *, gchar *);
extern gboolean g_value_transform(const GValue *, GValue *);
extern gboolean g_value_type_compatible(GType, GType);
extern gboolean g_value_type_transformable(GType, GType);
extern void g_value_unset(GValue *);

```

16.6.2. glib-2.0/gobject/gvaluecollector.h

```

#define G_VALUE_LCOPY(value, var_args, flags, __error) \
    G_STMT_START { const GValue *_value = (value); guint _flags = \
    (flags); GType _value_type = G_VALUE_TYPE (_value); GTypeValueTable \
    *_vtable = g_type_value_table_peek (_value_type); gchar *_lcopy_format \
    = _vtable->lcopy_format; GTypeCValue \
    _cvalues[G_VALUE_COLLECT_FORMAT_MAX_LENGTH] = { { 0, }, }; guint \
    _n_values = 0; while (*_lcopy_format) { GTypeCValue *_cvalue = \
    _cvalues + _n_values++; switch (*_lcopy_format++) { case \
    G_VALUE_COLLECT_INT: _cvalue->v_int = va_arg ((var_args), gint); \
    break; case G_VALUE_COLLECT_LONG: _cvalue->v_long = va_arg \
    ((var_args), glong); break; case G_VALUE_COLLECT_INT64: \
    _cvalue->v_int64 = va_arg ((var_args), gint64); break; case \
    G_VALUE_COLLECT_DOUBLE: _cvalue->v_double = va_arg ((var_args), \
    gdouble); break; case G_VALUE_COLLECT_POINTER: _cvalue->v_pointer = \
    va_arg ((var_args), gpointer); break; default: g_assert_not_reached \
    (); } } *(__error) = _vtable->lcopy_value (_value, _n_values, \
    _cvalues, _flags); } G_STMT_END

#define G_VALUE_COLLECT(value, var_args, flags, __error) \
    G_STMT_START { GValue *_value = (value); guint _flags = (flags); \
    GType _value_type = G_VALUE_TYPE (_value); GTypeValueTable *_vtable = \
    g_type_value_table_peek (_value_type); gchar *_collect_format = \
    _vtable->collect_format; GTypeCValue \
    _cvalues[G_VALUE_COLLECT_FORMAT_MAX_LENGTH] = { { 0, }, }; guint \
    _n_values = 0; if (_vtable->value_free) _vtable->value_free (_value); \
    _value->g_type = _value_type; memset (_value->data, 0, sizeof \
    (_value->data)); while (*_collect_format) { GTypeCValue *_cvalue = \
    _cvalues + _n_values++; switch (*_collect_format++) { case \
    G_VALUE_COLLECT_INT: _cvalue->v_int = va_arg ((var_args), gint); \

```

```

        break; case G_VALUE_COLLECT_LONG: _cvalue->v_long = va_arg \
        ((var_args), glong); break; case G_VALUE_COLLECT_INT64: \
        _cvalue->v_int64 = va_arg ((var_args), gint64); break; case \
        G_VALUE_COLLECT_DOUBLE: _cvalue->v_double = va_arg ((var_args), \
        gdouble); break; case G_VALUE_COLLECT_POINTER: _cvalue->v_pointer = \
        va_arg ((var_args), gpointer); break; default: g_assert_not_reached \
        (); } } *(__error) = _vtable->collect_value (_value, _n_values, \
        _cvalues, _flags); } G_STMT_END
#define G_VALUE_COLLECT_FORMAT_MAX_LENGTH      (8)

enum {
    G_VALUE_COLLECT_INT = 'i',
    G_VALUE_COLLECT_LONG = 'l',
    G_VALUE_COLLECT_INT64 = 'q',
    G_VALUE_COLLECT_DOUBLE = 'd',
    G_VALUE_COLLECT_POINTER = 'p'
};

```

16.7. Interface Definitions for libgobject-2.0

Table of Contents

g_type_name_from_class -- get unique type name of the class

g_type_name_from_instance -- get name of type from the instance

g_value_set_instance -- set value from an instantiatable type

The interfaces defined on the following pages are included in libgobject-2.0 and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 16.5](#) shall behave as described in the referenced base document.

g_type_name_from_class

Name

`g_type_name_from_class` -- get unique type name of the class

Synopsis

```
#include <glib-object.h>
gchar *g_type_name_from_class (GTypeClass *g_class);
```

Description

The `g_type_name_from_class()` returns the unique name that is assigned to a type ID of *g_class* class structure.

Return Value

The `g_type_name_from_class()` function returns a pointer referring to the static string with the unique name.

Errors

No errors are defined.

g_type_name_from_instance

Name

`g_type_name_from_instance` -- get name of type from the instance

Synopsis

```
#include <glib-object.h>
gchar *g_type_name_from_instance(GTypeInstance *instance);
```

Description

The `g_type_name_from_instance()` returns the name of type from the instance *instance* in a Camel case. Instance should be valid instance pointer.

Return Value

The `g_type_name_from_instance()` function returns a pointer referring to the string with the type name.

Errors

No errors are defined.

g_value_set_instance

Name

g_value_set_instance -- set value from an instantiatable type

Synopsis

```
#include <glib-object.h>

void g_value_set_instance (GValue *value, gpointer instance);
```

Description

The `g_value_set_instance()` sets value from an instantiatable type via the `value_table`'s `collect_value()` function.

Errors

No errors are defined.

16.8. Interfaces for libgmodule-2.0

[Table 16-79](#) defines the library name and shared object name for the libgmodule-2.0 library

Table 16-79. libgmodule-2.0 Definition

Library:	libgmodule-2.0
SONAME:	libgmodule-2.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[Glib 2.12] [Glib 2.12.13 Reference Manual](#)

16.8.1. Glib-Dynamic loading of Modules

16.8.1.1. Interfaces for Glib-Dynamic loading of Modules

An LSB conforming implementation shall provide the generic functions for Glib-Dynamic loading of Modules specified in [Table 16-80](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-80. libgmodule-2.0 - Glib-Dynamic loading of Modules Function Interfaces

<code>g_module_build_path</code> [Glib 2.12]	<code>g_module_close</code> [Glib 2.12]
<code>g_module_error</code> [Glib 2.12]	<code>g_module_make_resident</code> [Glib 2.12]
<code>g_module_name</code> [Glib 2.12]	<code>g_module_open</code> [Glib 2.12]
<code>g_module_supported</code> [Glib 2.12]	<code>g_module_symbol</code> [Glib 2.12]

16.9. Data Definitions for libgmodule-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libgmodule-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.9.1. glib-2.0/gmodule.h

```
#define G_MODULE_EXPORT
#define G_MODULE_IMPORT extern

typedef struct _GModule GModule;
typedef enum {
    G_MODULE_BIND_LAZY = 1,
    G_MODULE_BIND_LOCAL = 2,
    G_MODULE_BIND_MASK = 3
} GModuleFlags;
typedef void (*GModuleUnload) (GModule *);
typedef const gchar *(*GModuleCheckInit) (GModule *);
extern gchar *g_module_build_path(const gchar * directory,
                                  const gchar * module_name);
extern gboolean g_module_close(GModule * module);
extern const gchar *g_module_error(void);
extern void g_module_make_resident(GModule * module);
extern const gchar *g_module_name(GModule * module);
extern GModule *g_module_open(const gchar * file_name, GModuleFlags flags);
extern gboolean g_module_supported(void);
extern gboolean g_module_symbol(GModule * module,
                                const gchar * symbol_name,
                                gpointer * symbol);
```

16.10. Interfaces for libgthread-2.0

[Table 16-81](#) defines the library name and shared object name for the libgthread-2.0 library

Table 16-81. libgthread-2.0 Definition

Library:	libgthread-2.0
SONAME:	libgthread-2.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[Glib 2.12] [Glib 2.12.13 Reference Manual](#)

16.10.1. Glib thread abstraction

16.10.1.1. Interfaces for Glib thread abstraction

An LSB conforming implementation shall provide the generic functions for Glib thread abstraction specified in [Table 16-82](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-82. libgthread-2.0 - Glib thread abstraction Function Interfaces

g_thread_init [Glib 2.12]	g_thread_init_with_errorcheck_mutexes [Glib 2.12]

16.11. Interfaces for libatk-1.0

[Table 16-83](#) defines the library name and shared object name for the libatk-1.0 library

Table 16-83. libatk-1.0 Definition

Library:	libatk-1.0
SONAME:	libatk-1.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[ATK 1.10] [ATK 1.10.3 Reference Manual](#)

[GObject 2.12] [GObject 2.12.13 Reference Manual](#)

16.11.1. GTK Accessibility Toolkit

16.11.1.1. Interfaces for GTK Accessibility Toolkit

An LSB conforming implementation shall provide the generic functions for GTK Accessibility Toolkit specified in [Table 16-84](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-84. libatk-1.0 - GTK Accessibility Toolkit Function Interfaces

atk_action_do_action [ATK 1.10]	atk_action_get_description [ATK 1.10]
atk_action_get_keybinding [ATK 1.10]	atk_action_get_localized_name [ATK 1.10]
atk_action_get_n_actions [ATK 1.10]	atk_action_get_name [ATK 1.10]
atk_action_get_type [GObject 2.12]	atk_action_set_description [ATK 1.10]
atk_add_focus_tracker [ATK 1.10]	atk_add_global_event_listener [ATK 1.10]
atk_add_key_event_listener [ATK 1.10]	atk_attribute_set_free [ATK 1.10]
atk_component_add_focus_handler [ATK 1.10]	atk_component_contains [ATK 1.10]
atk_component_get_extents [ATK 1.10]	atk_component_get_layer [ATK 1.10]
atk_component_get_mdi_zorder [ATK 1.10]	atk_component_get_position [ATK 1.10]
atk_component_get_size [ATK 1.10]	atk_component_get_type [GObject 2.12]
atk_component_grab_focus [ATK 1.10]	atk_component_ref_accessible_at_point [ATK 1.10]
atk_component_remove_focus_handler [ATK 1.10]	atk_component_set_extents [ATK 1.10]
atk_component_set_position [ATK 1.10]	atk_component_set_size [ATK 1.10]
atk_coord_type_get_type [GObject 2.12]	atk_document_get_document [ATK 1.10]
atk_document_get_document_type [ATK 1.10]	atk_document_get_type [GObject 2.12]
atk_editable_text_copy_text [ATK 1.10]	atk_editable_text_cut_text [ATK 1.10]
atk_editable_text_delete_text [ATK 1.10]	atk_editable_text_get_type [GObject 2.12]
atk_editable_text_insert_text [ATK 1.10]	atk_editable_text_paste_text [ATK 1.10]
atk_editable_text_set_run_attributes [ATK 1.10]	atk_editable_text_set_text_contents [ATK 1.10]
atk_focus_tracker_init [ATK 1.10]	atk_focus_tracker_notify [ATK 1.10]
atk_get_default_registry [ATK 1.10]	atk_get_focus_object [ATK 1.10]
atk_get_root [ATK 1.10]	atk_get_toolkit_name [ATK 1.10]
atk_get_toolkit_version [ATK 1.10]	atk_gobject_accessible_for_object [ATK 1.10]
atk_gobject_accessible_get_object [ATK 1.10]	atk_gobject_accessible_get_type [GObject 2.12]
atk_hyperlink_get_end_index [ATK 1.10]	atk_hyperlink_get_n_anchors [ATK 1.10]
atk_hyperlink_get_object [ATK 1.10]	atk_hyperlink_get_start_index [ATK 1.10]
atk_hyperlink_get_type [GObject 2.12]	atk_hyperlink_get_uri [ATK 1.10]

atk_hyperlink_is_inline [ATK 1.10]	atk_hyperlink_is_selected_link [ATK 1.10]
atk_hyperlink_is_valid [ATK 1.10]	atk_hyperlink_state_flags_get_type [GObject 2.12]
atk_hypertext_get_link [ATK 1.10]	atk_hypertext_get_link_index [ATK 1.10]
atk_hypertext_get_n_links [ATK 1.10]	atk_hypertext_get_type [GObject 2.12]
atk_image_get_image_description [ATK 1.10]	atk_image_get_image_position [ATK 1.10]
atk_image_get_image_size [ATK 1.10]	atk_image_get_type [GObject 2.12]
atk_image_set_image_description [ATK 1.10]	atk_implementor_get_type [GObject 2.12]
atk_implementor_ref_accessible [ATK 1.10]	atk_key_event_type_get_type [GObject 2.12]
atk_layer_get_type [GObject 2.12]	atk_no_op_object_factory_get_type [GObject 2.12]
atk_no_op_object_factory_new [ATK 1.10]	atk_no_op_object_get_type [GObject 2.12]
atk_no_op_object_new [ATK 1.10]	atk_object_add_relationship [ATK 1.10]
atk_object_connect_property_change_handler [ATK 1.10]	atk_object_factory_create_accessible [ATK 1.10]
atk_object_factory_get_accessible_type [ATK 1.10]	atk_object_factory_get_type [GObject 2.12]
atk_object_factory_invalidate [ATK 1.10]	atk_object_get_description [ATK 1.10]
atk_object_get_index_in_parent [ATK 1.10]	atk_object_get_n_accessible_children [ATK 1.10]
atk_object_get_name [ATK 1.10]	atk_object_get_parent [ATK 1.10]
atk_object_get_role [ATK 1.10]	atk_object_get_type [GObject 2.12]
atk_object_initialize [ATK 1.10]	atk_object_notify_state_change [ATK 1.10]
atk_object_ref_accessible_child [ATK 1.10]	atk_object_ref_relation_set [ATK 1.10]
atk_object_ref_state_set [ATK 1.10]	atk_object_remove_property_change_handler [ATK 1.10]
atk_object_remove_relationship [ATK 1.10]	atk_object_set_description [ATK 1.10]
atk_object_set_name [ATK 1.10]	atk_object_set_parent [ATK 1.10]
atk_object_set_role [ATK 1.10]	atk_rectangle_get_type [GObject 2.12]
atk_registry_get_factory [ATK 1.10]	atk_registry_get_factory_type [ATK 1.10]
atk_registry_get_type [GObject 2.12]	atk_registry_set_factory_type [ATK 1.10]
atk_relation_add_target [ATK 1.10]	atk_relation_get_relation_type [ATK 1.10]
atk_relation_get_target [ATK 1.10]	atk_relation_get_type [GObject 2.12]
atk_relation_new [ATK 1.10]	atk_relation_set_add [ATK 1.10]
atk_relation_set_add_relation_by_type [ATK 1.10]	atk_relation_set_contains [ATK 1.10]
atk_relation_set_get_n_relations [ATK 1.10]	atk_relation_set_get_relation [ATK 1.10]
atk_relation_set_get_relation_by_type [ATK 1.10]	atk_relation_set_get_type [GObject 2.12]

atk_relation_set_new [ATK 1.10]	atk_relation_set_remove [ATK 1.10]
atk_relation_type_for_name [ATK 1.10]	atk_relation_type_get_name [ATK 1.10]
atk_relation_type_get_type [GObject 2.12]	atk_relation_type_register [ATK 1.10]
atk_remove_focus_tracker [ATK 1.10]	atk_remove_global_event_listener [ATK 1.10]
atk_remove_key_event_listener [ATK 1.10]	atk_role_for_name [ATK 1.10]
atk_role_get_localized_name [ATK 1.10]	atk_role_get_name [ATK 1.10]
atk_role_get_type [GObject 2.12]	atk_role_register [ATK 1.10]
atk_selection_add_selection [ATK 1.10]	atk_selection_clear_selection [ATK 1.10]
atk_selection_get_selection_count [ATK 1.10]	atk_selection_get_type [GObject 2.12]
atk_selection_is_child_selected [ATK 1.10]	atk_selection_ref_selection [ATK 1.10]
atk_selection_remove_selection [ATK 1.10]	atk_selection_select_all_selection [ATK 1.10]
atk_state_set_add_state [ATK 1.10]	atk_state_set_add_states [ATK 1.10]
atk_state_set_and_sets [ATK 1.10]	atk_state_set_clear_states [ATK 1.10]
atk_state_set_contains_state [ATK 1.10]	atk_state_set_contains_states [ATK 1.10]
atk_state_set_get_type [GObject 2.12]	atk_state_set_is_empty [ATK 1.10]
atk_state_set_new [ATK 1.10]	atk_state_set_or_sets [ATK 1.10]
atk_state_set_remove_state [ATK 1.10]	atk_state_set_xor_sets [ATK 1.10]
atk_state_type_for_name [ATK 1.10]	atk_state_type_get_name [ATK 1.10]
atk_state_type_get_type [GObject 2.12]	atk_state_type_register [ATK 1.10]
atk_streamable_content_get_mime_type [ATK 1.10]	atk_streamable_content_get_n_mime_types [ATK 1.10]
atk_streamable_content_get_stream [ATK 1.10]	atk_streamable_content_get_type [GObject 2.12]
atk_table_add_column_selection [ATK 1.10]	atk_table_add_row_selection [ATK 1.10]
atk_table_get_caption [ATK 1.10]	atk_table_get_column_at_index [ATK 1.10]
atk_table_get_column_description [ATK 1.10]	atk_table_get_column_extents_at [ATK 1.10]
atk_table_get_column_header [ATK 1.10]	atk_table_get_index_at [ATK 1.10]
atk_table_get_n_columns [ATK 1.10]	atk_table_get_n_rows [ATK 1.10]
atk_table_get_row_at_index [ATK 1.10]	atk_table_get_row_description [ATK 1.10]
atk_table_get_row_extents_at [ATK 1.10]	atk_table_get_row_header [ATK 1.10]
atk_table_get_selected_columns [ATK 1.10]	atk_table_get_selected_rows [ATK 1.10]
atk_table_get_summary [ATK 1.10]	atk_table_get_type [GObject 2.12]
atk_table_is_column_selected [ATK 1.10]	atk_table_is_row_selected [ATK 1.10]
atk_table_is_selected [ATK 1.10]	atk_table_ref_at [ATK 1.10]

atk_table_remove_column_selection [ATK 1.10]	atk_table_remove_row_selection [ATK 1.10]
atk_table_set_caption [ATK 1.10]	atk_table_set_column_description [ATK 1.10]
atk_table_set_column_header [ATK 1.10]	atk_table_set_row_description [ATK 1.10]
atk_table_set_row_header [ATK 1.10]	atk_table_set_summary [ATK 1.10]
atk_text_add_selection [ATK 1.10]	atk_text_attribute_for_name [ATK 1.10]
atk_text_attribute_get_name [ATK 1.10]	atk_text_attribute_get_type [GObject 2.12]
atk_text_attribute_get_value [ATK 1.10]	atk_text_attribute_register [ATK 1.10]
atk_text_boundary_get_type [GObject 2.12]	atk_text_clip_type_get_type [GObject 2.12]
atk_text_free_ranges [ATK 1.10]	atk_text_get_bounded_ranges [ATK 1.10]
atk_text_get_caret_offset [ATK 1.10]	atk_text_get_character_at_offset [ATK 1.10]
atk_text_get_character_count [ATK 1.10]	atk_text_get_character_extents [ATK 1.10]
atk_text_get_default_attributes [ATK 1.10]	atk_text_get_n_selections [ATK 1.10]
atk_text_get_offset_at_point [ATK 1.10]	atk_text_get_range_extents [ATK 1.10]
atk_text_get_run_attributes [ATK 1.10]	atk_text_get_selection [ATK 1.10]
atk_text_get_text [ATK 1.10]	atk_text_get_text_after_offset [ATK 1.10]
atk_text_get_text_at_offset [ATK 1.10]	atk_text_get_text_before_offset [ATK 1.10]
atk_text_get_type [GObject 2.12]	atk_text_remove_selection [ATK 1.10]
atk_text_set_caret_offset [ATK 1.10]	atk_text_set_selection [ATK 1.10]
atk_util_get_type [GObject 2.12]	atk_value_get_current_value [ATK 1.10]
atk_value_get_maximum_value [ATK 1.10]	atk_value_get_minimum_value [ATK 1.10]
atk_value_get_type [GObject 2.12]	atk_value_set_current_value [ATK 1.10]

16.12. Data Definitions for libatk-1.0

This section defines global identifiers and their values that are associated with interfaces contained in libatk-1.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.12.1. atk-1.0/atk/atk-enum-types.h

```
#define ATK_TYPE_HYPERLINK_STATE_FLAGS \
    (atk_hyperlink_state_flags_get_type())
#define ATK_TYPE_COORD_TYPE (atk_coord_type_get_type())
#define ATK_TYPE_KEY_EVENT_TYPE (atk_key_event_type_get_type())
#define ATK_TYPE_LAYER (atk_layer_get_type())
#define ATK_TYPE_RELATION_TYPE (atk_relation_type_get_type())
#define ATK_TYPE_ROLE (atk_role_get_type())
#define ATK_TYPE_STATE_TYPE (atk_state_type_get_type())
#define ATK_TYPE_TEXT_ATTRIBUTE (atk_text_attribute_get_type())
#define ATK_TYPE_TEXT_BOUNDARY (atk_text_boundary_get_type())
#define ATK_TYPE_TEXT_CLIP_TYPE (atk_text_clip_type_get_type())

extern GType atk_coord_type_get_type(void);
extern GType atk_hyperlink_state_flags_get_type(void);
extern GType atk_key_event_type_get_type(void);
extern GType atk_layer_get_type(void);
extern GType atk_relation_type_get_type(void);
extern GType atk_role_get_type(void);
extern GType atk_state_type_get_type(void);
extern GType atk_text_attribute_get_type(void);
extern GType atk_text_boundary_get_type(void);
extern GType atk_text_clip_type_get_type(void);
```

16.12.2. atk-1.0/atk/atk.h

```
#define _TYPEDEF_ATK_ACTION_
#define _TYPEDEF_ATK_COMPONENT_
#define _TYPEDEF_ATK_DOCUMENT_
#define _TYPEDEF_ATK_EDITABLE_TEXT_
#define _TYPEDEF_ATK_HYPertext_
#define _TYPEDEF_ATK_IMAGE_
#define _TYPEDEF_ATK_SELECTION_
#define _TYPEDEF_ATK_STREAMABLE_CONTENT_
#define _TYPEDEF_ATK_TABLE_
#define _TYPEDEF_ATK_TEXT_
#define _TYPEDEF_ATK_UTIL_
#define _TYPEDEF_ATK_VALUE_
#define ATK_TYPE_NO_OP_OBJECT_FACTORY \
    (atk_no_op_object_factory_get_type ())
#define ATK_GOBJECT_ACCESSIBLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_GOBJECT_ACCESSIBLE, \
    AtkGObjectAccessibleClass))
#define ATK_HYPERLINK_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_HYPERLINK, \
    AtkHyperlinkClass))
#define ATK_NO_OP_OBJECT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_NO_OP_OBJECT, \
    AtkNoOpObjectClass))
#define ATK_NO_OP_OBJECT_FACTORY_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_NO_OP_OBJECT_FACTORY, \
    AtkNoOpObjectFactoryClass))
#define ATK_OBJECT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_OBJECT, AtkObjectClass))
#define ATK_OBJECT_FACTORY_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_OBJECT_FACTORY, \
    AtkObjectFactoryClass))
#define ATK_REGISTRY_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_REGISTRY, \
```

```

    AtkRegistryClass))
#define ATK_RELATION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_RELATION, \
    AtkRelationClass))
#define ATK_RELATION_SET_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_RELATION_SET, \
    AtkRelationSetClass))
#define ATK_STATE_SET_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_STATE_SET, \
    AtkStateSetClass))
#define ATK_UTIL_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), ATK_TYPE_UTIL, AtkUtilClass))
#define ATK_IS_GOBJECT_ACCESSIBLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_GOBJECT_ACCESSIBLE))
#define ATK_IS_HYPERLINK_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_HYPERLINK))
#define ATK_IS_NO_OP_OBJECT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_NO_OP_OBJECT))
#define ATK_IS_NO_OP_OBJECT_FACTORY_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_NO_OP_OBJECT_FACTORY))
#define ATK_IS_OBJECT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_OBJECT))
#define ATK_IS_OBJECT_FACTORY_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_OBJECT_FACTORY))
#define ATK_IS_REGISTRY_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_REGISTRY))
#define ATK_IS_RELATION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_RELATION))
#define ATK_IS_RELATION_SET_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_RELATION_SET))
#define ATK_IS_STATE_SET_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_STATE_SET))
#define ATK_IS_UTIL_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), ATK_TYPE_UTIL))
#define ATK_GOBJECT_ACCESSIBLE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_GOBJECT_ACCESSIBLE, \
    AtkGObjectAccessible))
#define ATK_HYPERLINK(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_HYPERLINK, \
    AtkHyperlink))
#define ATK_NO_OP_OBJECT(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_NO_OP_OBJECT, \
    AtkNoOpObject))
#define ATK_NO_OP_OBJECT_FACTORY(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_NO_OP_OBJECT_FACTORY, \
    AtkNoOpObjectFactory))
#define ATK_OBJECT(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_OBJECT, AtkObject))
#define ATK_OBJECT_FACTORY(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_OBJECT_FACTORY, \
    AtkObjectFactory))
#define ATK_REGISTRY(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_REGISTRY, AtkRegistry))
#define ATK_RELATION(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_RELATION, AtkRelation))
#define ATK_RELATION_SET(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_RELATION_SET, \
    AtkRelationSet))
#define ATK_STATE_SET(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_STATE_SET, AtkStateSet))
#define ATK_IS_GOBJECT_ACCESSIBLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_GOBJECT_ACCESSIBLE))

```

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#define ATK_IS_HYPERLINK(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_HYPERLINK))
#define ATK_IS_NO_OP_OBJECT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_NO_OP_OBJECT))
#define ATK_IS_NO_OP_OBJECT_FACTORY(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_NO_OP_OBJECT_FACTORY))
#define ATK_IS_OBJECT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_OBJECT))
#define ATK_IS_OBJECT_FACTORY(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_OBJECT_FACTORY))
#define ATK_IS_REGISTRY(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_REGISTRY))
#define ATK_IS_RELATION(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_RELATION))
#define ATK_IS_RELATION_SET(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_RELATION_SET))
#define ATK_IS_STATE_SET(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_STATE_SET))
#define ATK_NO_OP_OBJECT_FACTORY_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_NO_OP_OBJECT_FACTORY, \
    AtkNoOpObjectFactoryClass))
#define ATK_GOBJECT_ACCESSIBLE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_GOBJECT_ACCESSIBLE, \
    AtkGObjectAccessibleClass))
#define ATK_HYPERLINK_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_HYPERLINK, \
    AtkHyperlinkClass))
#define ATK_NO_OP_OBJECT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_NO_OP_OBJECT, \
    AtkNoOpObjectClass))
#define ATK_OBJECT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_OBJECT, AtkObjectClass))
#define ATK_OBJECT_FACTORY_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_OBJECT_FACTORY, \
    AtkObjectFactoryClass))
#define ATK_REGISTRY_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_REGISTRY, \
    AtkRegistryClass))
#define ATK_RELATION_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_RELATION, \
    AtkRelationClass))
#define ATK_RELATION_SET_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_RELATION_SET, \
    AtkRelationSetClass))
#define ATK_STATE_SET_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_STATE_SET, \
    AtkStateSetClass))
#define ATK_UTIL_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), ATK_TYPE_UTIL, AtkUtilClass))
#define ATK_ACTION_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_ACTION, \
    AtkActionIface))
#define ATK_COMPONENT_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_COMPONENT, \
    AtkComponentIface))
#define ATK_DOCUMENT_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_DOCUMENT, \
    AtkDocumentIface))
#define ATK_EDITABLE_TEXT_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_EDITABLE_TEXT, \
    AtkEditableTextIface))
#define ATK_HYPertext_GET_IFACE(obj) \

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        (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_HYPERTEXT, \
        AtkHypertextIface))
#define ATK_IMAGE_GET_IFACE(obj) \
        (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_IMAGE, \
        AtkImageIface))
#define ATK_IMPLEMENTOR_GET_IFACE(obj) \
        (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_IMPLEMENTOR, \
        AtkImplementorIface))
#define ATK_SELECTION_GET_IFACE(obj) \
        (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_SELECTION, \
        AtkSelectionIface))
#define ATK_STREAMABLE_CONTENT_GET_IFACE(obj) \
        (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_STREAMABLE_CONTENT, \
        AtkStreamableContentIface))
#define ATK_TABLE_GET_IFACE(obj) \
        (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_TABLE, \
        AtkTableIface))
#define ATK_TEXT_GET_IFACE(obj) \
        (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_TEXT, AtkTextIface))
#define ATK_VALUE_GET_IFACE(obj) \
        (G_TYPE_INSTANCE_GET_INTERFACE ((obj), ATK_TYPE_VALUE, \
        AtkValueIface))
#define ATK_ACTION(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_ACTION, AtkAction)
#define ATK_COMPONENT(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_COMPONENT, AtkComponent)
#define ATK_DOCUMENT(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_DOCUMENT, AtkDocument)
#define ATK_EDITABLE_TEXT(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_EDITABLE_TEXT, \
        AtkEditableText)
#define ATK_HYPERTEXT(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_HYPERTEXT, AtkHypertext)
#define ATK_IMAGE(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_IMAGE, AtkImage)
#define ATK_IMPLEMENTOR(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_IMPLEMENTOR, \
        AtkImplementor)
#define ATK_SELECTION(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_SELECTION, AtkSelection)
#define ATK_STREAMABLE_CONTENT(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_STREAMABLE_CONTENT, \
        AtkStreamableContent)
#define ATK_TABLE(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_TABLE, AtkTable)
#define ATK_TEXT(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_TEXT, AtkText)
#define ATK_UTIL(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_UTIL, AtkUtil)
#define ATK_VALUE(obj) \
        G_TYPE_CHECK_INSTANCE_CAST ((obj), ATK_TYPE_VALUE, AtkValue)
#define ATK_IS_ACTION(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_ACTION)
#define ATK_IS_COMPONENT(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_COMPONENT)
#define ATK_IS_DOCUMENT(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_DOCUMENT)
#define ATK_IS_EDITABLE_TEXT(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_EDITABLE_TEXT)
#define ATK_IS_HYPERTEXT(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_HYPERTEXT)
#define ATK_IS_IMAGE(obj) \

```



```

        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_IMAGE)
#define ATK_IS_IMPLEMENTOR(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_IMPLEMENTOR)
#define ATK_IS_SELECTION(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_SELECTION)
#define ATK_IS_STREAMABLE_CONTENT(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_STREAMABLE_CONTENT)
#define ATK_IS_TABLE(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_TABLE)
#define ATK_IS_VALUE(obj) \
        G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_VALUE)
#define ATK_TYPE_ACTION (atk_action_get_type ())
#define ATK_TYPE_COMPONENT (atk_component_get_type ())
#define ATK_TYPE_DOCUMENT (atk_document_get_type ())
#define ATK_TYPE_EDITABLE_TEXT (atk_editable_text_get_type ())
#define ATK_TYPE_GOBJECT_ACCESSIBLE (atk_gobject_accessible_get_type ())
#define ATK_TYPE_HYPERLINK (atk_hyperlink_get_type ())
#define ATK_TYPE_HYPERTEXT (atk_hypertext_get_type ())
#define ATK_TYPE_IMAGE (atk_image_get_type ())
#define ATK_TYPE_IMPLEMENTOR (atk_implementor_get_type ())
#define ATK_TYPE_NO_OP_OBJECT (atk_no_op_object_get_type ())
#define ATK_TYPE_OBJECT_FACTORY (atk_object_factory_get_type ())
#define ATK_TYPE_OBJECT (atk_object_get_type ())
#define ATK_TYPE_RECTANGLE (atk_rectangle_get_type ())
#define ATK_TYPE_REGISTRY (atk_registry_get_type ())
#define ATK_TYPE_RELATION (atk_relation_get_type ())
#define ATK_TYPE_RELATION_SET (atk_relation_set_get_type ())
#define ATK_TYPE_SELECTION (atk_selection_get_type ())
#define ATK_TYPE_STATE_SET (atk_state_set_get_type ())
#define ATK_TYPE_STREAMABLE_CONTENT (atk_streamable_content_get_type ())
#define ATK_TYPE_TABLE (atk_table_get_type ())
#define ATK_TYPE_TEXT (atk_text_get_type ())
#define ATK_TYPE_UTIL (atk_util_get_type ())
#define ATK_TYPE_VALUE (atk_value_get_type ())
#define ATK_IS_TEXT(obj) G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_TEXT)
#define ATK_IS_UTIL(obj) G_TYPE_CHECK_INSTANCE_TYPE ((obj), ATK_TYPE_UTIL)

typedef struct _AtkText AtkText;
typedef struct _AtkObject {
    GObject parent;
    gchar *description;
    gchar *name;
    AtkObject *accessible_parent;
    AtkRole role;
    AtkRelationSet *relation_set;
    AtkLayer layer;
} AtkObject;
typedef enum {
    ATK_ROLE_INVALID = 0,
    ATK_ROLE_ACCEL_LABEL = 1,
    ATK_ROLE_ALERT = 2,
    ATK_ROLE_ANIMATION = 3,
    ATK_ROLE_ARROW = 4,
    ATK_ROLE_CALENDAR = 5,
    ATK_ROLE_CANVAS = 6,
    ATK_ROLE_CHECK_BOX = 7,
    ATK_ROLE_CHECK_MENU_ITEM = 8,
    ATK_ROLE_COLOR_CHOOSER = 9,
    ATK_ROLE_COLUMN_HEADER = 10,
    ATK_ROLE_COMBO_BOX = 11,
    ATK_ROLE_DATE_EDITOR = 12,
    ATK_ROLE_DESKTOP_ICON = 13,

```

```

ATK_ROLE_DESKTOP_FRAME = 14,
ATK_ROLE_DIAL = 15,
ATK_ROLE_DIALOG = 16,
ATK_ROLE_DIRECTORY_PANE = 17,
ATK_ROLE_DRAWING_AREA = 18,
ATK_ROLE_FILE_CHOOSER = 19,
ATK_ROLE_FILLER = 20,
ATK_ROLE_FONT_CHOOSER = 21,
ATK_ROLE_FRAME = 22,
ATK_ROLE_GLASS_PANE = 23,
ATK_ROLE_HTML_CONTAINER = 24,
ATK_ROLE_ICON = 25,
ATK_ROLE_IMAGE = 26,
ATK_ROLE_INTERNAL_FRAME = 27,
ATK_ROLE_LABEL = 28,
ATK_ROLE_LAYERED_PANE = 29,
ATK_ROLE_LIST = 30,
ATK_ROLE_LIST_ITEM = 31,
ATK_ROLE_MENU = 32,
ATK_ROLE_MENU_BAR = 33,
ATK_ROLE_MENU_ITEM = 34,
ATK_ROLE_OPTION_PANE = 35,
ATK_ROLE_PAGE_TAB = 36,
ATK_ROLE_PAGE_TAB_LIST = 37,
ATK_ROLE_PANEL = 38,
ATK_ROLE_PASSWORD_TEXT = 39,
ATK_ROLE_POPUP_MENU = 40,
ATK_ROLE_PROGRESS_BAR = 41,
ATK_ROLE_PUSH_BUTTON = 42,
ATK_ROLE_RADIO_BUTTON = 43,
ATK_ROLE_RADIO_MENU_ITEM = 44,
ATK_ROLE_ROOT_PANE = 45,
ATK_ROLE_ROW_HEADER = 46,
ATK_ROLE_SCROLL_BAR = 47,
ATK_ROLE_SCROLL_PANE = 48,
ATK_ROLE_SEPARATOR = 49,
ATK_ROLE_SLIDER = 50,
ATK_ROLE_SPLIT_PANE = 51,
ATK_ROLE_SPIN_BUTTON = 52,
ATK_ROLE_STATUSBAR = 53,
ATK_ROLE_TABLE = 54,
ATK_ROLE_TABLE_CELL = 55,
ATK_ROLE_TABLE_COLUMN_HEADER = 56,
ATK_ROLE_TABLE_ROW_HEADER = 57,
ATK_ROLE_TEAR_OFF_MENU_ITEM = 58,
ATK_ROLE_TERMINAL = 59,
ATK_ROLE_TEXT = 60,
ATK_ROLE_TOGGLE_BUTTON = 61,
ATK_ROLE_TOOL_BAR = 62,
ATK_ROLE_TOOL_TIP = 63,
ATK_ROLE_TREE = 64,
ATK_ROLE_TREE_TABLE = 65,
ATK_ROLE_UNKNOWN = 66,
ATK_ROLE_VIEWPORT = 67,
ATK_ROLE_WINDOW = 68,
ATK_ROLE_HEADER = 69,
ATK_ROLE_FOOTER = 70,
ATK_ROLE_PARAGRAPH = 71,
ATK_ROLE_RULER = 72,
ATK_ROLE_APPLICATION = 73,
ATK_ROLE_AUTOCOMPLETE = 74,
ATK_ROLE_EDITBAR = 75,

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```

    ATK_ROLE_EMBEDDED = 76,
    ATK_ROLE_LAST_DEFINED = 77
} AtkRole;
typedef struct _AtkRelationSet {
    GObject parent;
    GPtrArray *relations;
} AtkRelationSet;
typedef enum {
    ATK_LAYER_INVALID = 0,
    ATK_LAYER_BACKGROUND = 1,
    ATK_LAYER_CANVAS = 2,
    ATK_LAYER_WIDGET = 3,
    ATK_LAYER_MDI = 4,
    ATK_LAYER_POPUP = 5,
    ATK_LAYER_OVERLAY = 6,
    ATK_LAYER_WINDOW = 7
} AtkLayer;
typedef struct _AtkPropertyValues {
    const gchar *property_name;
    GValue old_value;
    GValue new_value;
} AtkPropertyValues;
typedef void (*AtkPropertyChangeHandler) (AtkObject *,
                                           AtkPropertyValues *);

typedef struct _AtkImage AtkImage;
typedef enum {
    ATK_XY_SCREEN = 0,
    ATK_XY_WINDOW = 1
} AtkCoordType;
typedef enum {
    ATK_RELATION_NULL = 0,
    ATK_RELATION_CONTROLLED_BY = 1,
    ATK_RELATION_CONTROLLER_FOR = 2,
    ATK_RELATION_LABEL_FOR = 3,
    ATK_RELATION_LABELLED_BY = 4,
    ATK_RELATION_MEMBER_OF = 5,
    ATK_RELATION_NODE_CHILD_OF = 6,
    ATK_RELATION_FLOWS_TO = 7,
    ATK_RELATION_FLOWS_FROM = 8,
    ATK_RELATION_SUBWINDOW_OF = 9,
    ATK_RELATION_EMBEDS = 10,
    ATK_RELATION_EMBEDDED_BY = 11,
    ATK_RELATION_POPUP_FOR = 12,
    ATK_RELATION_PARENT_WINDOW_OF = 13,
    ATK_RELATION_LAST_DEFINED = 14
} AtkRelationType;
typedef struct _AtkRelation {
    GObject parent;
    GPtrArray *target;
    AtkRelationType relationship;
} AtkRelation;
typedef struct _AtkDocument AtkDocument;
typedef struct _AtkTable AtkTable;
typedef struct _AtkHyperlink {
    GObject parent;
} AtkHyperlink;
typedef struct _AtkStateSet {
    GObject parent;
} AtkStateSet;
typedef struct _AtkObjectFactory {
    GObject parent;
} AtkObjectFactory;

```

```

typedef struct _AtkRegistry {
    GObject parent;
    GHashTable *factory_type_registry;
    GHashTable *factory_singleton_cache;
} AtkRegistry;
typedef struct _AtkEditableText AtkEditableText;
typedef GSList AtkAttributeSet;
typedef struct _AtkHypertext AtkHypertext;
typedef struct _AtkSelection AtkSelection;
typedef struct _AtkAction AtkAction;
typedef struct _AtkComponent AtkComponent;
typedef struct _AtkValue AtkValue;
typedef struct _AtkStreamableContent AtkStreamableContent;
typedef void (*AtkEventListenerInit) (void);
typedef enum {
    ATK_TEXT_ATTR_INVALID = 0,
    ATK_TEXT_ATTR_LEFT_MARGIN = 1,
    ATK_TEXT_ATTR_RIGHT_MARGIN = 2,
    ATK_TEXT_ATTR_INDENT = 3,
    ATK_TEXT_ATTR_INVISIBLE = 4,
    ATK_TEXT_ATTR_EDITABLE = 5,
    ATK_TEXT_ATTR_PIXELS_ABOVE_LINES = 6,
    ATK_TEXT_ATTR_PIXELS_BELOW_LINES = 7,
    ATK_TEXT_ATTR_PIXELS_INSIDE_WRAP = 8,
    ATK_TEXT_ATTR_BG_FULL_HEIGHT = 9,
    ATK_TEXT_ATTR_RISE = 10,
    ATK_TEXT_ATTR_UNDERLINE = 11,
    ATK_TEXT_ATTR_STRIKETHROUGH = 12,
    ATK_TEXT_ATTR_SIZE = 13,
    ATK_TEXT_ATTR_SCALE = 14,
    ATK_TEXT_ATTR_WEIGHT = 15,
    ATK_TEXT_ATTR_LANGUAGE = 16,
    ATK_TEXT_ATTR_FAMILY_NAME = 17,
    ATK_TEXT_ATTR_BG_COLOR = 18,
    ATK_TEXT_ATTR_FG_COLOR = 19,
    ATK_TEXT_ATTR_BG_STIPPLE = 20,
    ATK_TEXT_ATTR_FG_STIPPLE = 21,
    ATK_TEXT_ATTR_WRAP_MODE = 22,
    ATK_TEXT_ATTR_DIRECTION = 23,
    ATK_TEXT_ATTR_JUSTIFICATION = 24,
    ATK_TEXT_ATTR_STRETCH = 25,
    ATK_TEXT_ATTR_VARIANT = 26,
    ATK_TEXT_ATTR_STYLE = 27,
    ATK_TEXT_ATTR_LAST_DEFINED = 28
} AtkTextAttribute;
typedef enum {
    ATK_TEXT_BOUNDARY_CHAR = 0,
    ATK_TEXT_BOUNDARY_WORD_START = 1,
    ATK_TEXT_BOUNDARY_WORD_END = 2,
    ATK_TEXT_BOUNDARY_SENTENCE_START = 3,
    ATK_TEXT_BOUNDARY_SENTENCE_END = 4,
    ATK_TEXT_BOUNDARY_LINE_START = 5,
    ATK_TEXT_BOUNDARY_LINE_END = 6
} AtkTextBoundary;
typedef enum {
    ATK_STATE_INVALID = 0,
    ATK_STATE_ACTIVE = 1,
    ATK_STATE_ARMED = 2,
    ATK_STATE_BUSY = 3,
    ATK_STATE_CHECKED = 4,
    ATK_STATE_DEFUNCT = 5,
    ATK_STATE_EDITABLE = 6,

```

```

    ATK_STATE_ENABLED = 7,
    ATK_STATE_EXPANDABLE = 8,
    ATK_STATE_EXPANDED = 9,
    ATK_STATE_FOCUSABLE = 10,
    ATK_STATE_FOCUSED = 11,
    ATK_STATE_HORIZONTAL = 12,
    ATK_STATE_ICONIFIED = 13,
    ATK_STATE_MODAL = 14,
    ATK_STATE_MULTI_LINE = 15,
    ATK_STATE_MULTISELECTABLE = 16,
    ATK_STATE_OPAQUE = 17,
    ATK_STATE_PRESSED = 18,
    ATK_STATE_RESIZABLE = 19,
    ATK_STATE_SELECTABLE = 20,
    ATK_STATE_SELECTED = 21,
    ATK_STATE_SENSITIVE = 22,
    ATK_STATE_SHOWING = 23,
    ATK_STATE_SINGLE_LINE = 24,
    ATK_STATE_STALE = 25,
    ATK_STATE_TRANSIENT = 26,
    ATK_STATE_VERTICAL = 27,
    ATK_STATE_VISIBLE = 28,
    ATK_STATE_MANAGES_DESCENDANTS = 29,
    ATK_STATE_INDETERMINATE = 30,
    ATK_STATE_TRUNCATED = 31,
    ATK_STATE_LAST_DEFINED = 32
} AtkStateType;
typedef struct _AtkGObjectAccessible {
    AtkObject parent;
} AtkGObjectAccessible;
typedef guint64 AtkState;
typedef void (*AtkFocusHandler) (AtkObject *, gboolean);
typedef struct _AtkKeyEventStruct {
    gint type;
    guint state;
    guint keyval;
    gint length;
    gchar *string;
    guint16 keycode;
    guint32 timestamp;
} AtkKeyEventStruct;
typedef gint (*AtkKeySnoopFunc) (AtkKeyEventStruct *, gpointer);
typedef struct _AtkTextRectangle {
    gint x;
    gint y;
    gint width;
    gint height;
} AtkTextRectangle;
typedef struct _AtkTextRange {
    AtkTextRectangle bounds;
    gint start_offset;
    gint end_offset;
    gchar *content;
} AtkTextRange;
typedef enum {
    ATK_TEXT_CLIP_NONE = 0,
    ATK_TEXT_CLIP_MIN = 1,
    ATK_TEXT_CLIP_MAX = 2,
    ATK_TEXT_CLIP_BOTH = 3
} AtkTextClipType;
typedef struct _AtkImplementor AtkImplementor;
typedef void (*AtkEventListener) (AtkObject *);

```

```

typedef gboolean(*AtkFunction) (gpointer);
typedef struct _AtkImplementorIface {
    GTypeInterface parent;
    AtkObject *(*ref_accessible) (AtkImplementor *);
} AtkImplementorIface;
typedef struct _AtkRegistryClass {
    GObjectClass parent_class;
} AtkRegistryClass;
typedef struct _AtkHypertextIface {
    GTypeInterface parent;
    AtkHyperlink *(*get_link) (AtkHypertext *, gint);
    gint(*get_n_links) (AtkHypertext *);
    gint(*get_link_index) (AtkHypertext *, gint);
    void (*link_selected) (AtkHypertext *, gint);
    AtkFunction pad1;
    AtkFunction pad2;
    AtkFunction pad3;
} AtkHypertextIface;
typedef struct _AtkStreamableContentIface {
    GTypeInterface parent;
    gint(*get_n_mime_types) (AtkStreamableContent *);
    const gchar *(*get_mime_type) (AtkStreamableContent *, gint);
    GIOChannel *(*get_stream) (AtkStreamableContent *, const gchar *);
    AtkFunction pad1;
    AtkFunction pad2;
    AtkFunction pad3;
    AtkFunction pad4;
} AtkStreamableContentIface;
typedef struct _AtkRectangle {
    gint x;
    gint y;
    gint width;
    gint height;
} AtkRectangle;
typedef struct _AtkStateSetClass {
    GObjectClass parent;
} AtkStateSetClass;
typedef struct _AtkAttribute {
    gchar *name;
    gchar *value;
} AtkAttribute;
typedef struct _AtkObjectClass {
    GObjectClass parent;
    const gchar *(*get_name) (AtkObject *);
    const gchar *(*get_description) (AtkObject *);
    AtkObject *(*get_parent) (AtkObject *);
    gint(*get_n_children) (AtkObject *);
    AtkObject *(*ref_child) (AtkObject *, gint);
    gint(*get_index_in_parent) (AtkObject *);
    AtkRelationSet *(*ref_relation_set) (AtkObject *);
    AtkRole(*get_role) (AtkObject *);
    AtkLayer(*get_layer) (AtkObject *);
    gint(*get_mdi_zorder) (AtkObject *);
    AtkStateSet *(*ref_state_set) (AtkObject *);
    void (*set_name) (AtkObject *, const gchar *);
    void (*set_description) (AtkObject *, const gchar *);
    void (*set_parent) (AtkObject *, AtkObject *);
    void (*set_role) (AtkObject *, AtkRole);
    guint(*connect_property_change_handler) (AtkObject *,
                                             AtkPropertyChangeHandler *);
    void (*remove_property_change_handler) (AtkObject *, guint);
    void (*initialize) (AtkObject *, gpointer);

```

```

void (*children_changed) (AtkObject *, guint, gpointer);
void (*focus_event) (AtkObject *, gboolean);
void (*property_change) (AtkObject *, AtkPropertyValues *);
void (*state_change) (AtkObject *, const gchar *, gboolean);
void (*visible_data_changed) (AtkObject *);
void (*active_descendant_changed) (AtkObject *, gpointer *);
AtkFunction pad1;
AtkFunction pad2;
AtkFunction pad3;
} AtkObjectClass;
typedef struct _AtkGObjectAccessibleClass {
    AtkObjectClass parent_class;
    AtkFunction pad1;
    AtkFunction pad2;
} AtkGObjectAccessibleClass;
typedef struct _AtkObjectFactoryClass {
    GObjectClass parent_class;
    AtkObject *(*create_accessible) (GObject *);
    void (*invalidate) (AtkObjectFactory *);
    GType(*get_accessible_type) (void);
    AtkFunction pad1;
    AtkFunction pad2;
} AtkObjectFactoryClass;
typedef struct _AtkNoOpObjectFactoryClass {
    AtkObjectFactoryClass parent_class;
} AtkNoOpObjectFactoryClass;
typedef struct _AtkActionIface {
    GTypeInterface parent;
    gboolean(*do_action) (AtkAction *, gint);
    gint(*get_n_actions) (AtkAction *);
    const gchar *(*get_description) (AtkAction *, gint);
    const gchar *(*get_name) (AtkAction *, gint);
    const gchar *(*get_keybinding) (AtkAction *, gint);
    gboolean(*set_description) (AtkAction *, gint, const gchar *);
    const gchar *(*get_localized_name) (AtkAction *, gint);
    AtkFunction pad2;
} AtkActionIface;
typedef struct _AtkTableIface {
    GTypeInterface parent;
    AtkObject *(*ref_at) (AtkTable *, gint, gint);
    gint(*get_index_at) (AtkTable *, gint, gint);
    gint(*get_column_at_index) (AtkTable *, gint);
    gint(*get_row_at_index) (AtkTable *, gint);
    gint(*get_n_columns) (AtkTable *);
    gint(*get_n_rows) (AtkTable *);
    gint(*get_column_extent_at) (AtkTable *, gint, gint);
    gint(*get_row_extent_at) (AtkTable *, gint, gint);
    AtkObject *(*get_caption) (AtkTable *);
    const gchar *(*get_column_description) (AtkTable *, gint);
    AtkObject *(*get_column_header) (AtkTable *, gint);
    const gchar *(*get_row_description) (AtkTable *, gint);
    AtkObject *(*get_row_header) (AtkTable *, gint);
    AtkObject *(*get_summary) (AtkTable *);
    void (*set_caption) (AtkTable *, AtkObject *);
    void (*set_column_description) (AtkTable *, gint, const gchar *);
    void (*set_column_header) (AtkTable *, gint, AtkObject *);
    void (*set_row_description) (AtkTable *, gint, const gchar *);
    void (*set_row_header) (AtkTable *, gint, AtkObject *);
    void (*set_summary) (AtkTable *, AtkObject *);
    gint(*get_selected_columns) (AtkTable *, gint *);
    gint(*get_selected_rows) (AtkTable *, gint *);
    gboolean(*is_column_selected) (AtkTable *, gint);

```

```

    gboolean(*is_row_selected) (AtkTable *, gint);
    gboolean(*is_selected) (AtkTable *, gint, gint);
    gboolean(*add_row_selection) (AtkTable *, gint);
    gboolean(*remove_row_selection) (AtkTable *, gint);
    gboolean(*add_column_selection) (AtkTable *, gint);
    gboolean(*remove_column_selection) (AtkTable *, gint);
    void (*row_inserted) (AtkTable *, gint, gint);
    void (*column_inserted) (AtkTable *, gint, gint);
    void (*row_deleted) (AtkTable *, gint, gint);
    void (*column_deleted) (AtkTable *, gint, gint);
    void (*row_reordered) (AtkTable *);
    void (*column_reordered) (AtkTable *);
    void (*model_changed) (AtkTable *);
    AtkFunction pad1;
    AtkFunction pad2;
    AtkFunction pad3;
    AtkFunction pad4;
} AtkTableIface;
typedef struct _AtkValueIface {
    GTypeInterface parent;
    void (*get_current_value) (AtkValue *, GValue *);
    void (*get_maximum_value) (AtkValue *, GValue *);
    void (*get_minimum_value) (AtkValue *, GValue *);
    gboolean(*set_current_value) (AtkValue *, const GValue *);
    AtkFunction pad1;
    AtkFunction pad2;
} AtkValueIface;
typedef struct _AtkRelationClass {
    GObjectClass parent;
} AtkRelationClass;
typedef struct _AtkTextIface {
    GTypeInterface parent;
    gchar *(*get_text) (AtkText *, gint, gint);
    gchar *(*get_text_after_offset) (AtkText *, gint, AtkTextBoundary,
                                     gint *, gint *);
    gchar *(*get_text_at_offset) (AtkText *, gint, AtkTextBoundary, gint *,
                                  gint *);
    gunichar(*get_character_at_offset) (AtkText *, gint);
    gchar *(*get_text_before_offset) (AtkText *, gint, AtkTextBoundary,
                                      gint *, gint *);
    gint(*get_caret_offset) (AtkText *);
    AtkAttributeSet *(*get_run_attributes) (AtkText *, gint, gint *,
                                           gint *);
    AtkAttributeSet *(*get_default_attributes) (AtkText *);
    void (*get_character_extents) (AtkText *, gint, gint *, gint *, gint *,
                                   gint *, AtkCoordType);
    gint(*get_character_count) (AtkText *);
    gint(*get_offset_at_point) (AtkText *, gint, gint, AtkCoordType);
    gint(*get_n_selections) (AtkText *);
    gchar *(*get_selection) (AtkText *, gint, gint *, gint *);
    gboolean(*add_selection) (AtkText *, gint, gint);
    gboolean(*remove_selection) (AtkText *, gint);
    gboolean(*set_selection) (AtkText *, gint, gint, gint);
    gboolean(*set_caret_offset) (AtkText *, gint);
    void (*text_changed) (AtkText *, gint, gint);
    void (*text_caret_moved) (AtkText *, gint);
    void (*text_selection_changed) (AtkText *);
    void (*text_attributes_changed) (AtkText *);
    void (*get_range_extents) (AtkText *, gint, gint, AtkCoordType,
                              AtkTextRectangle *);
    AtkTextRange **(*get_bounded_ranges) (AtkText *, AtkTextRectangle *,
                                           AtkCoordType, AtkTextClipType,

```



```

AtkTextClipType);

    AtkFunction pad4;
} AtkTextIface;
typedef struct _AtkRelationSetClass {
    GObjectClass parent;
    AtkFunction pad1;
    AtkFunction pad2;
} AtkRelationSetClass;
typedef struct _AtkSelectionIface {
    GTypeInterface parent;
    gboolean(*add_selection) (AtkSelection *, gint);
    gboolean(*clear_selection) (AtkSelection *);
    AtkObject *(*ref_selection) (AtkSelection *, gint);
    gint(*get_selection_count) (AtkSelection *);
    gboolean(*is_child_selected) (AtkSelection *, gint);
    gboolean(*remove_selection) (AtkSelection *, gint);
    gboolean(*select_all_selection) (AtkSelection *);
    void (*selection_changed) (AtkSelection *);
    AtkFunction pad1;
    AtkFunction pad2;
} AtkSelectionIface;
typedef struct _AtkUtilClass {
    GObjectClass parent;
    guint(*add_global_event_listener) (GSignalEmissionHook,
                                       const gchar *);
    void (*remove_global_event_listener) (guint);
    guint(*add_key_event_listener) (AtkKeySnoopFunc, gpointer);
    void (*remove_key_event_listener) (guint);
    AtkObject *(*get_root) (void);
    const gchar *(*get_toolkit_name) (void);
    const gchar *(*get_toolkit_version) (void);
} AtkUtilClass;
typedef struct _AtkNoOpObjectClass {
    AtkObjectClass parent_class;
} AtkNoOpObjectClass;
typedef struct _AtkImageIface {
    GTypeInterface parent;
    void (*get_image_position) (AtkImage *, gint *, gint *, AtkCoordType);
    const gchar *(*get_image_description) (AtkImage *);
    void (*get_image_size) (AtkImage *, gint *, gint *);
    gboolean(*set_image_description) (AtkImage *, const gchar *);
    AtkFunction pad1;
    AtkFunction pad2;
} AtkImageIface;
typedef struct _AtkComponentIface {
    GTypeInterface parent;
    guint(*add_focus_handler) (AtkComponent *, AtkFocusHandler);
    gboolean(*contains) (AtkComponent *, gint, gint, AtkCoordType);
    AtkObject *(*ref_accessible_at_point) (AtkComponent *, gint, gint,
                                           AtkCoordType);
    void (*get_extents) (AtkComponent *, gint *, gint *, gint *, gint *,
                        AtkCoordType);
    void (*get_position) (AtkComponent *, gint *, gint *, AtkCoordType);
    void (*get_size) (AtkComponent *, gint *, gint *);
    gboolean(*grab_focus) (AtkComponent *);
    void (*remove_focus_handler) (AtkComponent *, guint);
    gboolean(*set_extents) (AtkComponent *, gint, gint, gint, gint,
                           AtkCoordType);
    gboolean(*set_position) (AtkComponent *, gint, gint, AtkCoordType);
    gboolean(*set_size) (AtkComponent *, gint, gint);
    AtkLayer(*get_layer) (AtkComponent *);
    gint(*get_mdi_zorder) (AtkComponent *);

```

```

    void (*bounds_changed) (AtkComponent *, AtkRectangle *);
    AtkFunction pad2;
} AtkComponentIface;
typedef struct _AtkEditableTextIface {
    GTypeInterface parent_interface;
    gboolean(*set_run_attributes) (AtkEditableText *, AtkAttributeSet *,
                                   gint, gint);

    void (*set_text_contents) (AtkEditableText *, const gchar *);
    void (*insert_text) (AtkEditableText *, const gchar *, gint, gint *);
    void (*copy_text) (AtkEditableText *, gint, gint);
    void (*cut_text) (AtkEditableText *, gint, gint);
    void (*delete_text) (AtkEditableText *, gint, gint);
    void (*paste_text) (AtkEditableText *, gint);
    AtkFunction pad1;
    AtkFunction pad2;
} AtkEditableTextIface;
typedef struct _AtkDocumentIface {
    GTypeInterface parent;
    const gchar *(*get_document_type) (AtkDocument *);
    gpointer(*get_document) (AtkDocument *);
    AtkFunction pad1;
    AtkFunction pad2;
    AtkFunction pad3;
    AtkFunction pad4;
    AtkFunction pad5;
    AtkFunction pad6;
    AtkFunction pad7;
    AtkFunction pad8;
} AtkDocumentIface;
typedef struct _AtkHyperlinkClass {
    GObjectClass parent;
    gchar *(*get_uri) (AtkHyperlink *, gint);
    AtkObject *(*get_object) (AtkHyperlink *, gint);
    gint(*get_end_index) (AtkHyperlink *);
    gint(*get_start_index) (AtkHyperlink *);
    gboolean(*is_valid) (AtkHyperlink *);
    gint(*get_n_anchors) (AtkHyperlink *);
    guint(*link_state) (AtkHyperlink *);
    gboolean(*is_selected_link) (AtkHyperlink *);
    void (*link_activated) (AtkHyperlink *);
    AtkFunction pad1;
} AtkHyperlinkClass;
typedef enum {
    ATK_KEY_EVENT_PRESS,
    ATK_KEY_EVENT_RELEASE,
    ATK_KEY_EVENT_LAST_DEFINED
} AtkKeyEventTypes;
typedef struct _AtkUtil {
    GObject parent;
} AtkUtil;
typedef enum {
    ATK_HYPERLINK_IS_INLINE = 1 << 0
} AtkHyperlinkStateFlags;
typedef struct _AtkNoOpObjectFactory {
    AtkObjectFactory parent;
} AtkNoOpObjectFactory;
typedef struct _AtkNoOpObject {
    AtkObject parent;
} AtkNoOpObject;
extern gboolean atk_action_do_action(AtkAction * action, gint i);
extern const gchar *atk_action_get_description(AtkAction * action, gint i);
extern const gchar *atk_action_get_keybinding(AtkAction * action, gint i);

```

```

extern const gchar *atk_action_get_localized_name(AtkAction * action,
                                                  gint i);
extern gint atk_action_get_n_actions(AtkAction * action);
extern const gchar *atk_action_get_name(AtkAction * action, gint i);
extern GType atk_action_get_type(void);
extern gboolean atk_action_set_description(AtkAction * action, gint i,
                                          const gchar * desc);
extern guint atk_add_focus_tracker(AtkEventListener focus_tracker);
extern guint atk_add_global_event_listener(GSignalEmissionHook listener,
                                          const gchar * event_type);
extern guint atk_add_key_event_listener(AtkKeySnoopFunc listener,
                                       gpointer data);
extern void atk_attribute_set_free(AtkAttributeSet * attrib_set);
extern guint atk_component_add_focus_handler(AtkComponent * component,
                                             AtkFocusHandler handler);
extern gboolean atk_component_contains(AtkComponent * component, gint x,
                                       gint y, AtkCoordType coord_type);
extern void atk_component_get_extents(AtkComponent * component, gint * x,
                                       gint * y, gint * width,
                                       gint * height,
                                       AtkCoordType coord_type);
extern AtkLayer atk_component_get_layer(AtkComponent * component);
extern gint atk_component_get_mdi_zorder(AtkComponent * component);
extern void atk_component_get_position(AtkComponent * component, gint * x,
                                       gint * y, AtkCoordType coord_type);
extern void atk_component_get_size(AtkComponent * component, gint * width,
                                    gint * height);
extern GType atk_component_get_type(void);
extern gboolean atk_component_grab_focus(AtkComponent * component);
extern AtkObject *atk_component_ref_accessible_at_point(AtkComponent *
                                                         component, gint x,
                                                         gint y,
                                                         AtkCoordType
                                                         coord_type);
extern void atk_component_remove_focus_handler(AtkComponent * component,
                                              guint handler_id);
extern gboolean atk_component_set_extents(AtkComponent * component, gint x,
                                          gint y, gint width, gint height,
                                          AtkCoordType coord_type);
extern gboolean atk_component_set_position(AtkComponent * component,
                                          gint x, gint y,
                                          AtkCoordType coord_type);
extern gboolean atk_component_set_size(AtkComponent * component,
                                       gint width, gint height);
extern gpointer atk_document_get_document(AtkDocument * document);
extern const gchar *atk_document_get_document_type(AtkDocument * document);
extern GType atk_document_get_type(void);
extern void atk_editable_text_copy_text(AtkEditableText * text,
                                         gint start_pos, gint end_pos);
extern void atk_editable_text_cut_text(AtkEditableText * text,
                                       gint start_pos, gint end_pos);
extern void atk_editable_text_delete_text(AtkEditableText * text,
                                           gint start_pos, gint end_pos);
extern GType atk_editable_text_get_type(void);
extern void atk_editable_text_insert_text(AtkEditableText * text,
                                          const gchar * string,
                                          gint length, gint * position);
extern void atk_editable_text_paste_text(AtkEditableText * text,
                                          gint position);
extern gboolean atk_editable_text_set_run_attributes(AtkEditableText *
                                                      text,
                                                      AtkAttributeSet *

```

```

                                attrib_set,
                                gint start_offset,
                                gint end_offset);
extern void atk_editable_text_set_text_contents (AtkEditableText * text,
                                                const gchar * string);
extern void atk_focus_tracker_init (AtkEventListenerInit init);
extern void atk_focus_tracker_notify (AtkObject * object);
extern AtkRegistry *atk_get_default_registry (void);
extern AtkObject *atk_get_focus_object (void);
extern AtkObject *atk_get_root (void);
extern const gchar *atk_get_toolkit_name (void);
extern const gchar *atk_get_toolkit_version (void);
extern AtkObject *atk_gobject_accessible_for_object (GObject * obj);
extern GObject *atk_gobject_accessible_get_object (AtkGObjectAccessible *
                                                obj);
extern GType atk_gobject_accessible_get_type (void);
extern gint atk_hyperlink_get_end_index (AtkHyperlink * link_);
extern gint atk_hyperlink_get_n_anchors (AtkHyperlink * link_);
extern AtkObject *atk_hyperlink_get_object (AtkHyperlink * link_, gint i);
extern gint atk_hyperlink_get_start_index (AtkHyperlink * link_);
extern GType atk_hyperlink_get_type (void);
extern gchar *atk_hyperlink_get_uri (AtkHyperlink * link_, gint i);
extern gboolean atk_hyperlink_is_inline (AtkHyperlink * link_);
extern gboolean atk_hyperlink_is_selected_link (AtkHyperlink * link_);
extern gboolean atk_hyperlink_is_valid (AtkHyperlink * link_);
extern AtkHyperlink *atk_hypertext_get_link (AtkHypertext * hypertext,
                                              gint link_index);
extern gint atk_hypertext_get_link_index (AtkHypertext * hypertext,
                                          gint char_index);
extern gint atk_hypertext_get_n_links (AtkHypertext * hypertext);
extern GType atk_hypertext_get_type (void);
extern const gchar *atk_image_get_image_description (AtkImage * image);
extern void atk_image_get_image_position (AtkImage * image, gint * x,
                                          gint * y,
                                          AtkCoordType coord_type);
extern void atk_image_get_image_size (AtkImage * image, int *width,
                                      int *height);
extern GType atk_image_get_type (void);
extern gboolean atk_image_set_image_description (AtkImage * image,
                                                const gchar * description);
extern GType atk_implementor_get_type (void);
extern AtkObject *atk_implementor_ref_accessible (AtkImplementor *
                                                implementor);
extern GType atk_no_op_object_factory_get_type (void);
extern AtkObjectFactory *atk_no_op_object_factory_new (void);
extern GType atk_no_op_object_get_type (void);
extern AtkObject *atk_no_op_object_new (GObject *);
extern gboolean atk_object_add_relationship (AtkObject * object,
                                             AtkRelationType relationship,
                                             AtkObject * target);
extern guint atk_object_connect_property_change_handler (AtkObject *
                                                         accessible,
                                                         AtkPropertyChangeHandler
                                                         * handler);
extern AtkObject *atk_object_factory_create_accessible (AtkObjectFactory *
                                                         factory,
                                                         GObject * obj);
extern GType atk_object_factory_get_accessible_type (AtkObjectFactory *
                                                         factory);
extern GType atk_object_factory_get_type (void);
extern void atk_object_factory_invalidate (AtkObjectFactory * factory);
extern const gchar *atk_object_get_description (AtkObject * accessible);

```

```

extern gint atk_object_get_index_in_parent(AtkObject * accessible);
extern gint atk_object_get_n_accessible_children(AtkObject * accessible);
extern const gchar *atk_object_get_name(AtkObject * accessible);
extern AtkObject *atk_object_get_parent(AtkObject * accessible);
extern AtkRole atk_object_get_role(AtkObject * accessible);
extern GType atk_object_get_type(void);
extern void atk_object_initialize(AtkObject * accessible, gpointer data);
extern void atk_object_notify_state_change(AtkObject * accessible,
                                           AtkState state, gboolean value);
extern AtkObject *atk_object_ref_accessible_child(AtkObject * accessible,
                                                  gint i);
extern AtkRelationSet *atk_object_ref_relation_set(AtkObject * accessible);
extern AtkStateSet *atk_object_ref_state_set(AtkObject * accessible);
extern void atk_object_remove_property_change_handler(AtkObject *
                                                       accessible,
                                                       guint handler_id);
extern gboolean atk_object_remove_relationship(AtkObject * object,
                                              AtkRelationType
                                              relationship,
                                              AtkObject * target);
extern void atk_object_set_description(AtkObject * accessible,
                                       const gchar * description);
extern void atk_object_set_name(AtkObject * accessible,
                                const gchar * name);
extern void atk_object_set_parent(AtkObject * accessible,
                                  AtkObject * parent);
extern void atk_object_set_role(AtkObject * accessible, AtkRole role);
extern GType atk_rectangle_get_type(void);
extern AtkObjectFactory *atk_registry_get_factory(AtkRegistry * registry,
                                                  GType type);
extern GType atk_registry_get_factory_type(AtkRegistry * registry,
                                           GType type);
extern GType atk_registry_get_type(void);
extern void atk_registry_set_factory_type(AtkRegistry * registry,
                                          GType type, GType factory_type);
extern void atk_relation_add_target(AtkRelation *, AtkObject *);
extern AtkRelationType atk_relation_get_relation_type(AtkRelation *);
extern GPtrArray *atk_relation_get_target(AtkRelation *);
extern GType atk_relation_get_type(void);
extern AtkRelation *atk_relation_new(AtkObject * *, gint, AtkRelationType);
extern void atk_relation_set_add(AtkRelationSet * set,
                                AtkRelation * relation);
extern void atk_relation_set_add_relation_by_type(AtkRelationSet * set,
                                                  AtkRelationType
                                                  relationship,
                                                  AtkObject * target);
extern gboolean atk_relation_set_contains(AtkRelationSet * set,
                                          AtkRelationType relationship);
extern gint atk_relation_set_get_n_relations(AtkRelationSet * set);
extern AtkRelation *atk_relation_set_get_relation(AtkRelationSet * set,
                                                  gint i);
extern AtkRelation *atk_relation_set_get_relation_by_type(AtkRelationSet *
                                                         set,
                                                         AtkRelationType
                                                         relationship);
extern GType atk_relation_set_get_type(void);
extern AtkRelationSet *atk_relation_set_new(void);
extern void atk_relation_set_remove(AtkRelationSet * set,
                                    AtkRelation * relation);
extern AtkRelationType atk_relation_type_for_name(const gchar *);
extern const gchar *atk_relation_type_get_name(AtkRelationType);
extern AtkRelationType atk_relation_type_register(const gchar *);

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extern void atk_remove_focus_tracker(guint tracker_id);
extern void atk_remove_global_event_listener(guint listener_id);
extern void atk_remove_key_event_listener(guint listener_id);
extern AtkRole atk_role_for_name(const gchar * name);
extern const gchar *atk_role_get_localized_name(AtkRole role);
extern const gchar *atk_role_get_name(AtkRole role);
extern AtkRole atk_role_register(const gchar * name);
extern gboolean atk_selection_add_selection(AtkSelection * selection,
                                           gint i);
extern gboolean atk_selection_clear_selection(AtkSelection * selection);
extern gint atk_selection_get_selection_count(AtkSelection * selection);
extern GType atk_selection_get_type(void);
extern gboolean atk_selection_is_child_selected(AtkSelection * selection,
                                               gint i);
extern AtkObject *atk_selection_ref_selection(AtkSelection * selection,
                                              gint i);
extern gboolean atk_selection_remove_selection(AtkSelection * selection,
                                              gint i);
extern gboolean atk_selection_select_all_selection(AtkSelection *
                                                  selection);
extern gboolean atk_state_set_add_state(AtkStateSet * set,
                                       AtkStateType type);
extern void atk_state_set_add_states(AtkStateSet * set,
                                     AtkStateType * types, gint n_types);
extern AtkStateSet *atk_state_set_and_sets(AtkStateSet * set,
                                           AtkStateSet * compare_set);
extern void atk_state_set_clear_states(AtkStateSet * set);
extern gboolean atk_state_set_contains_state(AtkStateSet * set,
                                           AtkStateType type);
extern gboolean atk_state_set_contains_states(AtkStateSet * set,
                                              AtkStateType * types,
                                              gint n_types);

extern GType atk_state_set_get_type(void);
extern gboolean atk_state_set_is_empty(AtkStateSet * set);
extern AtkStateSet *atk_state_set_new(void);
extern AtkStateSet *atk_state_set_or_sets(AtkStateSet * set,
                                          AtkStateSet * compare_set);
extern gboolean atk_state_set_remove_state(AtkStateSet * set,
                                           AtkStateType type);
extern AtkStateSet *atk_state_set_xor_sets(AtkStateSet * set,
                                           AtkStateSet * compare_set);
extern AtkStateType atk_state_type_for_name(const gchar * name);
extern const gchar *atk_state_type_get_name(AtkStateType type);
extern AtkStateType atk_state_type_register(const gchar * name);
extern const gchar
    *atk_streamable_content_get_mime_type(AtkStreamableContent *
                                           streamable, gint i);
extern gint atk_streamable_content_get_n_mime_types(AtkStreamableContent *
                                                    streamable);
extern GIOChannel *atk_streamable_content_get_stream(AtkStreamableContent *
                                                    streamable,
                                                    const gchar *
                                                    mime_type);

extern GType atk_streamable_content_get_type(void);
extern gboolean atk_table_add_column_selection(AtkTable * table,
                                              gint column);
extern gboolean atk_table_add_row_selection(AtkTable * table, gint row);
extern AtkObject *atk_table_get_caption(AtkTable * table);
extern gint atk_table_get_column_at_index(AtkTable * table, gint index_);
extern const gchar *atk_table_get_column_description(AtkTable * table,
                                                    gint column);
extern gint atk_table_get_column_extent_at(AtkTable * table, gint row,

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                                gint column);
extern GtkWidget *atk_table_get_column_header(GtkTable * table,
                                                gint column);
extern gint atk_table_get_index_at(GtkTable * table, gint row,
                                    gint column);
extern gint atk_table_get_n_columns(GtkTable * table);
extern gint atk_table_get_n_rows(GtkTable * table);
extern gint atk_table_get_row_at_index(GtkTable * table, gint index_);
extern const gchar *atk_table_get_row_description(GtkTable * table,
                                                  gint row);
extern gint atk_table_get_row_extents_at(GtkTable * table, gint row,
                                           gint column);
extern GtkWidget *atk_table_get_row_header(GtkTable * table, gint row);
extern gint atk_table_get_selected_columns(GtkTable * table,
                                           gint * *selected);
extern gint atk_table_get_selected_rows(GtkTable * table,
                                         gint * *selected);
extern GtkWidget *atk_table_get_summary(GtkTable * table);
extern GType atk_table_get_type(void);
extern gboolean atk_table_is_column_selected(GtkTable * table,
                                              gint column);
extern gboolean atk_table_is_row_selected(GtkTable * table, gint row);
extern gboolean atk_table_is_selected(GtkTable * table, gint row,
                                       gint column);
extern GtkWidget *atk_table_ref_at(GtkTable * table, gint row,
                                    gint column);
extern gboolean atk_table_remove_column_selection(GtkTable * table,
                                                  gint column);
extern gboolean atk_table_remove_row_selection(GtkTable * table, gint row);
extern void atk_table_set_caption(GtkTable * table, GtkWidget * caption);
extern void atk_table_set_column_description(GtkTable * table, gint column,
                                              const gchar * description);
extern void atk_table_set_column_header(GtkTable * table, gint column,
                                         GtkWidget * header);
extern void atk_table_set_row_description(GtkTable * table, gint row,
                                           const gchar * description);
extern void atk_table_set_row_header(GtkTable * table, gint row,
                                      GtkWidget * header);
extern void atk_table_set_summary(GtkTable * table,
                                  GtkWidget * accessible);
extern gboolean atk_text_add_selection(GtkText * text, gint start_offset,
                                       gint end_offset);
extern GtkTextAttribute atk_text_attribute_for_name(const gchar * name);
extern const gchar *atk_text_attribute_get_name(GtkTextAttribute attr);
extern const gchar *atk_text_attribute_get_value(GtkTextAttribute attr,
                                                  gint index_);
extern GtkTextAttribute atk_text_attribute_register(const gchar * name);
extern void atk_text_free_ranges(GtkTextRange * *ranges);
extern GtkTextRange **atk_text_get_bounded_ranges(GtkText * text,
                                                  GtkTextRectangle * rect,
                                                  GtkCoordType coord_type,
                                                  GtkTextClipType
                                                  x_clip_type,
                                                  GtkTextClipType
                                                  y_clip_type);
extern gint atk_text_get_caret_offset(GtkText * text);
extern gchar atk_text_get_character_at_offset(GtkText * text,
                                              gint offset);
extern gint atk_text_get_character_count(GtkText * text);
extern void atk_text_get_character_extents(GtkText * text, gint offset,
                                           gint * x, gint * y,
                                           gint * width, gint * height,

```

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                                ATKCoordType coords);
extern ATKAttributeSet *atk_text_get_default_attributes(ATKText * text);
extern gint atk_text_get_n_selections(ATKText * text);
extern gint atk_text_get_offset_at_point(ATKText * text, gint x, gint y,
                                ATKCoordType coords);
extern void atk_text_get_range_extents(ATKText * text, gint start_offset,
                                gint end_offset,
                                ATKCoordType coord_type,
                                ATKTextRectangle * rect);
extern ATKAttributeSet *atk_text_get_run_attributes(ATKText * text,
                                gint offset,
                                gint * start_offset,
                                gint * end_offset);
extern gchar *atk_text_get_selection(ATKText * text, gint selection_num,
                                gint * start_offset,
                                gint * end_offset);
extern gchar *atk_text_get_text(ATKText * text, gint start_offset,
                                gint end_offset);
extern gchar *atk_text_get_text_after_offset(ATKText * text, gint offset,
                                ATKTextBoundary boundary_type,
                                gint * start_offset,
                                gint * end_offset);
extern gchar *atk_text_get_text_at_offset(ATKText * text, gint offset,
                                ATKTextBoundary boundary_type,
                                gint * start_offset,
                                gint * end_offset);
extern gchar *atk_text_get_text_before_offset(ATKText * text, gint offset,
                                ATKTextBoundary
                                boundary_type,
                                gint * start_offset,
                                gint * end_offset);

extern GType atk_text_get_type(void);
extern gboolean atk_text_remove_selection(ATKText * text,
                                gint selection_num);
extern gboolean atk_text_set_caret_offset(ATKText * text, gint offset);
extern gboolean atk_text_set_selection(ATKText * text, gint selection_num,
                                gint start_offset, gint end_offset);

extern GType atk_util_get_type(void);
extern void atk_value_get_current_value(ATKValue * obj, GValue * value);
extern void atk_value_get_maximum_value(ATKValue * obj, GValue * value);
extern void atk_value_get_minimum_value(ATKValue * obj, GValue * value);
extern GType atk_value_get_type(void);
extern gboolean atk_value_set_current_value(ATKValue * obj,
                                const GValue * value);

```

16.13. Interfaces for libpango-1.0

[Table 16-85](#) defines the library name and shared object name for the libpango-1.0 library

Table 16-85. libpango-1.0 Definition

Library:	libpango-1.0
SONAME:	libpango-1.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[GObject 2.12] [Gobject 2.12.13 Reference Manual](#)[Pango 1.10] [Pango 1.10.4 Reference Manual](#)

16.13.1. GTK Internationalized Text Layout and Rendering library

16.13.1.1. Interfaces for GTK Internationalized Text Layout and Rendering library

An LSB conforming implementation shall provide the generic functions for GTK Internationalized Text Layout and Rendering library specified in [Table 16-86](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-86. libpango-1.0 - GTK Internationalized Text Layout and Rendering library Function Interfaces

pango_alignment_get_type [GObject 2.12]	pango_attr_background_new [Pango 1.10]
pango_attr_fallback_new [Pango 1.10]	pango_attr_family_new [Pango 1.10]
pango_attr_font_desc_new [Pango 1.10]	pango_attr_foreground_new [Pango 1.10]
pango_attr_iterator_copy [Pango 1.10]	pango_attr_iterator_destroy [Pango 1.10]
pango_attr_iterator_get [Pango 1.10]	pango_attr_iterator_get_attrs [Pango 1.10]
pango_attr_iterator_get_font [Pango 1.10]	pango_attr_iterator_next [Pango 1.10]
pango_attr_iterator_range [Pango 1.10]	pango_attr_language_new [Pango 1.10]
pango_attr_letter_spacing_new [Pango 1.10]	pango_attr_list_change [Pango 1.10]
pango_attr_list_copy [Pango 1.10]	pango_attr_list_filter [Pango 1.10]
pango_attr_list_get_iterator [Pango 1.10]	pango_attr_list_get_type [GObject 2.12]
pango_attr_list_insert [Pango 1.10]	pango_attr_list_insert_before [Pango 1.10]
pango_attr_list_new [Pango 1.10]	pango_attr_list_ref [Pango 1.10]
pango_attr_list_splice [Pango 1.10]	pango_attr_list_unref [Pango 1.10]
pango_attr_rise_new [Pango 1.10]	pango_attr_scale_new [Pango 1.10]
pango_attr_shape_new [Pango 1.10]	pango_attr_shape_new_with_data [Pango 1.10]
pango_attr_size_new [Pango 1.10]	pango_attr_size_new_absolute [Pango 1.10]
pango_attr_stretch_new [Pango 1.10]	pango_attr_strikethrough_color_new [Pango 1.10]
pango_attr_strikethrough_new [Pango 1.10]	pango_attr_style_new [Pango 1.10]
pango_attr_type_get_type [GObject 2.12]	pango_attr_type_register [Pango 1.10]
pango_attr_underline_color_new [Pango 1.10]	pango_attr_underline_new [Pango 1.10]
pango_attr_variant_new [Pango 1.10]	pango_attr_weight_new [Pango 1.10]
pango_attribute_copy [Pango 1.10]	pango_attribute_destroy [Pango 1.10]

pango_attribute_equal [Pango 1.10]	pango_break [Pango 1.10]
pango_color_copy [Pango 1.10]	pango_color_free [Pango 1.10]
pango_color_get_type [GObject 2.12]	pango_color_parse [Pango 1.10]
pango_context_get_base_dir [Pango 1.10]	pango_context_get_font_description [Pango 1.10]
pango_context_get_font_map [Pango 1.10]	pango_context_get_language [Pango 1.10]
pango_context_get_matrix [Pango 1.10]	pango_context_get_metrics [Pango 1.10]
pango_context_get_type [GObject 2.12]	pango_context_list_families [Pango 1.10]
pango_context_load_font [Pango 1.10]	pango_context_load_fontset [Pango 1.10]
pango_context_set_base_dir [Pango 1.10]	pango_context_set_font_description [Pango 1.10]
pango_context_set_language [Pango 1.10]	pango_context_set_matrix [Pango 1.10]
pango_coverage_from_bytes [Pango 1.10]	pango_coverage_get [Pango 1.10]
pango_coverage_level_get_type [GObject 2.12]	pango_coverage_max [Pango 1.10]
pango_coverage_new [Pango 1.10]	pango_coverage_ref [Pango 1.10]
pango_coverage_set [Pango 1.10]	pango_coverage_to_bytes [Pango 1.10]
pango_coverage_unref [Pango 1.10]	pango_direction_get_type [GObject 2.12]
pango_ellipsize_mode_get_type [GObject 2.12]	pango_find_base_dir [Pango 1.10]
pango_find_paragraph_boundary [Pango 1.10]	pango_font_describe [Pango 1.10]
pango_font_description_better_match [Pango 1.10]	pango_font_description_copy [Pango 1.10]
pango_font_description_copy_static [Pango 1.10]	pango_font_description_equal [Pango 1.10]
pango_font_description_free [Pango 1.10]	pango_font_description_from_string [Pango 1.10]
pango_font_description_get_family [Pango 1.10]	pango_font_description_get_set_fields [Pango 1.10]
pango_font_description_get_size [Pango 1.10]	pango_font_description_get_size_is_absolute [Pango 1.10]
pango_font_description_get_stretch [Pango 1.10]	pango_font_description_get_style [Pango 1.10]
pango_font_description_get_type [GObject 2.12]	pango_font_description_get_variant [Pango 1.10]
pango_font_description_get_weight [Pango 1.10]	pango_font_description_hash [Pango 1.10]
pango_font_description_merge [Pango 1.10]	pango_font_description_merge_static [Pango 1.10]
pango_font_description_new [Pango 1.10]	pango_font_description_set_absolute_size [Pango 1.10]
pango_font_description_set_family [Pango 1.10]	pango_font_description_set_family_static [Pango 1.10]
pango_font_description_set_size [Pango 1.10]	pango_font_description_set_stretch [Pango 1.10]
pango_font_description_set_style [Pango 1.10]	pango_font_description_set_variant [Pango 1.10]
pango_font_description_set_weight [Pango 1.10]	pango_font_description_to_filename [Pango 1.10]

pango_font_description_to_string [Pango 1.10]	pango_font_description_unset_fields [Pango 1.10]
pango_font_descriptions_free [Pango 1.10]	pango_font_face_describe [Pango 1.10]
pango_font_face_get_face_name [Pango 1.10]	pango_font_face_get_type [GObject 2.12]
pango_font_face_list_sizes [Pango 1.10]	pango_font_family_get_name [Pango 1.10]
pango_font_family_get_type [GObject 2.12]	pango_font_family_is_monospace [Pango 1.10]
pango_font_family_list_faces [Pango 1.10]	pango_font_find_shaper [Pango 1.10]
pango_font_get_coverage [Pango 1.10]	pango_font_get_font_map [Pango 1.10]
pango_font_get_glyph_extents [Pango 1.10]	pango_font_get_metrics [Pango 1.10]
pango_font_get_type [GObject 2.12]	pango_font_map_get_type [GObject 2.12]
pango_font_map_list_families [Pango 1.10]	pango_font_map_load_font [Pango 1.10]
pango_font_map_load_fontset [Pango 1.10]	pango_font_mask_get_type [GObject 2.12]
pango_font_metrics_get_approximate_char_width [Pango 1.10]	pango_font_metrics_get_approximate_digit_width [Pango 1.10]
pango_font_metrics_get_ascent [Pango 1.10]	pango_font_metrics_get_descent [Pango 1.10]
pango_font_metrics_get_strikethrough_position [Pango 1.10]	pango_font_metrics_get_strikethrough_thickness [Pango 1.10]
pango_font_metrics_get_type [GObject 2.12]	pango_font_metrics_get_underline_position [Pango 1.10]
pango_font_metrics_get_underline_thickness [Pango 1.10]	pango_font_metrics_ref [Pango 1.10]
pango_font_metrics_unref [Pango 1.10]	pango_fontset_foreach [Pango 1.10]
pango_fontset_get_font [Pango 1.10]	pango_fontset_get_metrics [Pango 1.10]
pango_fontset_get_type [GObject 2.12]	pango_get_log_attrs [Pango 1.10]
pango_glyph_item_apply_attrs [Pango 1.10]	pango_glyph_item_free [Pango 1.10]
pango_glyph_item_letter_space [Pango 1.10]	pango_glyph_item_split [Pango 1.10]
pango_glyph_string_copy [Pango 1.10]	pango_glyph_string_extents [Pango 1.10]
pango_glyph_string_extents_range [Pango 1.10]	pango_glyph_string_free [Pango 1.10]
pango_glyph_string_get_logical_widths [Pango 1.10]	pango_glyph_string_get_type [GObject 2.12]
pango_glyph_string_index_to_x [Pango 1.10]	pango_glyph_string_new [Pango 1.10]
pango_glyph_string_set_size [Pango 1.10]	pango_glyph_string_x_to_index [Pango 1.10]
pango_is_zero_width [Pango 1.10]	pango_item_copy [Pango 1.10]
pango_item_free [Pango 1.10]	pango_item_new [Pango 1.10]
pango_item_split [Pango 1.10]	pango_itemize [Pango 1.10]

pango_itemize_with_base_dir [Pango 1.10]	pango_language_from_string [Pango 1.10]
pango_language_get_sample_string [Pango 1.10]	pango_language_get_type [GObject 2.12]
pango_language_includes_script [Pango 1.10]	pango_language_matches [Pango 1.10]
pango_layout_context_changed [Pango 1.10]	pango_layout_copy [Pango 1.10]
pango_layout_get_alignment [Pango 1.10]	pango_layout_get_attributes [Pango 1.10]
pango_layout_get_auto_dir [Pango 1.10]	pango_layout_get_context [Pango 1.10]
pango_layout_get_cursor_pos [Pango 1.10]	pango_layout_get_ellipsize [Pango 1.10]
pango_layout_get_extents [Pango 1.10]	pango_layout_get_font_description [Pango 1.10]
pango_layout_get_indent [Pango 1.10]	pango_layout_get_iter [Pango 1.10]
pango_layout_get_justify [Pango 1.10]	pango_layout_get_line [Pango 1.10]
pango_layout_get_line_count [Pango 1.10]	pango_layout_get_lines [Pango 1.10]
pango_layout_get_log_attrs [Pango 1.10]	pango_layout_get_pixel_extents [Pango 1.10]
pango_layout_get_pixel_size [Pango 1.10]	pango_layout_get_single_paragraph_mode [Pango 1.10]
pango_layout_get_size [Pango 1.10]	pango_layout_get_spacing [Pango 1.10]
pango_layout_get_tabs [Pango 1.10]	pango_layout_get_text [Pango 1.10]
pango_layout_get_type [GObject 2.12]	pango_layout_get_width [Pango 1.10]
pango_layout_get_wrap [Pango 1.10]	pango_layout_index_to_pos [Pango 1.10]
pango_layout_iter_at_last_line [Pango 1.10]	pango_layout_iter_free [Pango 1.10]
pango_layout_iter_get_baseline [Pango 1.10]	pango_layout_iter_get_char_extents [Pango 1.10]
pango_layout_iter_get_cluster_extents [Pango 1.10]	pango_layout_iter_get_index [Pango 1.10]
pango_layout_iter_get_layout_extents [Pango 1.10]	pango_layout_iter_get_line [Pango 1.10]
pango_layout_iter_get_line_extents [Pango 1.10]	pango_layout_iter_get_line_yrange [Pango 1.10]
pango_layout_iter_get_run [Pango 1.10]	pango_layout_iter_get_run_extents [Pango 1.10]
pango_layout_iter_get_type [GObject 2.12]	pango_layout_iter_next_char [Pango 1.10]
pango_layout_iter_next_cluster [Pango 1.10]	pango_layout_iter_next_line [Pango 1.10]
pango_layout_iter_next_run [Pango 1.10]	pango_layout_line_get_extents [Pango 1.10]
pango_layout_line_get_pixel_extents [Pango 1.10]	pango_layout_line_get_x_ranges [Pango 1.10]
pango_layout_line_index_to_x [Pango 1.10]	pango_layout_line_ref [Pango 1.10]
pango_layout_line_unref [Pango 1.10]	pango_layout_line_x_to_index [Pango 1.10]
pango_layout_move_cursor_visually [Pango 1.10]	pango_layout_new [Pango 1.10]
pango_layout_set_alignment [Pango 1.10]	pango_layout_set_attributes [Pango 1.10]
pango_layout_set_auto_dir [Pango 1.10]	pango_layout_set_ellipsize [Pango 1.10]

pango_layout_set_font_description [Pango 1.10]	pango_layout_set_indent [Pango 1.10]
pango_layout_set_justify [Pango 1.10]	pango_layout_set_markup [Pango 1.10]
pango_layout_set_markup_with_accel [Pango 1.10]	pango_layout_set_single_paragraph_mode [Pango 1.10]
pango_layout_set_spacing [Pango 1.10]	pango_layout_set_tabs [Pango 1.10]
pango_layout_set_text [Pango 1.10]	pango_layout_set_width [Pango 1.10]
pango_layout_set_wrap [Pango 1.10]	pango_layout_xy_to_index [Pango 1.10]
pango_log2vis_get_embedding_levels [Pango 1.10]	pango_matrix_concat [Pango 1.10]
pango_matrix_copy [Pango 1.10]	pango_matrix_free [Pango 1.10]
pango_matrix_get_type [GObject 2.12]	pango_matrix_rotate [Pango 1.10]
pango_matrix_scale [Pango 1.10]	pango_matrix_translate [Pango 1.10]
pango_parse_markup [Pango 1.10]	pango_parse_stretch [Pango 1.10]
pango_parse_style [Pango 1.10]	pango_parse_variant [Pango 1.10]
pango_parse_weight [Pango 1.10]	pango_read_line [Pango 1.10]
pango_render_part_get_type [GObject 2.12]	pango_renderer_activate [Pango 1.10]
pango_renderer_deactivate [Pango 1.10]	pango_renderer_draw_error_underline [Pango 1.10]
pango_renderer_draw_glyph [Pango 1.10]	pango_renderer_draw_glyphs [Pango 1.10]
pango_renderer_draw_layout [Pango 1.10]	pango_renderer_draw_layout_line [Pango 1.10]
pango_renderer_draw_rectangle [Pango 1.10]	pango_renderer_draw_trapezoid [Pango 1.10]
pango_renderer_get_color [Pango 1.10]	pango_renderer_get_matrix [Pango 1.10]
pango_renderer_get_type [GObject 2.12]	pango_renderer_part_changed [Pango 1.10]
pango_renderer_set_color [Pango 1.10]	pango_renderer_set_matrix [Pango 1.10]
pango_reorder_items [Pango 1.10]	pango_scan_int [Pango 1.10]
pango_scan_string [Pango 1.10]	pango_scan_word [Pango 1.10]
pango_script_for_unichar [Pango 1.10]	pango_script_get_sample_language [Pango 1.10]
pango_script_get_type [GObject 2.12]	pango_script_iter_free [Pango 1.10]
pango_script_iter_get_range [Pango 1.10]	pango_script_iter_new [Pango 1.10]
pango_script_iter_next [Pango 1.10]	pango_shape [Pango 1.10]
pango_skip_space [Pango 1.10]	pango_split_file_list [Pango 1.10]
pango_stretch_get_type [GObject 2.12]	pango_style_get_type [GObject 2.12]
pango_tab_align_get_type [GObject 2.12]	pango_tab_array_copy [Pango 1.10]
pango_tab_array_free [Pango 1.10]	pango_tab_array_get_positions_in_pixels [Pango 1.10]

pango_tab_array_get_size [Pango 1.10]	pango_tab_array_get_tab [Pango 1.10]
pango_tab_array_get_tabs [Pango 1.10]	pango_tab_array_get_type [GObject 2.12]
pango_tab_array_new [Pango 1.10]	pango_tab_array_new_with_positions [Pango 1.10]
pango_tab_array_resize [Pango 1.10]	pango_tab_array_set_tab [Pango 1.10]
pango_trim_string [Pango 1.10]	pango_underline_get_type [GObject 2.12]
pango_unichar_direction [Pango 1.10]	pango_variant_get_type [GObject 2.12]
pango_weight_get_type [GObject 2.12]	pango_wrap_mode_get_type [GObject 2.12]

16.14. Data Definitions for libpango-1.0

This section defines global identifiers and their values that are associated with interfaces contained in libpango-1.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.14.1. pango-1.0/pango/pango-utils.h

```
extern gboolean pango_is_zero_width(gunichar ch);
extern const char *pango_language_get_sample_string(PangoLanguage *
                                                    language);
extern gboolean pango_log2vis_get_embedding_levels(gunichar * text,
                                                    gint length,
                                                    PangoDirection *
                                                    pbase_dir, guint8 *);
extern gboolean pango_parse_stretch(const char *str,
                                    PangoStretch * stretch, gboolean warn);
extern gboolean pango_parse_style(const char *str, PangoStyle * style,
                                  gboolean warn);
extern gboolean pango_parse_variant(const char *str,
                                    PangoVariant * variant, gboolean warn);
extern gboolean pango_parse_weight(const char *str, PangoWeight * weight,
                                   gboolean warn);
extern gint pango_read_line(FILE * stream, GString * str);
extern gboolean pango_scan_int(const char **pos, int *out);
extern gboolean pango_scan_string(const char **pos, GString * out);
extern gboolean pango_scan_word(const char **pos, GString * out);
extern gboolean pango_skip_space(const char **pos);
extern char **pango_split_file_list(const char *str);
extern char *pango_trim_string(const char *str);
```

16.14.2. pango-1.0/pango/pango.h

```

#define PANGO_CONTEXT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), PANGO_TYPE_CONTEXT, \
    PangoContextClass))
#define PANGO_LAYOUT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), PANGO_TYPE_LAYOUT, \
    PangoLayoutClass))
#define PANGO_RENDERER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), PANGO_TYPE_RENDERER, \
    PangoRendererClass))
#define PANGO_IS_CONTEXT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), PANGO_TYPE_CONTEXT))
#define PANGO_IS_LAYOUT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), PANGO_TYPE_LAYOUT))
#define PANGO_IS_RENDERER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), PANGO_TYPE_RENDERER))
#define PANGO_CONTEXT(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_CONTEXT, \
    PangoContext))
#define PANGO_FONT(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_FONT, PangoFont))
#define PANGO_FONTSET(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_FONTSET, \
    PangoFontset))
#define PANGO_FONT_FACE(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_FONT_FACE, \
    PangoFontFace))
#define PANGO_FONT_FAMILY(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_FONT_FAMILY, \
    PangoFontFamily))
#define PANGO_FONT_MAP(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_FONT_MAP, \
    PangoFontMap))
#define PANGO_LAYOUT(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_LAYOUT, \
    PangoLayout))
#define PANGO_RENDERER(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_RENDERER, \
    PangoRenderer))
#define PANGO_IS_CONTEXT(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_CONTEXT))
#define PANGO_IS_FONT(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_FONT))
#define PANGO_IS_FONTSET(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_FONTSET))
#define PANGO_IS_FONT_FACE(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_FONT_FACE))
#define PANGO_IS_FONT_FAMILY(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_FONT_FAMILY))
#define PANGO_IS_FONT_MAP(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_FONT_MAP))
#define PANGO_IS_LAYOUT(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_LAYOUT))
#define PANGO_IS_RENDERER(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_RENDERER))
#define PANGO_CONTEXT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), PANGO_TYPE_CONTEXT, \
    PangoContextClass))
#define PANGO_LAYOUT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), PANGO_TYPE_LAYOUT, \

```

```

        PangoLayoutClass))
#define PANGO_RENDERER_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), PANGO_TYPE_RENDERER, \
        PangoRendererClass))
#define PANGO_PIXELS(d) (((int)(d) + 512) >> 10)
#define pango_language_to_string(language) ((const char *)language)
#define PANGO_SCALE_XX_SMALL ((double)0.5787037037037)
#define PANGO_SCALE_X_SMALL ((double)0.64444444444444)
#define PANGO_SCALE_SMALL ((double)0.83333333333333)
#define PANGO_SCALE_MEDIUM ((double)1.0)
#define PANGO_SCALE_LARGE ((double)1.2)
#define PANGO_SCALE_X_LARGE ((double)1.4399999999999)
#define PANGO_SCALE_XX_LARGE ((double)1.728)
#if defined(PANGO_ENABLE_ENGINE) || defined(PANGO_ENABLE_BACKEND)
#define PANGO_GET_UNKNOWN_GLYPH(wc) ((PangoGlyph)(wc) | PANGO_GLYPH_UNKNOWN_FLAG)
#endif
#if defined(PANGO_ENABLE_ENGINE) || defined(PANGO_ENABLE_BACKEND)
#define PANGO_GLYPH_UNKNOWN_FLAG ((PangoGlyph)0x10000000)
#endif
#define PANGO_RBEARING(rect) ((rect).x + (rect).width)
#define PANGO_LBEARING(rect) ((rect).x)
#define PANGO_DESCENT(rect) ((rect).y + (rect).height)
#define PANGO_ASCENT(rect) (-(rect).y)
#define PANGO_TYPE_ALIGNMENT (pango_alignment_get_type())
#define PANGO_TYPE_ATTR_TYPE (pango_attr_type_get_type())
#define PANGO_TYPE_CONTEXT (pango_context_get_type ())
#define PANGO_TYPE_COVERAGE_LEVEL (pango_coverage_level_get_type())
#define PANGO_TYPE_DIRECTION (pango_direction_get_type())
#define PANGO_TYPE_ELLIPSIZE_MODE (pango_ellipsize_mode_get_type())
#define PANGO_TYPE_FONTSET (pango_fontset_get_type ())
#define PANGO_TYPE_FONT_DESCRIPTION (pango_font_description_get_type ())
#define PANGO_TYPE_FONT_FACE (pango_font_face_get_type ())
#define PANGO_TYPE_FONT_FAMILY (pango_font_family_get_type ())
#define PANGO_TYPE_FONT (pango_font_get_type ())
#define PANGO_TYPE_FONT_MAP (pango_font_map_get_type ())
#define PANGO_TYPE_FONT_MASK (pango_font_mask_get_type())
#define PANGO_TYPE_FONT_METRICS (pango_font_metrics_get_type ())
#define PANGO_TYPE_GLYPH_STRING (pango_glyph_string_get_type ())
#define PANGO_TYPE_LANGUAGE (pango_language_get_type ())
#define PANGO_TYPE_LAYOUT (pango_layout_get_type ())
#define PANGO_TYPE_LAYOUT_ITER (pango_layout_iter_get_type ())
#define PANGO_TYPE_MATRIX (pango_matrix_get_type ())
#define PANGO_TYPE_RENDERER (pango_renderer_get_type())
#define PANGO_TYPE_RENDER_PART (pango_render_part_get_type())
#define PANGO_TYPE_SCRIPT (pango_script_get_type())
#define PANGO_TYPE_STRETCH (pango_stretch_get_type())
#define PANGO_TYPE_STYLE (pango_style_get_type())
#define PANGO_TYPE_TAB_ALIGN (pango_tab_align_get_type())
#define PANGO_TYPE_TAB_ARRAY (pango_tab_array_get_type ())
#define PANGO_TYPE_UNDERLINE (pango_underline_get_type())
#define PANGO_TYPE_VARIANT (pango_variant_get_type())
#define PANGO_TYPE_WEIGHT (pango_weight_get_type())
#define PANGO_TYPE_WRAP_MODE (pango_wrap_mode_get_type())
#define PANGO_SCALE 1024
#define PANGO_TYPE_ATTR_LIST pango_attr_list_get_type ()
#define PANGO_TYPE_COLOR pango_color_get_type ()
#define PANGO_MATRIX_INIT { 1., 0., 0., 1., 0., 0. }

typedef struct _PangoFontFace PangoFontFace;
typedef enum {
    PANGO_WRAP_WORD = 0,
    PANGO_WRAP_CHAR = 1,

```



```

    PANGO_WRAP_WORD_CHAR = 2
} PangoWrapMode;
typedef struct _PangoLayout PangoLayout;
typedef struct _PangoScriptIter PangoScriptIter;
typedef enum {
    PANGO_SCRIPT_INVALID_CODE = -1,
    PANGO_SCRIPT_COMMON = 0,
    PANGO_SCRIPT_INHERITED = 1,
    PANGO_SCRIPT_ARABIC = 2,
    PANGO_SCRIPT_ARMENIAN = 3,
    PANGO_SCRIPT_BENGALI = 4,
    PANGO_SCRIPT_BOPOMOFO = 5,
    PANGO_SCRIPT_CHEROKEE = 6,
    PANGO_SCRIPT_COPTIC = 7,
    PANGO_SCRIPT_CYRILLIC = 8,
    PANGO_SCRIPT_DESERET = 9,
    PANGO_SCRIPT_DEVANAGARI = 10,
    PANGO_SCRIPT_ETHIOPIA = 11,
    PANGO_SCRIPT_GEORGIAN = 12,
    PANGO_SCRIPT_GOTHIC = 13,
    PANGO_SCRIPT_GREEK = 14,
    PANGO_SCRIPT_GUJARATI = 15,
    PANGO_SCRIPT_GURMUKHI = 16,
    PANGO_SCRIPT_HAN = 17,
    PANGO_SCRIPT_HANGUL = 18,
    PANGO_SCRIPT_HEBREW = 19,
    PANGO_SCRIPT_HIRAGANA = 20,
    PANGO_SCRIPT_KANNADA = 21,
    PANGO_SCRIPT_KATAKANA = 22,
    PANGO_SCRIPT_KHMER = 23,
    PANGO_SCRIPT_LAO = 24,
    PANGO_SCRIPT_LATIN = 25,
    PANGO_SCRIPT_MALAYALAM = 26,
    PANGO_SCRIPT_MONGOLIAN = 27,
    PANGO_SCRIPT_MYANMAR = 28,
    PANGO_SCRIPT_OTHMANIYAH = 29,
    PANGO_SCRIPT_OLD_ITALIC = 30,
    PANGO_SCRIPT_ORIYA = 31,
    PANGO_SCRIPT_RUNIC = 32,
    PANGO_SCRIPT_SINHALA = 33,
    PANGO_SCRIPT_SYRIAC = 34,
    PANGO_SCRIPT_TAMIL = 35,
    PANGO_SCRIPT_TELUGU = 36,
    PANGO_SCRIPT_THAANA = 37,
    PANGO_SCRIPT_THAI = 38,
    PANGO_SCRIPT_TIBETAN = 39,
    PANGO_SCRIPT_CANADIAN_ABORIGINAL = 40,
    PANGO_SCRIPT_YI = 41,
    PANGO_SCRIPT_TAGALOG = 42,
    PANGO_SCRIPT_HANUNOO = 43,
    PANGO_SCRIPT_BUHID = 44,
    PANGO_SCRIPT_TAGBANWA = 45,
    PANGO_SCRIPT_BRAILLE = 46,
    PANGO_SCRIPT_CYPRIOT = 47,
    PANGO_SCRIPT_LIMBU = 48,
    PANGO_SCRIPT_OSMANYA = 49,
    PANGO_SCRIPT_SHAVIAN = 50,
    PANGO_SCRIPT_LINEAR_B = 51,
    PANGO_SCRIPT_TAI_LE = 52,
    PANGO_SCRIPT_UGARITIC = 53
} PangoScript;
typedef struct _PangoFont PangoFont;

```

```

typedef struct _PangoContext PangoContext;
typedef struct _PangoFontDescription PangoFontDescription;
typedef enum {
    PANGO_ATTR_INVALID = 0,
    PANGO_ATTR_LANGUAGE = 1,
    PANGO_ATTR_FAMILY = 2,
    PANGO_ATTR_STYLE = 3,
    PANGO_ATTR_WEIGHT = 4,
    PANGO_ATTR_VARIANT = 5,
    PANGO_ATTR_STRETCH = 6,
    PANGO_ATTR_SIZE = 7,
    PANGO_ATTR_FONT_DESC = 8,
    PANGO_ATTR_FOREGROUND = 9,
    PANGO_ATTR_BACKGROUND = 10,
    PANGO_ATTR_UNDERLINE = 11,
    PANGO_ATTR_STRIKETHROUGH = 12,
    PANGO_ATTR_RISE = 13,
    PANGO_ATTR_SHAPE = 14,
    PANGO_ATTR_SCALE = 15,
    PANGO_ATTR_FALLBACK = 16,
    PANGO_ATTR_LETTER_SPACING = 17,
    PANGO_ATTR_UNDERLINE_COLOR = 18,
    PANGO_ATTR_STRIKETHROUGH_COLOR = 19,
    PANGO_ATTR_ABSOLUTE_SIZE = 20
} PangoAttrType;
typedef struct _PangoAttribute {
    const PangoAttrClass *klass;
    guint start_index;
    guint end_index;
} PangoAttribute;
typedef struct _PangoAttrClass {
    PangoAttrType type;
    PangoAttribute *(*copy) (const PangoAttribute *);
    void (*destroy) (PangoAttribute *);
    gboolean(*equal) (const PangoAttribute *, const PangoAttribute *);
} PangoAttrClass;
typedef struct _PangoLanguage PangoLanguage;
typedef struct _PangoLogAttr {
    guint is_line_break:1;
    guint is_mandatory_break:1;
    guint is_char_break:1;
    guint is_white:1;
    guint is_cursor_position:1;
    guint is_word_start:1;
    guint is_word_end:1;
    guint is_sentence_boundary:1;
    guint is_sentence_start:1;
    guint is_sentence_end:1;
    guint backspace_deletes_character:1;
} PangoLogAttr;
typedef struct _PangoColor {
    guint16 red;
    guint16 green;
    guint16 blue;
} PangoColor;
typedef struct _PangoMatrix {
    double xx;
    double xy;
    double yx;
    double yy;
    double x0;
    double y0;

```

```

} PangoMatrix;
typedef struct _PangoEngineShape PangoEngineShape;
typedef struct _PangoEngineLang PangoEngineLang;
typedef struct _PangoAnalysis {
    PangoEngineShape *shape_engine;
    PangoEngineLang *lang_engine;
    PangoFont *font;
    guint8 level;
    PangoLanguage *language;
    GSList *extra_attrs;
} PangoAnalysis;
typedef struct _PangoItem {
    gint offset;
    gint length;
    gint num_chars;
    PangoAnalysis analysis;
} PangoItem;
typedef guint32 PangoGlyph;
typedef gint32 PangoGlyphUnit;
typedef struct _PangoGlyphGeometry {
    PangoGlyphUnit width;
    PangoGlyphUnit x_offset;
    PangoGlyphUnit y_offset;
} PangoGlyphGeometry;
typedef struct _PangoGlyphVisAttr {
    guint is_cluster_start:1;
} PangoGlyphVisAttr;
typedef struct _PangoGlyphInfo {
    PangoGlyph glyph;
    PangoGlyphGeometry geometry;
    PangoGlyphVisAttr attr;
} PangoGlyphInfo;
typedef struct _PangoGlyphString {
    gint num_glyphs;
    PangoGlyphInfo *glyphs;
    gint *log_clusters;
    gint space;
} PangoGlyphString;
typedef struct _PangoGlyphItem {
    PangoItem *item;
    PangoGlyphString *glyphs;
} PangoGlyphItem;
typedef PangoGlyphItem PangoLayoutRun;
typedef struct _PangoLayoutIter PangoLayoutIter;
typedef enum {
    PANGO_UNDERLINE_NONE = 0,
    PANGO_UNDERLINE_SINGLE = 1,
    PANGO_UNDERLINE_DOUBLE = 2,
    PANGO_UNDERLINE_LOW = 3,
    PANGO_UNDERLINE_ERROR = 4
} PangoUnderline;
typedef struct _PangoRendererPrivate PangoRendererPrivate;
typedef struct _PangoRenderer {
    GObject parent_instance;
    PangoUnderline underline;
    gboolean strikethrough;
    int active_count;
    PangoMatrix *matrix;
    PangoRendererPrivate *priv;
} PangoRenderer;
typedef enum {
    PANGO_RENDER_PART_FOREGROUND = 0,

```

```

    PANGO_RENDER_PART_BACKGROUND = 1,
    PANGO_RENDER_PART_UNDERLINE = 2,
    PANGO_RENDER_PART_STRIKETHROUGH = 3
} PangoRenderPart;
typedef struct _PangoAttrList PangoAttrList;
typedef struct _PangoLayoutLine {
    PangoLayout *layout;
    gint start_index;
    gint length;
    GSList *runs;
    guint is_paragraph_start:1;
    guint resolved_dir:3;
} PangoLayoutLine;
typedef enum {
    PANGO_STRETCH_ULTRA_CONDENSED = 0,
    PANGO_STRETCH_EXTRA_CONDENSED = 1,
    PANGO_STRETCH_CONDENSED = 2,
    PANGO_STRETCH_SEMI_CONDENSED = 3,
    PANGO_STRETCH_NORMAL = 4,
    PANGO_STRETCH_SEMI_EXPANDED = 5,
    PANGO_STRETCH_EXPANDED = 6,
    PANGO_STRETCH_EXTRA_EXPANDED = 7,
    PANGO_STRETCH_ULTRA_EXPANDED = 8
} PangoStretch;
typedef struct _PangoRectangle {
    int x;
    int y;
    int width;
    int height;
} PangoRectangle;
typedef struct _PangoFontFamily PangoFontFamily;
typedef struct _PangoFontMetrics PangoFontMetrics;
typedef struct _PangoTabArray PangoTabArray;
typedef enum {
    PANGO_TAB_LEFT = 0
} PangoTabAlign;
typedef enum {
    PANGO_ALIGN_LEFT = 0,
    PANGO_ALIGN_CENTER = 1,
    PANGO_ALIGN_RIGHT = 2
} PangoAlignment;
typedef struct _PangoAttrIterator PangoAttrIterator;
typedef enum {
    PANGO_FONT_MASK_FAMILY = 1,
    PANGO_FONT_MASK_STYLE = 2,
    PANGO_FONT_MASK_VARIANT = 4,
    PANGO_FONT_MASK_WEIGHT = 8,
    PANGO_FONT_MASK_STRETCH = 16,
    PANGO_FONT_MASK_SIZE = 32
} PangoFontMask;
typedef enum {
    PANGO_DIRECTION_LTR = 0,
    PANGO_DIRECTION_RTL = 1,
    PANGO_DIRECTION_TTB_LTR = 2,
    PANGO_DIRECTION_TTB_RTL = 3,
    PANGO_DIRECTION_WEAK_LTR = 4,
    PANGO_DIRECTION_WEAK_RTL = 5,
    PANGO_DIRECTION_NEUTRAL = 6
} PangoDirection;
typedef enum {
    PANGO_ELLIPSIZE_NONE = 0,
    PANGO_ELLIPSIZE_START = 1,

```

```

    PANGO_ELLIPSIZE_MIDDLE = 2,
    PANGO_ELLIPSIZE_END = 3
} PangoEllipsizeMode;
typedef struct _PangoCoverage PangoCoverage;
typedef enum {
    PANGO_STYLE_NORMAL = 0,
    PANGO_STYLE_OBLIQUE = 1,
    PANGO_STYLE_ITALIC = 2
} PangoStyle;
typedef enum {
    PANGO_COVERAGE_NONE = 0,
    PANGO_COVERAGE_FALLBACK = 1,
    PANGO_COVERAGE_APPROXIMATE = 2,
    PANGO_COVERAGE_EXACT = 3
} PangoCoverageLevel;
typedef struct _PangoFontMap PangoFontMap;
typedef gboolean(*PangoAttrFilterFunc) (PangoAttribute *, gpointer);
typedef struct _PangoFontset PangoFontset;
typedef enum {
    PANGO_WEIGHT_ULTRALIGHT = 200,
    PANGO_WEIGHT_LIGHT = 300,
    PANGO_WEIGHT_NORMAL = 400,
    PANGO_WEIGHT_SEMIBOLD = 600,
    PANGO_WEIGHT_BOLD = 700,
    PANGO_WEIGHT_ULTRABOLD = 800,
    PANGO_WEIGHT_HEAVY = 900
} PangoWeight;
typedef gboolean(*PangoFontsetForeachFunc) (PangoFontset *, PangoFont *,
                                             gpointer);
typedef enum {
    PANGO_VARIANT_NORMAL = 0,
    PANGO_VARIANT_SMALL_CAPS = 1
} PangoVariant;
typedef gpointer(*PangoAttrDataCopyFunc) (gconstpointer);
typedef struct _PangoAttrShape {
    PangoAttribute attr;
    PangoRectangle ink_rect;
    PangoRectangle logical_rect;
    gpointer data;
    PangoAttrDataCopyFunc copy_func;
    GDestroyNotify destroy_func;
} PangoAttrShape;
typedef struct _PangoContextClass PangoContextClass;
typedef struct _PangoAttrString {
    PangoAttribute attr;
    char *value;
} PangoAttrString;
typedef struct _PangoAttrColor {
    PangoAttribute attr;
    PangoColor color;
} PangoAttrColor;
typedef struct _PangoAttrFontDesc {
    PangoAttribute attr;
    PangoFontDescription *desc;
} PangoAttrFontDesc;
typedef struct _PangoAttrFloat {
    PangoAttribute attr;
    double value;
} PangoAttrFloat;
typedef struct _PangoRendererClass {
    GObjectClass parent_class;
    void (*draw_glyphs) (PangoRenderer *, PangoFont *, PangoGlyphString *,

```

```

        int, int);
void (*draw_rectangle) (PangoRenderer *, PangoRenderPart, int, int,
                        int, int);
void (*draw_error_underline) (PangoRenderer *, int, int, int, int);
void (*draw_shape) (PangoRenderer *, PangoAttrShape *, int, int);
void (*draw_trapezoid) (PangoRenderer *, PangoRenderPart, double,
                        double, double, double, double, double);
void (*draw_glyph) (PangoRenderer *, PangoFont *, PangoGlyph, double,
                    double);
void (*part_changed) (PangoRenderer *, PangoRenderPart);
void (*begin) (PangoRenderer *);
void (*end) (PangoRenderer *);
void (*prepare_run) (PangoRenderer *, PangoLayoutRun *);
void (*_pango_reserved1) (void);
void (*_pango_reserved2) (void);
void (*_pango_reserved3) (void);
void (*_pango_reserved4) (void);
} PangoRendererClass;
typedef struct _PangoAttrLanguage {
    PangoAttribute attr;
    PangoLanguage *value;
} PangoAttrLanguage;
typedef struct _PangoAttrInt {
    PangoAttribute attr;
    int value;
} PangoAttrInt;
typedef struct _PangoAttrSize {
    PangoAttribute attr;
    int size;
    guint absolute:1;
} PangoAttrSize;
typedef struct _PangoLayoutClass PangoLayoutClass;
extern GType pango_alignment_get_type(void);
extern PangoAttribute *pango_attr_background_new(guint16 red,
                                                  guint16 green,
                                                  guint16 blue);
extern PangoAttribute *pango_attr_fallback_new(gboolean enable_fallback);
extern PangoAttribute *pango_attr_family_new(const char *family);
extern PangoAttribute *pango_attr_font_desc_new(const PangoFontDescription
                                                  * desc);
extern PangoAttribute *pango_attr_foreground_new(guint16 red,
                                                  guint16 green,
                                                  guint16 blue);
extern PangoAttrIterator *pango_attr_iterator_copy(PangoAttrIterator *
                                                  iterator);
extern void pango_attr_iterator_destroy(PangoAttrIterator * iterator);
extern PangoAttribute *pango_attr_iterator_get(PangoAttrIterator *
                                              iterator,
                                              PangoAttrType type);
extern GSList *pango_attr_iterator_get_attrs(PangoAttrIterator * iterator);
extern void pango_attr_iterator_get_font(PangoAttrIterator * iterator,
                                         PangoFontDescription * desc,
                                         PangoLanguage * *language,
                                         GSList * *extra_attrs);
extern gboolean pango_attr_iterator_next(PangoAttrIterator * iterator);
extern void pango_attr_iterator_range(PangoAttrIterator * iterator,
                                      gint * start, gint * end);
extern PangoAttribute *pango_attr_language_new(PangoLanguage * language);
extern PangoAttribute *pango_attr_letter_spacing_new(int letter_spacing);
extern void pango_attr_list_change(PangoAttrList * list,
                                   PangoAttribute * attr);
extern PangoAttrList *pango_attr_list_copy(PangoAttrList * list);

```

```

extern PangoAttrList *pango_attr_list_filter(PangoAttrList * list,
                                             PangoAttrFilterFunc func,
                                             gpointer data);
extern PangoAttrIterator *pango_attr_list_get_iterator(PangoAttrList *
                                                       list);
extern GType pango_attr_list_get_type(void);
extern void pango_attr_list_insert(PangoAttrList * list,
                                   PangoAttribute * attr);
extern void pango_attr_list_insert_before(PangoAttrList * list,
                                           PangoAttribute * attr);
extern PangoAttrList *pango_attr_list_new(void);
extern PangoAttrList *pango_attr_list_ref(PangoAttrList * list);
extern void pango_attr_list_splice(PangoAttrList * list,
                                   PangoAttrList * other, gint pos,
                                   gint len);
extern void pango_attr_list_unref(PangoAttrList * list);
extern PangoAttribute *pango_attr_rise_new(int rise);
extern PangoAttribute *pango_attr_scale_new(double scale_factor);
extern PangoAttribute *pango_attr_shape_new(const PangoRectangle *
                                             ink_rect,
                                             const PangoRectangle *
                                             logical_rect);
extern PangoAttribute *pango_attr_shape_new_with_data(const PangoRectangle
                                                       * ink_rect,
                                                       const PangoRectangle
                                                       * logical_rect,
                                                       gpointer data,
                                                       PangoAttrDataCopyFunc
                                                       copy_func,
                                                       GDestroyNotify
                                                       destroy_func);
extern PangoAttribute *pango_attr_size_new(int size);
extern PangoAttribute *pango_attr_size_new_absolute(int size);
extern PangoAttribute *pango_attr_stretch_new(PangoStretch stretch);
extern PangoAttribute *pango_attr_strikethrough_color_new(guint16 red,
                                                           guint16 green,
                                                           guint16 blue);
extern PangoAttribute *pango_attr_strikethrough_new(gboolean
                                                      strikethrough);
extern PangoAttribute *pango_attr_style_new(PangoStyle style);
extern GType pango_attr_type_get_type(void);
extern PangoAttrType pango_attr_type_register(const gchar * name);
extern PangoAttribute *pango_attr_underline_color_new(guint16 red,
                                                       guint16 green,
                                                       guint16 blue);
extern PangoAttribute *pango_attr_underline_new(PangoUnderline underline);
extern PangoAttribute *pango_attr_variant_new(PangoVariant variant);
extern PangoAttribute *pango_attr_weight_new(PangoWeight weight);
extern PangoAttribute *pango_attribute_copy(const PangoAttribute * attr);
extern void pango_attribute_destroy(PangoAttribute * attr);
extern gboolean pango_attribute_equal(const PangoAttribute * attr1,
                                     const PangoAttribute * attr2);
extern void pango_break(const gchar * text, gint length,
                        PangoAnalysis * analysis, PangoLogAttr * attrs,
                        int attrs_len);
extern PangoColor *pango_color_copy(const PangoColor * src);
extern void pango_color_free(PangoColor * color);
extern GType pango_color_get_type(void);
extern gboolean pango_color_parse(PangoColor * color, const char *spec);
extern PangoDirection pango_context_get_base_dir(PangoContext * context);
extern PangoFontDescription
    *pango_context_get_font_description(PangoContext * context);

```

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```
extern PangoFontMap *pango_context_get_font_map(PangoContext * context);
extern PangoLanguage *pango_context_get_language(PangoContext * context);
extern const PangoMatrix *pango_context_get_matrix(PangoContext * context);
extern PangoFontMetrics *pango_context_get_metrics(PangoContext * context,
                                                    const
                                                    PangoFontDescription *
                                                    desc,
                                                    PangoLanguage *
                                                    language);

extern GType pango_context_get_type(void);
extern void pango_context_list_families(PangoContext * context,
                                         PangoFontFamily * **families,
                                         int *n_families);
extern PangoFont *pango_context_load_font(PangoContext * context,
                                           const PangoFontDescription *
                                           desc);
extern PangoFontset *pango_context_load_fontset(PangoContext * context,
                                                 const PangoFontDescription
                                                 * desc,
                                                 PangoLanguage * language);
extern void pango_context_set_base_dir(PangoContext * context,
                                       PangoDirection direction);
extern void pango_context_set_font_description(PangoContext * context,
                                               const PangoFontDescription *
                                               desc);
extern void pango_context_set_language(PangoContext * context,
                                       PangoLanguage * language);
extern void pango_context_set_matrix(PangoContext * context,
                                      const PangoMatrix * matrix);
extern PangoCoverage *pango_coverage_from_bytes(guchar * bytes,
                                                 int n_bytes);
extern PangoCoverageLevel pango_coverage_get(PangoCoverage * coverage,
                                             int index_);
extern GType pango_coverage_level_get_type(void);
extern void pango_coverage_max(PangoCoverage * coverage,
                              PangoCoverage * other);
extern PangoCoverage *pango_coverage_new(void);
extern PangoCoverage *pango_coverage_ref(PangoCoverage * coverage);
extern void pango_coverage_set(PangoCoverage * coverage, int index_,
                              PangoCoverageLevel level);
extern void pango_coverage_to_bytes(PangoCoverage * coverage,
                                    guchar * *bytes, int *n_bytes);
extern void pango_coverage_unref(PangoCoverage * coverage);
extern GType pango_direction_get_type(void);
extern GType pango_ellipsize_mode_get_type(void);
extern PangoDirection pango_find_base_dir(const gchar * text, gint length);
extern void pango_find_paragraph_boundary(const gchar * text, gint length,
                                         gint * paragraph_delimiter_index,
                                         gint * next_paragraph_start);
extern PangoFontDescription *pango_font_describe(PangoFont * font);
extern gboolean pango_font_description_better_match(const
                                                    PangoFontDescription *
                                                    desc,
                                                    const
                                                    PangoFontDescription *
                                                    old_match,
                                                    const
                                                    PangoFontDescription *
                                                    new_match);
extern PangoFontDescription *pango_font_description_copy(const
                                                         PangoFontDescription
                                                         * desc);
```


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```
extern PangoFontDescription *pango_font_description_copy_static(const
                                                                PangoFontDescription
                                                                * desc);
extern gboolean pango_font_description_equal(const PangoFontDescription *
                                             desc1,
                                             const PangoFontDescription *
                                             desc2);
extern void pango_font_description_free(PangoFontDescription * desc);
extern PangoFontDescription *pango_font_description_from_string(const char
                                                                *str);
extern const char *pango_font_description_get_family(const
                                                       PangoFontDescription *
                                                       desc);
extern PangoFontMask pango_font_description_get_set_fields(const
                                                            PangoFontDescription
                                                            * desc);
extern gint pango_font_description_get_size(const PangoFontDescription *
                                             desc);
extern gboolean pango_font_description_get_size_is_absolute(const
                                                            PangoFontDescription
                                                            * desc);
extern PangoStretch pango_font_description_get_stretch(const
                                                         PangoFontDescription
                                                         * desc);
extern PangoStyle pango_font_description_get_style(const
                                                    PangoFontDescription *
                                                    desc);
extern GType pango_font_description_get_type(void);
extern PangoVariant pango_font_description_get_variant(const
                                                         PangoFontDescription
                                                         * desc);
extern PangoWeight pango_font_description_get_weight(const
                                                       PangoFontDescription *
                                                       desc);
extern guint pango_font_description_hash(const PangoFontDescription *
                                         desc);
extern void pango_font_description_merge(PangoFontDescription * desc,
                                         const PangoFontDescription *
                                         desc_to_merge,
                                         gboolean replace_existing);
extern void pango_font_description_merge_static(PangoFontDescription *
                                                desc,
                                                const PangoFontDescription
                                                * desc_to_merge,
                                                gboolean replace_existing);
extern PangoFontDescription *pango_font_description_new(void);
extern void pango_font_description_set_absolute_size(PangoFontDescription *
                                                     desc, double size);
extern void pango_font_description_set_family(PangoFontDescription * desc,
                                              const char *family);
extern void pango_font_description_set_family_static(PangoFontDescription *
                                                     desc,
                                                     const char *family);
extern void pango_font_description_set_size(PangoFontDescription * desc,
                                             gint size);
extern void pango_font_description_set_stretch(PangoFontDescription * desc,
                                                PangoStretch stretch);
extern void pango_font_description_set_style(PangoFontDescription * desc,
                                              PangoStyle style);
extern void pango_font_description_set_variant(PangoFontDescription * desc,
                                                PangoVariant variant);
extern void pango_font_description_set_weight(PangoFontDescription * desc,
```

```

        PangoWeight weight);
extern char *pango_font_description_to_filename(const PangoFontDescription
        * desc);
extern char *pango_font_description_to_string(const PangoFontDescription *
        desc);
extern void pango_font_description_unset_fields(PangoFontDescription *
        desc,
        PangoFontMask to_unset);
extern void pango_font_descriptions_free(PangoFontDescription * *descs,
        int n_descs);
extern PangoFontDescription *pango_font_face_describe(PangoFontFace *
        face);
extern const char *pango_font_face_get_face_name(PangoFontFace * face);
extern GType pango_font_face_get_type(void);
extern void pango_font_face_list_sizes(PangoFontFace * face, int **sizes,
        int *n_sizes);
extern const char *pango_font_family_get_name(PangoFontFamily * family);
extern GType pango_font_family_get_type(void);
extern gboolean pango_font_family_is_monospace(PangoFontFamily * family);
extern void pango_font_family_list_faces(PangoFontFamily * family,
        PangoFontFace * **faces,
        int *n_faces);
extern PangoEngineShape *pango_font_find_shaper(PangoFont * font,
        PangoLanguage * language,
        guint32 ch);
extern PangoCoverage *pango_font_get_coverage(PangoFont * font,
        PangoLanguage * language);
extern PangoFontMap *pango_font_get_font_map(PangoFont * font);
extern void pango_font_get_glyph_extents(PangoFont * font,
        PangoGlyph glyph,
        PangoRectangle * ink_rect,
        PangoRectangle * logical_rect);
extern PangoFontMetrics *pango_font_get_metrics(PangoFont * font,
        PangoLanguage * language);
extern GType pango_font_get_type(void);
extern GType pango_font_map_get_type(void);
extern void pango_font_map_list_families(PangoFontMap * fontmap,
        PangoFontFamily * **families,
        int *n_families);
extern PangoFont *pango_font_map_load_font(PangoFontMap * fontmap,
        PangoContext * context,
        const PangoFontDescription *
        desc);
extern PangoFontset *pango_font_map_load_fontset(PangoFontMap * fontmap,
        PangoContext * context,
        const PangoFontDescription
        * desc,
        PangoLanguage * language);
extern GType pango_font_mask_get_type(void);
extern int pango_font_metrics_get_approximate_char_width(PangoFontMetrics *
        metrics);
extern int pango_font_metrics_get_approximate_digit_width(PangoFontMetrics
        * metrics);
extern int pango_font_metrics_get_ascent(PangoFontMetrics * metrics);
extern int pango_font_metrics_get_descent(PangoFontMetrics * metrics);
extern int pango_font_metrics_get_strikethrough_position(PangoFontMetrics *
        metrics);
extern int pango_font_metrics_get_strikethrough_thickness(PangoFontMetrics
        * metrics);
extern GType pango_font_metrics_get_type(void);
extern int pango_font_metrics_get_underline_position(PangoFontMetrics *
        metrics);

```

```

extern int pango_font_metrics_get_underline_thickness(PangoFontMetrics *
                                                    metrics);
extern PangoFontMetrics *pango_font_metrics_ref(PangoFontMetrics *
                                                metrics);
extern void pango_font_metrics_unref(PangoFontMetrics * metrics);
extern void pango_fontset_foreach(PangoFontset *, PangoFontsetForeachFunc,
                                  gpointer);
extern PangoFont *pango_fontset_get_font(PangoFontset *, guint);
extern PangoFontMetrics *pango_fontset_get_metrics(PangoFontset *);
extern GType pango_fontset_get_type(void);
extern void pango_get_log_attrs(const char *text, int length, int level,
                               PangoLanguage * language,
                               PangoLogAttr * log_attrs, int attrs_len);
extern GSList *pango_glyph_item_apply_attrs(PangoGlyphItem * glyph_item,
                                             const char *text,
                                             PangoAttrList * list);
extern void pango_glyph_item_free(PangoGlyphItem * glyph_item);
extern void pango_glyph_item_letter_space(PangoGlyphItem * glyph_item,
                                           const char *text,
                                           PangoLogAttr * log_attrs,
                                           int letter_spacing);
extern PangoGlyphItem *pango_glyph_item_split(PangoGlyphItem * orig,
                                              const char *text,
                                              int split_index);
extern PangoGlyphString *pango_glyph_string_copy(PangoGlyphString *
                                                string);
extern void pango_glyph_string_extents(PangoGlyphString * glyphs,
                                       PangoFont * font,
                                       PangoRectangle * ink_rect,
                                       PangoRectangle * logical_rect);
extern void pango_glyph_string_extents_range(PangoGlyphString * glyphs,
                                             int start, int end,
                                             PangoFont * font,
                                             PangoRectangle * ink_rect,
                                             PangoRectangle *
                                             logical_rect);
extern void pango_glyph_string_free(PangoGlyphString * string);
extern void pango_glyph_string_get_logical_widths(PangoGlyphString *
                                                  glyphs, const char *text,
                                                  int length,
                                                  int embedding_level,
                                                  int *logical_widths);
extern GType pango_glyph_string_get_type(void);
extern void pango_glyph_string_index_to_x(PangoGlyphString * glyphs,
                                           char *text, int length,
                                           PangoAnalysis * analysis,
                                           int index_, gboolean trailing,
                                           int *x_pos);
extern PangoGlyphString *pango_glyph_string_new(void);
extern void pango_glyph_string_set_size(PangoGlyphString * string,
                                       gint new_len);
extern void pango_glyph_string_x_to_index(PangoGlyphString * glyphs,
                                           char *text, int length,
                                           PangoAnalysis * analysis,
                                           int x_pos, int *index_,
                                           gboolean * trailing);
extern PangoItem *pango_item_copy(PangoItem * item);
extern void pango_item_free(PangoItem * item);
extern PangoItem *pango_item_new(void);
extern PangoItem *pango_item_split(PangoItem * orig, int split_index,
                                   int split_offset);
extern GList *pango_itemize(PangoContext * context, const char *text,

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        int start_index, int length,
        PangoAttrList * attrs,
        PangoAttrIterator * cached_iter);
extern GList *pango_itemize_with_base_dir(PangoContext * context,
        PangoDirection base_dir,
        const char *text,
        int start_index, int length,
        PangoAttrList * attrs,
        PangoAttrIterator * cached_iter);
extern PangoLanguage *pango_language_from_string(const char *language);
extern GType pango_language_get_type(void);
extern gboolean pango_language_includes_script(PangoLanguage * language,
        PangoScript script);
extern gboolean pango_language_matches(PangoLanguage * language,
        const char *range_list);
extern void pango_layout_context_changed(PangoLayout * layout);
extern PangoLayout *pango_layout_copy(PangoLayout * src);
extern PangoAlignment pango_layout_get_alignment(PangoLayout * layout);
extern PangoAttrList *pango_layout_get_attributes(PangoLayout * layout);
extern gboolean pango_layout_get_auto_dir(PangoLayout * layout);
extern PangoContext *pango_layout_get_context(PangoLayout * layout);
extern void pango_layout_get_cursor_pos(PangoLayout * layout, int index_,
        PangoRectangle * strong_pos,
        PangoRectangle * weak_pos);
extern PangoEllipsizeMode pango_layout_get_ellipsize(PangoLayout * layout);
extern void pango_layout_get_extents(PangoLayout * layout,
        PangoRectangle * ink_rect,
        PangoRectangle * logical_rect);
extern const PangoFontDescription
    *pango_layout_get_font_description(PangoLayout * layout);
extern int pango_layout_get_indent(PangoLayout * layout);
extern PangoLayoutIter *pango_layout_get_iter(PangoLayout * layout);
extern gboolean pango_layout_get_justify(PangoLayout * layout);
extern PangoLayoutLine *pango_layout_get_line(PangoLayout * layout,
        int line);
extern int pango_layout_get_line_count(PangoLayout * layout);
extern GSList *pango_layout_get_lines(PangoLayout * layout);
extern void pango_layout_get_log_attrs(PangoLayout * layout,
        PangoLogAttr * *attrs,
        gint * n_attrs);
extern void pango_layout_get_pixel_extents(PangoLayout * layout,
        PangoRectangle * ink_rect,
        PangoRectangle * logical_rect);
extern void pango_layout_get_pixel_size(PangoLayout * layout, int *width,
        int *height);
extern gboolean pango_layout_get_single_paragraph_mode(PangoLayout *
        layout);
extern void pango_layout_get_size(PangoLayout * layout, int *width,
        int *height);
extern int pango_layout_get_spacing(PangoLayout * layout);
extern PangoTabArray *pango_layout_get_tabs(PangoLayout * layout);
extern const char *pango_layout_get_text(PangoLayout * layout);
extern GType pango_layout_get_type(void);
extern int pango_layout_get_width(PangoLayout * layout);
extern PangoWrapMode pango_layout_get_wrap(PangoLayout * layout);
extern void pango_layout_index_to_pos(PangoLayout * layout, int index_,
        PangoRectangle * pos);
extern gboolean pango_layout_iter_at_last_line(PangoLayoutIter * iter);
extern void pango_layout_iter_free(PangoLayoutIter * iter);
extern int pango_layout_iter_get_baseline(PangoLayoutIter * iter);
extern void pango_layout_iter_get_char_extents(PangoLayoutIter * iter,
        PangoRectangle *

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                                logical_rect);
extern void pango_layout_iter_get_cluster_extents(PangoLayoutIter * iter,
                                                PangoRectangle *
                                                ink_rect,
                                                PangoRectangle *
                                                logical_rect);
extern int pango_layout_iter_get_index(PangoLayoutIter * iter);
extern void pango_layout_iter_get_layout_extents(PangoLayoutIter * iter,
                                                PangoRectangle * ink_rect,
                                                PangoRectangle *
                                                logical_rect);
extern PangoLayoutLine *pango_layout_iter_get_line(PangoLayoutIter * iter);
extern void pango_layout_iter_get_line_extents(PangoLayoutIter * iter,
                                                PangoRectangle * ink_rect,
                                                PangoRectangle *
                                                logical_rect);
extern void pango_layout_iter_get_line_yrange(PangoLayoutIter * iter,
                                                int *y0_, int *y1_);
extern PangoLayoutRun *pango_layout_iter_get_run(PangoLayoutIter * iter);
extern void pango_layout_iter_get_run_extents(PangoLayoutIter * iter,
                                                PangoRectangle * ink_rect,
                                                PangoRectangle *
                                                logical_rect);
extern GType pango_layout_iter_get_type(void);
extern gboolean pango_layout_iter_next_char(PangoLayoutIter * iter);
extern gboolean pango_layout_iter_next_cluster(PangoLayoutIter * iter);
extern gboolean pango_layout_iter_next_line(PangoLayoutIter * iter);
extern gboolean pango_layout_iter_next_run(PangoLayoutIter * iter);
extern void pango_layout_line_get_extents(PangoLayoutLine * line,
                                          PangoRectangle * ink_rect,
                                          PangoRectangle * logical_rect);
extern void pango_layout_line_get_pixel_extents(PangoLayoutLine *
                                                layout_line,
                                                PangoRectangle * ink_rect,
                                                PangoRectangle *
                                                logical_rect);
extern void pango_layout_line_get_x_ranges(PangoLayoutLine * line,
                                          int start_index, int end_index,
                                          int **ranges, int *n_ranges);
extern void pango_layout_line_index_to_x(PangoLayoutLine * line,
                                          int index_, int trailing,
                                          int *x_pos);
extern PangoLayoutLine *pango_layout_line_ref(PangoLayoutLine * line);
extern void pango_layout_line_unref(PangoLayoutLine * line);
extern gboolean pango_layout_line_x_to_index(PangoLayoutLine * line,
                                             int x_pos, int *index_,
                                             int *trailing);
extern void pango_layout_move_cursor_visually(PangoLayout * layout,
                                              gboolean strong,
                                              int old_index,
                                              int old_trailing,
                                              int direction,
                                              int *new_index,
                                              int *new_trailing);
extern PangoLayout *pango_layout_new(PangoContext * context);
extern void pango_layout_set_alignment(PangoLayout * layout,
                                       PangoAlignment alignment);
extern void pango_layout_set_attributes(PangoLayout * layout,
                                       PangoAttrList * attrs);
extern void pango_layout_set_auto_dir(PangoLayout * layout,
                                       gboolean auto_dir);
extern void pango_layout_set_ellipsize(PangoLayout * layout,

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                                PangoEllipsizeMode ellipsize);
extern void pango_layout_set_font_description(PangoLayout * layout,
                                              const PangoFontDescription *
                                              desc);
extern void pango_layout_set_indent(PangoLayout * layout, int indent);
extern void pango_layout_set_justify(PangoLayout * layout,
                                     gboolean justify);
extern void pango_layout_set_markup(PangoLayout * layout,
                                    const char *markup, int length);
extern void pango_layout_set_markup_with_accel(PangoLayout * layout,
                                              const char *markup,
                                              int length,
                                              gunichar accel_marker,
                                              gunichar * accel_char);
extern void pango_layout_set_single_paragraph_mode(PangoLayout * layout,
                                                  gboolean setting);
extern void pango_layout_set_spacing(PangoLayout * layout, int spacing);
extern void pango_layout_set_tabs(PangoLayout * layout,
                                  PangoTabArray * tabs);
extern void pango_layout_set_text(PangoLayout * layout, const char *text,
                                  int length);
extern void pango_layout_set_width(PangoLayout * layout, int width);
extern void pango_layout_set_wrap(PangoLayout * layout,
                                  PangoWrapMode wrap);
extern gboolean pango_layout_xy_to_index(PangoLayout * layout, int x,
                                         int y, int *index_,
                                         gint * trailing);
extern void pango_matrix_concat(PangoMatrix * matrix,
                               const PangoMatrix * new_matrix);
extern PangoMatrix *pango_matrix_copy(const PangoMatrix * matrix);
extern void pango_matrix_free(PangoMatrix * matrix);
extern GType pango_matrix_get_type(void);
extern void pango_matrix_rotate(PangoMatrix * matrix, double degrees);
extern void pango_matrix_scale(PangoMatrix * matrix, double scale_x,
                              double scale_y);
extern void pango_matrix_translate(PangoMatrix * matrix, double tx,
                                  double ty);
extern gboolean pango_parse_markup(const char *markup_text, int length,
                                  gunichar accel_marker,
                                  PangoAttrList * *attr_list, char **text,
                                  gunichar * accel_char, GError * *error);
extern GType pango_render_part_get_type(void);
extern void pango_renderer_activate(PangoRenderer * renderer);
extern void pango_renderer_deactivate(PangoRenderer * renderer);
extern void pango_renderer_draw_error_underline(PangoRenderer * renderer,
                                                int x, int y, int width,
                                                int height);
extern void pango_renderer_draw_glyph(PangoRenderer * renderer,
                                     PangoFont * font, PangoGlyph glyph,
                                     double x, double y);
extern void pango_renderer_draw_glyphs(PangoRenderer * renderer,
                                       PangoFont * font,
                                       PangoGlyphString * glyphs, int x,
                                       int y);
extern void pango_renderer_draw_layout(PangoRenderer * renderer,
                                       PangoLayout * layout, int x, int y);
extern void pango_renderer_draw_layout_line(PangoRenderer * renderer,
                                            PangoLayoutLine * line, int x,
                                            int y);
extern void pango_renderer_draw_rectangle(PangoRenderer * renderer,
                                          PangoRenderPart part, int x,
                                          int y, int width, int height);

```

```

extern void pango_renderer_draw_trapezoid(PangoRenderer * renderer,
                                           PangoRenderPart part, double y1_,
                                           double x11, double x21,
                                           double y2, double x12,
                                           double x22);
extern PangoColor *pango_renderer_get_color(PangoRenderer * renderer,
                                           PangoRenderPart part);
extern const PangoMatrix *pango_renderer_get_matrix(PangoRenderer *
                                                    renderer);
extern GType pango_renderer_get_type(void);
extern void pango_renderer_part_changed(PangoRenderer * renderer,
                                         PangoRenderPart part);
extern void pango_renderer_set_color(PangoRenderer * renderer,
                                     PangoRenderPart part,
                                     const PangoColor * color);
extern void pango_renderer_set_matrix(PangoRenderer * renderer,
                                      const PangoMatrix * matrix);
extern GList *pango_reorder_items(GList * logical_items);
extern PangoScript pango_script_for_unichar(gunichar ch);
extern PangoLanguage *pango_script_get_sample_language(PangoScript script);
extern GType pango_script_get_type(void);
extern void pango_script_iter_free(PangoScriptIter * iter);
extern void pango_script_iter_get_range(PangoScriptIter * iter,
                                         const char **start,
                                         const char **end,
                                         PangoScript * script);
extern PangoScriptIter *pango_script_iter_new(const char *text,
                                              int length);
extern gboolean pango_script_iter_next(PangoScriptIter * iter);
extern void pango_shape(const gchar * text, gint length,
                       const PangoAnalysis * analysis,
                       PangoGlyphString * glyphs);
extern GType pango_stretch_get_type(void);
extern GType pango_style_get_type(void);
extern GType pango_tab_align_get_type(void);
extern PangoTabArray *pango_tab_array_copy(PangoTabArray * src);
extern void pango_tab_array_free(PangoTabArray * tab_array);
extern gboolean pango_tab_array_get_positions_in_pixels(PangoTabArray *
                                                         tab_array);
extern gint pango_tab_array_get_size(PangoTabArray * tab_array);
extern void pango_tab_array_get_tab(PangoTabArray * tab_array,
                                    gint tab_index,
                                    PangoTabAlign * alignment,
                                    gint * location);
extern void pango_tab_array_get_tabs(PangoTabArray * tab_array,
                                     PangoTabAlign * *alignments,
                                     gint * *locations);
extern GType pango_tab_array_get_type(void);
extern PangoTabArray *pango_tab_array_new(gint initial_size,
                                           gboolean positions_in_pixels);
extern PangoTabArray *pango_tab_array_new_with_positions(gint size,
                                                         gboolean
                                                         positions_in_pixels,
                                                         PangoTabAlign
                                                         first_alignment,
                                                         gint
                                                         first_position,
                                                         ...);
extern void pango_tab_array_resize(PangoTabArray * tab_array,
                                   gint new_size);
extern void pango_tab_array_set_tab(PangoTabArray * tab_array,
                                   gint tab_index,

```

```

                                PangoTabAlign alignment,
                                gint location);
extern GType pango_underline_get_type(void);
extern PangoDirection pango_unichar_direction(gunichar ch);
extern GType pango_variant_get_type(void);
extern GType pango_weight_get_type(void);
extern GType pango_wrap_mode_get_type(void);

```

16.15. Interfaces for libpangocairo-1.0

[Table 16-87](#) defines the library name and shared object name for the libpangocairo-1.0 library

Table 16-87. libpangocairo-1.0 Definition

Library:	libpangocairo-1.0
SONAME:	libpangocairo-1.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[Pango 1.10] [Pango 1.10.4 Reference Manual](#)

16.15.1. Pango Cairo Rendering

16.15.1.1. Interfaces for Pango Cairo Rendering

An LSB conforming implementation shall provide the generic functions for Pango Cairo Rendering specified in [Table 16-88](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-88. libpangocairo-1.0 - Pango Cairo Rendering Function Interfaces

pango_cairo_context_get_font_options [Pango 1.10]	pango_cairo_context_get_resolution [Pango 1.10]
pango_cairo_context_set_font_options [Pango 1.10]	pango_cairo_context_set_resolution [Pango 1.10]
pango_cairo_create_layout [Pango 1.10]	pango_cairo_font_map_create_context [Pango 1.10]
pango_cairo_font_map_get_default [Pango 1.10]	pango_cairo_font_map_get_resolution [Pango 1.10]
pango_cairo_font_map_new [Pango 1.10]	pango_cairo_font_map_set_resolution [Pango 1.10]
pango_cairo_glyph_string_path [Pango 1.10]	pango_cairo_layout_line_path [Pango 1.10]
pango_cairo_layout_path [Pango 1.10]	pango_cairo_show_glyph_string [Pango 1.10]
pango_cairo_show_layout [Pango 1.10]	pango_cairo_show_layout_line [Pango 1.10]
pango_cairo_update_context [Pango 1.10]	pango_cairo_update_layout [Pango 1.10]

16.16. Data Definitions for libpangocairo-1.0

This section defines global identifiers and their values that are associated with interfaces contained in libpangocairo-1.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.16.1. pango-1.0/pango/pangocairo.h

```
#define PANGO_CAIRO_FONT_MAP(object)      \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_CAIRO_FONT_MAP, \
    PangoCairoFontMap))
#define PANGO_IS_CAIRO_FONT_MAP(object)    \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_CAIRO_FONT_MAP))
#define PANGO_TYPE_CAIRO_FONT_MAP         (pango_cairo_font_map_get_type ())

typedef struct _PangoCairoFont PangoCairoFont;
typedef struct _PangoCairoFontMap PangoCairoFontMap;
extern const cairo_font_options_t
    *pango_cairo_context_get_font_options(PangoContext * context);
extern double pango_cairo_context_get_resolution(PangoContext * context);
extern void pango_cairo_context_set_font_options(PangoContext * context,
    const cairo_font_options_t
    * options);
extern void pango_cairo_context_set_resolution(PangoContext * context,
    double dpi);
extern PangoLayout *pango_cairo_create_layout(cairo_t * cr);
extern PangoContext *pango_cairo_font_map_create_context(PangoCairoFontMap
    * fontmap);
extern PangoFontMap *pango_cairo_font_map_get_default(void);
extern double pango_cairo_font_map_get_resolution(PangoCairoFontMap *
    fontmap);
extern PangoFontMap *pango_cairo_font_map_new(void);
extern void pango_cairo_font_map_set_resolution(PangoCairoFontMap *
    fontmap, double dpi);
extern void pango_cairo_glyph_string_path(cairo_t * cr, PangoFont * font,
    PangoGlyphString * glyphs);
extern void pango_cairo_layout_line_path(cairo_t * cr,
    PangoLayoutLine * line);
extern void pango_cairo_layout_path(cairo_t * cr, PangoLayout * layout);
extern void pango_cairo_show_glyph_string(cairo_t * cr, PangoFont * font,
    PangoGlyphString * glyphs);
extern void pango_cairo_show_layout(cairo_t * cr, PangoLayout * layout);
extern void pango_cairo_show_layout_line(cairo_t * cr,
    PangoLayoutLine * line);
extern void pango_cairo_update_context(cairo_t * cr,
    PangoContext * context);
extern void pango_cairo_update_layout(cairo_t * cr, PangoLayout * layout);
```

16.17. Interfaces for libpangoft-1.0

[Table 16-89](#) defines the library name and shared object name for the libpangoft-1.0 library

Table 16-89. libpangoft-1.0 Definition

Library:	libpangoft-1.0
SONAME:	libpangoft-1.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[GObject 2.12] [Gobject 2.12.13 Reference Manual](#)

[Pango 1.10] [Pango 1.10.4 Reference Manual](#)

16.17.1. Pango Xft Fonts and Rendering library

16.17.1.1. Interfaces for Pango Xft Fonts and Rendering library

An LSB conforming implementation shall provide the generic functions for Pango Xft Fonts and Rendering library specified in [Table 16-90](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-90. libpangoft-1.0 - Pango Xft Fonts and Rendering library Function Interfaces

pango_xft_font_get_type [GObject 2.12]	pango_xft_font_map_get_type [GObject 2.12]
pango_xft_get_context [Pango 1.10]	pango_xft_get_font_map [Pango 1.10]
pango_xft_picture_render [Pango 1.10]	pango_xft_render [Pango 1.10]
pango_xft_render_layout [Pango 1.10]	pango_xft_render_layout_line [Pango 1.10]
pango_xft_render_transformed [Pango 1.10]	pango_xft_renderer_get_type [GObject 2.12]
pango_xft_renderer_new [Pango 1.10]	pango_xft_renderer_set_default_color [Pango 1.10]
pango_xft_renderer_set_draw [Pango 1.10]	pango_xft_set_default_substitute [Pango 1.10]
pango_xft_shutdown_display [Pango 1.10]	pango_xft_substitute_changed [Pango 1.10]

16.18. Data Definitions for libpangoft-1.0

This section defines global identifiers and their values that are associated with interfaces contained in libpangoft-1.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their

content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.18.1. pango-1.0/pango/pangoxft.h

```
#define PANGO_XFT_RENDERER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), PANGO_TYPE_XFT_RENDERER, \
    PangoXftRendererClass))
#define PANGO_IS_XFT_RENDERER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), PANGO_TYPE_XFT_RENDERER))
#define PANGO_XFT_FONT(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_XFT_FONT, \
    PangoXftFont))
#define PANGO_XFT_FONT_MAP(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_XFT_FONT_MAP, \
    PangoXftFontMap))
#define PANGO_XFT_RENDERER(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_XFT_RENDERER, \
    PangoXftRenderer))
#define PANGO_XFT_IS_FONT(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_XFT_FONT))
#define PANGO_XFT_IS_FONT_MAP(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_XFT_FONT_MAP))
#define PANGO_IS_XFT_RENDERER(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_XFT_RENDERER))
#define PANGO_XFT_RENDERER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), PANGO_TYPE_XFT_RENDERER, \
    PangoXftRendererClass))
#define PANGO_TYPE_XFT_FONT (pango_xft_font_get_type ())
#define PANGO_TYPE_XFT_FONT_MAP (pango_xft_font_map_get_type ())
#define PANGO_TYPE_XFT_RENDERER (pango_xft_renderer_get_type ())
#define PANGO_RENDERER_TYPE_XFT "PangoRenderXft"

typedef struct _PangoXftRenderer PangoXftRenderer;
typedef void (*PangoXftSubstituteFunc) (FcPattern *, gpointer);
typedef struct _PangoXftFontMap PangoXftFontMap;
typedef struct _PangoXftRendererClass {
    PangoRendererClass parent_class;
    void (*composite_trapezoids) (PangoXftRenderer *, PangoRenderPart,
    XTrapezoid *, int);
    void (*composite_glyphs) (PangoXftRenderer *, XftFont *,
    XftGlyphSpec *, int);
} PangoXftRendererClass;
typedef struct _PangoFcFontClass PangoFcFontClass;
typedef struct _PangoFcFont PangoFcFont;
typedef struct _PangoXftFont PangoXftFont;
typedef struct _PangoXftRendererPrivate PangoXftRendererPrivate;
extern GType pango_xft_font_get_type(void);
extern GType pango_xft_font_map_get_type(void);
extern PangoContext *pango_xft_get_context(Display * display, int screen);
extern PangoFontMap *pango_xft_get_font_map(Display * display, int screen);
```

```

extern void pango_xft_picture_render(Display * display,
                                     Picture src_picture,
                                     Picture dest_picture,
                                     PangoFont * font,
                                     PangoGlyphString * glyphs, gint x,
                                     gint y);
extern void pango_xft_render(XftDraw * draw, XftColor * color,
                             PangoFont * font, PangoGlyphString * glyphs,
                             gint x, gint y);
extern void pango_xft_render_layout(XftDraw * draw, XftColor * color,
                                    PangoLayout * layout, int x, int y);
extern void pango_xft_render_layout_line(XftDraw * draw, XftColor * color,
                                          PangoLayoutLine * line, int x,
                                          int y);
extern void pango_xft_render_transformed(XftDraw * draw, XftColor * color,
                                          PangoMatrix * matrix,
                                          PangoFont * font,
                                          PangoGlyphString * glyphs, int x,
                                          int y);
extern GType pango_xft_renderer_get_type(void);
extern PangoRenderer *pango_xft_renderer_new(Display * display,
                                              int screen);
extern void pango_xft_renderer_set_default_color(PangoXftRenderer *
                                                  xftrenderer,
                                                  PangoColor *
                                                  default_color);
extern void pango_xft_renderer_set_draw(PangoXftRenderer * xftrenderer,
                                         XftDraw * draw);
extern void pango_xft_set_default_substitute(Display * display, int screen,
                                              PangoXftSubstituteFunc func,
                                              gpointer data,
                                              GDestroyNotify notify);
extern void pango_xft_shutdown_display(Display * display, int screen);
extern void pango_xft_substitute_changed(Display * display, int screen);

```

16.19. Interfaces for libpangoft2-1.0

[Table 16-91](#) defines the library name and shared object name for the libpangoft2-1.0 library

Table 16-91. libpangoft2-1.0 Definition

Library:	libpangoft2-1.0
SONAME:	libpangoft2-1.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[GObject 2.12] [Gobject 2.12.13 Reference Manual](#)

[Pango 1.10] [Pango 1.10.4 Reference Manual](#)

16.19.1. Pango Freetype Fonts and Rendering library

16.19.1.1. Interfaces for Pango Freetype Fonts and Rendering library

An LSB conforming implementation shall provide the generic functions for Pango Freetype Fonts and Rendering library specified in [Table 16-92](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-92. libpangoft2-1.0 - Pango Freetype Fonts and Rendering library Function Interfaces

pango_fc_decoder_get_charset [Pango 1.10]	pango_fc_decoder_get_glyph [Pango 1.10]
pango_fc_decoder_get_type [GObject 2.12]	pango_fc_font_description_from_pattern [Pango 1.10]
pango_fc_font_get_type [GObject 2.12]	pango_fc_font_lock_face [Pango 1.10]
pango_fc_font_map_add_decoder_find_func [Pango 1.10]	pango_fc_font_map_get_type [GObject 2.12]
pango_fc_font_unlock_face [Pango 1.10]	pango_ft2_font_map_create_context [Pango 1.10]
pango_ft2_font_map_get_type [GObject 2.12]	pango_ft2_font_map_new [Pango 1.10]
pango_ft2_font_map_set_default_substitute [Pango 1.10]	pango_ft2_font_map_set_resolution [Pango 1.10]
pango_ft2_font_map_substitute_changed [Pango 1.10]	pango_ft2_render [Pango 1.10]
pango_ft2_render_layout [Pango 1.10]	pango_ft2_render_layout_line [Pango 1.10]
pango_ft2_render_layout_line_subpixel [Pango 1.10]	pango_ft2_render_layout_subpixel [Pango 1.10]
pango_ft2_render_transformed [Pango 1.10]	

16.20. Data Definitions for libpangoft2-1.0

This section defines global identifiers and their values that are associated with interfaces contained in libpangoft2-1.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.20.1. pango-1.0/pango/pangofc-decoder.h

```

#define PANGO_FC_DECODER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), PANGO_TYPE_FC_DECODER, \
    PangoFcDecoderClass))
#define PANGO_IS_FC_DECODER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), PANGO_TYPE_FC_DECODER))
#define PANGO_FC_DECODER(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_FC_DECODER, \
    PangoFcDecoder))
#define PANGO_IS_FC_DECODER(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_FC_DECODER))
#define PANGO_FC_DECODER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), PANGO_TYPE_FC_DECODER, \
    PangoFcDecoderClass))
#define PANGO_TYPE_FC_DECODER (pango_fc_decoder_get_type())

typedef struct _PangoFcDecoder {
    GObject parent_instance;
} PangoFcDecoder;
typedef struct _PangoFcDecoderClass {
    GObjectClass parent_class;
    FcCharSet *(*get_charset) (PangoFcDecoder *, PangoFcFont *);
    PangoGlyph(*get_glyph) (PangoFcDecoder *, PangoFcFont *, guint32);
    void (*_pango_reserved1) (void);
    void (*_pango_reserved2) (void);
    void (*_pango_reserved3) (void);
    void (*_pango_reserved4) (void);
} PangoFcDecoderClass;
extern FcCharSet *pango_fc_decoder_get_charset(PangoFcDecoder * decoder,
                                              PangoFcFont * fcfont);
extern PangoGlyph pango_fc_decoder_get_glyph(PangoFcDecoder * decoder,
                                              PangoFcFont * fcfont,
                                              guint32 wc);
extern GType pango_fc_decoder_get_type(void);

```

16.20.2. pango-1.0/pango/pangofc-fontmap.h

```

#define PANGO_FC_FONT_MAP(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_FC_FONT_MAP, \
    PangoFcFontMap))
#define PANGO_IS_FC_FONT_MAP(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_FC_FONT_MAP))
#define PANGO_TYPE_FC_FONT_MAP (pango_fc_font_map_get_type ())

typedef struct _PangoFcFontMap PangoFcFontMap;
typedef PangoFcDecoder *(*PangoFcDecoderFindFunc) (FcPattern *, gpointer);
typedef struct _PangoFcFontMapClass PangoFcFontMapClass;
extern PangoFontDescription
    *pango_fc_font_description_from_pattern(FcPattern * pattern,
                                           gboolean include_size);
extern void pango_fc_font_map_add_decoder_find_func(PangoFcFontMap *
                                                    fcfontmap,
                                                    PangoFcDecoderFindFunc
                                                    findfunc,
                                                    gpointer user_data,
                                                    GDestroyNotify
                                                    dnotify);
extern GType pango_fc_font_map_get_type(void);

```

16.20.3. pango-1.0/pango/pangoft2.h

```
#define PANGO_FC_FONT(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_FC_FONT, \
    PangoFcFont))
#define PANGO_FT2_FONT_MAP(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), PANGO_TYPE_FT2_FONT_MAP, \
    PangoFT2FontMap))
#define PANGO_IS_FC_FONT(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_FC_FONT))
#define PANGO_FT2_IS_FONT_MAP(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), PANGO_TYPE_FT2_FONT_MAP))
#define PANGO_TYPE_FC_FONT (pango_fc_font_get_type ())
#define PANGO_TYPE_FT2_FONT_MAP (pango_ft2_font_map_get_type ())

typedef struct _PangoFT2FontMap PangoFT2FontMap;
typedef void (*PangoFT2SubstituteFunc) (FcPattern *, gpointer);
extern GType pango_fc_font_get_type(void);
extern FT_Face pango_fc_font_lock_face(PangoFcFont * font);
extern void pango_fc_font_unlock_face(PangoFcFont * font);
extern PangoContext *pango_ft2_font_map_create_context(PangoFT2FontMap *
    fontmap);

extern GType pango_ft2_font_map_get_type(void);
extern PangoFontMap *pango_ft2_font_map_new(void);
extern void pango_ft2_font_map_set_default_substitute(PangoFT2FontMap *
    fontmap,
    PangoFT2SubstituteFunc
    func, gpointer data,
    GDestroyNotify
    notify);

extern void pango_ft2_font_map_set_resolution(PangoFT2FontMap * fontmap,
    double dpi_x, double dpi_y);
extern void pango_ft2_font_map_substitute_changed(PangoFT2FontMap *
    fontmap);
extern void pango_ft2_render(FT_Bitmap * bitmap, PangoFont * font,
    PangoGlyphString * glyphs, int x, int y);
extern void pango_ft2_render_layout(FT_Bitmap * bitmap,
    PangoLayout * layout, int x, int y);
extern void pango_ft2_render_layout_line(FT_Bitmap * bitmap,
    PangoLayoutLine * line, int x,
    int y);
extern void pango_ft2_render_layout_line_subpixel(FT_Bitmap * bitmap,
    PangoLayoutLine * line,
    int x, int y);
extern void pango_ft2_render_layout_subpixel(FT_Bitmap * bitmap,
    PangoLayout * layout, int x,
    int y);
extern void pango_ft2_render_transformed(FT_Bitmap * bitmap,
    const PangoMatrix * matrix,
    PangoFont * font,
    PangoGlyphString * glyphs, int x,
    int y);
```

16.21. Interfaces for libgdk_pixbuf-2.0

[Table 16-93](#) defines the library name and shared object name for the libgdk_pixbuf-2.0 library

Table 16-93. libgdk_pixbuf-2.0 Definition

Library:	libgdk_pixbuf-2.0
SONAME:	libgdk_pixbuf-2.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[Gdk-pixbuf 2.8] [Gdk-pixbuf 2.8.20 Reference Manual](#)

[GObject 2.12] [GObject 2.12.13 Reference Manual](#)

16.21.1. GDK pixbuf rendering on drawables library

16.21.1.1. Interfaces for GDK pixbuf rendering on drawables library

An LSB conforming implementation shall provide the generic functions for GDK pixbuf rendering on drawables library specified in [Table 16-94](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-94. libgdk_pixbuf-2.0 - GDK pixbuf rendering on drawables library Function Interfaces

gdk_colorspace_get_type [GObject 2.12]	gdk_interp_type_get_type [GObject 2.12]
gdk_pixbuf_add_alpha [Gdk-pixbuf 2.8]	gdk_pixbuf_alpha_mode_get_type [GObject 2.12]
gdk_pixbuf_animation_get_height [Gdk-pixbuf 2.8]	gdk_pixbuf_animation_get_iter [Gdk-pixbuf 2.8]
gdk_pixbuf_animation_get_static_image [Gdk-pixbuf 2.8]	gdk_pixbuf_animation_get_type [GObject 2.12]
gdk_pixbuf_animation_get_width [Gdk-pixbuf 2.8]	gdk_pixbuf_animation_is_static_image [Gdk-pixbuf 2.8]
gdk_pixbuf_animation_iter_advance [Gdk-pixbuf 2.8]	gdk_pixbuf_animation_iter_get_delay_time [Gdk-pixbuf 2.8]
gdk_pixbuf_animation_iter_get_pixbuf [Gdk-pixbuf 2.8]	gdk_pixbuf_animation_iter_get_type [GObject 2.12]
gdk_pixbuf_animation_iter_on_currently_loading_frame [Gdk-pixbuf 2.8]	gdk_pixbuf_animation_new_from_file [Gdk-pixbuf 2.8]
gdk_pixbuf_composite [Gdk-pixbuf 2.8]	gdk_pixbuf_composite_color [Gdk-pixbuf 2.8]
gdk_pixbuf_composite_color_simple [Gdk-pixbuf 2.8]	gdk_pixbuf_copy [Gdk-pixbuf 2.8]
gdk_pixbuf_copy_area [Gdk-pixbuf 2.8]	gdk_pixbuf_error_get_type [GObject 2.12]
gdk_pixbuf_error_quark [Gdk-pixbuf 2.8]	gdk_pixbuf_fill [Gdk-pixbuf 2.8]
gdk_pixbuf_flip [Gdk-pixbuf 2.8]	gdk_pixbuf_format_get_description [Gdk-pixbuf 2.8]

gdk_pixbuf_format_get_extensions [Gdk-pixbuf 2.8]	gdk_pixbuf_format_get_license [Gdk-pixbuf 2.8]
gdk_pixbuf_format_get_mime_types [Gdk-pixbuf 2.8]	gdk_pixbuf_format_get_name [Gdk-pixbuf 2.8]
gdk_pixbuf_format_is_disabled [Gdk-pixbuf 2.8]	gdk_pixbuf_format_is_scalable [Gdk-pixbuf 2.8]
gdk_pixbuf_format_is_writable [Gdk-pixbuf 2.8]	gdk_pixbuf_format_set_disabled [Gdk-pixbuf 2.8]
gdk_pixbuf_from_pixdata [Gdk-pixbuf 2.8]	gdk_pixbuf_get_bits_per_sample [Gdk-pixbuf 2.8]
gdk_pixbuf_get_colorspace [Gdk-pixbuf 2.8]	gdk_pixbuf_get_file_info [Gdk-pixbuf 2.8]
gdk_pixbuf_get_formats [Gdk-pixbuf 2.8]	gdk_pixbuf_get_has_alpha [Gdk-pixbuf 2.8]
gdk_pixbuf_get_height [Gdk-pixbuf 2.8]	gdk_pixbuf_get_n_channels [Gdk-pixbuf 2.8]
gdk_pixbuf_get_option [Gdk-pixbuf 2.8]	gdk_pixbuf_get_pixels [Gdk-pixbuf 2.8]
gdk_pixbuf_get_rowstride [Gdk-pixbuf 2.8]	gdk_pixbuf_get_type [GObject 2.12]
gdk_pixbuf_get_width [Gdk-pixbuf 2.8]	gdk_pixbuf_loader_close [Gdk-pixbuf 2.8]
gdk_pixbuf_loader_get_animation [Gdk-pixbuf 2.8]	gdk_pixbuf_loader_get_format [Gdk-pixbuf 2.8]
gdk_pixbuf_loader_get_pixbuf [Gdk-pixbuf 2.8]	gdk_pixbuf_loader_get_type [GObject 2.12]
gdk_pixbuf_loader_new [Gdk-pixbuf 2.8]	gdk_pixbuf_loader_new_with_mime_type [Gdk-pixbuf 2.8]
gdk_pixbuf_loader_new_with_type [Gdk-pixbuf 2.8]	gdk_pixbuf_loader_set_size [Gdk-pixbuf 2.8]
gdk_pixbuf_loader_write [Gdk-pixbuf 2.8]	gdk_pixbuf_new [Gdk-pixbuf 2.8]
gdk_pixbuf_new_from_data [Gdk-pixbuf 2.8]	gdk_pixbuf_new_from_file [Gdk-pixbuf 2.8]
gdk_pixbuf_new_from_file_at_scale [Gdk-pixbuf 2.8]	gdk_pixbuf_new_from_file_at_size [Gdk-pixbuf 2.8]
gdk_pixbuf_new_from_inline [Gdk-pixbuf 2.8]	gdk_pixbuf_new_from_xpm_data [Gdk-pixbuf 2.8]
gdk_pixbuf_new_subpixbuf [Gdk-pixbuf 2.8]	gdk_pixbuf_rotate_simple [Gdk-pixbuf 2.8]
gdk_pixbuf_rotation_get_type [GObject 2.12]	gdk_pixbuf_saturate_and_pixelate [Gdk-pixbuf 2.8]
gdk_pixbuf_save [Gdk-pixbuf 2.8]	gdk_pixbuf_save_to_buffer [Gdk-pixbuf 2.8]
gdk_pixbuf_save_to_bufferv [Gdk-pixbuf 2.8]	gdk_pixbuf_save_to_callback [Gdk-pixbuf 2.8]
gdk_pixbuf_save_to_callbackv [Gdk-pixbuf 2.8]	gdk_pixbuf_savev [Gdk-pixbuf 2.8]
gdk_pixbuf_scale [Gdk-pixbuf 2.8]	gdk_pixbuf_scale_simple [Gdk-pixbuf 2.8]
gdk_pixbuf_simple_anim_add_frame [Gdk-pixbuf 2.8]	

	gdk_pixbuf_simple_anim_get_type [GObject 2.12]
gdk_pixbuf_simple_anim_iter_get_type [GObject 2.12]	gdk_pixbuf_simple_anim_new [Gdk-pixbuf 2.8]
gdk_pixdata_deserialize [Gdk-pixbuf 2.8]	gdk_pixdata_from_pixbuf [Gdk-pixbuf 2.8]
gdk_pixdata_serialize [Gdk-pixbuf 2.8]	gdk_pixdata_to_csource [Gdk-pixbuf 2.8]

An LSB conforming implementation shall provide the generic data interfaces for GDK pixbuf rendering on drawables library specified in [Table 16-95](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-95. libgdk_pixbuf-2.0 - GDK pixbuf rendering on drawables library Data Interfaces

gdk_pixbuf_major_version [Gdk-pixbuf 2.8]	gdk_pixbuf_micro_version [Gdk-pixbuf 2.8]
gdk_pixbuf_minor_version [Gdk-pixbuf 2.8]	gdk_pixbuf_version [Gdk-pixbuf 2.8]

16.22. Data Definitions for libgdk_pixbuf-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libgdk_pixbuf-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.22.1. gtk-2.0/gdk-pixbuf/gdk-pixbuf.h

```
#define GDK_TYPE_PIXBUF_ANIMATION_ITER \
    (gdk_pixbuf_animation_iter_get_type ())
#define GDK_PIXBUF_LOADER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_PIXBUF_LOADER, \
    GdkPixbufLoaderClass))
#define GDK_IS_PIXBUF_LOADER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_PIXBUF_LOADER))
#define GDK_PIXBUF_LOADER(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GDK_TYPE_PIXBUF_LOADER, \
    GdkPixbufLoader))
#define GDK_PIXBUF(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_PIXBUF, GdkPixbuf))
#define GDK_PIXBUF_ANIMATION(object) \
```

```

        (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_PIXBUF_ANIMATION, \
        GdkPixbufAnimation))
#define GDK_PIXBUF_ANIMATION_ITER(object) \
        (G_TYPE_CHECK_INSTANCE_CAST ((object), \
        GDK_TYPE_PIXBUF_ANIMATION_ITER, GdkPixbufAnimationIter))
#define GDK_IS_PIXBUF_LOADER(obj) \
        (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GDK_TYPE_PIXBUF_LOADER))
#define GDK_IS_PIXBUF(object) \
        (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_PIXBUF))
#define GDK_IS_PIXBUF_ANIMATION(object) \
        (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_PIXBUF_ANIMATION))
#define GDK_IS_PIXBUF_ANIMATION_ITER(object) \
        (G_TYPE_CHECK_INSTANCE_TYPE ((object), \
        GDK_TYPE_PIXBUF_ANIMATION_ITER))
#define GDK_PIXBUF_LOADER_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_PIXBUF_LOADER, \
        GdkPixbufLoaderClass))
#define GDK_PIXBUF_MICRO (10)
#define GDK_PIXBUF_MAJOR (2)
#define GDK_PIXBUF_MINOR (6)
#define GDK_TYPE_COLORSPACE (gdk_colorspace_get_type())
#define GDK_TYPE_INTERP_TYPE (gdk_interp_type_get_type())
#define GDK_TYPE_PIXBUF_ALPHA_MODE (gdk_pixbuf_alpha_mode_get_type())
#define GDK_TYPE_PIXBUF_ANIMATION (gdk_pixbuf_animation_get_type ())
#define GDK_TYPE_PIXBUF_ERROR (gdk_pixbuf_error_get_type())
#define GDK_TYPE_PIXBUF (gdk_pixbuf_get_type ())
#define GDK_TYPE_PIXBUF_LOADER (gdk_pixbuf_loader_get_type ())
#define GDK_TYPE_PIXBUF_ROTATION (gdk_pixbuf_rotation_get_type())
#define GDK_TYPE_PIXBUF_SIMPLE_ANIM (gdk_pixbuf_simple_anim_get_type ())
#define GDK_PIXBUF_SIMPLE_ANIM_CLASS(klass) (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_PIXBU
#define GDK_IS_PIXBUF_SIMPLE_ANIM_CLASS(klass) (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_PIXBU
#define GDK_PIXBUF_SIMPLE_ANIM(object) (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_PIXBU SI
#define GDK_IS_PIXBUF_SIMPLE_ANIM(object) (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_P
#define GDK_PIXBUF_SIMPLE_ANIM_GET_CLASS(obj) (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_PIXBU
#define GDK_PIXBUF_VERSION "2.8.11"
#define GDK_PIXBUF_VAR extern
#define GDK_PIXBUF_ERROR gdk_pixbuf_error_quark ()

typedef struct _GdkPixbuf GdkPixbuf;
typedef gboolean(*GdkPixbufSaveFunc) (const gchar *, gsize, GError * *,
                                     gpointer);

typedef struct _GdkPixbufLoader {
    GObject parent_instance;
    gpointer priv;
} GdkPixbufLoader;
typedef struct _GdkPixbufFormat GdkPixbufFormat;
typedef enum {
    GDK_INTERP_NEAREST = 0,
    GDK_INTERP_TILES = 1,
    GDK_INTERP_BILINEAR = 2,
    GDK_INTERP_HYPER = 3
} GdkInterpType;
typedef enum {
    GDK_COLORSPACE_RGB = 0
} GdkColorspace;
typedef void (*GdkPixbufDestroyNotify) (guchar *, gpointer);
typedef struct _GdkPixbufAnimationIter GdkPixbufAnimationIter;
typedef struct _GdkPixbufAnimation GdkPixbufAnimation;
typedef enum {
    GDK_PIXBUF_ROTATE_NONE = 0,
    GDK_PIXBUF_ROTATE_COUNTERCLOCKWISE = 90,

```

```

    GDK_PIXBUF_ROTATE_UPSIDEDOWN = 180,
    GDK_PIXBUF_ROTATE_CLOCKWISE = 270
} GdkPixbufRotation;
typedef struct _GdkPixbufLoaderClass {
    GObjectClass parent_class;
    void (*size_prepared) (GdkPixbufLoader *, int, int);
    void (*area_prepared) (GdkPixbufLoader *);
    void (*area_updated) (GdkPixbufLoader *, int, int, int, int);
    void (*closed) (GdkPixbufLoader *);
} GdkPixbufLoaderClass;
typedef enum {
    GDK_PIXBUF_ERROR_CORRUPT_IMAGE,
    GDK_PIXBUF_ERROR_INSUFFICIENT_MEMORY,
    GDK_PIXBUF_ERROR_BAD_OPTION,
    GDK_PIXBUF_ERROR_UNKNOWN_TYPE,
    GDK_PIXBUF_ERROR_UNSUPPORTED_OPERATION,
    GDK_PIXBUF_ERROR_FAILED
} GdkPixbufError;
typedef enum {
    GDK_PIXBUF_ALPHA_BILEVEL,
    GDK_PIXBUF_ALPHA_FULL
} GdkPixbufAlphaMode;
typedef struct _GdkPixbufSimpleAnim GdkPixbufSimpleAnim;
typedef struct _GdkPixbufSimpleAnimClass GdkPixbufSimpleAnimClass;
extern GType gdk_colorspace_get_type(void);
extern GType gdk_interp_type_get_type(void);
extern GdkPixbuf *gdk_pixbuf_add_alpha(const GdkPixbuf * pixbuf,
                                       gboolean substitute_color, guchar r,
                                       guchar g, guchar b);
extern GType gdk_pixbuf_alpha_mode_get_type(void);
extern int gdk_pixbuf_animation_get_height(GdkPixbufAnimation * animation);
extern GdkPixbufAnimationIter
    *gdk_pixbuf_animation_get_iter(GdkPixbufAnimation * animation,
                                    const GTimeVal * start_time);
extern GdkPixbuf *gdk_pixbuf_animation_get_static_image(GdkPixbufAnimation
                                                         * animation);
extern GType gdk_pixbuf_animation_get_type(void);
extern int gdk_pixbuf_animation_get_width(GdkPixbufAnimation * animation);
extern gboolean gdk_pixbuf_animation_is_static_image(GdkPixbufAnimation *
                                                      animation);
extern gboolean gdk_pixbuf_animation_iter_advance(GdkPixbufAnimationIter *
                                                  iter,
                                                  const GTimeVal *
                                                  current_time);
extern int gdk_pixbuf_animation_iter_get_delay_time(GdkPixbufAnimationIter
                                                    * iter);
extern GdkPixbuf
    *gdk_pixbuf_animation_iter_get_pixbuf(GdkPixbufAnimationIter * iter);
extern GType gdk_pixbuf_animation_iter_get_type(void);
extern gboolean
    gdk_pixbuf_animation_iter_on_currently_loading_frame(GdkPixbufAnimationIter
                                                         * iter);
extern GdkPixbufAnimation *gdk_pixbuf_animation_new_from_file(const char
                                                                *filename,
                                                                GError *
                                                                *error);
extern void gdk_pixbuf_composite(const GdkPixbuf * src, GdkPixbuf * dest,
                                int dest_x, int dest_y, int dest_width,
                                int dest_height, double offset_x,
                                double offset_y, double scale_x,
                                double scale_y, GdkInterpType interp_type,
                                int overall_alpha);

```

```

extern void gdk_pixbuf_composite_color(const GdkPixbuf * src,
                                       GdkPixbuf * dest, int dest_x,
                                       int dest_y, int dest_width,
                                       int dest_height, double offset_x,
                                       double offset_y, double scale_x,
                                       double scale_y,
                                       GdkInterpType interp_type,
                                       int overall_alpha, int check_x,
                                       int check_y, int check_size,
                                       guint32 color1, guint32 color2);
extern GdkPixbuf *gdk_pixbuf_composite_color_simple(const GdkPixbuf * src,
                                                    int dest_width,
                                                    int dest_height,
                                                    GdkInterpType
                                                    interp_type,
                                                    int overall_alpha,
                                                    int check_size,
                                                    guint32 color1,
                                                    guint32 color2);

extern GdkPixbuf *gdk_pixbuf_copy(const GdkPixbuf * pixbuf);
extern void gdk_pixbuf_copy_area(const GdkPixbuf * src_pixbuf, int src_x,
                                 int src_y, int width, int height,
                                 GdkPixbuf * dest_pixbuf, int dest_x,
                                 int dest_y);

extern GType gdk_pixbuf_error_get_type(void);
extern GQuark gdk_pixbuf_error_quark(void);
extern void gdk_pixbuf_fill(GdkPixbuf * pixbuf, guint32 pixel);
extern GdkPixbuf *gdk_pixbuf_flip(const GdkPixbuf * src,
                                  gboolean horizontal);

extern gchar *gdk_pixbuf_format_get_description(GdkPixbufFormat * format);
extern gchar **gdk_pixbuf_format_get_extensions(GdkPixbufFormat * format);
extern gchar *gdk_pixbuf_format_get_license(GdkPixbufFormat * format);
extern gchar **gdk_pixbuf_format_get_mime_types(GdkPixbufFormat * format);
extern gchar *gdk_pixbuf_format_get_name(GdkPixbufFormat * format);
extern gboolean gdk_pixbuf_format_is_disabled(GdkPixbufFormat * format);
extern gboolean gdk_pixbuf_format_is_scalable(GdkPixbufFormat * format);
extern gboolean gdk_pixbuf_format_is_writable(GdkPixbufFormat * format);
extern void gdk_pixbuf_format_set_disabled(GdkPixbufFormat * format,
                                           gboolean disabled);

extern int gdk_pixbuf_get_bits_per_sample(const GdkPixbuf * pixbuf);
extern GdkColorspace gdk_pixbuf_get_colorspace(const GdkPixbuf * pixbuf);
extern GdkPixbufFormat *gdk_pixbuf_get_file_info(const gchar * filename,
                                                  gint * width,
                                                  gint * height);

extern GSList *gdk_pixbuf_get_formats(void);
extern gboolean gdk_pixbuf_get_has_alpha(const GdkPixbuf * pixbuf);
extern int gdk_pixbuf_get_height(const GdkPixbuf * pixbuf);
extern int gdk_pixbuf_get_n_channels(const GdkPixbuf * pixbuf);
extern const gchar *gdk_pixbuf_get_option(GdkPixbuf * pixbuf,
                                           const gchar * key);
extern gchar *gdk_pixbuf_get_pixels(const GdkPixbuf * pixbuf);
extern int gdk_pixbuf_get_rowstride(const GdkPixbuf * pixbuf);
extern GType gdk_pixbuf_get_type(void);
extern int gdk_pixbuf_get_width(const GdkPixbuf * pixbuf);
extern gboolean gdk_pixbuf_loader_close(GdkPixbufLoader * loader,
                                         GError * *error);
extern GdkPixbufAnimation *gdk_pixbuf_loader_get_animation(GdkPixbufLoader
                                                            * loader);
extern GdkPixbufFormat *gdk_pixbuf_loader_get_format(GdkPixbufLoader *
                                                      loader);
extern GdkPixbuf *gdk_pixbuf_loader_get_pixbuf(GdkPixbufLoader * loader);
extern GType gdk_pixbuf_loader_get_type(void);

```

```

extern GdkPixbufLoader *gdk_pixbuf_loader_new(void);
extern GdkPixbufLoader *gdk_pixbuf_loader_new_with_mime_type(const char
                                                             *mime_type,
                                                             GError *
                                                             *error);
extern GdkPixbufLoader *gdk_pixbuf_loader_new_with_type(const char
                                                         *image_type,
                                                         GError * *error);
extern void gdk_pixbuf_loader_set_size(GdkPixbufLoader * loader,
                                       gint width, gint height);
extern gboolean gdk_pixbuf_loader_write(GdkPixbufLoader * loader,
                                       const guchar * buf, gsize count,
                                       GError * *error);
extern const guint gdk_pixbuf_major_version;
extern const guint gdk_pixbuf_micro_version;
extern const guint gdk_pixbuf_minor_version;
extern GdkPixbuf *gdk_pixbuf_new(GdkColorspace colorspace,
                                 gboolean has_alpha, int bits_per_sample,
                                 int width, int height);
extern GdkPixbuf *gdk_pixbuf_new_from_data(const guchar * data,
                                           GdkColorspace colorspace,
                                           gboolean has_alpha,
                                           int bits_per_sample, int width,
                                           int height, int rowstride,
                                           GdkPixbufDestroyNotify
                                           destroy_fn,
                                           gpointer destroy_fn_data);
extern GdkPixbuf *gdk_pixbuf_new_from_file(const char *filename,
                                           GError * *error);
extern GdkPixbuf *gdk_pixbuf_new_from_file_at_scale(const char *filename,
                                                    int width, int height,
                                                    gboolean
                                                    preserve_aspect_ratio,
                                                    GError * *error);
extern GdkPixbuf *gdk_pixbuf_new_from_file_at_size(const char *filename,
                                                    int width, int height,
                                                    GError * *error);
extern GdkPixbuf *gdk_pixbuf_new_from_inline(gint data_length,
                                             const guint8 * data,
                                             gboolean copy_pixels,
                                             GError * *error);
extern GdkPixbuf *gdk_pixbuf_new_from_xpm_data(const char **data);
extern GdkPixbuf *gdk_pixbuf_new_subpixbuf(GdkPixbuf * src_pixbuf,
                                           int src_x, int src_y, int width,
                                           int height);
extern GdkPixbuf *gdk_pixbuf_rotate_simple(const GdkPixbuf * src,
                                           GdkPixbufRotation angle);
extern GType gdk_pixbuf_rotation_get_type(void);
extern void gdk_pixbuf_saturate_and_pixelate(const GdkPixbuf * src,
                                              GdkPixbuf * dest,
                                              gfloat saturation,
                                              gboolean pixelate);
extern gboolean gdk_pixbuf_save(GdkPixbuf * pixbuf, const char *filename,
                               const char *type, GError * *error, ...);
extern gboolean gdk_pixbuf_save_to_buffer(GdkPixbuf * pixbuf,
                                          gchar * *buffer,
                                          gsize * buffer_size,
                                          const char *type,
                                          GError * *error, ...);
extern gboolean gdk_pixbuf_save_to_bufferv(GdkPixbuf * pixbuf,
                                           gchar * *buffer,
                                           gsize * buffer_size,

```

```

        const char *type,
        char **option_keys,
        char **option_values,
        GError * *error);
extern gboolean gdk_pixbuf_save_to_callback(GdkPixbuf * pixbuf,
        GdkPixbufSaveFunc save_func,
        gpointer user_data,
        const char *type,
        GError * *error, ...);
extern gboolean gdk_pixbuf_save_to_callbackv(GdkPixbuf * pixbuf,
        GdkPixbufSaveFunc save_func,
        gpointer user_data,
        const char *type,
        char **option_keys,
        char **option_values,
        GError * *error);
extern gboolean gdk_pixbuf_savev(GdkPixbuf * pixbuf, const char *filename,
        const char *type, char **option_keys,
        char **option_values, GError * *error);
extern void gdk_pixbuf_scale(const GdkPixbuf * src, GdkPixbuf * dest,
        int dest_x, int dest_y, int dest_width,
        int dest_height, double offset_x,
        double offset_y, double scale_x,
        double scale_y, GdkInterpType interp_type);
extern GdkPixbuf *gdk_pixbuf_scale_simple(const GdkPixbuf * src,
        int dest_width, int dest_height,
        GdkInterpType interp_type);
extern void gdk_pixbuf_simple_anim_add_frame(GdkPixbufSimpleAnim *
        animation,
        GdkPixbuf * pixbuf);
extern GType gdk_pixbuf_simple_anim_get_type(void);
extern GType gdk_pixbuf_simple_anim_iter_get_type(void);
extern GdkPixbufSimpleAnim *gdk_pixbuf_simple_anim_new(gint width,
        gint height,
        gfloat rate);
extern const char *gdk_pixbuf_version;

```

16.22.2. gtk-2.0/gdk-pixbuf/gdk-pixdata.h

```

#define GDK_PIXBUF_MAGIC_NUMBER (0x47646b50)
#define GDK_PIXDATA_HEADER_LENGTH (4 + 4 + 4 + 4 + 4 + 4)

typedef struct _GdkPixdata {
    guint32 magic;
    guint32 length;
    guint32 pixdata_type;
    guint32 rowstride;
    guint32 width;
    guint32 height;
    guint8 *pixel_data;
} GdkPixdata;
typedef enum {
    GDK_PIXDATA_DUMP_PIXDATA_STREAM = 0,
    GDK_PIXDATA_DUMP_PIXDATA_STRUCT = 1,
    GDK_PIXDATA_DUMP_MACROS = 2,
    GDK_PIXDATA_DUMP_GTYPES = 0,
    GDK_PIXDATA_DUMP_CTYPES = 256,
    GDK_PIXDATA_DUMP_STATIC = 512,
    GDK_PIXDATA_DUMP_CONST = 1024,
    GDK_PIXDATA_DUMP_RLE_DECODER = 65536
} GdkPixdataDumpType;

```

```

typedef enum {
    GDK_PIXDATA_COLOR_TYPE_RGB = 0x01,
    GDK_PIXDATA_COLOR_TYPE_RGBA = 0x02,
    GDK_PIXDATA_COLOR_TYPE_MASK = 0xff,
    GDK_PIXDATA_SAMPLE_WIDTH_8 = 0x01 << 16,
    GDK_PIXDATA_SAMPLE_WIDTH_MASK = 0x0f << 16,
    GDK_PIXDATA_ENCODING_RAW = 0x01 << 24,
    GDK_PIXDATA_ENCODING_RLE = 0x02 << 24,
    GDK_PIXDATA_ENCODING_MASK = 0x0f << 24
} GdkPixdataType;
extern GdkPixbuf *gdk_pixbuf_from_pixdata(const GdkPixdata * pixdata,
                                          gboolean copy_pixels,
                                          GError * *error);
extern gboolean gdk_pixdata_deserialize(GdkPixdata * pixdata,
                                         quint stream_length,
                                         const quint8 * stream,
                                         GError * *error);
extern gpointer gdk_pixdata_from_pixbuf(GdkPixdata * pixdata,
                                         const GdkPixbuf * pixbuf,
                                         gboolean use_rle);
extern quint8 *gdk_pixdata_serialize(const GdkPixdata * pixdata,
                                       quint * stream_length_p);
extern GString *gdk_pixdata_to_csource(GdkPixdata * pixdata,
                                       const gchar * name,
                                       GdkPixdataDumpType dump_type);

```

16.23. Interfaces for libgdk_pixbuf_xlib-2.0

[Table 16-96](#) defines the library name and shared object name for the libgdk_pixbuf_xlib-2.0 library

Table 16-96. libgdk_pixbuf_xlib-2.0 Definition

Library:	libgdk_pixbuf_xlib-2.0
SONAME:	libgdk_pixbuf_xlib-2.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[Gdk-pixbuf 2.8] [Gdk-pixbuf 2.8.20 Reference Manual](#)

16.23.1. GDK pixbuf rendering to an X drawable library

16.23.1.1. Interfaces for GDK pixbuf rendering to an X drawable library

An LSB conforming implementation shall provide the generic functions for GDK pixbuf rendering to an X drawable library specified in [Table 16-97](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-97. libgdk_pixbuf_xlib-2.0 - GDK pixbuf rendering to an X drawable library Function Interfaces

	gdk_pixbuf_xlib_init [Gdk-pixbuf 2.8]

gdk_pixbuf_xlib_get_from_drawable [Gdk-pixbuf 2.8]	
gdk_pixbuf_xlib_init_with_depth [Gdk-pixbuf 2.8]	gdk_pixbuf_xlib_render_pixmap_and_mask [Gdk-pixbuf 2.8]
gdk_pixbuf_xlib_render_threshold_alpha [Gdk-pixbuf 2.8]	gdk_pixbuf_xlib_render_to_drawable [Gdk-pixbuf 2.8]
gdk_pixbuf_xlib_render_to_drawable_alpha [Gdk-pixbuf 2.8]	xlib_draw_gray_image [Gdk-pixbuf 2.8]
xlib_draw_indexed_image [Gdk-pixbuf 2.8]	xlib_draw_rgb_32_image [Gdk-pixbuf 2.8]
xlib_draw_rgb_image [Gdk-pixbuf 2.8]	xlib_draw_rgb_image_dithalign [Gdk-pixbuf 2.8]
xlib_rgb_cmap_free [Gdk-pixbuf 2.8]	xlib_rgb_cmap_new [Gdk-pixbuf 2.8]
xlib_rgb_ditherable [Gdk-pixbuf 2.8]	xlib_rgb_gc_set_background [Gdk-pixbuf 2.8]
xlib_rgb_gc_set_foreground [Gdk-pixbuf 2.8]	xlib_rgb_get_cmap [Gdk-pixbuf 2.8]
xlib_rgb_get_depth [Gdk-pixbuf 2.8]	xlib_rgb_get_display [Gdk-pixbuf 2.8]
xlib_rgb_get_screen [Gdk-pixbuf 2.8]	xlib_rgb_get_visual [Gdk-pixbuf 2.8]
xlib_rgb_get_visual_info [Gdk-pixbuf 2.8]	xlib_rgb_init [Gdk-pixbuf 2.8]
xlib_rgb_init_with_depth [Gdk-pixbuf 2.8]	xlib_rgb_set_install [Gdk-pixbuf 2.8]
xlib_rgb_set_min_colors [Gdk-pixbuf 2.8]	xlib_rgb_set_verbose [Gdk-pixbuf 2.8]
xlib_rgb_xpixel_from_rgb [Gdk-pixbuf 2.8]	

16.24. Data Definitions for libgdk_pixbuf_xlib-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libgdk_pixbuf_xlib-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.24.1. gtk-2.0/gdk-pixbuf-xlib/gdk-pixbuf-xlib.h

```
typedef enum {
    XLIB_RGB_DITHER_NONE = 0,
    XLIB_RGB_DITHER_NORMAL = 1,
    XLIB_RGB_DITHER_MAX = 2
}
```

```

} XlibRgbDither;
typedef struct _XlibRgbCmap {
    unsigned int colors[256];
    unsigned char lut[256];
} XlibRgbCmap;
extern GdkPixbuf *gdk_pixbuf_xlib_get_from_drawable(GdkPixbuf * dest,
                                                    Drawable src,
                                                    Colormap cmap,
                                                    Visual * visual,
                                                    int src_x, int src_y,
                                                    int dest_x, int dest_y,
                                                    int width, int height);
extern void gdk_pixbuf_xlib_init(Display * display, int screen_num);
extern void gdk_pixbuf_xlib_init_with_depth(Display * display,
                                             int screen_num, int prefDepth);
extern void gdk_pixbuf_xlib_render_pixmap_and_mask(GdkPixbuf * pixbuf,
                                                    Pixmap * pixmap_return,
                                                    Pixmap * mask_return,
                                                    int alpha_threshold);
extern void gdk_pixbuf_xlib_render_threshold_alpha(GdkPixbuf * pixbuf,
                                                    Pixmap bitmap,
                                                    int src_x, int src_y,
                                                    int dest_x, int dest_y,
                                                    int width, int height,
                                                    int alpha_threshold);
extern void gdk_pixbuf_xlib_render_to_drawable(GdkPixbuf * pixbuf,
                                                Drawable drawable, GC gc,
                                                int src_x, int src_y,
                                                int dest_x, int dest_y,
                                                int width, int height,
                                                XlibRgbDither dither,
                                                int x_dither, int y_dither);
extern void gdk_pixbuf_xlib_render_to_drawable_alpha(GdkPixbuf * pixbuf,
                                                      Drawable drawable,
                                                      int src_x, int src_y,
                                                      int dest_x,
                                                      int dest_y, int width,
                                                      int height,
                                                      GdkPixbufAlphaMode
                                                      alpha_mode,
                                                      int alpha_threshold,
                                                      XlibRgbDither dither,
                                                      int x_dither,
                                                      int y_dither);
extern void xlib_draw_gray_image(Drawable drawable, GC gc, int x, int y,
                                 int width, int height, XlibRgbDither dith,
                                 unsigned char *buf, int rowstride);
extern void xlib_draw_indexed_image(Drawable drawable, GC gc, int x, int y,
                                    int width, int height,
                                    XlibRgbDither dith, unsigned char *buf,
                                    int rowstride, XlibRgbCmap * cmap);
extern void xlib_draw_rgb_32_image(Drawable drawable, GC gc, int x, int y,
                                   int width, int height,
                                   XlibRgbDither dith, unsigned char *buf,
                                   int rowstride);
extern void xlib_draw_rgb_image(Drawable drawable, GC gc, int x, int y,
                                int width, int height, XlibRgbDither dith,
                                unsigned char *rgb_buf, int rowstride);
extern void xlib_draw_rgb_image_dithalign(Drawable drawable, GC gc, int x,
                                           int y, int width, int height,
                                           XlibRgbDither dith,
                                           unsigned char *rgb_buf,

```

```

                                int rowstride, int xdith,
                                int ydith);
extern void xlib_rgb_cmap_free(XlibRgbCmap * cmap);
extern XlibRgbCmap *xlib_rgb_cmap_new(guint32 * colors, int n_colors);
extern int xlib_rgb_ditherable(void);
extern void xlib_rgb_gc_set_background(GC gc, guint32 rgb);
extern void xlib_rgb_gc_set_foreground(GC gc, guint32 rgb);
extern Colormap xlib_rgb_get_cmap(void);
extern int xlib_rgb_get_depth(void);
extern Display *xlib_rgb_get_display(void);
extern Screen *xlib_rgb_get_screen(void);
extern Visual *xlib_rgb_get_visual(void);
extern XVisualInfo *xlib_rgb_get_visual_info(void);
extern void xlib_rgb_init(Display * display, Screen * screen);
extern void xlib_rgb_init_with_depth(Display * display, Screen * screen,
                                     int prefDepth);
extern void xlib_rgb_set_install(int install);
extern void xlib_rgb_set_min_colors(int min_colors);
extern void xlib_rgb_set_verbose(int verbose);
extern long unsigned int xlib_rgb_xpixmap_from_rgb(guint32 rgb);

```

16.25. Interfaces for libgdk-x11-2.0

[Table 16-98](#) defines the library name and shared object name for the libgdk-x11-2.0 library

Table 16-98. libgdk-x11-2.0 Definition

Library:	libgdk-x11-2.0
SONAME:	libgdk-x11-2.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[Gdk 2.10] [Gdk 2.10.14 Reference Manual](#)

[GObject 2.12] [Gobject 2.12.13 Reference Manual](#)

16.25.1. GTK Drawing toolkit

16.25.1.1. Interfaces for GTK Drawing toolkit

An LSB conforming implementation shall provide the generic functions for GTK Drawing toolkit specified in [Table 16-99](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-99. libgdk-x11-2.0 - GTK Drawing toolkit Function Interfaces

gdk_add_client_message_filter [Gdk 2.10]	gdk_atom_intern [Gdk 2.10]
gdk_atom_intern_static_string [Gdk 2.10]	gdk_atom_name [Gdk 2.10]
gdk_axis_use_get_type [GObject 2.12]	gdk_beep [Gdk 2.10]
gdk_bitmap_create_from_data [Gdk 2.10]	gdk_byte_order_get_type [GObject 2.12]

gdk_cairo_create [Gdk 2.10]	gdk_cairo_rectangle [Gdk 2.10]
gdk_cairo_region [Gdk 2.10]	gdk_cairo_set_source_color [Gdk 2.10]
gdk_cairo_set_source_pixbuf [Gdk 2.10]	gdk_cairo_set_source_pixmap [Gdk 2.10]
gdk_cap_style_get_type [GObject 2.12]	gdk_color_copy [Gdk 2.10]
gdk_color_equal [Gdk 2.10]	gdk_color_free [Gdk 2.10]
gdk_color_get_type [GObject 2.12]	gdk_color_hash [Gdk 2.10]
gdk_color_parse [Gdk 2.10]	gdk_colormap_alloc_color [Gdk 2.10]
gdk_colormap_alloc_colors [Gdk 2.10]	gdk_colormap_free_colors [Gdk 2.10]
gdk_colormap_get_screen [Gdk 2.10]	gdk_colormap_get_system [Gdk 2.10]
gdk_colormap_get_type [GObject 2.12]	gdk_colormap_get_visual [Gdk 2.10]
gdk_colormap_new [Gdk 2.10]	gdk_colormap_query_color [Gdk 2.10]
gdk_crossing_mode_get_type [GObject 2.12]	gdk_cursor_get_display [Gdk 2.10]
gdk_cursor_get_image [Gdk 2.10]	gdk_cursor_get_type [GObject 2.12]
gdk_cursor_new [Gdk 2.10]	gdk_cursor_new_for_display [Gdk 2.10]
gdk_cursor_new_from_name [Gdk 2.10]	gdk_cursor_new_from_pixbuf [Gdk 2.10]
gdk_cursor_new_from_pixmap [Gdk 2.10]	gdk_cursor_ref [Gdk 2.10]
gdk_cursor_type_get_type [GObject 2.12]	gdk_cursor_unref [Gdk 2.10]
gdk_device_free_history [Gdk 2.10]	gdk_device_get_axis [Gdk 2.10]
gdk_device_get_core_pointer [Gdk 2.10]	gdk_device_get_history [Gdk 2.10]
gdk_device_get_state [Gdk 2.10]	gdk_device_get_type [GObject 2.12]
gdk_device_set_axis_use [Gdk 2.10]	gdk_device_set_key [Gdk 2.10]
gdk_device_set_mode [Gdk 2.10]	gdk_device_set_source [Gdk 2.10]
gdk_devices_list [Gdk 2.10]	gdk_display_add_client_message_filter [Gdk 2.10]
gdk_display_beep [Gdk 2.10]	gdk_display_close [Gdk 2.10]
gdk_display_flush [Gdk 2.10]	gdk_display_get_core_pointer [Gdk 2.10]
gdk_display_get_default [Gdk 2.10]	gdk_display_get_default_cursor_size [Gdk 2.10]
gdk_display_get_default_group [Gdk 2.10]	gdk_display_get_default_screen [Gdk 2.10]
gdk_display_get_event [Gdk 2.10]	gdk_display_get_maximal_cursor_size [Gdk 2.10]
gdk_display_get_n_screens [Gdk 2.10]	gdk_display_get_name [Gdk 2.10]
gdk_display_get_pointer [Gdk 2.10]	gdk_display_get_screen [Gdk 2.10]
gdk_display_get_type [GObject 2.12]	gdk_display_get_window_at_pointer [Gdk 2.10]
gdk_display_keyboard_ungrab [Gdk 2.10]	gdk_display_list_devices [Gdk 2.10]
gdk_display_manager_get [Gdk 2.10]	gdk_display_manager_get_default_display [Gdk 2.10]

gdk_display_manager_get_type [GObject 2.12]	gdk_display_manager_list_displays [Gdk 2.10]
gdk_display_manager_set_default_display [Gdk 2.10]	gdk_display_open [Gdk 2.10]
gdk_display_peek_event [Gdk 2.10]	gdk_display_pointer_is_grabbed [Gdk 2.10]
gdk_display_pointer_ungrab [Gdk 2.10]	gdk_display_put_event [Gdk 2.10]
gdk_display_request_selection_notification [Gdk 2.10]	gdk_display_set_double_click_distance [Gdk 2.10]
gdk_display_set_double_click_time [Gdk 2.10]	gdk_display_set_pointer_hooks [Gdk 2.10]
gdk_display_store_clipboard [Gdk 2.10]	gdk_display_supports_clipboard_persistence [Gdk 2.10]
gdk_display_supports_cursor_alpha [Gdk 2.10]	gdk_display_supports_cursor_color [Gdk 2.10]
gdk_display_supports_input_shapes [Gdk 2.10]	gdk_display_supports_selection_notification [Gdk 2.10]
gdk_display_supports_shapes [Gdk 2.10]	gdk_display_sync [Gdk 2.10]
gdk_display_warp_pointer [Gdk 2.10]	gdk_drag_abort [Gdk 2.10]
gdk_drag_action_get_type [GObject 2.12]	gdk_drag_begin [Gdk 2.10]
gdk_drag_context_get_type [GObject 2.12]	gdk_drag_context_new [Gdk 2.10]
gdk_drag_drop [Gdk 2.10]	gdk_drag_drop_succeeded [Gdk 2.10]
gdk_drag_find_window [Gdk 2.10]	gdk_drag_find_window_for_screen [Gdk 2.10]
gdk_drag_get_protocol [Gdk 2.10]	gdk_drag_get_protocol_for_display [Gdk 2.10]
gdk_drag_get_selection [Gdk 2.10]	gdk_drag_motion [Gdk 2.10]
gdk_drag_protocol_get_type [GObject 2.12]	gdk_drag_status [Gdk 2.10]
gdk_draw_arc [Gdk 2.10]	gdk_draw_drawable [Gdk 2.10]
gdk_draw_glyphs [Gdk 2.10]	gdk_draw_glyphs_transformed [Gdk 2.10]
gdk_draw_gray_image [Gdk 2.10]	gdk_draw_image [Gdk 2.10]
gdk_draw_indexed_image [Gdk 2.10]	gdk_draw_layout [Gdk 2.10]
gdk_draw_layout_line [Gdk 2.10]	gdk_draw_layout_line_with_colors [Gdk 2.10]
gdk_draw_layout_with_colors [Gdk 2.10]	gdk_draw_line [Gdk 2.10]
gdk_draw_lines [Gdk 2.10]	gdk_draw_pixmap [Gdk 2.10]
gdk_draw_point [Gdk 2.10]	gdk_draw_points [Gdk 2.10]
gdk_draw_polygon [Gdk 2.10]	gdk_draw_rectangle [Gdk 2.10]
gdk_draw_rgb_32_image [Gdk 2.10]	gdk_draw_rgb_32_image_dithalign [Gdk 2.10]
gdk_draw_rgb_image [Gdk 2.10]	gdk_draw_rgb_image_dithalign [Gdk 2.10]
gdk_draw_segments [Gdk 2.10]	gdk_draw_trapezoids [Gdk 2.10]
gdk_drawable_copy_to_image [Gdk 2.10]	gdk_drawable_get_clip_region [Gdk 2.10]

gdk_drawable_get_colormap [Gdk 2.10]	gdk_drawable_get_depth [Gdk 2.10]
gdk_drawable_get_display [Gdk 2.10]	gdk_drawable_get_image [Gdk 2.10]
gdk_drawable_get_screen [Gdk 2.10]	gdk_drawable_get_size [Gdk 2.10]
gdk_drawable_get_type [GObject 2.12]	gdk_drawable_get_visible_region [Gdk 2.10]
gdk_drawable_get_visual [Gdk 2.10]	gdk_drawable_set_colormap [Gdk 2.10]
gdk_drop_finish [Gdk 2.10]	gdk_drop_reply [Gdk 2.10]
gdk_error_trap_pop [Gdk 2.10]	gdk_error_trap_push [Gdk 2.10]
gdk_event_copy [Gdk 2.10]	gdk_event_free [Gdk 2.10]
gdk_event_get [Gdk 2.10]	gdk_event_get_axis [Gdk 2.10]
gdk_event_get_coords [Gdk 2.10]	gdk_event_get_graphics_expose [Gdk 2.10]
gdk_event_get_root_coords [Gdk 2.10]	gdk_event_get_screen [Gdk 2.10]
gdk_event_get_state [Gdk 2.10]	gdk_event_get_time [Gdk 2.10]
gdk_event_get_type [GObject 2.12]	gdk_event_handler_set [Gdk 2.10]
gdk_event_mask_get_type [GObject 2.12]	gdk_event_new [Gdk 2.10]
gdk_event_peek [Gdk 2.10]	gdk_event_put [Gdk 2.10]
gdk_event_send_client_message [Gdk 2.10]	gdk_event_send_client_message_for_display [Gdk 2.10]
gdk_event_send_clientmessage_toall [Gdk 2.10]	gdk_event_set_screen [Gdk 2.10]
gdk_event_type_get_type [GObject 2.12]	gdk_events_pending [Gdk 2.10]
gdk_extension_mode_get_type [GObject 2.12]	gdk_fill_get_type [GObject 2.12]
gdk_fill_rule_get_type [GObject 2.12]	gdk_filter_return_get_type [GObject 2.12]
gdk_flush [Gdk 2.10]	gdk_font_type_get_type [GObject 2.12]
gdk_free_compound_text [Gdk 2.10]	gdk_free_text_list [Gdk 2.10]
gdk_function_get_type [GObject 2.12]	gdk_gc_copy [Gdk 2.10]
gdk_gc_get_colormap [Gdk 2.10]	gdk_gc_get_screen [Gdk 2.10]
gdk_gc_get_type [GObject 2.12]	gdk_gc_get_values [Gdk 2.10]
gdk_gc_new [Gdk 2.10]	gdk_gc_new_with_values [Gdk 2.10]
gdk_gc_offset [Gdk 2.10]	gdk_gc_set_background [Gdk 2.10]
gdk_gc_set_clip_mask [Gdk 2.10]	gdk_gc_set_clip_origin [Gdk 2.10]
gdk_gc_set_clip_rectangle [Gdk 2.10]	gdk_gc_set_clip_region [Gdk 2.10]
gdk_gc_set_colormap [Gdk 2.10]	gdk_gc_set_dashes [Gdk 2.10]
gdk_gc_set_exposures [Gdk 2.10]	gdk_gc_set_fill [Gdk 2.10]
gdk_gc_set_foreground [Gdk 2.10]	gdk_gc_set_function [Gdk 2.10]
gdk_gc_set_line_attributes [Gdk 2.10]	gdk_gc_set_rgb_bg_color [Gdk 2.10]

gdk_gc_set_rgb_fg_color [Gdk 2.10]	gdk_gc_set_stipple [Gdk 2.10]
gdk_gc_set_subwindow [Gdk 2.10]	gdk_gc_set_tile [Gdk 2.10]
gdk_gc_set_ts_origin [Gdk 2.10]	gdk_gc_set_values [Gdk 2.10]
gdk_gc_values_mask_get_type [GObject 2.12]	gdk_get_default_root_window [Gdk 2.10]
gdk_get_display [Gdk 2.10]	gdk_get_display_arg_name [Gdk 2.10]
gdk_get_program_class [Gdk 2.10]	gdk_get_show_events [Gdk 2.10]
gdk_grab_status_get_type [GObject 2.12]	gdk_gravity_get_type [GObject 2.12]
gdk_image_get_colormap [Gdk 2.10]	gdk_image_get_pixel [Gdk 2.10]
gdk_image_get_type [GObject 2.12]	gdk_image_new [Gdk 2.10]
gdk_image_put_pixel [Gdk 2.10]	gdk_image_set_colormap [Gdk 2.10]
gdk_image_type_get_type [GObject 2.12]	gdk_init [Gdk 2.10]
gdk_init_check [Gdk 2.10]	gdk_input_condition_get_type [GObject 2.12]
gdk_input_mode_get_type [GObject 2.12]	gdk_input_set_extension_events [Gdk 2.10]
gdk_input_source_get_type [GObject 2.12]	gdk_join_style_get_type [GObject 2.12]
gdk_keyboard_grab [Gdk 2.10]	gdk_keyboard_ungrab [Gdk 2.10]
gdk_keymap_get_default [Gdk 2.10]	gdk_keymap_get_direction [Gdk 2.10]
gdk_keymap_get_entries_for_keycode [Gdk 2.10]	gdk_keymap_get_entries_for_keyval [Gdk 2.10]
gdk_keymap_get_for_display [Gdk 2.10]	gdk_keymap_get_type [GObject 2.12]
gdk_keymap_lookup_key [Gdk 2.10]	gdk_keymap_translate_keyboard_state [Gdk 2.10]
gdk_keyval_convert_case [Gdk 2.10]	gdk_keyval_from_name [Gdk 2.10]
gdk_keyval_is_lower [Gdk 2.10]	gdk_keyval_is_upper [Gdk 2.10]
gdk_keyval_name [Gdk 2.10]	gdk_keyval_to_lower [Gdk 2.10]
gdk_keyval_to_unicode [Gdk 2.10]	gdk_keyval_to_upper [Gdk 2.10]
gdk_line_style_get_type [GObject 2.12]	gdk_list_visuals [Gdk 2.10]
gdk_modifier_type_get_type [GObject 2.12]	gdk_net_wm_supports [Gdk 2.10]
gdk_notify_startup_complete [Gdk 2.10]	gdk_notify_type_get_type [GObject 2.12]
gdk_overlap_type_get_type [GObject 2.12]	gdk_owner_change_get_type [GObject 2.12]
gdk_pango_attr_embossed_new [Gdk 2.10]	gdk_pango_attr_stipple_new [Gdk 2.10]
gdk_pango_context_get [Gdk 2.10]	gdk_pango_context_get_for_screen [Gdk 2.10]
gdk_pango_layout_get_clip_region [Gdk 2.10]	gdk_pango_layout_line_get_clip_region [Gdk 2.10]
gdk_pango_renderer_get_default [Gdk 2.10]	gdk_pango_renderer_get_type [GObject 2.12]
gdk_pango_renderer_new [Gdk 2.10]	gdk_pango_renderer_set_drawable [Gdk 2.10]

gdk_pango_renderer_set_gc [Gdk 2.10]	gdk_pango_renderer_set_override_color [Gdk 2.10]
gdk_pango_renderer_set_stipple [Gdk 2.10]	gdk_parse_args [Gdk 2.10]
gdk_pixbuf_get_from_drawable [Gdk 2.10]	gdk_pixbuf_get_from_image [Gdk 2.10]
gdk_pixbuf_render_pixmap_and_mask [Gdk 2.10]	gdk_pixbuf_render_pixmap_and_mask_for_colormap [Gdk 2.10]
gdk_pixbuf_render_threshold_alpha [Gdk 2.10]	gdk_pixmap_colormap_create_from_xpm [Gdk 2.10]
gdk_pixmap_colormap_create_from_xpm_d [Gdk 2.10]	gdk_pixmap_create_from_data [Gdk 2.10]
gdk_pixmap_create_from_xpm [Gdk 2.10]	gdk_pixmap_create_from_xpm_d [Gdk 2.10]
gdk_pixmap_foreign_new [Gdk 2.10]	gdk_pixmap_foreign_new_for_display [Gdk 2.10]
gdk_pixmap_foreign_new_for_screen [Gdk 2.10]	gdk_pixmap_get_type [GObject 2.12]
gdk_pixmap_lookup [Gdk 2.10]	gdk_pixmap_lookup_for_display [Gdk 2.10]
gdk_pixmap_new [Gdk 2.10]	gdk_pointer_grab [Gdk 2.10]
gdk_pointer_is_grabbed [Gdk 2.10]	gdk_pointer_ungrab [Gdk 2.10]
gdk_prop_mode_get_type [GObject 2.12]	gdk_property_change [Gdk 2.10]
gdk_property_delete [Gdk 2.10]	gdk_property_get [Gdk 2.10]
gdk_property_state_get_type [GObject 2.12]	gdk_query_depths [Gdk 2.10]
gdk_query_visual_types [Gdk 2.10]	gdk_rectangle_get_type [GObject 2.12]
gdk_rectangle_intersect [Gdk 2.10]	gdk_rectangle_union [Gdk 2.10]
gdk_region_copy [Gdk 2.10]	gdk_region_destroy [Gdk 2.10]
gdk_region_empty [Gdk 2.10]	gdk_region_equal [Gdk 2.10]
gdk_region_get_clipbox [Gdk 2.10]	gdk_region_get_rectangles [Gdk 2.10]
gdk_region_intersect [Gdk 2.10]	gdk_region_new [Gdk 2.10]
gdk_region_offset [Gdk 2.10]	gdk_region_point_in [Gdk 2.10]
gdk_region_polygon [Gdk 2.10]	gdk_region_rect_in [Gdk 2.10]
gdk_region_rectangle [Gdk 2.10]	gdk_region_shrink [Gdk 2.10]
gdk_region_spans_intersect_foreach [Gdk 2.10]	gdk_region_subtract [Gdk 2.10]
gdk_region_union [Gdk 2.10]	gdk_region_union_with_rect [Gdk 2.10]
gdk_region_xor [Gdk 2.10]	gdk_rgb_cmap_free [Gdk 2.10]
gdk_rgb_cmap_new [Gdk 2.10]	gdk_rgb_colormap_ditherable [Gdk 2.10]
gdk_rgb_dither_get_type [GObject 2.12]	gdk_rgb_ditherable [Gdk 2.10]
gdk_rgb_find_color [Gdk 2.10]	gdk_rgb_get_colormap [Gdk 2.10]
gdk_rgb_get_visual [Gdk 2.10]	gdk_rgb_set_install [Gdk 2.10]

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<code>gdk_rgb_set_min_colors</code> [Gdk 2.10]	<code>gdk_rgb_set_verbose</code> [Gdk 2.10]
<code>gdk_screen_broadcast_client_message</code> [Gdk 2.10]	<code>gdk_screen_get_active_window</code> [Gdk 2.10]
<code>gdk_screen_get_default</code> [Gdk 2.10]	<code>gdk_screen_get_default_colormap</code> [Gdk 2.10]
<code>gdk_screen_get_display</code> [Gdk 2.10]	<code>gdk_screen_get_font_options</code> [Gdk 2.10]
<code>gdk_screen_get_height</code> [Gdk 2.10]	<code>gdk_screen_get_height_mm</code> [Gdk 2.10]
<code>gdk_screen_get_monitor_at_point</code> [Gdk 2.10]	<code>gdk_screen_get_monitor_at_window</code> [Gdk 2.10]
<code>gdk_screen_get_monitor_geometry</code> [Gdk 2.10]	<code>gdk_screen_get_n_monitors</code> [Gdk 2.10]
<code>gdk_screen_get_number</code> [Gdk 2.10]	<code>gdk_screen_get_resolution</code> [Gdk 2.10]
<code>gdk_screen_get_rgb_colormap</code> [Gdk 2.10]	<code>gdk_screen_get_rgb_visual</code> [Gdk 2.10]
<code>gdk_screen_get_rgba_colormap</code> [Gdk 2.10]	<code>gdk_screen_get_rgba_visual</code> [Gdk 2.10]
<code>gdk_screen_get_root_window</code> [Gdk 2.10]	<code>gdk_screen_get_setting</code> [Gdk 2.10]
<code>gdk_screen_get_system_colormap</code> [Gdk 2.10]	<code>gdk_screen_get_system_visual</code> [Gdk 2.10]
<code>gdk_screen_get_toplevel_windows</code> [Gdk 2.10]	<code>gdk_screen_get_type</code> [GObject 2.12]
<code>gdk_screen_get_width</code> [Gdk 2.10]	<code>gdk_screen_get_width_mm</code> [Gdk 2.10]
<code>gdk_screen_get_window_stack</code> [Gdk 2.10]	<code>gdk_screen_height</code> [Gdk 2.10]
<code>gdk_screen_height_mm</code> [Gdk 2.10]	<code>gdk_screen_is_composited</code> [Gdk 2.10]
<code>gdk_screen_list_visuals</code> [Gdk 2.10]	<code>gdk_screen_make_display_name</code> [Gdk 2.10]
<code>gdk_screen_set_default_colormap</code> [Gdk 2.10]	<code>gdk_screen_set_font_options</code> [Gdk 2.10]
<code>gdk_screen_set_resolution</code> [Gdk 2.10]	<code>gdk_screen_width</code> [Gdk 2.10]
<code>gdk_screen_width_mm</code> [Gdk 2.10]	<code>gdk_scroll_direction_get_type</code> [GObject 2.12]
<code>gdk_selection_convert</code> [Gdk 2.10]	<code>gdk_selection_owner_get</code> [Gdk 2.10]
<code>gdk_selection_owner_get_for_display</code> [Gdk 2.10]	<code>gdk_selection_owner_set</code> [Gdk 2.10]
<code>gdk_selection_owner_set_for_display</code> [Gdk 2.10]	<code>gdk_selection_property_get</code> [Gdk 2.10]
<code>gdk_selection_send_notify</code> [Gdk 2.10]	<code>gdk_selection_send_notify_for_display</code> [Gdk 2.10]
<code>gdk_set_double_click_time</code> [Gdk 2.10]	<code>gdk_set_locale</code> [Gdk 2.10]
<code>gdk_set_pointer_hooks</code> [Gdk 2.10]	<code>gdk_set_program_class</code> [Gdk 2.10]
<code>gdk_set_show_events</code> [Gdk 2.10]	<code>gdk_set_sm_client_id</code> [Gdk 2.10]
<code>gdk_setting_action_get_type</code> [GObject 2.12]	<code>gdk_setting_get</code> [Gdk 2.10]
<code>gdk_spawn_command_line_on_screen</code> [Gdk 2.10]	<code>gdk_spawn_on_screen</code> [Gdk 2.10]
<code>gdk_spawn_on_screen_with_pipes</code> [Gdk 2.10]	<code>gdk_status_get_type</code> [GObject 2.12]
<code>gdk_string_to_compound_text</code> [Gdk 2.10]	<code>gdk_string_to_compound_text_for_display</code> [Gdk 2.10]

gdk_subwindow_mode_get_type [GObject 2.12]	gdk_synthesize_window_state [Gdk 2.10]
gdk_text_property_to_text_list [Gdk 2.10]	gdk_text_property_to_text_list_for_display [Gdk 2.10]
gdk_text_property_to_utf8_list [Gdk 2.10]	gdk_text_property_to_utf8_list_for_display [Gdk 2.10]
gdk_threads_enter [Gdk 2.10]	gdk_threads_init [Gdk 2.10]
gdk_threads_leave [Gdk 2.10]	gdk_threads_set_lock_functions [Gdk 2.10]
gdk_unicode_to_keyval [Gdk 2.10]	gdk_utf8_to_compound_text [Gdk 2.10]
gdk_utf8_to_compound_text_for_display [Gdk 2.10]	gdk_utf8_to_string_target [Gdk 2.10]
gdk_visibility_state_get_type [GObject 2.12]	gdk_visual_get_best [Gdk 2.10]
gdk_visual_get_best_depth [Gdk 2.10]	gdk_visual_get_best_type [Gdk 2.10]
gdk_visual_get_best_with_both [Gdk 2.10]	gdk_visual_get_best_with_depth [Gdk 2.10]
gdk_visual_get_best_with_type [Gdk 2.10]	gdk_visual_get_screen [Gdk 2.10]
gdk_visual_get_system [Gdk 2.10]	gdk_visual_get_type [GObject 2.12]
gdk_visual_type_get_type [GObject 2.12]	gdk_window_add_filter [Gdk 2.10]
gdk_window_at_pointer [Gdk 2.10]	gdk_window_attributes_type_get_type [GObject 2.12]
gdk_window_begin_move_drag [Gdk 2.10]	gdk_window_begin_paint_rect [Gdk 2.10]
gdk_window_begin_paint_region [Gdk 2.10]	gdk_window_begin_resize_drag [Gdk 2.10]
gdk_window_class_get_type [GObject 2.12]	gdk_window_clear [Gdk 2.10]
gdk_window_clear_area [Gdk 2.10]	gdk_window_clear_area_e [Gdk 2.10]
gdk_window_configure_finished [Gdk 2.10]	gdk_window_constrain_size [Gdk 2.10]
gdk_window_deiconify [Gdk 2.10]	gdk_window_destroy [Gdk 2.10]
gdk_window_destroy_notify [Gdk 2.10]	gdk_window_edge_get_type [GObject 2.12]
gdk_window_enable_synchronized_configure [Gdk 2.10]	gdk_window_end_paint [Gdk 2.10]
gdk_window_focus [Gdk 2.10]	gdk_window_foreign_new [Gdk 2.10]
gdk_window_foreign_new_for_display [Gdk 2.10]	gdk_window_freeze_updates [Gdk 2.10]
gdk_window_fullscreen [Gdk 2.10]	gdk_window_get_children [Gdk 2.10]
gdk_window_get_decorations [Gdk 2.10]	gdk_window_get_events [Gdk 2.10]
gdk_window_get_frame_extents [Gdk 2.10]	gdk_window_get_geometry [Gdk 2.10]
gdk_window_get_group [Gdk 2.10]	gdk_window_get_internal_paint_info [Gdk 2.10]
gdk_window_get_origin [Gdk 2.10]	gdk_window_get_parent [Gdk 2.10]
gdk_window_get_pointer [Gdk 2.10]	gdk_window_get_position [Gdk 2.10]
gdk_window_get_root_origin [Gdk 2.10]	gdk_window_get_state [Gdk 2.10]

gdk_window_get_toplevel [Gdk 2.10]	gdk_window_get_toplevels [Gdk 2.10]
gdk_window_get_type_hint [Gdk 2.10]	gdk_window_get_update_area [Gdk 2.10]
gdk_window_get_user_data [Gdk 2.10]	gdk_window_get_window_type [Gdk 2.10]
gdk_window_hide [Gdk 2.10]	gdk_window_hints_get_type [GObject 2.12]
gdk_window_iconify [Gdk 2.10]	gdk_window_input_shape_combine_mask [Gdk 2.10]
gdk_window_input_shape_combine_region [Gdk 2.10]	gdk_window_invalidate_maybe_recurse [Gdk 2.10]
gdk_window_invalidate_rect [Gdk 2.10]	gdk_window_invalidate_region [Gdk 2.10]
gdk_window_is_viewable [Gdk 2.10]	gdk_window_is_visible [Gdk 2.10]
gdk_window_lookup [Gdk 2.10]	gdk_window_lookup_for_display [Gdk 2.10]
gdk_window_lower [Gdk 2.10]	gdk_window_maximize [Gdk 2.10]
gdk_window_merge_child_input_shapes [Gdk 2.10]	gdk_window_merge_child_shapes [Gdk 2.10]
gdk_window_move [Gdk 2.10]	gdk_window_move_region [Gdk 2.10]
gdk_window_move_resize [Gdk 2.10]	gdk_window_new [Gdk 2.10]
gdk_window_object_get_type [GObject 2.12]	gdk_window_peek_children [Gdk 2.10]
gdk_window_process_all_updates [Gdk 2.10]	gdk_window_process_updates [Gdk 2.10]
gdk_window_raise [Gdk 2.10]	gdk_window_register_dnd [Gdk 2.10]
gdk_window_remove_filter [Gdk 2.10]	gdk_window_reparent [Gdk 2.10]
gdk_window_resize [Gdk 2.10]	gdk_window_scroll [Gdk 2.10]
gdk_window_set_accept_focus [Gdk 2.10]	gdk_window_set_back_pixmap [Gdk 2.10]
gdk_window_set_background [Gdk 2.10]	gdk_window_set_child_input_shapes [Gdk 2.10]
gdk_window_set_child_shapes [Gdk 2.10]	gdk_window_set_cursor [Gdk 2.10]
gdk_window_set_debug_updates [Gdk 2.10]	gdk_window_set_decorations [Gdk 2.10]
gdk_window_set_events [Gdk 2.10]	gdk_window_set_focus_on_map [Gdk 2.10]
gdk_window_set_functions [Gdk 2.10]	gdk_window_set_geometry_hints [Gdk 2.10]
gdk_window_set_group [Gdk 2.10]	gdk_window_set_icon [Gdk 2.10]
gdk_window_set_icon_list [Gdk 2.10]	gdk_window_set_icon_name [Gdk 2.10]
gdk_window_set_keep_above [Gdk 2.10]	gdk_window_set_keep_below [Gdk 2.10]
gdk_window_set_modal_hint [Gdk 2.10]	gdk_window_set_override_redirect [Gdk 2.10]
gdk_window_set_role [Gdk 2.10]	gdk_window_set_skip_pager_hint [Gdk 2.10]
gdk_window_set_skip_taskbar_hint [Gdk 2.10]	gdk_window_set_static_gravities [Gdk 2.10]
gdk_window_set_title [Gdk 2.10]	gdk_window_set_transient_for [Gdk 2.10]

gdk_window_set_type_hint [Gdk 2.10]	gdk_window_set_urgency_hint [Gdk 2.10]
gdk_window_set_user_data [Gdk 2.10]	gdk_window_shape_combine_mask [Gdk 2.10]
gdk_window_shape_combine_region [Gdk 2.10]	gdk_window_show [Gdk 2.10]
gdk_window_show_unraised [Gdk 2.10]	gdk_window_state_get_type [GObject 2.12]
gdk_window_stick [Gdk 2.10]	gdk_window_thaw_updates [Gdk 2.10]
gdk_window_type_get_type [GObject 2.12]	gdk_window_type_hint_get_type [GObject 2.12]
gdk_window_unfullscreen [Gdk 2.10]	gdk_window_unmaximize [Gdk 2.10]
gdk_window_unstick [Gdk 2.10]	gdk_window_withdraw [Gdk 2.10]
gdk_wm_decoration_get_type [GObject 2.12]	gdk_wm_function_get_type [GObject 2.12]
gdk_x11_atom_to_xatom [Gdk 2.10]	gdk_x11_atom_to_xatom_for_display [Gdk 2.10]
gdk_x11_colormap_foreign_new [Gdk 2.10]	gdk_x11_colormap_get_xcolormap [Gdk 2.10]
gdk_x11_colormap_get_xdisplay [Gdk 2.10]	gdk_x11_cursor_get_xcursor [Gdk 2.10]
gdk_x11_cursor_get_xdisplay [Gdk 2.10]	gdk_x11_display_get_user_time [Gdk 2.10]
gdk_x11_display_get_xdisplay [Gdk 2.10]	gdk_x11_display_grab [Gdk 2.10]
gdk_x11_display_set_cursor_theme [Gdk 2.10]	gdk_x11_display_ungrab [Gdk 2.10]
gdk_x11_drawable_get_xdisplay [Gdk 2.10]	gdk_x11_drawable_get_xid [Gdk 2.10]
gdk_x11_gc_get_xdisplay [Gdk 2.10]	gdk_x11_gc_get_xgc [Gdk 2.10]
gdk_x11_get_default_root_xwindow [Gdk 2.10]	gdk_x11_get_default_screen [Gdk 2.10]
gdk_x11_get_default_xdisplay [Gdk 2.10]	gdk_x11_get_server_time [Gdk 2.10]
gdk_x11_get_xatom_by_name [Gdk 2.10]	gdk_x11_get_xatom_by_name_for_display [Gdk 2.10]
gdk_x11_get_xatom_name [Gdk 2.10]	gdk_x11_get_xatom_name_for_display [Gdk 2.10]
gdk_x11_grab_server [Gdk 2.10]	gdk_x11_image_get_xdisplay [Gdk 2.10]
gdk_x11_image_get_ximage [Gdk 2.10]	gdk_x11_lookup_xdisplay [Gdk 2.10]
gdk_x11_register_standard_event_type [Gdk 2.10]	gdk_x11_screen_get_screen_number [Gdk 2.10]
gdk_x11_screen_get_window_manager_name [Gdk 2.10]	gdk_x11_screen_get_xscreen [Gdk 2.10]
gdk_x11_screen_lookup_visual [Gdk 2.10]	gdk_x11_screen_supports_net_wm_hint [Gdk 2.10]
gdk_x11_ungrab_server [Gdk 2.10]	gdk_x11_visual_get_xvisual [Gdk 2.10]
gdk_x11_window_move_to_current_desktop [Gdk 2.10]	gdk_x11_window_set_user_time [Gdk 2.10]
gdk_x11_xatom_to_atom [Gdk 2.10]	gdk_x11_xatom_to_atom_for_display [Gdk 2.10]
gdk_xid_table_lookup [Gdk 2.10]	gdk_xid_table_lookup_for_display [Gdk 2.10]
gdkx_visual_get [Gdk 2.10]	

An LSB conforming implementation shall provide the generic data interfaces for GTK Drawing toolkit specified in [Table 16-100](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-100. libgdk-x11-2.0 - GTK Drawing toolkit Data Interfaces

gdk_display [Gdk 2.10]	gdk_threads_lock [Gdk 2.10]
gdk_threads_unlock [Gdk 2.10]	

16.26. Data Definitions for libgdk-x11-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libgdk-x11-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.26.1. gtk-2.0/gdk/gdk.h

```
#define GDK_WINDOWING_X11
#define GDK_PIXMAP_OBJECT(object) \
    ((GdkPixmapObject *) GDK_PIXMAP (object))
#define GDK_WINDOW_OBJECT(object) \
    ((GdkWindowObject *) GDK_WINDOW (object))
#define GDK_TYPE_WINDOW_ATTRIBUTES_TYPE \
    (gdk_window_attributes_type_get_type())
#define GDK_COLORMAP_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_COLORMAP, \
    GdkColormapClass))
#define GDK_DEVICE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_DEVICE, GdkDeviceClass))
#define GDK_DISPLAY_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_DISPLAY, \
    GdkDisplayClass))
#define GDK_DISPLAY_MANAGER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_DISPLAY_MANAGER, \
    GdkDisplayManagerClass))
#define GDK_DRAG_CONTEXT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_DRAG_CONTEXT, \
    GdkDragContextClass))
#define GDK_DRAWABLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_DRAWABLE, \
    GdkDrawableClass))
#define GDK_GC_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_GC, \
    GdkGCClass))
```

```

        (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_GC, GdkGCClass))
#define GDK_IMAGE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_IMAGE, GdkImageClass))
#define GDK_KEYMAP_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_KEYMAP, GdkKeymapClass))
#define GDK_PANGO_RENDERER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_PANGO_RENDERER, \
        GdkPangoRendererClass))
#define GDK_PIXMAP_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_PIXMAP, \
        GdkPixmapObjectClass))
#define GDK_SCREEN_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_SCREEN, GdkScreenClass))
#define GDK_VISUAL_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_VISUAL, GdkVisualClass))
#define GDK_WINDOW_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GDK_TYPE_WINDOW, \
        GdkWindowObjectClass))
#define GDK_IS_COLORMAP_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_COLORMAP))
#define GDK_IS_DEVICE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_DEVICE))
#define GDK_IS_DISPLAY_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_DISPLAY))
#define GDK_IS_DISPLAY_MANAGER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_DISPLAY_MANAGER))
#define GDK_IS_DRAG_CONTEXT_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_DRAG_CONTEXT))
#define GDK_IS_DRAWABLE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_DRAWABLE))
#define GDK_IS_GC_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_GC))
#define GDK_IS_IMAGE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_IMAGE))
#define GDK_IS_KEYMAP_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_KEYMAP))
#define GDK_IS_PANGO_RENDERER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_PANGO_RENDERER))
#define GDK_IS_PIXMAP_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_PIXMAP))
#define GDK_IS_SCREEN_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_SCREEN))
#define GDK_IS_VISUAL_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_VISUAL))
#define GDK_IS_WINDOW_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GDK_TYPE_WINDOW))
#define GDK_COLORMAP(object) \
        (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_COLORMAP, \
        GdkColormap))
#define GDK_DEVICE(object) \
        (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_DEVICE, GdkDevice))
#define GDK_DISPLAY_OBJECT(object) \
        (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_DISPLAY, GdkDisplay))
#define GDK_DISPLAY_MANAGER(object) \
        (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_DISPLAY_MANAGER, \
        GdkDisplayManager))
#define GDK_DRAG_CONTEXT(object) \
        (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_DRAG_CONTEXT, \
        GdkDragContext))
#define GDK_DRAWABLE(object) \
        (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_DRAWABLE, \
        GdkDrawable))

```

```

#define GDK_GC(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_GC, GdkGC))
#define GDK_IMAGE(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_IMAGE, GdkImage))
#define GDK_KEYMAP(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_KEYMAP, GdkKeymap))
#define GDK_PANGO_RENDERER(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_PANGO_RENDERER, \
    GdkPangoRenderer))
#define GDK_PIXMAP(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_PIXMAP, GdkPixmap))
#define GDK_SCREEN(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_SCREEN, GdkScreen))
#define GDK_VISUAL(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_VISUAL, GdkVisual))
#define GDK_WINDOW(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GDK_TYPE_WINDOW, GdkWindow))
#define GDK_IS_COLORMAP(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_COLORMAP))
#define GDK_IS_DEVICE(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_DEVICE))
#define GDK_IS_DISPLAY(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_DISPLAY))
#define GDK_IS_DISPLAY_MANAGER(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_DISPLAY_MANAGER))
#define GDK_IS_DRAG_CONTEXT(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_DRAG_CONTEXT))
#define GDK_IS_DRAWABLE(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_DRAWABLE))
#define GDK_IS_GC(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_GC))
#define GDK_IS_IMAGE(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_IMAGE))
#define GDK_IS_KEYMAP(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_KEYMAP))
#define GDK_IS_PANGO_RENDERER(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_PANGO_RENDERER))
#define GDK_IS_PIXMAP(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_PIXMAP))
#define GDK_IS_SCREEN(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_SCREEN))
#define GDK_IS_VISUAL(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_VISUAL))
#define GDK_IS_WINDOW(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GDK_TYPE_WINDOW))
#define GDK_COLORMAP_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_COLORMAP, \
    GdkColormapClass))
#define GDK_DEVICE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_DEVICE, GdkDeviceClass))
#define GDK_DISPLAY_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_DISPLAY, \
    GdkDisplayClass))
#define GDK_DISPLAY_MANAGER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_DISPLAY_MANAGER, \
    GdkDisplayManagerClass))
#define GDK_DRAG_CONTEXT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_DRAG_CONTEXT, \
    GdkDragContextClass))
#define GDK_DRAWABLE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_DRAWABLE, \
    GdkDrawableClass))

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#define GDK_GC_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_GC, GdkGCClass))
#define GDK_IMAGE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_IMAGE, GdkImageClass))
#define GDK_KEYMAP_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_KEYMAP, GdkKeymapClass))
#define GDK_PANGO_RENDERER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_PANGO_RENDERER, \
    GdkPangoRendererClass))
#define GDK_PIXMAP_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_PIXMAP, \
    GdkPixmapObjectClass))
#define GDK_SCREEN_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_SCREEN, GdkScreenClass))
#define GDK_VISUAL_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_VISUAL, GdkVisualClass))
#define GDK_WINDOW_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GDK_TYPE_WINDOW, \
    GdkWindowObjectClass))
#define GDK_THREADS_ENTER() \
    G_STMT_START { if (gdk_threads_lock) (*gdk_threads_lock) (); } \
    G_STMT_END
#define GDK_THREADS_LEAVE() \
    G_STMT_START { if (gdk_threads_unlock) (*gdk_threads_unlock) (); } \
    G_STMT_END
#define GDK_POINTER_TO_ATOM(ptr) ((GdkAtom) (ptr))
#define _GDK_MAKE_ATOM(val) ((GdkAtom) GUINT_TO_POINTER(val))
#define GDK_ATOM_TO_POINTER(atom) (atom)
#define GDK_TYPE_AXIS_USE (gdk_axis_use_get_type())
#define GDK_TYPE_BYTE_ORDER (gdk_byte_order_get_type())
#define GDK_TYPE_CAP_STYLE (gdk_cap_style_get_type())
#define GDK_TYPE_COLORMAP (gdk_colormap_get_type ())
#define GDK_TYPE_COLOR (gdk_color_get_type ())
#define GDK_TYPE_CROSSING_MODE (gdk_crossing_mode_get_type())
#define GDK_TYPE_CURSOR (gdk_cursor_get_type ())
#define GDK_TYPE_CURSOR_TYPE (gdk_cursor_type_get_type())
#define GDK_TYPE_DEVICE (gdk_device_get_type ())
#define GDK_TYPE_DISPLAY (gdk_display_get_type ())
#define GDK_TYPE_DISPLAY_MANAGER (gdk_display_manager_get_type ())
#define GDK_TYPE_DRAG_ACTION (gdk_drag_action_get_type())
#define GDK_TYPE_DRAG_CONTEXT (gdk_drag_context_get_type ())
#define GDK_TYPE_DRAG_PROTOCOL (gdk_drag_protocol_get_type())
#define GDK_TYPE_DRAWABLE (gdk_drawable_get_type ())
#define GDK_TYPE_EVENT (gdk_event_get_type ())
#define GDK_TYPE_EVENT_MASK (gdk_event_mask_get_type())
#define GDK_TYPE_EVENT_TYPE (gdk_event_type_get_type())
#define GDK_TYPE_EXTENSION_MODE (gdk_extension_mode_get_type())
#define GDK_TYPE_FILL (gdk_fill_get_type())
#define GDK_TYPE_FILL_RULE (gdk_fill_rule_get_type())
#define GDK_TYPE_FILTER_RETURN (gdk_filter_return_get_type())
#define GDK_TYPE_FONT_TYPE (gdk_font_type_get_type())
#define GDK_TYPE_FUNCTION (gdk_function_get_type())
#define GDK_TYPE_GC (gdk_gc_get_type ())
#define GDK_TYPE_GC_VALUES_MASK (gdk_gc_values_mask_get_type())
#define GDK_TYPE_GRAB_STATUS (gdk_grab_status_get_type())
#define GDK_TYPE_GRAVITY (gdk_gravity_get_type())
#define GDK_TYPE_IMAGE (gdk_image_get_type ())
#define GDK_TYPE_IMAGE_TYPE (gdk_image_type_get_type())
#define GDK_TYPE_INPUT_CONDITION (gdk_input_condition_get_type())
#define GDK_TYPE_INPUT_MODE (gdk_input_mode_get_type())
#define GDK_TYPE_INPUT_SOURCE (gdk_input_source_get_type())
#define GDK_TYPE_JOIN_STYLE (gdk_join_style_get_type())

```



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#define GDK_TYPE_KEYMAP (gdk_keymap_get_type ())
#define GDK_TYPE_LINE_STYLE (gdk_line_style_get_type())
#define GDK_TYPE_MODIFIER_TYPE (gdk_modifier_type_get_type())
#define GDK_TYPE_NOTIFY_TYPE (gdk_notify_type_get_type())
#define GDK_TYPE_OVERLAP_TYPE (gdk_overlap_type_get_type())
#define GDK_TYPE_OWNER_CHANGE (gdk_owner_change_get_type())
#define GDK_TYPE_PANGO_RENDERER (gdk_pango_renderer_get_type())
#define GDK_TYPE_PIXMAP (gdk_pixmap_get_type ())
#define GDK_TYPE_PROPERTY_STATE (gdk_property_state_get_type())
#define GDK_TYPE_PROP_MODE (gdk_prop_mode_get_type())
#define GDK_TYPE_RECTANGLE (gdk_rectangle_get_type ())
#define GDK_TYPE_RGB_DITHER (gdk_rgb_dither_get_type())
#define GDK_TYPE_SCREEN (gdk_screen_get_type ())
#define GDK_TYPE_SCROLL_DIRECTION (gdk_scroll_direction_get_type())
#define GDK_TYPE_SETTING_ACTION (gdk_setting_action_get_type())
#define GDK_TYPE_STATUS (gdk_status_get_type())
#define GDK_TYPE_SUBWINDOW_MODE (gdk_subwindow_mode_get_type())
#define GDK_TYPE_VISIBILITY_STATE (gdk_visibility_state_get_type())
#define GDK_TYPE_VISUAL (gdk_visual_get_type ())
#define GDK_TYPE_VISUAL_TYPE (gdk_visual_type_get_type())
#define GDK_TYPE_WINDOW_CLASS (gdk_window_class_get_type())
#define GDK_TYPE_WINDOW_EDGE (gdk_window_edge_get_type())
#define GDK_TYPE_WINDOW_HINTS (gdk_window_hints_get_type())
#define GDK_TYPE_WINDOW (gdk_window_object_get_type ())
#define GDK_TYPE_WINDOW_STATE (gdk_window_state_get_type())
#define GDK_TYPE_WINDOW_TYPE (gdk_window_type_get_type())
#define GDK_TYPE_WINDOW_TYPE_HINT (gdk_window_type_hint_get_type())
#define GDK_TYPE_WM_DECORATION (gdk_wm_decoration_get_type())
#define GDK_TYPE_WM_FUNCTION (gdk_wm_function_get_type())
#define GDK_PRIORITY_EVENTS (G_PRIORITY_DEFAULT)
#define GDK_PRIORITY_REDRAW (G_PRIORITY_HIGH_IDLE + 20)
#define GDK_CURRENT_TIME 0L
#define GDK_HAVE_WCHAR_H 1
#define GDK_HAVE_WCTYPE_H 1
#define GDK_MAX_TIMECOORD_AXES 128
#define GDK_PARENT_RELATIVE 1L
#define GDKVAR extern
#define gdk_draw_bitmap gdk_draw_drawable
#define GDK_NONE _GDK_MAKE_ATOM (0)
#define GDK_SELECTION_PRIMARY _GDK_MAKE_ATOM (1)
#define GDK_SELECTION_TYPE_DRAWABLE _GDK_MAKE_ATOM (17)
#define GDK_TARGET_DRAWABLE _GDK_MAKE_ATOM (17)
#define GDK_SELECTION_TYPE_INTEGER _GDK_MAKE_ATOM (19)
#define GDK_SELECTION_SECONDARY _GDK_MAKE_ATOM (2)
#define GDK_SELECTION_TYPE_PIXMAP _GDK_MAKE_ATOM (20)
#define GDK_TARGET_PIXMAP _GDK_MAKE_ATOM (20)
#define GDK_SELECTION_TYPE_STRING _GDK_MAKE_ATOM (31)
#define GDK_TARGET_STRING _GDK_MAKE_ATOM (31)
#define GDK_SELECTION_TYPE_WINDOW _GDK_MAKE_ATOM (33)
#define GDK_SELECTION_TYPE_ATOM _GDK_MAKE_ATOM (4)
#define GDK_SELECTION_TYPE_BITMAP _GDK_MAKE_ATOM (5)
#define GDK_TARGET_BITMAP _GDK_MAKE_ATOM (5)
#define GDK_SELECTION_CLIPBOARD _GDK_MAKE_ATOM (69)
#define GDK_SELECTION_TYPE_COLORMAP _GDK_MAKE_ATOM (7)
#define GDK_TARGET_COLORMAP _GDK_MAKE_ATOM (7)

typedef struct _GdkDrawable {
    GObject parent_instance;
} GdkWindow;
typedef struct _GdkColor {
    guint32 pixel;
    guint16 red;

```

```

    guint16 green;
    guint16 blue;
} GdkColor;
typedef enum {
    GDK_VISUAL_STATIC_GRAY = 0,
    GDK_VISUAL_GRAYSCALE = 1,
    GDK_VISUAL_STATIC_COLOR = 2,
    GDK_VISUAL_PSEUDO_COLOR = 3,
    GDK_VISUAL_TRUE_COLOR = 4,
    GDK_VISUAL_DIRECT_COLOR = 5
} GdkVisualType;
typedef enum {
    GDK_LSB_FIRST = 0,
    GDK_MSB_FIRST = 1
} GdkByteOrder;
typedef struct _GdkVisual {
    GObject parent_instance;
    GdkVisualType type;
    gint depth;
    GdkByteOrder byte_order;
    gint colormap_size;
    gint bits_per_rgb;
    guint32 red_mask;
    gint red_shift;
    gint red_prec;
    guint32 green_mask;
    gint green_shift;
    gint green_prec;
    guint32 blue_mask;
    gint blue_shift;
    gint blue_prec;
} GdkVisual;
typedef struct _GdkColormap {
    GObject parent_instance;
    gint size;
    GdkColor *colors;
    GdkVisual *visual;
    gpointer windowing_data;
} GdkColormap;
typedef struct _GdkGC {
    GObject parent_instance;
    gint clip_x_origin;
    gint clip_y_origin;
    gint ts_x_origin;
    gint ts_y_origin;
    GdkColormap *colormap;
} GdkGC;
typedef struct _GdkDrawable {
    GObject parent_instance;
} GdkDrawable;
typedef enum {
    GDK_SOURCE_MOUSE = 0,
    GDK_SOURCE_PEN = 1,
    GDK_SOURCE_ERASER = 2,
    GDK_SOURCE_CURSOR = 3
} GdkInputSource;
typedef enum {
    GDK_MODE_DISABLED = 0,
    GDK_MODE_SCREEN = 1,
    GDK_MODE_WINDOW = 2
} GdkInputMode;
typedef enum {

```

```

    GDK_AXIS_IGNORE = 0,
    GDK_AXIS_X = 1,
    GDK_AXIS_Y = 2,
    GDK_AXIS_PRESSURE = 3,
    GDK_AXIS_XTILT = 4,
    GDK_AXIS_YTILT = 5,
    GDK_AXIS_WHEEL = 6,
    GDK_AXIS_LAST = 7
} GdkAxisUse;
typedef struct _GdkDeviceAxis {
    GdkAxisUse use;
    gdouble min;
    gdouble max;
} GdkDeviceAxis;
typedef enum {
    GDK_SHIFT_MASK = 1,
    GDK_LOCK_MASK = 2,
    GDK_CONTROL_MASK = 4,
    GDK_MOD1_MASK = 8,
    GDK_MOD2_MASK = 16,
    GDK_MOD3_MASK = 32,
    GDK_MOD4_MASK = 64,
    GDK_MOD5_MASK = 128,
    GDK_BUTTON1_MASK = 256,
    GDK_BUTTON2_MASK = 512,
    GDK_BUTTON3_MASK = 1024,
    GDK_BUTTON4_MASK = 2048,
    GDK_BUTTON5_MASK = 4096,
    GDK_RELEASE_MASK = 1073741824,
    GDK_MODIFIER_MASK = 1073750015
} GdkModifierType;
typedef struct _GdkDeviceKey {
    guint keyval;
    GdkModifierType modifiers;
} GdkDeviceKey;
typedef struct _GdkDevice {
    GObject parent_instance;
    gchar *name;
    GdkInputSource source;
    GdkInputMode mode;
    gboolean has_cursor;
    gint num_axes;
    GdkDeviceAxis *axes;
    gint num_keys;
    GdkDeviceKey *keys;
} GdkDevice;
typedef struct _GdkDisplay {
    GObject parent_instance;
    GList *queued_events;
    GList *queued_tail;
    guint32 button_click_time[2];
    GdkWindow *button_window[2];
    gint button_number[2];
    guint double_click_time;
    GdkDevice *core_pointer;
    const GdkDisplayPointerHooks *pointer_hooks;
    guint closed:1;
    guint double_click_distance;
    gint button_x[2];
    gint button_y[2];
} GdkDisplay;
typedef struct _GdkScreen GdkScreen;

```

```

typedef struct _GdkDisplayPointerHooks {
    void (*get_pointer) (GdkDisplay *, GdkScreen * *, gint *, gint *,
                        GdkModifierType *);
    GdkWindow *(*window_get_pointer) (GdkDisplay *, GdkWindow *, gint *,
                                     gint *, GdkModifierType *);
    GdkWindow *(*window_at_pointer) (GdkDisplay *, gint *, gint *);
} GdkDisplayPointerHooks;
typedef enum {
    GDK_EXPOSURE_MASK = 2,
    GDK_POINTER_MOTION_MASK = 4,
    GDK_POINTER_MOTION_HINT_MASK = 8,
    GDK_BUTTON_MOTION_MASK = 16,
    GDK_BUTTON1_MOTION_MASK = 32,
    GDK_BUTTON2_MOTION_MASK = 64,
    GDK_BUTTON3_MOTION_MASK = 128,
    GDK_BUTTON_PRESS_MASK = 256,
    GDK_BUTTON_RELEASE_MASK = 512,
    GDK_KEY_PRESS_MASK = 1024,
    GDK_KEY_RELEASE_MASK = 2048,
    GDK_ENTER_NOTIFY_MASK = 4096,
    GDK_LEAVE_NOTIFY_MASK = 8192,
    GDK_FOCUS_CHANGE_MASK = 16384,
    GDK_STRUCTURE_MASK = 32768,
    GDK_PROPERTY_CHANGE_MASK = 65536,
    GDK_VISIBILITY_NOTIFY_MASK = 131072,
    GDK_PROXIMITY_IN_MASK = 262144,
    GDK_PROXIMITY_OUT_MASK = 524288,
    GDK_SUBSTRUCTURE_MASK = 1048576,
    GDK_SCROLL_MASK = 2097152,
    GDK_ALL_EVENTS_MASK = 4194302
} GdkEventMask;
typedef enum {
    GDK_X_CURSOR = 0,
    GDK_ARROW = 2,
    GDK_BASED_ARROW_DOWN = 4,
    GDK_BASED_ARROW_UP = 6,
    GDK_BOAT = 8,
    GDK_BOGOSITY = 10,
    GDK_BOTTOM_LEFT_CORNER = 12,
    GDK_BOTTOM_RIGHT_CORNER = 14,
    GDK_BOTTOM_SIDE = 16,
    GDK_BOTTOM_TEE = 18,
    GDK_BOX_SPIRAL = 20,
    GDK_CENTER_PTR = 22,
    GDK_CIRCLE = 24,
    GDK_CLOCK = 26,
    GDK_COFFEE_MUG = 28,
    GDK_CROSS = 30,
    GDK_CROSS_REVERSE = 32,
    GDK_CROSSHAIR = 34,
    GDK_DIAMOND_CROSS = 36,
    GDK_DOT = 38,
    GDK_DOTBOX = 40,
    GDK_DOUBLE_ARROW = 42,
    GDK_DRAFT_LARGE = 44,
    GDK_DRAFT_SMALL = 46,
    GDK_DRAPED_BOX = 48,
    GDK_EXCHANGE = 50,
    GDK_FLEUR = 52,
    GDK_GOBLER = 54,
    GDK_GUMBY = 56,
    GDK_HAND1 = 58,

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GDK_HAND2 = 60,
GDK_HEART = 62,
GDK_ICON = 64,
GDK_IRON_CROSS = 66,
GDK_LEFT_PTR = 68,
GDK_LEFT_SIDE = 70,
GDK_LEFT_TEE = 72,
GDK_LEFTBUTTON = 74,
GDK_LL_ANGLE = 76,
GDK_LR_ANGLE = 78,
GDK_MAN = 80,
GDK_MIDDLEBUTTON = 82,
GDK_MOUSE = 84,
GDK_PENCIL = 86,
GDK_PIRATE = 88,
GDK_PLUS = 90,
GDK_QUESTION_ARROW = 92,
GDK_RIGHT_PTR = 94,
GDK_RIGHT_SIDE = 96,
GDK_RIGHT_TEE = 98,
GDK_RIGHTBUTTON = 100,
GDK_RTL_LOGO = 102,
GDK_SAILBOAT = 104,
GDK_SB_DOWN_ARROW = 106,
GDK_SB_H_DOUBLE_ARROW = 108,
GDK_SB_LEFT_ARROW = 110,
GDK_SB_RIGHT_ARROW = 112,
GDK_SB_UP_ARROW = 114,
GDK_SB_V_DOUBLE_ARROW = 116,
GDK_SHUTTLE = 118,
GDK_SIZING = 120,
GDK_SPIDER = 122,
GDK_SPRAYCAN = 124,
GDK_STAR = 126,
GDK_TARGET = 128,
GDK_TCROSS = 130,
GDK_TOP_LEFT_ARROW = 132,
GDK_TOP_LEFT_CORNER = 134,
GDK_TOP_RIGHT_CORNER = 136,
GDK_TOP_SIDE = 138,
GDK_TOP_TEE = 140,
GDK_TREK = 142,
GDK_UL_ANGLE = 144,
GDK_UMBRELLA = 146,
GDK_UR_ANGLE = 148,
GDK_WATCH = 150,
GDK_XTERM = 152,
GDK_LAST_CURSOR = 153,
GDK_CURSOR_IS_PIXMAP = -1
} GdkCursorType;
typedef struct _GdkCursor {
    GdkCursorType type;
    guint ref_count;
} GdkCursor;
typedef struct _GdkKeymap {
    GObject parent_instance;
    GdkDisplay *display;
} GdkKeymap;
typedef struct _GdkAtom *GdkAtom;
typedef enum {
    GDK_FILTER_CONTINUE = 0,
    GDK_FILTER_TRANSLATE = 1,

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```

    GDK_FILTER_REMOVE = 2
} GdkFilterReturn;
typedef void GdkXEvent;
typedef enum {
    GDK_NOTHING = -1,
    GDK_DELETE = 0,
    GDK_DESTROY = 1,
    GDK_EXPOSE = 2,
    GDK_MOTION_NOTIFY = 3,
    GDK_BUTTON_PRESS = 4,
    GDK_2BUTTON_PRESS = 5,
    GDK_3BUTTON_PRESS = 6,
    GDK_BUTTON_RELEASE = 7,
    GDK_KEY_PRESS = 8,
    GDK_KEY_RELEASE = 9,
    GDK_ENTER_NOTIFY = 10,
    GDK_LEAVE_NOTIFY = 11,
    GDK_FOCUS_CHANGE = 12,
    GDK_CONFIGURE = 13,
    GDK_MAP = 14,
    GDK_UNMAP = 15,
    GDK_PROPERTY_NOTIFY = 16,
    GDK_SELECTION_CLEAR = 17,
    GDK_SELECTION_REQUEST = 18,
    GDK_SELECTION_NOTIFY = 19,
    GDK_PROXIMITY_IN = 20,
    GDK_PROXIMITY_OUT = 21,
    GDK_DRAG_ENTER = 22,
    GDK_DRAG_LEAVE = 23,
    GDK_DRAG_MOTION = 24,
    GDK_DRAG_STATUS = 25,
    GDK_DROP_START = 26,
    GDK_DROP_FINISHED = 27,
    GDK_CLIENT_EVENT = 28,
    GDK_VISIBILITY_NOTIFY = 29,
    GDK_NO_EXPOSE = 30,
    GDK_SCROLL = 31,
    GDK_WINDOW_STATE = 32,
    GDK_SETTING = 33,
    GDK_OWNER_CHANGE = 34
} GdkEventType;
typedef struct _GdkEventAny {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
} GdkEventAny;
typedef struct _GdkRectangle {
    gint x;
    gint y;
    gint width;
    gint height;
} GdkRectangle;
typedef struct _GdkRegion GdkRegion;
typedef struct _GdkEventExpose {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkRectangle area;
    GdkRegion *region;
    gint count;
} GdkEventExpose;
typedef struct _GdkEventNoExpose {

```

```

    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
} GdkEventNoExpose;
typedef enum {
    GDK_VISIBILITY_UNOBSCURED = 0,
    GDK_VISIBILITY_PARTIAL = 1,
    GDK_VISIBILITY_FULLY_OBSCURED = 2
} GdkVisibilityState;
typedef struct _GdkEventVisibility {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkVisibilityState state;
} GdkEventVisibility;
typedef struct _GdkEventMotion {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    guint32 time;
    gdouble x;
    gdouble y;
    gdouble *axes;
    guint state;
    gint16 is_hint;
    GdkDevice *device;
    gdouble x_root;
    gdouble y_root;
} GdkEventMotion;
typedef struct _GdkEventButton {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    guint32 time;
    gdouble x;
    gdouble y;
    gdouble *axes;
    guint state;
    guint button;
    GdkDevice *device;
    gdouble x_root;
    gdouble y_root;
} GdkEventButton;
typedef enum {
    GDK_SCROLL_UP = 0,
    GDK_SCROLL_DOWN = 1,
    GDK_SCROLL_LEFT = 2,
    GDK_SCROLL_RIGHT = 3
} GdkScrollDirection;
typedef struct _GdkEventScroll {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    guint32 time;
    gdouble x;
    gdouble y;
    guint state;
    GdkScrollDirection direction;
    GdkDevice *device;
    gdouble x_root;
    gdouble y_root;
} GdkEventScroll;

```

```

typedef struct _GdkEventKey {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    guint32 time;
    guint state;
    guint keyval;
    gint length;
    gchar *string;
    guint16 hardware_keycode;
    guint8 group;
} GdkEventKey;
typedef enum {
    GDK_CROSSING_NORMAL = 0,
    GDK_CROSSING_GRAB = 1,
    GDK_CROSSING_UNGRAB = 2
} GdkCrossingMode;
typedef enum {
    GDK_NOTIFY_ANCESTOR = 0,
    GDK_NOTIFY_VIRTUAL = 1,
    GDK_NOTIFY_INFERIOR = 2,
    GDK_NOTIFY_NONLINEAR = 3,
    GDK_NOTIFY_NONLINEAR_VIRTUAL = 4,
    GDK_NOTIFY_UNKNOWN = 5
} GdkNotifyType;
typedef struct _GdkEventCrossing {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkWindow *subwindow;
    guint32 time;
    gdouble x;
    gdouble y;
    gdouble x_root;
    gdouble y_root;
    GdkCrossingMode mode;
    GdkNotifyType detail;
    gboolean focus;
    guint state;
} GdkEventCrossing;
typedef struct _GdkEventFocus {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    gint16 in;
} GdkEventFocus;
typedef struct _GdkEventConfigure {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    gint x;
    gint y;
    gint width;
    gint height;
} GdkEventConfigure;
typedef struct _GdkEventProperty {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkAtom atom;
    guint32 time;
    guint state;
}

```



```

} GdkEventProperty;
typedef guint32 GdkNativeWindow;
typedef struct _GdkEventSelection {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkAtom selection;
    GdkAtom target;
    GdkAtom property;
    guint32 time;
    GdkNativeWindow requestor;
} GdkEventSelection;
typedef enum {
    GDK_OWNER_CHANGE_NEW_OWNER = 0,
    GDK_OWNER_CHANGE_DESTROY = 1,
    GDK_OWNER_CHANGE_CLOSE = 2
} GdkOwnerChange;
typedef struct _GdkEventOwnerChange {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkNativeWindow owner;
    GdkOwnerChange reason;
    GdkAtom selection;
    guint32 time;
    guint32 selection_time;
} GdkEventOwnerChange;
typedef struct _GdkEventProximity {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    guint32 time;
    GdkDevice *device;
} GdkEventProximity;
typedef struct _GdkEventClient {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkAtom message_type;
    gushort data_format;
    union {
        char b[20];
        short int s[10];
        long int l[5];
    } data;
} GdkEventClient;
typedef enum {
    GDK_DRAG_PROTO_MOTIF = 0,
    GDK_DRAG_PROTO_XDND = 1,
    GDK_DRAG_PROTO_ROOTWIN = 2,
    GDK_DRAG_PROTO_NONE = 3,
    GDK_DRAG_PROTO_WIN32_DROPFILES = 4,
    GDK_DRAG_PROTO_OLE2 = 5,
    GDK_DRAG_PROTO_LOCAL = 6
} GdkDragProtocol;
typedef enum {
    GDK_ACTION_DEFAULT = 1,
    GDK_ACTION_COPY = 2,
    GDK_ACTION_MOVE = 4,
    GDK_ACTION_LINK = 8,
    GDK_ACTION_PRIVATE = 16,
    GDK_ACTION_ASK = 32

```

```

} GdkDragAction;
typedef struct _GdkDragContext {
    GObject parent_instance;
    GdkDragProtocol protocol;
    gboolean is_source;
    GdkWindow *source_window;
    GdkWindow *dest_window;
    GList *targets;
    GdkDragAction actions;
    GdkDragAction suggested_action;
    GdkDragAction action;
    guint32 start_time;
    gpointer windowing_data;
} GdkDragContext;
typedef short int gshort;
typedef struct _GdkEventDND {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkDragContext *context;
    guint32 time;
    gshort x_root;
    gshort y_root;
} GdkEventDND;
typedef enum {
    GDK_WINDOW_STATE_WITHDRAWN = 1,
    GDK_WINDOW_STATE_ICONIFIED = 2,
    GDK_WINDOW_STATE_MAXIMIZED = 4,
    GDK_WINDOW_STATE_STICKY = 8,
    GDK_WINDOW_STATE_FULLSCREEN = 16,
    GDK_WINDOW_STATE_ABOVE = 32,
    GDK_WINDOW_STATE_BELOW = 64
} GdkWindowState;
typedef struct _GdkEventWindowState {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkWindowState changed_mask;
    GdkWindowState new_window_state;
} GdkEventWindowState;
typedef enum {
    GDK_SETTING_ACTION_NEW = 0,
    GDK_SETTING_ACTION_CHANGED = 1,
    GDK_SETTING_ACTION_DELETED = 2
} GdkSettingAction;
typedef struct _GdkEventSetting {
    GdkEventType type;
    GdkWindow *window;
    gint8 send_event;
    GdkSettingAction action;
    char *name;
} GdkEventSetting;
typedef union _GdkEvent {
    GdkEventType type;
    GdkEventAny any;
    GdkEventExpose expose;
    GdkEventNoExpose no_expose;
    GdkEventVisibility visibility;
    GdkEventMotion motion;
    GdkEventButton button;
    GdkEventScroll scroll;
    GdkEventKey key;

```

```

    GdkEventCrossing crossing;
    GdkEventFocus focus_change;
    GdkEventConfigure configure;
    GdkEventProperty property;
    GdkEventSelection selection;
    GdkEventOwnerChange owner_change;
    GdkEventProximity proximity;
    GdkEventClient client;
    GdkEventDND dnd;
    GdkEventWindowState window_state;
    GdkEventSetting setting;
} GdkEvent;
typedef GdkFilterReturn(*GdkFilterFunc) (GdkXEvent *, GdkEvent *,
                                         gpointer);

typedef struct _GdkDrawable {
    GObject parent_instance;
} GdkPixmap;
typedef struct _GdkDrawable {
    GObject parent_instance;
} GdkBitmap;
typedef struct _GdkDisplayManager GdkDisplayManager;
typedef enum {
    GDK_CLIP_BY_CHILDREN = 0,
    GDK_INCLUDE_INFERIORS = 1
} GdkSubwindowMode;
typedef enum {
    GDK_WINDOW_EDGE_NORTH_WEST = 0,
    GDK_WINDOW_EDGE_NORTH = 1,
    GDK_WINDOW_EDGE_NORTH_EAST = 2,
    GDK_WINDOW_EDGE_WEST = 3,
    GDK_WINDOW_EDGE_EAST = 4,
    GDK_WINDOW_EDGE_SOUTH_WEST = 5,
    GDK_WINDOW_EDGE_SOUTH = 6,
    GDK_WINDOW_EDGE_SOUTH_EAST = 7
} GdkWindowEdge;
typedef enum {
    GDK_IMAGE_NORMAL = 0,
    GDK_IMAGE_SHARED = 1,
    GDK_IMAGE_FASTEST = 2
} GdkImageType;
typedef struct _GdkImage {
    GObject parent_instance;
    GdkImageType type;
    GdkVisual *visual;
    GdkByteOrder byte_order;
    gint width;
    gint height;
    guint16 depth;
    guint16 bpp;
    guint16 bpl;
    guint16 bits_per_pixel;
    gpointer mem;
    GdkColormap *colormap;
    gpointer windowing_data;
} GdkImage;
typedef struct _GdkPangoRendererPrivate GdkPangoRendererPrivate;
typedef struct _GdkPangoRenderer {
    PangoRenderer parent_instance;
    GdkPangoRendererPrivate *priv;
} GdkPangoRenderer;
typedef enum {
    GDK_GRAB_SUCCESS = 0,

```

```

    GDK_GRAB_ALREADY_GRABBED = 1,
    GDK_GRAB_INVALID_TIME = 2,
    GDK_GRAB_NOT_VIEWABLE = 3,
    GDK_GRAB_FROZEN = 4
} GdkGrabStatus;
typedef enum {
    GDK_SOLID = 0,
    GDK_TILED = 1,
    GDK_STIPPLED = 2,
    GDK_OPAQUE_STIPPLED = 3
} GdkFill;
typedef enum {
    GDK_WINDOW_TYPE_HINT_NORMAL = 0,
    GDK_WINDOW_TYPE_HINT_DIALOG = 1,
    GDK_WINDOW_TYPE_HINT_MENU = 2,
    GDK_WINDOW_TYPE_HINT_TOOLBAR = 3,
    GDK_WINDOW_TYPE_HINT_SPLASHSCREEN = 4,
    GDK_WINDOW_TYPE_HINT_UTILITY = 5,
    GDK_WINDOW_TYPE_HINT_DOCK = 6,
    GDK_WINDOW_TYPE_HINT_DESKTOP = 7,
    GDK_WINDOW_TYPE_HINT_DROPDOWN_MENU,
    GDK_WINDOW_TYPE_HINT_POPUP_MENU,
    GDK_WINDOW_TYPE_HINT_TOOLTIP,
    GDK_WINDOW_TYPE_HINT_NOTIFICATION,
    GDK_WINDOW_TYPE_HINT_COMBO,
    GDK_WINDOW_TYPE_HINT_DND
} GdkWindowTypeHint;
typedef struct _GdkTimeCoord {
    guint32 time;
    gdouble axes[128];
} GdkTimeCoord;
typedef struct _GdkPoint {
    gint x;
    gint y;
} GdkPoint;
typedef struct _GdkFont GdkFont;
typedef enum {
    GDK_DECOR_ALL = 1,
    GDK_DECOR_BORDER = 2,
    GDK_DECOR_RESIZEH = 4,
    GDK_DECOR_TITLE = 8,
    GDK_DECOR_MENU = 16,
    GDK_DECOR_MINIMIZE = 32,
    GDK_DECOR_MAXIMIZE = 64
} GdkWMDecoration;
typedef enum {
    GDK_FUNC_ALL = 1,
    GDK_FUNC_RESIZE = 2,
    GDK_FUNC_MOVE = 4,
    GDK_FUNC_MINIMIZE = 8,
    GDK_FUNC_MAXIMIZE = 16,
    GDK_FUNC_CLOSE = 32
} GdkWMFunction;
typedef struct _GdkKeymapKey {
    guint keycode;
    gint group;
    gint level;
} GdkKeymapKey;
typedef enum {
    GDK_RGB_DITHER_NONE = 0,
    GDK_RGB_DITHER_NORMAL = 1,
    GDK_RGB_DITHER_MAX = 2

```

```

} GdkRgbDither;
typedef struct _GdkRgbCmap {
    guint32 colors[256];
    gint n_colors;
    GSList *info_list;
} GdkRgbCmap;
typedef enum {
    GDK_COPY = 0,
    GDK_INVERT = 1,
    GDK_XOR = 2,
    GDK_CLEAR = 3,
    GDK_AND = 4,
    GDK_AND_REVERSE = 5,
    GDK_AND_INVERT = 6,
    GDK_NOOP = 7,
    GDK_OR = 8,
    GDK_EQUIV = 9,
    GDK_OR_REVERSE = 10,
    GDK_COPY_INVERT = 11,
    GDK_OR_INVERT = 12,
    GDK_NAND = 13,
    GDK_NOR = 14,
    GDK_SET = 15
} GdkFunction;
typedef enum {
    GDK_LINE_SOLID = 0,
    GDK_LINE_ON_OFF_DASH = 1,
    GDK_LINE_DOUBLE_DASH = 2
} GdkLineStyle;
typedef enum {
    GDK_CAP_NOT_LAST = 0,
    GDK_CAP_BUTT = 1,
    GDK_CAP_ROUND = 2,
    GDK_CAP_PROJECTING = 3
} GdkCapStyle;
typedef enum {
    GDK_JOIN_MITER = 0,
    GDK_JOIN_ROUND = 1,
    GDK_JOIN_BEVEL = 2
} GdkJoinStyle;
typedef struct _GdkGCValues {
    GdkColor foreground;
    GdkColor background;
    GdkFont *font;
    GdkFunction function;
    GdkFill fill;
    GdkPixmap *tile;
    GdkPixmap *stipple;
    GdkPixmap *clip_mask;
    GdkSubwindowMode subwindow_mode;
    gint ts_x_origin;
    gint ts_y_origin;
    gint clip_x_origin;
    gint clip_y_origin;
    gint graphics_exposures;
    gint line_width;
    GdkLineStyle line_style;
    GdkCapStyle cap_style;
    GdkJoinStyle join_style;
} GdkGCValues;
typedef enum {
    GDK_GC_FOREGROUND = 1,

```

```

    GDK_GC_BACKGROUND = 2,
    GDK_GC_FONT = 4,
    GDK_GC_FUNCTION = 8,
    GDK_GC_FILL = 16,
    GDK_GC_TILE = 32,
    GDK_GC_STIPPLE = 64,
    GDK_GC_CLIP_MASK = 128,
    GDK_GC_SUBWINDOW = 256,
    GDK_GC_TS_X_ORIGIN = 512,
    GDK_GC_TS_Y_ORIGIN = 1024,
    GDK_GC_CLIP_X_ORIGIN = 2048,
    GDK_GC_CLIP_Y_ORIGIN = 4096,
    GDK_GC_EXPOSURES = 8192,
    GDK_GC_LINE_WIDTH = 16384,
    GDK_GC_LINE_STYLE = 32768,
    GDK_GC_CAP_STYLE = 65536,
    GDK_GC_JOIN_STYLE = 131072
} GdkGCValuesMask;
typedef enum {
    GDK_WINDOW_ROOT = 0,
    GDK_WINDOW_TOPLEVEL = 1,
    GDK_WINDOW_CHILD = 2,
    GDK_WINDOW_DIALOG = 3,
    GDK_WINDOW_TEMP = 4,
    GDK_WINDOW_FOREIGN = 5
} GdkWindowType;
typedef struct _GdkSpan {
    gint x;
    gint y;
    gint width;
} GdkSpan;
typedef void (*GdkSpanFunc) (GdkSpan *, gpointer);
typedef enum {
    GDK_GRAVITY_NORTH_WEST = 1,
    GDK_GRAVITY_NORTH = 2,
    GDK_GRAVITY_NORTH_EAST = 3,
    GDK_GRAVITY_WEST = 4,
    GDK_GRAVITY_CENTER = 5,
    GDK_GRAVITY_EAST = 6,
    GDK_GRAVITY_SOUTH_WEST = 7,
    GDK_GRAVITY_SOUTH = 8,
    GDK_GRAVITY_SOUTH_EAST = 9,
    GDK_GRAVITY_STATIC = 10
} GdkGravity;
typedef struct _GdkGeometry {
    gint min_width;
    gint min_height;
    gint max_width;
    gint max_height;
    gint base_width;
    gint base_height;
    gint width_inc;
    gint height_inc;
    gdouble min_aspect;
    gdouble max_aspect;
    GdkGravity win_gravity;
} GdkGeometry;
typedef enum {
    GDK_HINT_POS = 1,
    GDK_HINT_MIN_SIZE = 2,
    GDK_HINT_MAX_SIZE = 4,
    GDK_HINT_BASE_SIZE = 8,

```

```

    GDK_HINT_ASPECT = 16,
    GDK_HINT_RESIZE_INC = 32,
    GDK_HINT_WIN_GRAVITY = 64,
    GDK_HINT_USER_POS = 128,
    GDK_HINT_USER_SIZE = 256
} GdkWindowHints;
typedef void (*GdkEventFunc) (GdkEvent *, gpointer);
typedef enum {
    GDK_OVERLAP_RECTANGLE_IN = 0,
    GDK_OVERLAP_RECTANGLE_OUT = 1,
    GDK_OVERLAP_RECTANGLE_PART = 2
} GdkOverlapType;
typedef struct _GdkSegment {
    gint x1;
    gint y1;
    gint x2;
    gint y2;
} GdkSegment;
typedef enum {
    GDK_PROP_MODE_REPLACE = 0,
    GDK_PROP_MODE_PREPEND = 1,
    GDK_PROP_MODE_APPEND = 2
} GdkPropMode;
typedef enum {
    GDK_INPUT_OUTPUT = 0,
    GDK_INPUT_ONLY = 1
} GdkWindowClass;
typedef struct _GdkWindowAttr {
    gchar *title;
    gint event_mask;
    gint x;
    gint y;
    gint width;
    gint height;
    GdkWindowClass wclass;
    GdkVisual *visual;
    GdkColormap *colormap;
    GdkWindowType window_type;
    GdkCursor *cursor;
    gchar *wmclass_name;
    gchar *wmclass_class;
    gboolean override_redirect;
} GdkWindowAttr;
typedef struct _GdkTrapezoid {
    double y1;
    double x11;
    double x21;
    double y2;
    double x12;
    double x22;
} GdkTrapezoid;
typedef enum {
    GDK_EVEN_ODD_RULE = 0,
    GDK_WINDING_RULE = 1
} GdkFillRule;
typedef struct _GdkPointerHooks {
    GdkWindow *(*get_pointer) (GdkWindow *, gint *, gint *,
                              GdkModifierType *);
    GdkWindow *(*window_at_pointer) (GdkScreen *, gint *, gint *);
} GdkPointerHooks;
typedef enum {
    GDK_EXTENSION_EVENTS_NONE = 0,

```

```

    GDK_EXTENSION_EVENTS_ALL = 1,
    GDK_EXTENSION_EVENTS_CURSOR = 2
} GdkExtensionMode;
typedef struct _GdkWindowObject {
    GdkDrawable parent_instance;
    GdkDrawable *impl;
    GdkWindowObject *parent;
    gpointer user_data;
    gint x;
    gint y;
    gint extension_events;
    GList *filters;
    GList *children;
    GdkColor bg_color;
    GdkPixmap *bg_pixmap;
    GSList *paint_stack;
    GdkRegion *update_area;
    guint update_freeze_count;
    guint8 window_type;
    guint8 depth;
    guint8 resize_count;
    GdkWindowState state;
    guint guffaw_gravity:1;
    guint input_only:1;
    guint modal_hint:1;
    guint destroyed:2;
    guint accept_focus:1;
    guint focus_on_map:1;
    GdkEventMask event_mask;
} GdkWindowObject;
typedef struct _GdkScreenClass {
    GObjectClass parent_class;
    void (*size_changed) (GdkScreen *);
} GdkScreenClass;
typedef guint32 GdkWChar;
typedef struct _GdkPixmapObject {
    GdkDrawable parent_instance;
    GdkDrawable *impl;
    gint depth;
} GdkPixmapObject;
typedef enum {
    GDK_INPUT_READ = 1,
    GDK_INPUT_WRITE = 2,
    GDK_INPUT_EXCEPTION = 4
} GdkInputCondition;
typedef void (*GdkInputFunction) (gpointer, gint, GdkInputCondition);
typedef struct _GdkImageClass {
    GObjectClass parent_class;
} GdkImageClass;
typedef void (*GdkDestroyNotify) (gpointer);
typedef struct _GdkKeymapClass {
    GObjectClass parent_class;
    void (*direction_changed) (GdkKeymap *);
    void (*keys_changed) (GdkKeymap *);
} GdkKeymapClass;
typedef struct _GdkDrawableClass {
    GObjectClass parent_class;
    GdkGC *(*create_gc) (GdkDrawable *, GdkGCValues *, GdkGCValuesMask);
    void (*draw_rectangle) (GdkDrawable *, GdkGC *, gboolean, gint, gint,
                           gint, gint);
    void (*draw_arc) (GdkDrawable *, GdkGC *, gboolean, gint, gint, gint,
                     gint, gint, gint);

```



```

void (*draw_polygon) (GdkDrawable *, GdkGC *, gboolean, GdkPoint *,
                      gint);
void (*draw_text) (GdkDrawable *, GdkFont *, GdkGC *, gint, gint,
                  const gchar *, gint);
void (*draw_text_wc) (GdkDrawable *, GdkFont *, GdkGC *, gint, gint,
                    const GdkWChar *, gint);
void (*draw_drawable) (GdkDrawable *, GdkGC *, GdkDrawable *, gint,
                      gint, gint, gint, gint);
void (*draw_points) (GdkDrawable *, GdkGC *, GdkPoint *, gint);
void (*draw_segments) (GdkDrawable *, GdkGC *, GdkSegment *, gint);
void (*draw_lines) (GdkDrawable *, GdkGC *, GdkPoint *, gint);
void (*draw_glyphs) (GdkDrawable *, GdkGC *, PangoFont *, gint, gint,
                    PangoGlyphString *);
void (*draw_image) (GdkDrawable *, GdkGC *, GdkImage *, gint, gint,
                  gint, gint, gint, gint);
gint (*get_depth) (GdkDrawable *);
void (*get_size) (GdkDrawable *, gint *, gint *);
void (*set_colormap) (GdkDrawable *, GdkColormap *);
GdkColormap * (*get_colormap) (GdkDrawable *);
GdkVisual * (*get_visual) (GdkDrawable *);
GdkScreen * (*get_screen) (GdkDrawable *);
GdkImage * (*get_image) (GdkDrawable *, gint, gint, gint, gint);
GdkRegion * (*get_clip_region) (GdkDrawable *);
GdkRegion * (*get_visible_region) (GdkDrawable *);
GdkDrawable * (*get_composite_drawable) (GdkDrawable *, gint, gint,
                                       gint, gint, gint *, gint *);
void (*draw_pixmap) (GdkDrawable *, GdkGC *, GdkPixmap *, gint, gint,
                   gint, gint, gint, gint, GdkRgbDither, gint, gint);
GdkImage * (*_copy_to_image) (GdkDrawable *, GdkImage *, gint, gint,
                             gint, gint, gint, gint);
void (*draw_glyphs_transformed) (GdkDrawable *, GdkGC *, PangoMatrix *,
                                PangoFont *, gint, gint,
                                PangoGlyphString *);
void (*draw_trapezoids) (GdkDrawable *, GdkGC *, GdkTrapezoid *, gint);
void (*_gdk_reserved3) (void);
void (*_gdk_reserved4) (void);
void (*_gdk_reserved5) (void);
void (*_gdk_reserved6) (void);
void (*_gdk_reserved7) (void);
void (*_gdk_reserved9) (void);
void (*_gdk_reserved10) (void);
void (*_gdk_reserved11) (void);
void (*_gdk_reserved12) (void);
void (*_gdk_reserved13) (void);
void (*_gdk_reserved14) (void);
void (*_gdk_reserved15) (void);
void (*_gdk_reserved16) (void);
} GdkDrawableClass;
typedef struct _GdkPangoAttrEmbossed {
    PangoAttribute attr;
    gboolean embossed;
} GdkPangoAttrEmbossed;
typedef struct _GdkDisplayManagerClass {
    GObjectClass parent_class;
    void (*display_opened) (GdkDisplayManager *, GdkDisplay *);
} GdkDisplayManagerClass;
typedef struct _GdkPixmapObjectClass {
    GdkDrawableClass parent_class;
} GdkPixmapObjectClass;
typedef struct _GdkPangoRendererClass {
    PangoRendererClass parent_class;
} GdkPangoRendererClass;

```

```

typedef struct _GdkDisplayClass {
    GObjectClass parent_class;
    const gchar *(*get_display_name) (GdkDisplay *);
    gint(*get_n_screens) (GdkDisplay *);
    GdkScreen *(*get_screen) (GdkDisplay *, gint);
    GdkScreen *(*get_default_screen) (GdkDisplay *);
    void (*closed) (GdkDisplay *, gboolean);
} GdkDisplayClass;
typedef struct _GdkPangoAttrStipple {
    PangoAttribute attr;
    GdkBitmap *stipple;
} GdkPangoAttrStipple;
typedef struct _GdkColormapClass {
    GObjectClass parent_class;
} GdkColormapClass;
typedef struct _GdkDragContextClass {
    GObjectClass parent_class;
} GdkDragContextClass;
typedef struct _GdkWindowObjectClass {
    GdkDrawableClass parent_class;
} GdkWindowObjectClass;
typedef struct _GdkGCClass {
    GObjectClass parent_class;
    void (*get_values) (GdkGC *, GdkGCValues *);
    void (*set_values) (GdkGC *, GdkGCValues *, GdkGCValuesMask);
    void (*set_dashes) (GdkGC *, gint, gint8 *, gint);
    void (*_gdk_reserved1) (void);
    void (*_gdk_reserved2) (void);
    void (*_gdk_reserved3) (void);
    void (*_gdk_reserved4) (void);
} GdkGCClass;
typedef struct _GdkDeviceClass GdkDeviceClass;
typedef struct _GdkVisualClass GdkVisualClass;
typedef enum {
    GDK_OK = 0,
    GDK_ERROR = -1,
    GDK_ERROR_PARAM = -2,
    GDK_ERROR_FILE = -3,
    GDK_ERROR_MEM = -4
} GdkStatus;
typedef enum {
    GDK_PROPERTY_NEW_VALUE,
    GDK_PROPERTY_DELETE
} GdkPropertyState;
typedef enum {
    GDK_WA_TITLE = 1 << 1,
    GDK_WA_X = 1 << 2,
    GDK_WA_Y = 1 << 3,
    GDK_WA_CURSOR = 1 << 4,
    GDK_WA_COLORMAP = 1 << 5,
    GDK_WA_VISUAL = 1 << 6,
    GDK_WA_WMCLASS = 1 << 7,
    GDK_WA_NOREDIR = 1 << 8
} GdkWindowAttributesType;
extern void gdk_add_client_message_filter(GdkAtom message_type,
                                          GdkFilterFunc func,
                                          gpointer data);
extern GdkAtom gdk_atom_intern(const gchar * atom_name,
                               gboolean only_if_exists);
extern GdkAtom gdk_atom_intern_static_string(const gchar * atom_name);
extern gchar *gdk_atom_name(GdkAtom atom);
extern GType gdk_axis_use_get_type(void);

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extern void gdk_beep(void);
extern struct _GdkDrawable *gdk_bitmap_create_from_data(GdkDrawable *
                                                         drawable,
                                                         const gchar * data,
                                                         gint width,
                                                         gint height);

extern GType gdk_byte_order_get_type(void);
extern GType gdk_cap_style_get_type(void);
extern GdkColor *gdk_color_copy(const GdkColor * color);
extern gboolean gdk_color_equal(const GdkColor * colora,
                                const GdkColor * colorb);
extern void gdk_color_free(GdkColor * color);
extern GType gdk_color_get_type(void);
extern guint gdk_color_hash(const GdkColor * colora);
extern gint gdk_color_parse(const gchar * spec, GdkColor * color);
extern gboolean gdk_colormap_alloc_color(GdkColormap * colormap,
                                          GdkColor * color,
                                          gboolean writeable,
                                          gboolean best_match);
extern gint gdk_colormap_alloc_colors(GdkColormap * colormap,
                                       GdkColor * colors, gint ncolors,
                                       gboolean writeable,
                                       gboolean best_match,
                                       gboolean * success);
extern void gdk_colormap_free_colors(GdkColormap * colormap,
                                      const GdkColor * colors,
                                      gint ncolors);
extern GdkScreen *gdk_colormap_get_screen(GdkColormap * cmap);
extern GdkColormap *gdk_colormap_get_system(void);
extern GType gdk_colormap_get_type(void);
extern GdkVisual *gdk_colormap_get_visual(GdkColormap * colormap);
extern GdkColormap *gdk_colormap_new(GdkVisual * visual,
                                       gboolean allocate);
extern void gdk_colormap_query_color(GdkColormap * colormap, gulong pixel,
                                      GdkColor * result);
extern GType gdk_crossing_mode_get_type(void);
extern GdkDisplay *gdk_cursor_get_display(GdkCursor * cursor);
extern GdkPixbuf *gdk_cursor_get_image(GdkCursor * cursor);
extern GType gdk_cursor_get_type(void);
extern GdkCursor *gdk_cursor_new(GdkCursorType cursor_type);
extern GdkCursor *gdk_cursor_new_for_display(GdkDisplay * display,
                                              GdkCursorType cursor_type);
extern GdkCursor *gdk_cursor_new_from_name(GdkDisplay * display,
                                             const gchar * name);
extern GdkCursor *gdk_cursor_new_from_pixbuf(GdkDisplay * display,
                                              GdkPixbuf * pixbuf, gint x,
                                              gint y);
extern GdkCursor *gdk_cursor_new_from_pixmap(GdkPixmap * source,
                                              GdkPixmap * mask,
                                              const GdkColor * fg,
                                              const GdkColor * bg, gint x,
                                              gint y);
extern GdkCursor *gdk_cursor_ref(GdkCursor * cursor);
extern GType gdk_cursor_type_get_type(void);
extern void gdk_cursor_unref(GdkCursor * cursor);
extern void gdk_device_free_history(GdkTimeCoord * *events, gint n_events);
extern gboolean gdk_device_get_axis(GdkDevice * device, gdouble * axes,
                                     GdkAxisUse use, gdouble * value);
extern GdkDevice *gdk_device_get_core_pointer(void);
extern gboolean gdk_device_get_history(GdkDevice * device,
                                       GdkWindow * window, guint32 start,
                                       guint32 stop,

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        GdkTimeCoord * **events,
        gint * n_events);
extern void gdk_device_get_state(GdkDevice * device, GdkWindow * window,
                                gdouble * axes, GdkModifierType * mask);
extern GType gdk_device_get_type(void);
extern void gdk_device_set_axis_use(GdkDevice * device, guint index_,
                                    GdkAxisUse use);
extern void gdk_device_set_key(GdkDevice * device, guint index_,
                               guint keyval, GdkModifierType modifiers);
extern gboolean gdk_device_set_mode(GdkDevice * device, GdkInputMode mode);
extern void gdk_device_set_source(GdkDevice * device,
                                  GdkInputSource source);
extern GList *gdk_devices_list(void);
extern void gdk_display_add_client_message_filter(GdkDisplay * display,
                                                  GdkAtom message_type,
                                                  GdkFilterFunc func,
                                                  gpointer data);
extern void gdk_display_beep(GdkDisplay * display);
extern void gdk_display_close(GdkDisplay * display);
extern void gdk_display_flush(GdkDisplay * display);
extern GdkDevice *gdk_display_get_core_pointer(GdkDisplay * display);
extern GdkDisplay *gdk_display_get_default(void);
extern guint gdk_display_get_default_cursor_size(GdkDisplay * display);
extern GdkWindow *gdk_display_get_default_group(GdkDisplay * display);
extern GdkScreen *gdk_display_get_default_screen(GdkDisplay * display);
extern GdkEvent *gdk_display_get_event(GdkDisplay * display);
extern void gdk_display_get_maximal_cursor_size(GdkDisplay * display,
                                                guint * width,
                                                guint * height);
extern gint gdk_display_get_n_screens(GdkDisplay * display);
extern const gchar *gdk_display_get_name(GdkDisplay * display);
extern void gdk_display_get_pointer(GdkDisplay * display,
                                    GdkScreen * *screen, gint * x,
                                    gint * y, GdkModifierType * mask);
extern GdkScreen *gdk_display_get_screen(GdkDisplay * display,
                                          gint screen_num);
extern GType gdk_display_get_type(void);
extern GdkWindow *gdk_display_get_window_at_pointer(GdkDisplay * display,
                                                    gint * win_x,
                                                    gint * win_y);
extern void gdk_display_keyboard_ungrab(GdkDisplay * display,
                                         guint32 time_);
extern GList *gdk_display_list_devices(GdkDisplay * display);
extern GdkDisplayManager *gdk_display_manager_get(void);
extern GdkDisplay
    *gdk_display_manager_get_default_display(GdkDisplayManager *
                                             display_manager);
extern GType gdk_display_manager_get_type(void);
extern GSList *gdk_display_manager_list_displays(GdkDisplayManager *
                                                  display_manager);
extern void gdk_display_manager_set_default_display(GdkDisplayManager *
                                                    display_manager,
                                                    GdkDisplay * display);
extern GdkDisplay *gdk_display_open(const gchar * display_name);
extern GdkEvent *gdk_display_peek_event(GdkDisplay * display);
extern gboolean gdk_display_pointer_is_grabbed(GdkDisplay * display);
extern void gdk_display_pointer_ungrab(GdkDisplay * display,
                                       guint32 time_);
extern void gdk_display_put_event(GdkDisplay * display,
                                  const GdkEvent * event);
extern gboolean gdk_display_request_selection_notification(GdkDisplay *
                                                         display,

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                                GdkAtom
                                selection);
extern void gdk_display_set_double_click_distance(GdkDisplay * display,
                                                guint distance);
extern void gdk_display_set_double_click_time(GdkDisplay * display,
                                              guint msec);
extern GdkDisplayPointerHooks *gdk_display_set_pointer_hooks(GdkDisplay *
                                                            display,
                                                            const
                                                            GdkDisplayPointerHooks
                                                            * new_hooks);
extern void gdk_display_store_clipboard(GdkDisplay * display,
                                       GdkWindow * clipboard_window,
                                       guint32 time_,
                                       const GdkAtom * targets,
                                       gint n_targets);
extern gboolean gdk_display_supports_clipboard_persistence(GdkDisplay *
                                                          display);
extern gboolean gdk_display_supports_cursor_alpha(GdkDisplay * display);
extern gboolean gdk_display_supports_cursor_color(GdkDisplay * display);
extern gboolean gdk_display_supports_input_shapes(GdkDisplay * display);
extern gboolean gdk_display_supports_selection_notification(GdkDisplay *
                                                           display);
extern gboolean gdk_display_supports_shapes(GdkDisplay * display);
extern void gdk_display_sync(GdkDisplay * display);
extern void gdk_display_warp_pointer(GdkDisplay * display,
                                    GdkScreen * screen, gint x, gint y);
extern void gdk_drag_abort(GdkDragContext * context, guint32 time_);
extern GType gdk_drag_action_get_type(void);
extern GdkDragContext *gdk_drag_begin(GdkWindow * window, GList * targets);
extern GType gdk_drag_context_get_type(void);
extern GdkDragContext *gdk_drag_context_new(void);
extern void gdk_drag_drop(GdkDragContext * context, guint32 time_);
extern gboolean gdk_drag_drop_succeeded(GdkDragContext * context);
extern void gdk_drag_find_window(GdkDragContext * context,
                                GdkWindow * drag_window, gint x_root,
                                gint y_root, GdkWindow * *dest_window,
                                GdkDragProtocol * protocol);
extern void gdk_drag_find_window_for_screen(GdkDragContext * context,
                                           GdkWindow * drag_window,
                                           GdkScreen * screen,
                                           gint x_root, gint y_root,
                                           GdkWindow * *dest_window,
                                           GdkDragProtocol * protocol);
extern guint32 gdk_drag_get_protocol(guint32 xid,
                                    GdkDragProtocol * protocol);
extern guint32 gdk_drag_get_protocol_for_display(GdkDisplay * display,
                                                guint32 xid,
                                                GdkDragProtocol *
                                                protocol);
extern GdkAtom gdk_drag_get_selection(GdkDragContext * context);
extern gboolean gdk_drag_motion(GdkDragContext * context,
                                GdkWindow * dest_window,
                                GdkDragProtocol protocol, gint x_root,
                                gint y_root,
                                GdkDragAction suggested_action,
                                GdkDragAction possible_actions,
                                guint32 time_);
extern GType gdk_drag_protocol_get_type(void);
extern void gdk_drag_status(GdkDragContext * context, GdkDragAction action,
                           guint32 time_);
extern void gdk_draw_arc(GdkDrawable * drawable, GdkGC * gc,

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        gboolean filled, gint x, gint y, gint width,
        gint height, gint angle1, gint angle2);
extern void gdk_draw_drawable(GdkDrawable * drawable, GdkGC * gc,
        GdkDrawable * src, gint xsrc, gint ysrc,
        gint xdest, gint ydest, gint width,
        gint height);
extern void gdk_draw_glyphs(GdkDrawable * drawable, GdkGC * gc,
        PangoFont * font, gint x, gint y,
        PangoGlyphString * glyphs);
extern void gdk_draw_glyphs_transformed(GdkDrawable * drawable, GdkGC * gc,
        const PangoMatrix * matrix,
        PangoFont * font, gint x, gint y,
        PangoGlyphString * glyphs);
extern void gdk_draw_gray_image(GdkDrawable * drawable, GdkGC * gc, gint x,
        gint y, gint width, gint height,
        GdkRgbDither dith, const guchar * buf,
        gint rowstride);
extern void gdk_draw_image(GdkDrawable * drawable, GdkGC * gc,
        GdkImage * image, gint xsrc, gint ysrc,
        gint xdest, gint ydest, gint width,
        gint height);
extern void gdk_draw_indexed_image(GdkDrawable * drawable, GdkGC * gc,
        gint x, gint y, gint width, gint height,
        GdkRgbDither dith, const guchar * buf,
        gint rowstride, GdkRgbCmap * cmap);
extern void gdk_draw_layout(GdkDrawable * drawable, GdkGC * gc, int x,
        int y, PangoLayout * layout);
extern void gdk_draw_layout_line(GdkDrawable * drawable, GdkGC * gc,
        gint x, gint y, PangoLayoutLine * line);
extern void gdk_draw_layout_line_with_colors(GdkDrawable * drawable,
        GdkGC * gc, gint x, gint y,
        PangoLayoutLine * line,
        const GdkColor * foreground,
        const GdkColor * background);
extern void gdk_draw_layout_with_colors(GdkDrawable * drawable, GdkGC * gc,
        int x, int y, PangoLayout * layout,
        const GdkColor * foreground,
        const GdkColor * background);
extern void gdk_draw_line(GdkDrawable * drawable, GdkGC * gc, gint x1_,
        gint y1_, gint x2_, gint y2_);
extern void gdk_draw_lines(GdkDrawable * drawable, GdkGC * gc,
        const GdkPoint * points, gint npoints);
extern void gdk_draw_pixbuf(GdkDrawable * drawable, GdkGC * gc,
        const GdkPixbuf * pixbuf, gint src_x,
        gint src_y, gint dest_x, gint dest_y,
        gint width, gint height, GdkRgbDither dither,
        gint x_dither, gint y_dither);
extern void gdk_draw_point(GdkDrawable * drawable, GdkGC * gc, gint x,
        gint y);
extern void gdk_draw_points(GdkDrawable * drawable, GdkGC * gc,
        const GdkPoint * points, gint npoints);
extern void gdk_draw_polygon(GdkDrawable * drawable, GdkGC * gc,
        gboolean filled, const GdkPoint * points,
        gint npoints);
extern void gdk_draw_rectangle(GdkDrawable * drawable, GdkGC * gc,
        gboolean filled, gint x, gint y, gint width,
        gint height);
extern void gdk_draw_rgb_32_image(GdkDrawable * drawable, GdkGC * gc,
        gint x, gint y, gint width, gint height,
        GdkRgbDither dith, const guchar * buf,
        gint rowstride);
extern void gdk_draw_rgb_32_image_dithalign(GdkDrawable * drawable,

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        GdkGC * gc, gint x, gint y,
        gint width, gint height,
        GdkRgbDither dith,
        const guchar * buf,
        gint rowstride, gint xdith,
        gint ydith);
extern void gdk_draw_rgb_image(GdkDrawable * drawable, GdkGC * gc, gint x,
        gint y, gint width, gint height,
        GdkRgbDither dith, const guchar * rgb_buf,
        gint rowstride);
extern void gdk_draw_rgb_image_dithalign(GdkDrawable * drawable,
        GdkGC * gc, gint x, gint y,
        gint width, gint height,
        GdkRgbDither dith,
        const guchar * rgb_buf,
        gint rowstride, gint xdith,
        gint ydith);
extern void gdk_draw_segments(GdkDrawable * drawable, GdkGC * gc,
        const GdkSegment * segs, gint nsegs);
extern void gdk_draw_trapezoids(GdkDrawable * drawable, GdkGC * gc,
        const struct _GdkTrapezoid *trapezoids,
        gint n_trapezoids);
extern GdkImage *gdk_drawable_copy_to_image(GdkDrawable * drawable,
        GdkImage * image, gint src_x,
        gint src_y, gint dest_x,
        gint dest_y, gint width,
        gint height);
extern GdkRegion *gdk_drawable_get_clip_region(GdkDrawable * drawable);
extern GdkColormap *gdk_drawable_get_colormap(GdkDrawable * drawable);
extern gint gdk_drawable_get_depth(GdkDrawable * drawable);
extern GdkDisplay *gdk_drawable_get_display(GdkDrawable * drawable);
extern GdkImage *gdk_drawable_get_image(GdkDrawable * drawable, gint x,
        gint y, gint width, gint height);
extern GdkScreen *gdk_drawable_get_screen(GdkDrawable * drawable);
extern void gdk_drawable_get_size(GdkDrawable * drawable, gint * width,
        gint * height);
extern GType gdk_drawable_get_type(void);
extern GdkRegion *gdk_drawable_get_visible_region(GdkDrawable * drawable);
extern GdkVisual *gdk_drawable_get_visual(GdkDrawable * drawable);
extern void gdk_drawable_set_colormap(GdkDrawable * drawable,
        GdkColormap * colormap);
extern void gdk_drop_finish(GdkDragContext * context, gboolean success,
        guint32 time_);
extern void gdk_drop_reply(GdkDragContext * context, gboolean ok,
        guint32 time_);
extern gint gdk_error_trap_pop(void);
extern void gdk_error_trap_push(void);
extern GdkEvent *gdk_event_copy(const GdkEvent * event);
extern void gdk_event_free(GdkEvent * event);
extern GdkEvent *gdk_event_get(void);
extern gboolean gdk_event_get_axis(const GdkEvent * event,
        GdkAxisUse axis_use, gdouble * value);
extern gboolean gdk_event_get_coords(const GdkEvent * event,
        gdouble * x_win, gdouble * y_win);
extern GdkEvent *gdk_event_get_graphics_expose(GdkWindow * window);
extern gboolean gdk_event_get_root_coords(const GdkEvent * event,
        gdouble * x_root,
        gdouble * y_root);
extern GdkScreen *gdk_event_get_screen(const GdkEvent * event);
extern gboolean gdk_event_get_state(const GdkEvent * event,
        GdkModifierType * state);
extern guint32 gdk_event_get_time(const GdkEvent * event);

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extern GType gdk_event_get_type(void);
extern void gdk_event_handler_set(GdkEventFunc func, gpointer data,
                                  GDestroyNotify notify);
extern GType gdk_event_mask_get_type(void);
extern GdkEvent *gdk_event_new(GdkEventType type);
extern GdkEvent *gdk_event_peek(void);
extern void gdk_event_put(const GdkEvent * event);
extern gboolean gdk_event_send_client_message(GdkEvent * event,
                                              GdkNativeWindow winid);
extern gboolean gdk_event_send_client_message_for_display(GdkDisplay *
                                                         display,
                                                         GdkEvent * event,
                                                         GdkNativeWindow
                                                         winid);
extern void gdk_event_send_clientmessage_toall(GdkEvent * event);
extern void gdk_event_set_screen(GdkEvent * event, GdkScreen * screen);
extern GType gdk_event_type_get_type(void);
extern gboolean gdk_events_pending(void);
extern GType gdk_extension_mode_get_type(void);
extern GType gdk_fill_get_type(void);
extern GType gdk_fill_rule_get_type(void);
extern GType gdk_filter_return_get_type(void);
extern void gdk_flush(void);
extern GType gdk_font_type_get_type(void);
extern void gdk_free_compound_text(guchar * ctext);
extern void gdk_free_text_list(gchar * *list);
extern GType gdk_function_get_type(void);
extern void gdk_gc_copy(GdkGC * dst_gc, GdkGC * src_gc);
extern GdkColormap *gdk_gc_get_colormap(GdkGC * gc);
extern GdkScreen *gdk_gc_get_screen(GdkGC * gc);
extern GType gdk_gc_get_type(void);
extern void gdk_gc_get_values(GdkGC * gc, GdkGCValues * values);
extern GdkGC *gdk_gc_new(GdkDrawable * drawable);
extern GdkGC *gdk_gc_new_with_values(GdkDrawable * drawable,
                                     GdkGCValues * values,
                                     GdkGCValuesMask values_mask);
extern void gdk_gc_offset(GdkGC * gc, gint x_offset, gint y_offset);
extern void gdk_gc_set_background(GdkGC * gc, const GdkColor * color);
extern void gdk_gc_set_clip_mask(GdkGC * gc, GdkBitmap * mask);
extern void gdk_gc_set_clip_origin(GdkGC * gc, gint x, gint y);
extern void gdk_gc_set_clip_rectangle(GdkGC * gc,
                                     const GdkRectangle * rectangle);
extern void gdk_gc_set_clip_region(GdkGC * gc, const GdkRegion * region);
extern void gdk_gc_set_colormap(GdkGC * gc, GdkColormap * colormap);
extern void gdk_gc_set_dashes(GdkGC * gc, gint dash_offset,
                              gint8 * dash_list, gint n);
extern void gdk_gc_set_exposures(GdkGC * gc, gboolean exposures);
extern void gdk_gc_set_fill(GdkGC * gc, GdkFill fill);
extern void gdk_gc_set_foreground(GdkGC * gc, const GdkColor * color);
extern void gdk_gc_set_function(GdkGC * gc, GdkFunction function);
extern void gdk_gc_set_line_attributes(GdkGC * gc, gint line_width,
                                       GdkLineStyle line_style,
                                       GdkCapStyle cap_style,
                                       GdkJoinStyle join_style);
extern void gdk_gc_set_rgb_bg_color(GdkGC * gc, const GdkColor * color);
extern void gdk_gc_set_rgb_fg_color(GdkGC * gc, const GdkColor * color);
extern void gdk_gc_set_stipple(GdkGC * gc, GdkPixmap * stipple);
extern void gdk_gc_set_subwindow(GdkGC * gc, GdkSubwindowMode mode);
extern void gdk_gc_set_tile(GdkGC * gc, GdkPixmap * tile);
extern void gdk_gc_set_ts_origin(GdkGC * gc, gint x, gint y);
extern void gdk_gc_set_values(GdkGC * gc, GdkGCValues * values,
                              GdkGCValuesMask values_mask);

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extern GType gdk_gc_values_mask_get_type(void);
extern GdkWindow *gdk_get_default_root_window(void);
extern gchar *gdk_get_display(void);
extern const gchar *gdk_get_display_arg_name(void);
extern const char *gdk_get_program_class(void);
extern gboolean gdk_get_show_events(void);
extern GType gdk_grab_status_get_type(void);
extern GType gdk_gravity_get_type(void);
extern GdkColormap *gdk_image_get_colormap(GdkImage * image);
extern guint32 gdk_image_get_pixel(GdkImage * image, gint x, gint y);
extern GType gdk_image_get_type(void);
extern GdkImage *gdk_image_new(GdkImageType type, GdkVisual * visual,
                               gint width, gint height);
extern void gdk_image_put_pixel(GdkImage * image, gint x, gint y,
                                guint32 pixel);
extern void gdk_image_set_colormap(GdkImage * image,
                                    GdkColormap * colormap);
extern GType gdk_image_type_get_type(void);
extern void gdk_init(int *argc, char ***argv);
extern gboolean gdk_init_check(int *argc, char ***argv);
extern GType gdk_input_condition_get_type(void);
extern GType gdk_input_mode_get_type(void);
extern void gdk_input_set_extension_events(GdkWindow * window, gint mask,
                                           GdkExtensionMode mode);
extern GType gdk_input_source_get_type(void);
extern GType gdk_join_style_get_type(void);
extern GdkGrabStatus gdk_keyboard_grab(GdkWindow * window,
                                       gboolean owner_events,
                                       guint32 time_);
extern void gdk_keyboard_ungrab(guint32 time_);
extern GdkKeymap *gdk_keymap_get_default(void);
extern PangoDirection gdk_keymap_get_direction(GdkKeymap * keymap);
extern gboolean gdk_keymap_get_entries_for_keycode(GdkKeymap * keymap,
                                                    guint hardware_keycode,
                                                    GdkKeymapKey * *keys,
                                                    guint * *keyvals,
                                                    gint * n_entries);
extern gboolean gdk_keymap_get_entries_for_keyval(GdkKeymap * keymap,
                                                  guint keyval,
                                                  GdkKeymapKey * *keys,
                                                  gint * n_keys);
extern GdkKeymap *gdk_keymap_get_for_display(GdkDisplay * display);
extern GType gdk_keymap_get_type(void);
extern guint gdk_keymap_lookup_key(GdkKeymap * keymap,
                                   const GdkKeymapKey * key);
extern gboolean gdk_keymap_translate_keyboard_state(GdkKeymap * keymap,
                                                    guint hardware_keycode,
                                                    GdkModifierType state,
                                                    gint group,
                                                    guint * keyval,
                                                    gint * effective_group,
                                                    gint * level,
                                                    GdkModifierType *
                                                    consumed_modifiers);
extern void gdk_keyval_convert_case(guint symbol, guint * lower,
                                    guint * upper);
extern guint gdk_keyval_from_name(const gchar * keyval_name);
extern gboolean gdk_keyval_is_lower(guint keyval);
extern gboolean gdk_keyval_is_upper(guint keyval);
extern gchar *gdk_keyval_name(guint keyval);
extern guint gdk_keyval_to_lower(guint keyval);
extern guint32 gdk_keyval_to_unicode(guint keyval);

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extern guint gdk_keyval_to_upper(guint keyval);
extern GType gdk_line_style_get_type(void);
extern GList *gdk_list_visuals(void);
extern GType gdk_modifier_type_get_type(void);
extern void gdk_notify_startup_complete(void);
extern GType gdk_notify_type_get_type(void);
extern GType gdk_overlap_type_get_type(void);
extern GType gdk_owner_change_get_type(void);
extern PangoAttribute *gdk_pango_attr_embossed_new(gboolean embossed);
extern PangoAttribute *gdk_pango_attr_stipple_new(GdkBitmap * stipple);
extern PangoContext *gdk_pango_context_get(void);
extern PangoContext *gdk_pango_context_get_for_screen(GdkScreen * screen);
extern GdkRegion *gdk_pango_layout_get_clip_region(PangoLayout * layout,
                                                    gint x_origin,
                                                    gint y_origin,
                                                    const gint *
                                                    index_ranges,
                                                    gint n_ranges);
extern GdkRegion *gdk_pango_layout_line_get_clip_region(PangoLayoutLine *
                                                         line,
                                                         gint x_origin,
                                                         gint y_origin,
                                                         const gint *
                                                         index_ranges,
                                                         gint n_ranges);
extern PangoRenderer *gdk_pango_renderer_get_default(GdkScreen * screen);
extern GType gdk_pango_renderer_get_type(void);
extern PangoRenderer *gdk_pango_renderer_new(GdkScreen * screen);
extern void gdk_pango_renderer_set_drawable(GdkPangoRenderer *
                                             gdk_renderer,
                                             GdkDrawable * drawable);
extern void gdk_pango_renderer_set_gc(GdkPangoRenderer * gdk_renderer,
                                       GdkGC * gc);
extern void gdk_pango_renderer_set_override_color(GdkPangoRenderer *
                                                  gdk_renderer,
                                                  PangoRenderPart part,
                                                  const GdkColor * color);
extern void gdk_pango_renderer_set_stipple(GdkPangoRenderer * gdk_renderer,
                                           PangoRenderPart part,
                                           GdkBitmap * stipple);
extern void gdk_parse_args(int *argc, char ***argv);
extern GdkPixbuf *gdk_pixbuf_get_from_drawable(GdkPixbuf * dest,
                                                GdkDrawable * src,
                                                GdkColormap * cmap,
                                                int src_x, int src_y,
                                                int dest_x, int dest_y,
                                                int width, int height);
extern GdkPixbuf *gdk_pixbuf_get_from_image(GdkPixbuf * dest,
                                             GdkImage * src,
                                             GdkColormap * cmap, int src_x,
                                             int src_y, int dest_x,
                                             int dest_y, int width,
                                             int height);
extern void gdk_pixbuf_render_pixmap_and_mask(GdkPixbuf * pixbuf,
                                              GdkPixmap * *pixmap_return,
                                              GdkBitmap * *mask_return,
                                              int alpha_threshold);
extern void gdk_pixbuf_render_pixmap_and_mask_for_colormap(GdkPixbuf *
                                                           pixbuf,
                                                           GdkColormap *
                                                           colormap,
                                                           GdkPixmap *

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                                *pixmap_return,
                                GdkBitmap *
                                *mask_return,
                                int
                                alpha_threshold);
extern void gdk_pixbuf_render_threshold_alpha(GdkPixbuf * pixbuf,
                                GdkBitmap * bitmap,
                                int src_x, int src_y,
                                int dest_x, int dest_y,
                                int width, int height,
                                int alpha_threshold);
extern GdkPixmap *gdk_pixmap_colormap_create_from_xpm(GdkDrawable *
                                drawable,
                                GdkColormap *
                                colormap,
                                GdkBitmap * *mask,
                                const GdkColor *
                                transparent_color,
                                const gchar *
                                filename);
extern GdkPixmap *gdk_pixmap_colormap_create_from_xpm_d(GdkDrawable *
                                drawable,
                                GdkColormap *
                                colormap,
                                GdkBitmap * *mask,
                                const GdkColor *
                                transparent_color,
                                gchar * *data);
extern GdkPixmap *gdk_pixmap_create_from_data(GdkDrawable * drawable,
                                const gchar * data,
                                gint width, gint height,
                                gint depth,
                                const GdkColor * fg,
                                const GdkColor * bg);
extern GdkPixmap *gdk_pixmap_create_from_xpm(GdkDrawable * drawable,
                                GdkBitmap * *mask,
                                const GdkColor *
                                transparent_color,
                                const gchar * filename);
extern GdkPixmap *gdk_pixmap_create_from_xpm_d(GdkDrawable * drawable,
                                GdkBitmap * *mask,
                                const GdkColor *
                                transparent_color,
                                gchar * *data);
extern GdkPixmap *gdk_pixmap_foreign_new(GdkNativeWindow anid);
extern GdkPixmap *gdk_pixmap_foreign_new_for_display(GdkDisplay * display,
                                GdkNativeWindow anid);
extern GdkPixmap *gdk_pixmap_foreign_new_for_screen(GdkScreen * screen,
                                GdkNativeWindow anid,
                                gint width,
                                gint height,
                                gint depth);

extern GType gdk_pixmap_get_type(void);
extern GdkPixmap *gdk_pixmap_lookup(GdkNativeWindow anid);
extern GdkPixmap *gdk_pixmap_lookup_for_display(GdkDisplay * display,
                                GdkNativeWindow anid);
extern GdkPixmap *gdk_pixmap_new(GdkDrawable * drawable, gint width,
                                gint height, gint depth);
extern GdkGrabStatus gdk_pointer_grab(GdkWindow * window,
                                gboolean owner_events,
                                GdkEventMask event_mask,
                                GdkWindow * confine_to,

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                                GdkCursor * cursor, guint32 time_);
extern gboolean gdk_pointer_is_grabbed(void);
extern void gdk_pointer_ungrab(guint32 time_);
extern GType gdk_prop_mode_get_type(void);
extern void gdk_property_change(GdkWindow * window, GdkAtom property,
                                GdkAtom type, gint format,
                                GdkPropMode mode, const gchar * data,
                                gint nelements);
extern void gdk_property_delete(GdkWindow * window, GdkAtom property);
extern gboolean gdk_property_get(GdkWindow * window, GdkAtom property,
                                GdkAtom type, gulong offset,
                                gulong length, gint pdelete,
                                GdkAtom * actual_property_type,
                                gint * actual_format,
                                gint * actual_length, gchar * *data);
extern GType gdk_property_state_get_type(void);
extern void gdk_query_depths(gint * *depths, gint * count);
extern void gdk_query_visual_types(GdkVisualType * *visual_types,
                                    gint * count);
extern GType gdk_rectangle_get_type(void);
extern gboolean gdk_rectangle_intersect(const GdkRectangle * src1,
                                        const GdkRectangle * src2,
                                        GdkRectangle * dest);
extern void gdk_rectangle_union(const GdkRectangle * src1,
                                const GdkRectangle * src2,
                                GdkRectangle * dest);
extern GdkRegion *gdk_region_copy(const GdkRegion * region);
extern void gdk_region_destroy(GdkRegion * region);
extern gboolean gdk_region_empty(const GdkRegion * region);
extern gboolean gdk_region_equal(const GdkRegion * region1,
                                const GdkRegion * region2);
extern void gdk_region_get_clipbox(const GdkRegion * region,
                                    GdkRectangle * rectangle);
extern void gdk_region_get_rectangles(const GdkRegion * region,
                                        GdkRectangle * *rectangles,
                                        gint * n_rectangles);
extern void gdk_region_intersect(GdkRegion * source1,
                                const GdkRegion * source2);
extern GdkRegion *gdk_region_new(void);
extern void gdk_region_offset(GdkRegion * region, gint dx, gint dy);
extern gboolean gdk_region_point_in(const GdkRegion * region, int x,
                                    int y);
extern GdkRegion *gdk_region_polygon(const GdkPoint * points, gint npoints,
                                    GdkFillRule fill_rule);
extern GdkOverlapType gdk_region_rect_in(const GdkRegion * region,
                                        const GdkRectangle * rectangle);
extern GdkRegion *gdk_region_rectangle(const GdkRectangle * rectangle);
extern void gdk_region_shrink(GdkRegion * region, int dx, int dy);
extern void gdk_region_spans_intersect_foreach(GdkRegion * region,
                                                const GdkSpan * spans,
                                                int n_spans,
                                                gboolean sorted,
                                                GdkSpanFunc function,
                                                gpointer data);
extern void gdk_region_subtract(GdkRegion * source1,
                                const GdkRegion * source2);
extern void gdk_region_union(GdkRegion * source1,
                             const GdkRegion * source2);
extern void gdk_region_union_with_rect(GdkRegion * region,
                                       const GdkRectangle * rect);
extern void gdk_region_xor(GdkRegion * source1, const GdkRegion * source2);
extern void gdk_rgb_cmap_free(GdkRgbCmap * cmap);

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extern GdkRgbCmap *gdk_rgb_cmap_new(guint32 * colors, gint n_colors);
extern gboolean gdk_rgb_colormap_ditherable(GdkColormap * cmap);
extern GType gdk_rgb_dither_get_type(void);
extern gboolean gdk_rgb_ditherable(void);
extern void gdk_rgb_find_color(GdkColormap * colormap, GdkColor * color);
extern GdkColormap *gdk_rgb_get_colormap(void);
extern GdkVisual *gdk_rgb_get_visual(void);
extern void gdk_rgb_set_install(gboolean install);
extern void gdk_rgb_set_min_colors(gint min_colors);
extern void gdk_rgb_set_verbose(gboolean verbose);
extern void gdk_screen_broadcast_client_message(GdkScreen * screen,
                                                GdkEvent * event);

extern GdkWindow *gdk_screen_get_active_window(GdkScreen * screen);
extern GdkScreen *gdk_screen_get_default(void);
extern GdkColormap *gdk_screen_get_default_colormap(GdkScreen * screen);
extern GdkDisplay *gdk_screen_get_display(GdkScreen * screen);
extern const cairo_font_options_t *gdk_screen_get_font_options(GdkScreen *
                                                                screen);

extern gint gdk_screen_get_height(GdkScreen * screen);
extern gint gdk_screen_get_height_mm(GdkScreen * screen);
extern gint gdk_screen_get_monitor_at_point(GdkScreen * screen, gint x,
                                             gint y);

extern gint gdk_screen_get_monitor_at_window(GdkScreen * screen,
                                              GdkWindow * window);
extern void gdk_screen_get_monitor_geometry(GdkScreen * screen,
                                            gint monitor_num,
                                            GdkRectangle * dest);

extern gint gdk_screen_get_n_monitors(GdkScreen * screen);
extern gint gdk_screen_get_number(GdkScreen * screen);
extern gdouble gdk_screen_get_resolution(GdkScreen * screen);
extern GdkColormap *gdk_screen_get_rgb_colormap(GdkScreen * screen);
extern GdkVisual *gdk_screen_get_rgb_visual(GdkScreen * screen);
extern GdkColormap *gdk_screen_get_rgba_colormap(GdkScreen * screen);
extern GdkVisual *gdk_screen_get_rgba_visual(GdkScreen * screen);
extern GdkWindow *gdk_screen_get_root_window(GdkScreen * screen);
extern gboolean gdk_screen_get_setting(GdkScreen * screen,
                                       const gchar * name, GValue * value);

extern GdkColormap *gdk_screen_get_system_colormap(GdkScreen * screen);
extern GdkVisual *gdk_screen_get_system_visual(GdkScreen * screen);
extern GList *gdk_screen_get_toplevel_windows(GdkScreen * screen);
extern GType gdk_screen_get_type(void);
extern gint gdk_screen_get_width(GdkScreen * screen);
extern gint gdk_screen_get_width_mm(GdkScreen * screen);
extern GList *gdk_screen_get_window_stack(GdkScreen * screen);
extern gint gdk_screen_height(void);
extern gint gdk_screen_height_mm(void);
extern gboolean gdk_screen_is_composited(GdkScreen * screen);
extern GList *gdk_screen_list_visuals(GdkScreen * screen);
extern gchar *gdk_screen_make_display_name(GdkScreen * screen);
extern void gdk_screen_set_default_colormap(GdkScreen * screen,
                                             GdkColormap * colormap);
extern void gdk_screen_set_font_options(GdkScreen * screen,
                                         const cairo_font_options_t *
                                         options);

extern void gdk_screen_set_resolution(GdkScreen * screen, gdouble dpi);
extern gint gdk_screen_width(void);
extern gint gdk_screen_width_mm(void);
extern GType gdk_scroll_direction_get_type(void);
extern void gdk_selection_convert(GdkWindow * requestor, GdkAtom selection,
                                  GdkAtom target, guint32 time_);
extern GdkWindow *gdk_selection_owner_get(GdkAtom selection);
extern GdkWindow *gdk_selection_owner_get_for_display(GdkDisplay * display,
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                                GdkAtom selection);
extern gboolean gdk_selection_owner_set(GdkWindow * owner,
                                GdkAtom selection, guint32 time_,
                                gboolean send_event);
extern gboolean gdk_selection_owner_set_for_display(GdkDisplay * display,
                                GdkWindow * owner,
                                GdkAtom selection,
                                guint32 time_,
                                gboolean send_event);
extern gboolean gdk_selection_property_get(GdkWindow * requestor,
                                guchar * *data,
                                GdkAtom * prop_type,
                                gint * prop_format);
extern void gdk_selection_send_notify(guint32 requestor, GdkAtom selection,
                                GdkAtom target, GdkAtom property,
                                guint32 time_);
extern void gdk_selection_send_notify_for_display(GdkDisplay * display,
                                guint32 requestor,
                                GdkAtom selection,
                                GdkAtom target,
                                GdkAtom property,
                                guint32 time_);

extern void gdk_set_double_click_time(guint msec);
extern gchar *gdk_set_locale(void);
extern GdkPointerHooks *gdk_set_pointer_hooks(const GdkPointerHooks *
                                new_hooks);
extern void gdk_set_program_class(const char *program_class);
extern void gdk_set_show_events(gboolean show_events);
extern void gdk_set_sm_client_id(const gchar * sm_client_id);
extern GType gdk_setting_action_get_type(void);
extern gboolean gdk_setting_get(const gchar * name, GValue * value);
extern gboolean gdk_spawn_command_line_on_screen(GdkScreen * screen,
                                const gchar *
                                command_line,
                                GError * *error);
extern gboolean gdk_spawn_on_screen(GdkScreen * screen,
                                const gchar * working_directory,
                                gchar * *argv, gchar * *envp,
                                GSpawnFlags flags,
                                GSpawnChildSetupFunc child_setup,
                                gpointer user_data, gint * child_pid,
                                GError * *error);
extern gboolean gdk_spawn_on_screen_with_pipes(GdkScreen * screen,
                                const gchar *
                                working_directory,
                                gchar * *argv,
                                gchar * *envp,
                                GSpawnFlags flags,
                                GSpawnChildSetupFunc
                                child_setup,
                                gpointer user_data,
                                gint * child_pid,
                                gint * standard_input,
                                gint * standard_output,
                                gint * standard_error,
                                GError * *error);

extern GType gdk_status_get_type(void);
extern gint gdk_string_to_compound_text(const gchar * str,
                                GdkAtom * encoding, gint * format,
                                guchar * *ctext, gint * length);
extern gint gdk_string_to_compound_text_for_display(GdkDisplay * display,
                                const gchar * str,

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                                GdkAtom * encoding,
                                gint * format,
                                guchar * *ctext,
                                gint * length);
extern GType gdk_subwindow_mode_get_type(void);
extern gint gdk_text_property_to_text_list(GdkAtom encoding, gint format,
                                const guchar * text,
                                gint length, gchar * **list);
extern gint gdk_text_property_to_text_list_for_display(GdkDisplay *
                                display,
                                GdkAtom encoding,
                                gint format,
                                const guchar * text,
                                gint length,
                                gchar * **list);
extern gint gdk_text_property_to_utf8_list(GdkAtom encoding, gint format,
                                const guchar * text,
                                gint length, gchar * **list);
extern gint gdk_text_property_to_utf8_list_for_display(GdkDisplay *
                                display,
                                GdkAtom encoding,
                                gint format,
                                const guchar * text,
                                gint length,
                                gchar * **list);

extern void gdk_threads_enter(void);
extern void gdk_threads_init(void);
extern void gdk_threads_leave(void);
extern GCallback gdk_threads_lock;
extern void gdk_threads_set_lock_functions(GCallback enter_fn,
                                GCallback leave_fn);

extern GCallback gdk_threads_unlock;
extern guint gdk_unicode_to_keyval(guint32 wc);
extern gboolean gdk_utf8_to_compound_text(const gchar * str,
                                GdkAtom * encoding,
                                gint * format, guchar * *ctext,
                                gint * length);
extern gboolean gdk_utf8_to_compound_text_for_display(GdkDisplay * display,
                                const gchar * str,
                                GdkAtom * encoding,
                                gint * format,
                                guchar * *ctext,
                                gint * length);

extern gchar *gdk_utf8_to_string_target(const gchar * str);
extern GType gdk_visibility_state_get_type(void);
extern GdkVisual *gdk_visual_get_best(void);
extern gint gdk_visual_get_best_depth(void);
extern GdkVisualType gdk_visual_get_best_type(void);
extern GdkVisual *gdk_visual_get_best_with_both(gint depth,
                                GdkVisualType visual_type);
extern GdkVisual *gdk_visual_get_best_with_depth(gint depth);
extern GdkVisual *gdk_visual_get_best_with_type(GdkVisualType visual_type);
extern GdkScreen *gdk_visual_get_screen(GdkVisual * visual);
extern GdkVisual *gdk_visual_get_system(void);
extern GType gdk_visual_get_type(void);
extern GType gdk_visual_type_get_type(void);
extern void gdk_window_add_filter(GdkWindow * window,
                                GdkFilterFunc function, gpointer data);
extern GdkWindow *gdk_window_at_pointer(gint * win_x, gint * win_y);
extern GType gdk_window_attributes_type_get_type(void);
extern void gdk_window_begin_move_drag(GdkWindow * window, gint button,
                                gint root_x, gint root_y,

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                                guint32 timestamp);
extern void gdk_window_begin_paint_rect(GdkWindow * window,
                                const GdkRectangle * rectangle);
extern void gdk_window_begin_paint_region(GdkWindow * window,
                                const GdkRegion * region);
extern void gdk_window_begin_resize_drag(GdkWindow * window,
                                GdkWindowEdge edge, gint button,
                                gint root_x, gint root_y,
                                guint32 timestamp);

extern GType gdk_window_class_get_type(void);
extern void gdk_window_clear(GdkWindow * window);
extern void gdk_window_clear_area(GdkWindow * window, gint x, gint y,
                                gint width, gint height);
extern void gdk_window_clear_area_e(GdkWindow * window, gint x, gint y,
                                gint width, gint height);
extern void gdk_window_configure_finished(GdkWindow * window);
extern void gdk_window_constrain_size(GdkGeometry * geometry, guint flags,
                                gint width, gint height,
                                gint * new_width, gint * new_height);
extern void gdk_window_deiconify(GdkWindow * window);
extern void gdk_window_destroy(GdkWindow * window);
extern GType gdk_window_edge_get_type(void);
extern void gdk_window_enable_synchronized_configure(GdkWindow * window);
extern void gdk_window_end_paint(GdkWindow * window);
extern void gdk_window_focus(GdkWindow * window, guint32 timestamp);
extern GdkWindow *gdk_window_foreign_new(GdkNativeWindow anid);
extern GdkWindow *gdk_window_foreign_new_for_display(GdkDisplay * display,
                                GdkNativeWindow anid);

extern void gdk_window_freeze_updates(GdkWindow * window);
extern void gdk_window_fullscreen(GdkWindow * window);
extern GList *gdk_window_get_children(GdkWindow * window);
extern gboolean gdk_window_get_decorations(GdkWindow * window,
                                GdkWMDecoration * decorations);
extern GdkEventMask gdk_window_get_events(GdkWindow * window);
extern void gdk_window_get_frame_extents(GdkWindow * window,
                                GdkRectangle * rect);
extern void gdk_window_get_geometry(GdkWindow * window, gint * x, gint * y,
                                gint * width, gint * height,
                                gint * depth);
extern GdkWindow *gdk_window_get_group(GdkWindow * window);
extern void gdk_window_get_internal_paint_info(GdkWindow * window,
                                GdkDrawable *
                                *real_drawable,
                                gint * x_offset,
                                gint * y_offset);
extern gint gdk_window_get_origin(GdkWindow * window, gint * x, gint * y);
extern GdkWindow *gdk_window_get_parent(GdkWindow * window);
extern GdkWindow *gdk_window_get_pointer(GdkWindow * window, gint * x,
                                gint * y, GdkModifierType * mask);
extern void gdk_window_get_position(GdkWindow * window, gint * x,
                                gint * y);
extern void gdk_window_get_root_origin(GdkWindow * window, gint * x,
                                gint * y);
extern GdkWindowState gdk_window_get_state(GdkWindow * window);
extern GdkWindow *gdk_window_get_toplevel(GdkWindow * window);
extern GList *gdk_window_get_toplevels(void);
extern GdkWindowTypeHint gdk_window_get_type_hint(GdkWindow * window);
extern GdkRegion *gdk_window_get_update_area(GdkWindow * window);
extern void gdk_window_get_user_data(GdkWindow * window, gpointer * data);
extern GdkWindowType gdk_window_get_window_type(GdkWindow * window);
extern void gdk_window_hide(GdkWindow * window);
extern GType gdk_window_hints_get_type(void);

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extern void gdk_window_iconify(GdkWindow * window);
extern void gdk_window_input_shape_combine_mask(GdkWindow * window,
                                                GdkBitmap * mask, gint x,
                                                gint y);
extern void gdk_window_input_shape_combine_region(GdkWindow * window,
                                                  const GdkRegion *
                                                  shape_region,
                                                  gint offset_x,
                                                  gint offset_y);
extern void gdk_window_invalidate_maybe_recurse(GdkWindow * window,
                                                const GdkRegion * region,
                                                gboolean(*child_func)
                                                (GdkWindow *, gpointer),
                                                gpointer user_data);
extern void gdk_window_invalidate_rect(GdkWindow * window,
                                       const GdkRectangle * rect,
                                       gboolean invalidate_children);
extern void gdk_window_invalidate_region(GdkWindow * window,
                                       const GdkRegion * region,
                                       gboolean invalidate_children);
extern gboolean gdk_window_is_viewable(GdkWindow * window);
extern gboolean gdk_window_is_visible(GdkWindow * window);
extern GdkWindow *gdk_window_lookup(GdkNativeWindow anid);
extern GdkWindow *gdk_window_lookup_for_display(GdkDisplay * display,
                                                GdkNativeWindow anid);
extern void gdk_window_lower(GdkWindow * window);
extern void gdk_window_maximize(GdkWindow * window);
extern void gdk_window_merge_child_input_shapes(GdkWindow * window);
extern void gdk_window_merge_child_shapes(GdkWindow * window);
extern void gdk_window_move(GdkWindow * window, gint x, gint y);
extern void gdk_window_move_region(GdkWindow * window,
                                   const GdkRegion * region, gint dx,
                                   gint dy);
extern void gdk_window_move_resize(GdkWindow * window, gint x, gint y,
                                   gint width, gint height);
extern GdkWindow *gdk_window_new(GdkWindow * parent,
                                 GdkWindowAttr * attributes,
                                 gint attributes_mask);
extern GType gdk_window_object_get_type(void);
extern GList *gdk_window_peek_children(GdkWindow * window);
extern void gdk_window_process_all_updates(void);
extern void gdk_window_process_updates(GdkWindow * window,
                                       gboolean update_children);
extern void gdk_window_raise(GdkWindow * window);
extern void gdk_window_register_dnd(GdkWindow * window);
extern void gdk_window_remove_filter(GdkWindow * window,
                                     GdkFilterFunc function,
                                     gpointer data);
extern void gdk_window_reparent(GdkWindow * window, GdkWindow * new_parent,
                                gint x, gint y);
extern void gdk_window_resize(GdkWindow * window, gint width, gint height);
extern void gdk_window_scroll(GdkWindow * window, gint dx, gint dy);
extern void gdk_window_set_accept_focus(GdkWindow * window,
                                       gboolean accept_focus);
extern void gdk_window_set_back_pixmap(GdkWindow * window,
                                       GdkPixmap * pixmap,
                                       gboolean parent_relative);
extern void gdk_window_set_background(GdkWindow * window,
                                       const GdkColor * color);
extern void gdk_window_set_child_input_shapes(GdkWindow * window);
extern void gdk_window_set_child_shapes(GdkWindow * window);
extern void gdk_window_set_cursor(GdkWindow * window, GdkCursor * cursor);

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extern void gdk_window_set_debug_updates(gboolean setting);
extern void gdk_window_set_decorations(GdkWindow * window,
                                       GdkWMDecoration decorations);
extern void gdk_window_set_events(GdkWindow * window,
                                  GdkEventMask event_mask);
extern void gdk_window_set_focus_on_map(GdkWindow * window,
                                       gboolean focus_on_map);
extern void gdk_window_set_functions(GdkWindow * window,
                                     GdkWMFunction functions);
extern void gdk_window_set_geometry_hints(GdkWindow * window,
                                          const GdkGeometry * geometry,
                                          GdkWindowHints geom_mask);
extern void gdk_window_set_group(GdkWindow * window, GdkWindow * leader);
extern void gdk_window_set_icon(GdkWindow * window,
                                GdkWindow * icon_window,
                                GdkPixmap * pixmap, GdkBitmap * mask);
extern void gdk_window_set_icon_list(GdkWindow * window, GList * pixbufs);
extern void gdk_window_set_icon_name(GdkWindow * window,
                                     const gchar * name);
extern void gdk_window_set_keep_above(GdkWindow * window,
                                      gboolean setting);
extern void gdk_window_set_keep_below(GdkWindow * window,
                                       gboolean setting);
extern void gdk_window_set_modal_hint(GdkWindow * window, gboolean modal);
extern void gdk_window_set_override_redirect(GdkWindow * window,
                                             gboolean override_redirect);
extern void gdk_window_set_role(GdkWindow * window, const gchar * role);
extern void gdk_window_set_skip_pager_hint(GdkWindow * window,
                                           gboolean skips_pager);
extern void gdk_window_set_skip_taskbar_hint(GdkWindow * window,
                                             gboolean skips_taskbar);
extern gboolean gdk_window_set_static_gravities(GdkWindow * window,
                                                gboolean use_static);
extern void gdk_window_set_title(GdkWindow * window, const gchar * title);
extern void gdk_window_set_transient_for(GdkWindow * window,
                                         GdkWindow * parent);
extern void gdk_window_set_type_hint(GdkWindow * window,
                                     GdkWindowTypeHint hint);
extern void gdk_window_set_urgency_hint(GdkWindow * window,
                                         gboolean urgent);
extern void gdk_window_set_user_data(GdkWindow * window,
                                     gpointer user_data);
extern void gdk_window_shape_combine_mask(GdkWindow * window,
                                          GdkBitmap * mask, gint x,
                                          gint y);
extern void gdk_window_shape_combine_region(GdkWindow * window,
                                           const GdkRegion * shape_region,
                                           gint offset_x, gint offset_y);
extern void gdk_window_show(GdkWindow * window);
extern void gdk_window_show_unraised(GdkWindow * window);
extern GType gdk_window_state_get_type(void);
extern void gdk_window_stick(GdkWindow * window);
extern void gdk_window_thaw_updates(GdkWindow * window);
extern GType gdk_window_type_get_type(void);
extern GType gdk_window_type_hint_get_type(void);
extern void gdk_window_unfullscreen(GdkWindow * window);
extern void gdk_window_unmaximize(GdkWindow * window);
extern void gdk_window_unstick(GdkWindow * window);
extern void gdk_window_withdraw(GdkWindow * window);
extern GType gdk_wm_decoration_get_type(void);
extern GType gdk_wm_function_get_type(void);

```

16.26.2. gtk-2.0/gdk/gdkcairo.h

```
extern cairo_t *gdk_cairo_create(GdkDrawable * drawable);
extern void gdk_cairo_rectangle(cairo_t * cr,
                                const GdkRectangle * rectangle);
extern void gdk_cairo_region(cairo_t * cr, const GdkRegion * region);
extern void gdk_cairo_set_source_color(cairo_t * cr,
                                       const GdkColor * color);
extern void gdk_cairo_set_source_pixbuf(cairo_t * cr,
                                       const GdkPixbuf * pixbuf,
                                       double pixbuf_x, double pixbuf_y);
extern void gdk_cairo_set_source_pixmap(cairo_t * cr, GdkPixmap * pixmap,
                                       double pixmap_x, double pixmap_y);
```

16.26.3. gtk-2.0/gdk/gdkkeysyms.h

```
#define GDK_space      0x020
#define GDK_exclam     0x021
#define GDK_quotedbl   0x022
#define GDK_numbersign 0x023
#define GDK_dollar     0x024
#define GDK_percent    0x025
#define GDK_ampersand  0x026
#define GDK_apostrophe 0x027
#define GDK_quoteright 0x027
#define GDK_parenleft  0x028
#define GDK_parenright 0x029
#define GDK_asterisk    0x02a
#define GDK_plus        0x02b
#define GDK_comma       0x02c
#define GDK_minus       0x02d
#define GDK_period      0x02e
#define GDK_slash       0x02f
#define GDK_0           0x030
#define GDK_1           0x031
#define GDK_2           0x032
#define GDK_3           0x033
#define GDK_4           0x034
#define GDK_5           0x035
#define GDK_6           0x036
#define GDK_7           0x037
#define GDK_8           0x038
#define GDK_9           0x039
#define GDK_colon       0x03a
#define GDK_semicolon   0x03b
#define GDK_less        0x03c
#define GDK_equal       0x03d
#define GDK_greater     0x03e
#define GDK_question    0x03f
#define GDK_at          0x040
#define GDK_A           0x041
#define GDK_B           0x042
#define GDK_C           0x043
#define GDK_D           0x044
#define GDK_E           0x045
#define GDK_F           0x046
#define GDK_G           0x047
#define GDK_H           0x048
```

```

#define GDK_I      0x049
#define GDK_J      0x04a
#define GDK_K      0x04b
#define GDK_L      0x04c
#define GDK_M      0x04d
#define GDK_N      0x04e
#define GDK_O      0x04f
#define GDK_P      0x050
#define GDK_Q      0x051
#define GDK_R      0x052
#define GDK_S      0x053
#define GDK_T      0x054
#define GDK_U      0x055
#define GDK_V      0x056
#define GDK_W      0x057
#define GDK_X      0x058
#define GDK_Y      0x059
#define GDK_Z      0x05a
#define GDK_bracketleft 0x05b
#define GDK_backslash  0x05c
#define GDK_bracketright 0x05d
#define GDK_asciicircum 0x05e
#define GDK_underscore 0x05f
#define GDK_grave       0x060
#define GDK_quoteleft  0x060
#define GDK_a           0x061
#define GDK_b           0x062
#define GDK_c           0x063
#define GDK_d           0x064
#define GDK_e           0x065
#define GDK_f           0x066
#define GDK_g           0x067
#define GDK_h           0x068
#define GDK_i           0x069
#define GDK_j           0x06a
#define GDK_k           0x06b
#define GDK_l           0x06c
#define GDK_m           0x06d
#define GDK_n           0x06e
#define GDK_o           0x06f
#define GDK_p           0x070
#define GDK_q           0x071
#define GDK_r           0x072
#define GDK_s           0x073
#define GDK_t           0x074
#define GDK_u           0x075
#define GDK_v           0x076
#define GDK_w           0x077
#define GDK_x           0x078
#define GDK_y           0x079
#define GDK_z           0x07a
#define GDK_braceleft  0x07b
#define GDK_bar         0x07c
#define GDK_braceright 0x07d
#define GDK_asciitilde 0x07e
#define GDK_nobreakspace 0x0a0
#define GDK_exclamdown 0x0a1
#define GDK_cent       0x0a2
#define GDK_sterling    0x0a3
#define GDK_currency    0x0a4
#define GDK_yen         0x0a5
#define GDK_brokenbar   0x0a6

```

```

#define GDK_section      0x0a7
#define GDK_diaeresis    0x0a8
#define GDK_copyright    0x0a9
#define GDK_ordfeminine  0x0aa
#define GDK_guillemotleft 0x0ab
#define GDK_notsign      0x0ac
#define GDK_hyphen       0x0ad
#define GDK_registered   0x0ae
#define GDK_macron       0x0af
#define GDK_degree       0x0b0
#define GDK_plusminus    0x0b1
#define GDK_twosuperior  0x0b2
#define GDK_threesuperior 0x0b3
#define GDK_acute        0x0b4
#define GDK_mu           0x0b5
#define GDK_paragraph    0x0b6
#define GDK_periodcentered 0x0b7
#define GDK_cedilla      0x0b8
#define GDK_onesuperior  0x0b9
#define GDK_masculine    0x0ba
#define GDK_guillemotright 0x0bb
#define GDK_onequarter   0x0bc
#define GDK_onehalf      0x0bd
#define GDK_threequarters 0x0be
#define GDK_questiondown 0x0bf
#define GDK_Agrave       0x0c0
#define GDK_Aacute       0x0c1
#define GDK_Acircumflex  0x0c2
#define GDK_Atilde       0x0c3
#define GDK_Adiaeresis   0x0c4
#define GDK_Aring        0x0c5
#define GDK_AE           0x0c6
#define GDK_Ccedilla     0x0c7
#define GDK_Egrave       0x0c8
#define GDK_Eacute       0x0c9
#define GDK_Ecircumflex  0x0ca
#define GDK_Ediaeresis   0x0cb
#define GDK_Igrave       0x0cc
#define GDK_Iacute       0x0cd
#define GDK_Icircumflex  0x0ce
#define GDK_Idiaeresis   0x0cf
#define GDK_ETH          0x0d0
#define GDK_Eth          0x0d0
#define GDK_Ntilde       0x0d1
#define GDK_Ograve       0x0d2
#define GDK_Oacute       0x0d3
#define GDK_Ocircumflex  0x0d4
#define GDK_Otilde       0x0d5
#define GDK_Odiaeresis   0x0d6
#define GDK_multiply     0x0d7
#define GDK_Ooblique     0x0d8
#define GDK_Ugrave       0x0d9
#define GDK_Uacute       0x0da
#define GDK_Ucircumflex  0x0db
#define GDK_Udiaeresis   0x0dc
#define GDK_Yacute       0x0dd
#define GDK_THORN        0x0de
#define GDK_Thorn        0x0de
#define GDK_ssharp       0x0df
#define GDK_agrave       0x0e0
#define GDK_aacute       0x0e1
#define GDK_acircumflex  0x0e2

```

```

#define GDK_atilde      0x0e3
#define GDK_adiaeresis  0x0e4
#define GDK_aring       0x0e5
#define GDK_ae          0x0e6
#define GDK_ccedilla    0x0e7
#define GDK_egrave      0x0e8
#define GDK_eacute      0x0e9
#define GDK_ecircumflex 0x0ea
#define GDKediaeresis   0x0eb
#define GDK_igrave      0x0ec
#define GDK_iacute      0x0ed
#define GDK_icircumflex 0x0ee
#define GDK_idiaeresis  0x0ef
#define GDK_eth         0x0f0
#define GDK_ntilde      0x0f1
#define GDK_ograve      0x0f2
#define GDK_oacute      0x0f3
#define GDK_ocircumflex 0x0f4
#define GDK_otilde      0x0f5
#define GDK_odiaeresis  0x0f6
#define GDK_division     0x0f7
#define GDK_oslash      0x0f8
#define GDK_ugrave      0x0f9
#define GDK_uacute      0x0fa
#define GDK_ucircumflex 0x0fb
#define GDK_udiaeresis  0x0fc
#define GDK_yacute      0x0fd
#define GDK_thorn        0x0fe
#define GDK_ydiaeresis  0x0ff
#define GDK_OE          0x13bc
#define GDK_oe          0x13bd
#define GDK_Ydiaeresis  0x13be
#define GDK_Aogonek     0x1a1
#define GDK_breve       0x1a2
#define GDK_Lstroke     0x1a3
#define GDK_Lcaron      0x1a5
#define GDK_Sacute      0x1a6
#define GDK_Scaron      0x1a9
#define GDK_Scedilla    0x1aa
#define GDK_Tcaron      0x1ab
#define GDK_Zacute      0x1ac
#define GDK_Zcaron      0x1ae
#define GDK_Zabovedot   0x1af
#define GDK_aogonek     0x1b1
#define GDK_ogonek      0x1b2
#define GDK_lstroke     0x1b3
#define GDK_lcaron      0x1b5
#define GDK_sacute      0x1b6
#define GDK_caron        0x1b7
#define GDK_scaron      0x1b9
#define GDK_scedilla    0x1ba
#define GDK_tcaron      0x1bb
#define GDK_zacute      0x1bc
#define GDK_doubleacute 0x1bd
#define GDK_zcaron      0x1be
#define GDK_zabovedot   0x1bf
#define GDK_Racute      0x1c0
#define GDK_Abreve      0x1c3
#define GDK_Lacute      0x1c5
#define GDK_Cacute      0x1c6
#define GDK_Ccaron      0x1c8
#define GDK_Eogonek     0x1ca

```

```

#define GDK_Ecaron      0x1cc
#define GDK_Dcaron      0x1cf
#define GDK_Dstroke     0x1d0
#define GDK_Nacute      0x1d1
#define GDK_Ncaron      0x1d2
#define GDK_Odoubleacute 0x1d5
#define GDK_Rcaron      0x1d8
#define GDK_Uring       0x1d9
#define GDK_Udoubleacute 0x1db
#define GDK_Tcedilla    0x1de
#define GDK_racute      0x1e0
#define GDK_abreve      0x1e3
#define GDK_lacute      0x1e5
#define GDK_cacute      0x1e6
#define GDK_ccaron      0x1e8
#define GDK_eogonek     0x1ea
#define GDK_ecaron      0x1ec
#define GDK_dcaron      0x1ef
#define GDK_dstroke     0x1f0
#define GDK_nacute      0x1f1
#define GDK_ncaron      0x1f2
#define GDK_odoubleacute 0x1f5
#define GDK_rcaron      0x1f8
#define GDK_uring       0x1f9
#define GDK_udoubleacute 0x1fb
#define GDK_tcedilla    0x1fe
#define GDK_abovedot     0x1ff
#define GDK_EcuSign      0x20a0
#define GDK_ColonSign    0x20a1
#define GDK_CruzeiroSign 0x20a2
#define GDK_FFrancSign   0x20a3
#define GDK_LiraSign     0x20a4
#define GDK_MillSign     0x20a5
#define GDK_NairaSign    0x20a6
#define GDK_PesetaSign   0x20a7
#define GDK_RuppeeSign    0x20a8
#define GDK_WonSign      0x20a9
#define GDK_NewSheqelSign 0x20aa
#define GDK_DongSign     0x20ab
#define GDK_EuroSign     0x20ac
#define GDK_Hstroke      0x2a1
#define GDK_Hcircumflex  0x2a6
#define GDK_Iabovedot    0x2a9
#define GDK_Gbreve       0x2ab
#define GDK_Jcircumflex  0x2ac
#define GDK_hstroke      0x2b1
#define GDK_hcircumflex  0x2b6
#define GDK_idotless     0x2b9
#define GDK_gbreve       0x2bb
#define GDK_jcircumflex  0x2bc
#define GDK_Cabovedot    0x2c5
#define GDK_Ccircumflex  0x2c6
#define GDK_Gabovedot    0x2d5
#define GDK_Gcircumflex  0x2d8
#define GDK_Ubreve       0x2dd
#define GDK_Scircumflex  0x2de
#define GDK_cabovedot    0x2e5
#define GDK_ccircumflex  0x2e6
#define GDK_gabovedot    0x2f5
#define GDK_gcircumflex  0x2f8
#define GDK_ubreve       0x2fd
#define GDK_scircumflex  0x2fe

```

```

#define GDK_kappa      0x3a2
#define GDK_kra 0x3a2
#define GDK_Rcedilla   0x3a3
#define GDK_Itilde     0x3a5
#define GDK_Lcedilla   0x3a6
#define GDK_Emacron    0x3aa
#define GDK_Gcedilla   0x3ab
#define GDK_Tslash     0x3ac
#define GDK_rcedilla   0x3b3
#define GDK_ityilde    0x3b5
#define GDK_lcedilla   0x3b6
#define GDK_emacron    0x3ba
#define GDK_gcedilla   0x3bb
#define GDK_tslash     0x3bc
#define GDK_ENG 0x3bd
#define GDK_eng 0x3bf
#define GDK_Amacron    0x3c0
#define GDK_Iogonek    0x3c7
#define GDK_Eabovedot  0x3cc
#define GDK_Imacron    0x3cf
#define GDK_Ncedilla   0x3d1
#define GDK_Omacron    0x3d2
#define GDK_Kcedilla   0x3d3
#define GDK_Uogonek    0x3d9
#define GDK_Utilde     0x3dd
#define GDK_Umacron    0x3de
#define GDK_amacron    0x3e0
#define GDK_iogonek    0x3e7
#define GDK_eabovedot  0x3ec
#define GDK_imacron    0x3ef
#define GDK_ncedilla   0x3f1
#define GDK_omacron    0x3f2
#define GDK_kcedilla   0x3f3
#define GDK_uogonek    0x3f9
#define GDK_utilde     0x3fd
#define GDK_umacron    0x3fe
#define GDK_overline   0x47e
#define GDK_kana_fullstop 0x4a1
#define GDK_kana_openingbracket 0x4a2
#define GDK_kana_closingbracket 0x4a3
#define GDK_kana_comma 0x4a4
#define GDK_kana_conjunctive 0x4a5
#define GDK_kana_middledot 0x4a5
#define GDK_kana_WO 0x4a6
#define GDK_kana_a 0x4a7
#define GDK_kana_i 0x4a8
#define GDK_kana_u 0x4a9
#define GDK_kana_e 0x4aa
#define GDK_kana_o 0x4ab
#define GDK_kana_ya 0x4ac
#define GDK_kana_yu 0x4ad
#define GDK_kana_yo 0x4ae
#define GDK_kana_tsu 0x4af
#define GDK_kana_tu 0x4af
#define GDK_prolongedsound 0x4b0
#define GDK_kana_A 0x4b1
#define GDK_kana_I 0x4b2
#define GDK_kana_U 0x4b3
#define GDK_kana_E 0x4b4
#define GDK_kana_O 0x4b5
#define GDK_kana_KA 0x4b6
#define GDK_kana_KI 0x4b7

```



```

#define GDK_kana_KU      0x4b8
#define GDK_kana_KE      0x4b9
#define GDK_kana_KO      0x4ba
#define GDK_kana_SA      0x4bb
#define GDK_kana_SHI     0x4bc
#define GDK_kana_SU      0x4bd
#define GDK_kana_SE      0x4be
#define GDK_kana_SO      0x4bf
#define GDK_kana_TA      0x4c0
#define GDK_kana_CHI     0x4c1
#define GDK_kana_TI      0x4c1
#define GDK_kana_TSU     0x4c2
#define GDK_kana_TU      0x4c2
#define GDK_kana_TE      0x4c3
#define GDK_kana_TO      0x4c4
#define GDK_kana_NA      0x4c5
#define GDK_kana_NI      0x4c6
#define GDK_kana_NU      0x4c7
#define GDK_kana_NE      0x4c8
#define GDK_kana_NO      0x4c9
#define GDK_kana_HA      0x4ca
#define GDK_kana_HI      0x4cb
#define GDK_kana_FU      0x4cc
#define GDK_kana_HU      0x4cc
#define GDK_kana_HE      0x4cd
#define GDK_kana_HO      0x4ce
#define GDK_kana_MA      0x4cf
#define GDK_kana_MI      0x4d0
#define GDK_kana_MU      0x4d1
#define GDK_kana_ME      0x4d2
#define GDK_kana_MO      0x4d3
#define GDK_kana_YA      0x4d4
#define GDK_kana_YU      0x4d5
#define GDK_kana_YO      0x4d6
#define GDK_kana_RA      0x4d7
#define GDK_kana_RI      0x4d8
#define GDK_kana_RU      0x4d9
#define GDK_kana_RE      0x4da
#define GDK_kana_RO      0x4db
#define GDK_kana_WA      0x4dc
#define GDK_kana_N       0x4dd
#define GDK_voicedsound  0x4de
#define GDK_semivoicedsound 0x4df
#define GDK_Arabic_comma 0x5ac
#define GDK_Arabic_semicolon 0x5bb
#define GDK_Arabic_question_mark 0x5bf
#define GDK_Arabic_hamza 0x5c1
#define GDK_Arabic_maddaonalef 0x5c2
#define GDK_Arabic_hamzaonalef 0x5c3
#define GDK_Arabic_hamzaonwaw 0x5c4
#define GDK_Arabic_hamzaunderalef 0x5c5
#define GDK_Arabic_hamzaonyeh 0x5c6
#define GDK_Arabic_alef 0x5c7
#define GDK_Arabic_beh 0x5c8
#define GDK_Arabic_tehmarbuta 0x5c9
#define GDK_Arabic_teh 0x5ca
#define GDK_Arabic_theh 0x5cb
#define GDK_Arabic_jeem 0x5cc
#define GDK_Arabic_hah 0x5cd
#define GDK_Arabic_khah 0x5ce
#define GDK_Arabic_dal 0x5cf
#define GDK_Arabic_thal 0x5d0

```

```

#define GDK_Arabic_ra      0x5d1
#define GDK_Arabic_zain    0x5d2
#define GDK_Arabic_seen    0x5d3
#define GDK_Arabic_sheen   0x5d4
#define GDK_Arabic_sad     0x5d5
#define GDK_Arabic_dad     0x5d6
#define GDK_Arabic_tah     0x5d7
#define GDK_Arabic_zah     0x5d8
#define GDK_Arabic_ain     0x5d9
#define GDK_Arabic_ghain   0x5da
#define GDK_Arabic_tatweel 0x5e0
#define GDK_Arabic_feh     0x5e1
#define GDK_Arabic_qaf     0x5e2
#define GDK_Arabic_kaf     0x5e3
#define GDK_Arabic_lam     0x5e4
#define GDK_Arabic_meem    0x5e5
#define GDK_Arabic_noon    0x5e6
#define GDK_Arabic_ha      0x5e7
#define GDK_Arabic_heh     0x5e7
#define GDK_Arabic_waw     0x5e8
#define GDK_Arabic_alefmaksura 0x5e9
#define GDK_Arabic_yeh     0x5ea
#define GDK_Arabic_fathatan 0x5eb
#define GDK_Arabic_dammatan 0x5ec
#define GDK_Arabic_kasratan 0x5ed
#define GDK_Arabic_fatha   0x5ee
#define GDK_Arabic_damma   0x5ef
#define GDK_Arabic_kasra   0x5f0
#define GDK_Arabic_shadda  0x5f1
#define GDK_Arabic_sukun   0x5f2
#define GDK_Serbian_dje    0x6a1
#define GDK_Macedonia_gje  0x6a2
#define GDK_Cyrillic_io    0x6a3
#define GDK_Ukrainian_ie   0x6a4
#define GDK_Ukrainian_je   0x6a4
#define GDK_Macedonia_dse  0x6a5
#define GDK_Ukrainian_i    0x6a6
#define GDK_Ukrainian_i    0x6a6
#define GDK_Ukrainian_yi   0x6a7
#define GDK_Ukrainian_yi   0x6a7
#define GDK_Cyrillic_je    0x6a8
#define GDK_Serbian_je     0x6a8
#define GDK_Cyrillic_lje   0x6a9
#define GDK_Serbian_lje    0x6a9
#define GDK_Cyrillic_nje   0x6aa
#define GDK_Serbian_nje    0x6aa
#define GDK_Serbian_tshe   0x6ab
#define GDK_Macedonia_kje  0x6ac
#define GDK_Ukrainian_ghe_with_upturn 0x6ad
#define GDK_Byelorussian_shortu 0x6ae
#define GDK_Cyrillic_dzhe  0x6af
#define GDK_Serbian_dze    0x6af
#define GDK_numerosign     0x6b0
#define GDK_Serbian_DJE    0x6b1
#define GDK_Macedonia_GJE  0x6b2
#define GDK_Cyrillic_IO    0x6b3
#define GDK_Ukrainian_IE   0x6b4
#define GDK_Ukrainian_JE   0x6b4
#define GDK_Macedonia_DSE  0x6b5
#define GDK_Ukrainian_I    0x6b6
#define GDK_Ukrainian_I    0x6b6
#define GDK_Ukrainian_YI   0x6b7

```

```

#define GDK_Ukranian_YI 0x6b7
#define GDK_Cyrillic_JE 0x6b8
#define GDK_Serbian_JE 0x6b8
#define GDK_Cyrillic_LJE 0x6b9
#define GDK_Serbian_LJE 0x6b9
#define GDK_Cyrillic_NJE 0x6ba
#define GDK_Serbian_NJE 0x6ba
#define GDK_Serbian_TSHE 0x6bb
#define GDK_Macedonia_KJE 0x6bc
#define GDK_Ukrainian_GHE_WITH_UPTURN 0x6bd
#define GDK_Byelorussian_SHORTU 0x6be
#define GDK_Cyrillic_DZHE 0x6bf
#define GDK_Serbian_DZE 0x6bf
#define GDK_Cyrillic_yu 0x6c0
#define GDK_Cyrillic_a 0x6c1
#define GDK_Cyrillic_be 0x6c2
#define GDK_Cyrillic_tse 0x6c3
#define GDK_Cyrillic_de 0x6c4
#define GDK_Cyrillic_ie 0x6c5
#define GDK_Cyrillic_ef 0x6c6
#define GDK_Cyrillic_ghe 0x6c7
#define GDK_Cyrillic_ha 0x6c8
#define GDK_Cyrillic_i 0x6c9
#define GDK_Cyrillic_shorti 0x6ca
#define GDK_Cyrillic_ka 0x6cb
#define GDK_Cyrillic_el 0x6cc
#define GDK_Cyrillic_em 0x6cd
#define GDK_Cyrillic_en 0x6ce
#define GDK_Cyrillic_o 0x6cf
#define GDK_Cyrillic_pe 0x6d0
#define GDK_Cyrillic_ya 0x6d1
#define GDK_Cyrillic_er 0x6d2
#define GDK_Cyrillic_es 0x6d3
#define GDK_Cyrillic_te 0x6d4
#define GDK_Cyrillic_u 0x6d5
#define GDK_Cyrillic_zhe 0x6d6
#define GDK_Cyrillic_ve 0x6d7
#define GDK_Cyrillic_softsign 0x6d8
#define GDK_Cyrillic_yeru 0x6d9
#define GDK_Cyrillic_ze 0x6da
#define GDK_Cyrillic_sha 0x6db
#define GDK_Cyrillic_e 0x6dc
#define GDK_Cyrillic_shcha 0x6dd
#define GDK_Cyrillic_che 0x6de
#define GDK_Cyrillic_hardsign 0x6df
#define GDK_Cyrillic_YU 0x6e0
#define GDK_Cyrillic_A 0x6e1
#define GDK_Cyrillic_BE 0x6e2
#define GDK_Cyrillic_TSE 0x6e3
#define GDK_Cyrillic_DE 0x6e4
#define GDK_Cyrillic_IE 0x6e5
#define GDK_Cyrillic_EF 0x6e6
#define GDK_Cyrillic_GHE 0x6e7
#define GDK_Cyrillic_HA 0x6e8
#define GDK_Cyrillic_I 0x6e9
#define GDK_Cyrillic_SHORTI 0x6ea
#define GDK_Cyrillic_KA 0x6eb
#define GDK_Cyrillic_EL 0x6ec
#define GDK_Cyrillic_EM 0x6ed
#define GDK_Cyrillic_EN 0x6ee
#define GDK_Cyrillic_O 0x6ef
#define GDK_Cyrillic_PE 0x6f0

```

```

#define GDK_Cyrillic_YA 0x6f1
#define GDK_Cyrillic_ER 0x6f2
#define GDK_Cyrillic_ES 0x6f3
#define GDK_Cyrillic_TE 0x6f4
#define GDK_Cyrillic_U 0x6f5
#define GDK_Cyrillic_ZHE 0x6f6
#define GDK_Cyrillic_VE 0x6f7
#define GDK_Cyrillic_SOFTSIGN 0x6f8
#define GDK_Cyrillic_YERU 0x6f9
#define GDK_Cyrillic_ZE 0x6fa
#define GDK_Cyrillic_SHA 0x6fb
#define GDK_Cyrillic_E 0x6fc
#define GDK_Cyrillic_SHCHA 0x6fd
#define GDK_Cyrillic_CHE 0x6fe
#define GDK_Cyrillic_HARDSIGN 0x6ff
#define GDK_Greek_ALPHAaccent 0x7a1
#define GDK_Greek_EPSILONaccent 0x7a2
#define GDK_Greek_ETAaccent 0x7a3
#define GDK_Greek_IOTAaccent 0x7a4
#define GDK_Greek_IOTAdieresis 0x7a5
#define GDK_Greek_OMICRONaccent 0x7a7
#define GDK_Greek_UPSILONaccent 0x7a8
#define GDK_Greek_UPSILONdieresis 0x7a9
#define GDK_Greek_OMEGAaccent 0x7ab
#define GDK_Greek_accentdieresis 0x7ae
#define GDK_Greek_horizbar 0x7af
#define GDK_Greek_alphaaccent 0x7b1
#define GDK_Greek_epsilonaccent 0x7b2
#define GDK_Greek_etaaccent 0x7b3
#define GDK_Greek_iotaaccent 0x7b4
#define GDK_Greek_iotadieresis 0x7b5
#define GDK_Greek_iotaaccentdieresis 0x7b6
#define GDK_Greek_omicronaccent 0x7b7
#define GDK_Greek_upsilonaccent 0x7b8
#define GDK_Greek_upsilondieresis 0x7b9
#define GDK_Greek_upsilonaccentdieresis 0x7ba
#define GDK_Greek_omegaaccent 0x7bb
#define GDK_Greek_ALPHA 0x7c1
#define GDK_Greek_BETA 0x7c2
#define GDK_Greek_GAMMA 0x7c3
#define GDK_Greek_DELTA 0x7c4
#define GDK_Greek_EPSILON 0x7c5
#define GDK_Greek_ZETA 0x7c6
#define GDK_Greek_ETA 0x7c7
#define GDK_Greek_THETA 0x7c8
#define GDK_Greek_IOTA 0x7c9
#define GDK_Greek_KAPPA 0x7ca
#define GDK_Greek_LAMBDA 0x7cb
#define GDK_Greek_LAMDA 0x7cb
#define GDK_Greek_MU 0x7cc
#define GDK_Greek_NU 0x7cd
#define GDK_Greek_XI 0x7ce
#define GDK_Greek_OMICRON 0x7cf
#define GDK_Greek_PI 0x7d0
#define GDK_Greek_RHO 0x7d1
#define GDK_Greek_SIGMA 0x7d2
#define GDK_Greek_TAU 0x7d4
#define GDK_Greek_UPSILON 0x7d5
#define GDK_Greek_PHI 0x7d6
#define GDK_Greek_CHI 0x7d7
#define GDK_Greek_PSI 0x7d8
#define GDK_Greek_OMEGA 0x7d9

```

```

#define GDK_Greek_alpha 0x7e1
#define GDK_Greek_beta 0x7e2
#define GDK_Greek_gamma 0x7e3
#define GDK_Greek_delta 0x7e4
#define GDK_Greek_epsilon 0x7e5
#define GDK_Greek_zeta 0x7e6
#define GDK_Greek_eta 0x7e7
#define GDK_Greek_theta 0x7e8
#define GDK_Greek_iota 0x7e9
#define GDK_Greek_kappa 0x7ea
#define GDK_Greek_lambda 0x7eb
#define GDK_Greek_lamda 0x7eb
#define GDK_Greek_mu 0x7ec
#define GDK_Greek_nu 0x7ed
#define GDK_Greek_xi 0x7ee
#define GDK_Greek_omicron 0x7ef
#define GDK_Greek_pi 0x7f0
#define GDK_Greek_rho 0x7f1
#define GDK_Greek_sigma 0x7f2
#define GDK_Greek_finalsmallsigma 0x7f3
#define GDK_Greek_tau 0x7f4
#define GDK_Greek_upsilon 0x7f5
#define GDK_Greek_phi 0x7f6
#define GDK_Greek_chi 0x7f7
#define GDK_Greek_psi 0x7f8
#define GDK_Greek_omega 0x7f9
#define GDK_leftradical 0x8a1
#define GDK_topleftradical 0x8a2
#define GDK_horizconnector 0x8a3
#define GDK_topintegral 0x8a4
#define GDK_botintegral 0x8a5
#define GDK_vertconnector 0x8a6
#define GDK_topleftsqbracket 0x8a7
#define GDK_botleftsqbracket 0x8a8
#define GDK_toprightsqbracket 0x8a9
#define GDK_botrightsqbracket 0x8aa
#define GDK_topleftparens 0x8ab
#define GDK_botleftparens 0x8ac
#define GDK_toprightparens 0x8ad
#define GDK_botrightparens 0x8ae
#define GDK_leftmiddlecurlybrace 0x8af
#define GDK_rightmiddlecurlybrace 0x8b0
#define GDK_topleftsummation 0x8b1
#define GDK_botleftsummation 0x8b2
#define GDK_topvertsummationconnector 0x8b3
#define GDK_botvertsummationconnector 0x8b4
#define GDK_toprightsummation 0x8b5
#define GDK_botrightsummation 0x8b6
#define GDK_rightmiddlesummation 0x8b7
#define GDK_lessthanequal 0x8bc
#define GDK_notequal 0x8bd
#define GDK_greaterthanequal 0x8be
#define GDK_integral 0x8bf
#define GDK_therefore 0x8c0
#define GDK_variation 0x8c1
#define GDK_infinity 0x8c2
#define GDK_nabla 0x8c5
#define GDK_approximate 0x8c8
#define GDK_similarequal 0x8c9
#define GDK_ifonlyif 0x8cd
#define GDK_implies 0x8ce
#define GDK_identical 0x8cf

```

```

#define GDK_radical      0x8d6
#define GDK_includedin   0x8da
#define GDK_includes     0x8db
#define GDK_intersection 0x8dc
#define GDK_union        0x8dd
#define GDK_logicaland   0x8de
#define GDK_logicalor    0x8df
#define GDK_partialderivative 0x8ef
#define GDK_function     0x8f6
#define GDK_leftarrow    0x8fb
#define GDK_uparrow      0x8fc
#define GDK_rightarrow   0x8fd
#define GDK_downarrow    0x8fe
#define GDK_blank        0x9df
#define GDK_soliddiamond 0x9e0
#define GDK_checkerboard 0x9e1
#define GDK_ht           0x9e2
#define GDK_ff           0x9e3
#define GDK_cr           0x9e4
#define GDK_lf           0x9e5
#define GDK_nl           0x9e8
#define GDK_vt           0x9e9
#define GDK_lowrightcorner 0x9ea
#define GDK_uprightcorner 0x9eb
#define GDK_upleftcorner 0x9ec
#define GDK_lowleftcorner 0x9ed
#define GDK_crossinglines 0x9ee
#define GDK_horizlinescan1 0x9ef
#define GDK_horizlinescan3 0x9f0
#define GDK_horizlinescan5 0x9f1
#define GDK_horizlinescan7 0x9f2
#define GDK_horizlinescan9 0x9f3
#define GDK_leftt        0x9f4
#define GDK_rightt       0x9f5
#define GDK_bott         0x9f6
#define GDK_topt         0x9f7
#define GDK_vertbar      0x9f8
#define GDK_emspace      0xaa1
#define GDK_enspace      0xaa2
#define GDK_em3space     0xaa3
#define GDK_em4space     0xaa4
#define GDK_digitspace   0xaa5
#define GDK_punctspace   0xaa6
#define GDK_thinspace    0xaa7
#define GDK_hairspace     0xaa8
#define GDK_emdash       0xaa9
#define GDK_endash       0aaa
#define GDK_signifblank  0aac
#define GDK_ellipsis     0aae
#define GDK_doubbaselinedot 0aaef
#define GDK_onethird     0xab0
#define GDK_twothirds    0xab1
#define GDK_onefifth     0xab2
#define GDK_twofifths    0xab3
#define GDK_threefifths  0xab4
#define GDK_fourfifths   0xab5
#define GDK_onesixth     0xab6
#define GDK_fivesixths   0xab7
#define GDK_careof       0xab8
#define GDK_figdash      0abb
#define GDK_leftanglebracket 0abc
#define GDK_decimalpoint 0abd

```

```

#define GDK_rightanglebracket 0xab0
#define GDK_marker 0xabf
#define GDK_oneeighth 0xac3
#define GDK_threeeighths 0xac4
#define GDK_fiveeighths 0xac5
#define GDK_seveneighths 0xac6
#define GDK_trademark 0xac9
#define GDK_signaturemark 0xaca
#define GDK_trademarkincircle 0xacb
#define GDK_leftopentriangle 0xacc
#define GDK_rightopentriangle 0xacd
#define GDK_emopencircle 0xace
#define GDK_emopenrectangle 0xacf
#define GDK_leftsinglequotemark 0xad0
#define GDK_rightsinglequotemark 0xad1
#define GDK_leftdoublequotemark 0xad2
#define GDK_rightdoublequotemark 0xad3
#define GDK_prescription 0xad4
#define GDK_minutes 0xad6
#define GDK_seconds 0xad7
#define GDK_latincross 0xad9
#define GDK_hexagram 0xada
#define GDK_filledrectbullet 0xadb
#define GDK_filledlefttribullet 0xadc
#define GDK_filledrighttribullet 0xadd
#define GDK_emfilledcircle 0xade
#define GDK_emfilledrect 0xadf
#define GDK_enopencircbullet 0xae0
#define GDK_enopensquarebullet 0xae1
#define GDK_openrectbullet 0xae2
#define GDK_opentribulletup 0xae3
#define GDK_opentribulletdown 0xae4
#define GDK_openstar 0xae5
#define GDK_enfilledcircbullet 0xae6
#define GDK_enfilledsqbullet 0xae7
#define GDK_filledtribulletup 0xae8
#define GDK_filledtribulletdown 0xae9
#define GDK_leftpointer 0xaea
#define GDK_rightpointer 0xaeb
#define GDK_club 0xaec
#define GDK_diamond 0xaed
#define GDK_heart 0xae0
#define GDK_maltesecross 0xaf0
#define GDK_dagger 0xaf1
#define GDK_doubledagger 0xaf2
#define GDK_checkmark 0xaf3
#define GDK_ballotcross 0xaf4
#define GDK_musicalsharp 0xaf5
#define GDK_musicalflat 0xaf6
#define GDK_malesymbol 0xaf7
#define GDK_femalesymbol 0xaf8
#define GDK_telephone 0xaf9
#define GDK_telephonerecorder 0xafa
#define GDK_phonographcopyright 0xafb
#define GDK_caret 0xafc
#define GDK_singlelowquotemark 0xafd
#define GDK_doublelowquotemark 0xafe
#define GDK_cursor 0xaff
#define GDK_leftcaret 0xba3
#define GDK_rightcaret 0xba6
#define GDK_downcaret 0xba8
#define GDK_upcaret 0xba9

```

```

#define GDK_overbar      0xbc0
#define GDK_downtack     0xbc2
#define GDK_upshoe       0xbc3
#define GDK_downstile    0xbc4
#define GDK_underbar     0xbc6
#define GDK_jot 0xbca
#define GDK_quad         0xbcc
#define GDK_uptack       0xbce
#define GDK_circle       0xbcf
#define GDK_upstile      0xbd3
#define GDK_downshoe     0xbd6
#define GDK_rightshoe    0xbd8
#define GDK_leftshoe     0xbda
#define GDK_leftttack    0xbdc
#define GDK_rightttack   0xbfc
#define GDK_hebrew_doublelowline 0xcdf
#define GDK_hebrew_aleph 0xce0
#define GDK_hebrew_bet  0xce1
#define GDK_hebrew_beth 0xce1
#define GDK_hebrew_gimel 0xce2
#define GDK_hebrew_gimmel 0xce2
#define GDK_hebrew_dalet 0xce3
#define GDK_hebrew_daleth 0xce3
#define GDK_hebrew_he 0xce4
#define GDK_hebrew_waw 0xce5
#define GDK_hebrew_zain 0xce6
#define GDK_hebrew_zayin 0xce6
#define GDK_hebrew_chet 0xce7
#define GDK_hebrew_het 0xce7
#define GDK_hebrew_tet 0xce8
#define GDK_hebrew_teth 0xce8
#define GDK_hebrew_yod 0xce9
#define GDK_hebrew_finalkaph 0xcea
#define GDK_hebrew_kaph 0xceb
#define GDK_hebrew_lamed 0xcec
#define GDK_hebrew_finalmem 0xcxd
#define GDK_hebrew_mem 0xcee
#define GDK_hebrew_finalnun 0xcxf
#define GDK_hebrew_nun 0xcf0
#define GDK_hebrew_samech 0xcf1
#define GDK_hebrew_samekh 0xcf1
#define GDK_hebrew_ayin 0xcf2
#define GDK_hebrew_finalpe 0xcf3
#define GDK_hebrew_pe 0xcf4
#define GDK_hebrew_finalzade 0xcf5
#define GDK_hebrew_finalzadi 0xcf5
#define GDK_hebrew_zade 0xcf6
#define GDK_hebrew_zadi 0xcf6
#define GDK_hebrew_kuf 0xcf7
#define GDK_hebrew_qoph 0xcf7
#define GDK_hebrew_resh 0xcf8
#define GDK_hebrew_shin 0xcf9
#define GDK_hebrew_taf 0xcfa
#define GDK_hebrew_taw 0xcfa
#define GDK_Thai_kokai 0xda1
#define GDK_Thai_khokhai 0xda2
#define GDK_Thai_khokhuat 0xda3
#define GDK_Thai_khokhwai 0xda4
#define GDK_Thai_khokhon 0xda5
#define GDK_Thai_khorakhang 0xda6
#define GDK_Thai_ngongu 0xda7
#define GDK_Thai_chochan 0xda8

```



```

#define GDK_Thai_choching      0xda9
#define GDK_Thai_chochang     0xdaa
#define GDK_Thai_soso         0xdab
#define GDK_Thai_chochoe      0xdac
#define GDK_Thai_yoying       0xdad
#define GDK_Thai_dochada      0xdae
#define GDK_Thai_topatak      0xdaf
#define GDK_Thai_thothan      0xdb0
#define GDK_Thai_thonangmontho 0xdb1
#define GDK_Thai_thophuthao    0xdb2
#define GDK_Thai_nonen        0xdb3
#define GDK_Thai_dodek        0xdb4
#define GDK_Thai_totao        0xdb5
#define GDK_Thai_thothung      0xdb6
#define GDK_Thai_thothahan     0xdb7
#define GDK_Thai_thothong      0xdb8
#define GDK_Thai_nonu         0xdb9
#define GDK_Thai_bobaimai     0xdba
#define GDK_Thai_popla        0xdbb
#define GDK_Thai_phophung      0xdbc
#define GDK_Thai_fofa         0xdbd
#define GDK_Thai_phophan      0xdbe
#define GDK_Thai_fofan        0xdbf
#define GDK_Thai_phosamphao    0xdc0
#define GDK_Thai_moma         0xdc1
#define GDK_Thai_yoyak        0xdc2
#define GDK_Thai_rorua        0xdc3
#define GDK_Thai_ru           0xdc4
#define GDK_Thai_loling       0xdc5
#define GDK_Thai_lu           0xdc6
#define GDK_Thai_wowaen       0xdc7
#define GDK_Thai_sosala       0xdc8
#define GDK_Thai_sorusi       0xdc9
#define GDK_Thai_sosua        0xdca
#define GDK_Thai_hohip        0xdcb
#define GDK_Thai_lochula      0xdcc
#define GDK_Thai_oang         0xcd
#define GDK_Thai_honokhuk     0xdce
#define GDK_Thai_paiyannoi    0xdcf
#define GDK_Thai_saraa        0xdd0
#define GDK_Thai_maihanakat    0xdd1
#define GDK_Thai_saraaa       0xdd2
#define GDK_Thai_saraam       0xdd3
#define GDK_Thai_sarai        0xdd4
#define GDK_Thai_saraii       0xdd5
#define GDK_Thai_saraue       0xdd6
#define GDK_Thai_sarauee      0xdd7
#define GDK_Thai_sarau        0xdd8
#define GDK_Thai_sarauu       0xdd9
#define GDK_Thai_phinthu      0xdda
#define GDK_Thai_maihanakat_maitho 0xdd
#define GDK_Thai_baht         0xddf
#define GDK_Thai_sarae        0xde0
#define GDK_Thai_saraae       0xde1
#define GDK_Thai_sarao        0xde2
#define GDK_Thai_saraaimaimuan 0xde3
#define GDK_Thai_saraaimaimalai 0xde4
#define GDK_Thai_lakkhangyao  0xde5
#define GDK_Thai_maiyamok     0xde6
#define GDK_Thai_maitaikhu    0xde7
#define GDK_Thai_maiek        0xde8
#define GDK_Thai_maitho       0xde9

```

```

#define GDK_Thai_maitri 0xdea
#define GDK_Thai_maichattawa 0xdeb
#define GDK_Thai_thanthakhat 0xdec
#define GDK_Thai_nikhahit 0xded
#define GDK_Thai_leksun 0xdf0
#define GDK_Thai_lekning 0xdf1
#define GDK_Thai_leksong 0xdf2
#define GDK_Thai_leksam 0xdf3
#define GDK_Thai_leksi 0xdf4
#define GDK_Thai_lekha 0xdf5
#define GDK_Thai_lekhok 0xdf6
#define GDK_Thai_lekchet 0xdf7
#define GDK_Thai_lekpaet 0xdf8
#define GDK_Thai_lekkao 0xdf9
#define GDK_Hangul_Kiyeog 0xea1
#define GDK_Hangul_SsangKiyeog 0xea2
#define GDK_Hangul_KiyeogSios 0xea3
#define GDK_Hangul_Nieun 0xea4
#define GDK_Hangul_NieunJieuj 0xea5
#define GDK_Hangul_NieunHieuh 0xea6
#define GDK_Hangul_Dikeud 0xea7
#define GDK_Hangul_SsangDikeud 0xea8
#define GDK_Hangul_Rieul 0xea9
#define GDK_Hangul_RieulKiyeog 0xeaa
#define GDK_Hangul_RieulMieum 0xeab
#define GDK_Hangul_RieulPieub 0xeac
#define GDK_Hangul_RieulSios 0xead
#define GDK_Hangul_RieulTieut 0xaeae
#define GDK_Hangul_RieulPhieuf 0xeaf
#define GDK_Hangul_RieulHieuh 0xeb0
#define GDK_Hangul_Mieum 0xeb1
#define GDK_Hangul_Pieub 0xeb2
#define GDK_Hangul_SsangPieub 0xeb3
#define GDK_Hangul_PieubSios 0xeb4
#define GDK_Hangul_Sios 0xeb5
#define GDK_Hangul_SsangSios 0xeb6
#define GDK_Hangul_Ieung 0xeb7
#define GDK_Hangul_Jieuj 0xeb8
#define GDK_Hangul_SsangJieuj 0xeb9
#define GDK_Hangul_Cieuc 0xeba
#define GDK_Hangul_Khieuq 0xebb
#define GDK_Hangul_Tieut 0xebc
#define GDK_Hangul_Phieuf 0xebd
#define GDK_Hangul_Hieuh 0xebe
#define GDK_Hangul_A 0xebf
#define GDK_Hangul_AE 0xec0
#define GDK_Hangul_YA 0xec1
#define GDK_Hangul_YAE 0xec2
#define GDK_Hangul_EO 0xec3
#define GDK_Hangul_E 0xec4
#define GDK_Hangul_YEO 0xec5
#define GDK_Hangul_YE 0xec6
#define GDK_Hangul_O 0xec7
#define GDK_Hangul_WA 0xec8
#define GDK_Hangul_WAE 0xec9
#define GDK_Hangul_OE 0xeca
#define GDK_Hangul_YO 0xecb
#define GDK_Hangul_U 0xecc
#define GDK_Hangul_WEO 0xecd
#define GDK_Hangul_WE 0xece
#define GDK_Hangul_WI 0xecf
#define GDK_Hangul_YU 0xed0

```

```

#define GDK_Hangul_EU      0xed1
#define GDK_Hangul_YI      0xed2
#define GDK_Hangul_I       0xed3
#define GDK_Hangul_J_Kiyeog      0xed4
#define GDK_Hangul_J_SsangKiyeog      0xed5
#define GDK_Hangul_J_KiyeoSios 0xed6
#define GDK_Hangul_J_Nieun      0xed7
#define GDK_Hangul_J_NieunJieuj 0xed8
#define GDK_Hangul_J_NieunHieuh 0xed9
#define GDK_Hangul_J_Dikeud      0xeda
#define GDK_Hangul_J_Rieul      0xedb
#define GDK_Hangul_J_RieulKiyeog      0xedc
#define GDK_Hangul_J_RieulMieum 0xedd
#define GDK_Hangul_J_RieulPieub 0xede
#define GDK_Hangul_J_RieulSios 0xedf
#define GDK_Hangul_J_RieulTieut 0xee0
#define GDK_Hangul_J_RieulPhieuf      0xee1
#define GDK_Hangul_J_RieulHieuh 0xee2
#define GDK_Hangul_J_Mieum      0xee3
#define GDK_Hangul_J_Pieub      0xee4
#define GDK_Hangul_J_PieubSios 0xee5
#define GDK_Hangul_J_Sios      0xee6
#define GDK_Hangul_J_SsangSios 0xee7
#define GDK_Hangul_J_Ieung      0xee8
#define GDK_Hangul_J_Jieuj      0xee9
#define GDK_Hangul_J_Cieuc      0xeea
#define GDK_Hangul_J_Khieug      0xeeb
#define GDK_Hangul_J_Tieut      0xeec
#define GDK_Hangul_J_Phieuf      0xeed
#define GDK_Hangul_J_Hieuh      0xeee
#define GDK_Hangul_RieulYeorinHieuh      0xeef
#define GDK_Hangul_SunkyeongeumMieum      0xef0
#define GDK_Hangul_SunkyeongeumPieub      0xef1
#define GDK_Hangul_PanSios      0xef2
#define GDK_Hangul_KkogjiDalrinIeung      0xef3
#define GDK_Hangul_SunkyeongeumPhieuf      0xef4
#define GDK_Hangul_YeorinHieuh 0xef5
#define GDK_Hangul_AraeA      0xef6
#define GDK_Hangul_AraeAE      0xef7
#define GDK_Hangul_J_PanSios      0xef8
#define GDK_Hangul_J_KkogjiDalrinIeung      0xef9
#define GDK_Hangul_J_YeorinHieuh      0xefa
#define GDK_Korean_Won      0xeff
#define GDK_3270_Duplicate      0xFD01
#define GDK_3270_FieldMark      0xFD02
#define GDK_3270_Right2 0xFD03
#define GDK_3270_Left2 0xFD04
#define GDK_3270_BackTab      0xFD05
#define GDK_3270_EraseEOF      0xFD06
#define GDK_3270_EraseInput      0xFD07
#define GDK_3270_Reset      0xFD08
#define GDK_3270_Quit      0xFD09
#define GDK_3270_PA1      0xFD0A
#define GDK_3270_PA2      0xFD0B
#define GDK_3270_PA3      0xFD0C
#define GDK_3270_Test      0xFD0D
#define GDK_3270_Attn      0xFD0E
#define GDK_3270_CursorBlink      0xFD0F
#define GDK_3270_AltCursor      0xFD10
#define GDK_3270_KeyClick      0xFD11
#define GDK_3270_Jump      0xFD12
#define GDK_3270_Ident      0xFD13

```

```

#define GDK_3270_Rule      0xFD14
#define GDK_3270_Copy      0xFD15
#define GDK_3270_Play      0xFD16
#define GDK_3270_Setup     0xFD17
#define GDK_3270_Record    0xFD18
#define GDK_3270_ChangeScreen 0xFD19
#define GDK_3270_DeleteWord 0xFD1A
#define GDK_3270_ExSelect  0xFD1B
#define GDK_3270_CursorSelect 0xFD1C
#define GDK_3270_PrintScreen 0xFD1D
#define GDK_3270_Enter     0xFD1E
#define GDK_ISO_Lock       0xFE01
#define GDK_ISO_Level2_Latch 0xFE02
#define GDK_ISO_Level3_Shift 0xFE03
#define GDK_ISO_Level3_Latch 0xFE04
#define GDK_ISO_Level3_Lock 0xFE05
#define GDK_ISO_Group_Latch 0xFE06
#define GDK_ISO_Group_Lock  0xFE07
#define GDK_ISO_Next_Group  0xFE08
#define GDK_ISO_Next_Group_Lock 0xFE09
#define GDK_ISO_Prev_Group  0xFE0A
#define GDK_ISO_Prev_Group_Lock 0xFE0B
#define GDK_ISO_First_Group 0xFE0C
#define GDK_ISO_First_Group_Lock 0xFE0D
#define GDK_ISO_Last_Group  0xFE0E
#define GDK_ISO_Last_Group_Lock 0xFE0F
#define GDK_ISO_Left_Tab    0xFE20
#define GDK_ISO_Move_Line_Up 0xFE21
#define GDK_ISO_Move_Line_Down 0xFE22
#define GDK_ISO_Partial_Line_Up 0xFE23
#define GDK_ISO_Partial_Line_Down 0xFE24
#define GDK_ISO_Partial_Space_Left 0xFE25
#define GDK_ISO_Partial_Space_Right 0xFE26
#define GDK_ISO_Set_Margin_Left 0xFE27
#define GDK_ISO_Set_Margin_Right 0xFE28
#define GDK_ISO_Release_Margin_Left 0xFE29
#define GDK_ISO_Release_Margin_Right 0xFE2A
#define GDK_ISO_Release_Both_Margins 0xFE2B
#define GDK_ISO_Fast_Cursor_Left 0xFE2C
#define GDK_ISO_Fast_Cursor_Right 0xFE2D
#define GDK_ISO_Fast_Cursor_Up 0xFE2E
#define GDK_ISO_Fast_Cursor_Down 0xFE2F
#define GDK_ISO_Continuous_Underline 0xFE30
#define GDK_ISO_Discontinuous_Underline 0xFE31
#define GDK_ISO_Emphasize 0xFE32
#define GDK_ISO_Center_Object 0xFE33
#define GDK_ISO_Enter 0xFE34
#define GDK_dead_grave 0xFE50
#define GDK_dead_acute 0xFE51
#define GDK_dead_circumflex 0xFE52
#define GDK_dead_tilde 0xFE53
#define GDK_dead_macron 0xFE54
#define GDK_dead_breve 0xFE55
#define GDK_dead_abovedot 0xFE56
#define GDK_dead_diaeresis 0xFE57
#define GDK_dead_abovering 0xFE58
#define GDK_dead_doubleacute 0xFE59
#define GDK_dead_caron 0xFE5A
#define GDK_dead_cedilla 0xFE5B
#define GDK_dead_ogonek 0xFE5C
#define GDK_dead_iota 0xFE5D
#define GDK_dead_voiced_sound 0xFE5E

```

```

#define GDK_dead_semivoiced_sound      0xFE5F
#define GDK_dead_belowdot              0xFE60
#define GDK_dead_hook                  0xFE61
#define GDK_dead_horn                  0xFE62
#define GDK_AccessX_Enable              0xFE70
#define GDK_AccessX_Feedback_Enable    0xFE71
#define GDK_RepeatKeys_Enable          0xFE72
#define GDK_SlowKeys_Enable            0xFE73
#define GDK_BounceKeys_Enable          0xFE74
#define GDK_StickyKeys_Enable          0xFE75
#define GDK_MouseKeys_Enable           0xFE76
#define GDK_MouseKeys_Accel_Enable     0xFE77
#define GDK_Overlay1_Enable            0xFE78
#define GDK_Overlay2_Enable            0xFE79
#define GDK_AudibleBell_Enable         0xFE7A
#define GDK_First_Virtual_Screen       0xFED0
#define GDK_Prev_Virtual_Screen        0xFED1
#define GDK_Next_Virtual_Screen        0xFED2
#define GDK_Last_Virtual_Screen        0xFED4
#define GDK_Terminate_Server           0xFED5
#define GDK_Pointer_Left               0xFEE0
#define GDK_Pointer_Right              0xFEE1
#define GDK_Pointer_Up                 0xFEE2
#define GDK_Pointer_Down               0xFEE3
#define GDK_Pointer_UpLeft             0xFEE4
#define GDK_Pointer_UpRight            0xFEE5
#define GDK_Pointer_DownLeft           0xFEE6
#define GDK_Pointer_DownRight          0xFEE7
#define GDK_Pointer_Button_Dflt        0xFEE8
#define GDK_Pointer_Button1            0xFEE9
#define GDK_Pointer_Button2            0xFEEA
#define GDK_Pointer_Button3            0xFEEB
#define GDK_Pointer_Button4            0xFEEC
#define GDK_Pointer_Button5            0xFEED
#define GDK_Pointer_DblClick_Dflt      0xFEEE
#define GDK_Pointer_DblClick1          0xFEEF
#define GDK_Pointer_DblClick2          0xFEFO
#define GDK_Pointer_DblClick3          0xFEFF
#define GDK_Pointer_DblClick4          0xFEFF
#define GDK_Pointer_DblClick5          0xFEFF
#define GDK_Pointer_Drag_Dflt          0xFEFF
#define GDK_Pointer_Drag1              0xFEFF
#define GDK_Pointer_Drag2              0xFEFF
#define GDK_Pointer_Drag3              0xFEFF
#define GDK_Pointer_Drag4              0xFEFF
#define GDK_Pointer_EnableKeys         0xFEFF
#define GDK_Pointer_Accelerate         0xFEFA
#define GDK_Pointer_DfltBtnNext        0xFEFB
#define GDK_Pointer_DfltBtnPrev        0xFEFC
#define GDK_Pointer_Drag5              0xFEFD
#define GDK_BackSpace                  0xFF08
#define GDK_Tab                        0xFF09
#define GDK_Linefeed                   0xFF0A
#define GDK_Clear                      0xFF0B
#define GDK_Return                     0xFF0D
#define GDK_Pause                      0xFF13
#define GDK_Scroll_Lock                0xFF14
#define GDK_Sys_Req                    0xFF15
#define GDK_Escape                     0xFF1B
#define GDK_Multi_key                  0xFF20
#define GDK_Kanji                      0xFF21
#define GDK_Muhenkan                   0xFF22

```

```

#define GDK_Henkan      0xFF23
#define GDK_Henkan_Mode 0xFF23
#define GDK_Romaji      0xFF24
#define GDK_Hiragana    0xFF25
#define GDK_Katakana    0xFF26
#define GDK_Hiragana_Katakana 0xFF27
#define GDK_Zenkaku     0xFF28
#define GDK_Hankaku     0xFF29
#define GDK_Zenkaku_Hankaku 0xFF2A
#define GDK_Touroku     0xFF2B
#define GDK_Massyo      0xFF2C
#define GDK_Kana_Lock   0xFF2D
#define GDK_Kana_Shift  0xFF2E
#define GDK_Eisu_Shift  0xFF2F
#define GDK_Eisu_toggle 0xFF30
#define GDK_Hangul      0xff31
#define GDK_Hangul_Start 0xff32
#define GDK_Hangul_End  0xff33
#define GDK_Hangul_Hanja 0xff34
#define GDK_Hangul_Jamo 0xff35
#define GDK_Hangul_Romaja 0xff36
#define GDK_Codeinput   0xFF37
#define GDK_Hangul_Codeinput 0xff37
#define GDK_Kanji_Bangou 0xFF37
#define GDK_Hangul_Jeonja 0xff38
#define GDK_Hangul_Banja 0xff39
#define GDK_Hangul_PreHanja 0xff3a
#define GDK_Hangul_PostHanja 0xff3b
#define GDK_Hangul_SingleCandidate 0xff3c
#define GDK_SingleCandidate 0xFF3C
#define GDK_Hangul_MultipleCandidate 0xff3d
#define GDK_MultipleCandidate 0xFF3D
#define GDK_Zen_Koho    0xFF3D
#define GDK_Hangul_PreviousCandidate 0xff3e
#define GDK_Mae_Koho    0xFF3E
#define GDK_PreviousCandidate 0xFF3E
#define GDK_Hangul_Special 0xff3f
#define GDK_Home        0xFF50
#define GDK_Left        0xFF51
#define GDK_Up 0xFF52
#define GDK_Right       0xFF53
#define GDK_Down        0xFF54
#define GDK_Page_Up     0xFF55
#define GDK_Prior       0xFF55
#define GDK_Next        0xFF56
#define GDK_Page_Down   0xFF56
#define GDK_End 0xFF57
#define GDK_Begin      0xFF58
#define GDK_Select      0xFF60
#define GDK_Print       0xFF61
#define GDK_Execute     0xFF62
#define GDK_Insert      0xFF63
#define GDK_Undo        0xFF65
#define GDK_Redo        0xFF66
#define GDK_Menu        0xFF67
#define GDK_Find        0xFF68
#define GDK_Cancel      0xFF69
#define GDK_Help        0xFF6A
#define GDK_Break       0xFF6B
#define GDK_Arabic_switch 0xFF7E
#define GDK_Greek_switch 0xFF7E
#define GDK_Hangul_switch 0xFF7E

```

```

#define GDK_Hebrew_switch      0xFF7E
#define GDK_ISO_Group_Shift    0xFF7E
#define GDK_Mode_switch        0xFF7E
#define GDK_kana_switch        0xFF7E
#define GDK_script_switch      0xFF7E
#define GDK_Num_Lock           0xFF7F
#define GDK_KP_Space            0xFF80
#define GDK_KP_Tab              0xFF89
#define GDK_KP_Enter            0xFF8D
#define GDK_KP_F1               0xFF91
#define GDK_KP_F2               0xFF92
#define GDK_KP_F3               0xFF93
#define GDK_KP_F4               0xFF94
#define GDK_KP_Home             0xFF95
#define GDK_KP_Left             0xFF96
#define GDK_KP_Up               0xFF97
#define GDK_KP_Right            0xFF98
#define GDK_KP_Down             0xFF99
#define GDK_KP_Page_Up          0xFF9A
#define GDK_KP_Prior            0xFF9A
#define GDK_KP_Next             0xFF9B
#define GDK_KP_Page_Down        0xFF9B
#define GDK_KP_End              0xFF9C
#define GDK_KP_Begin            0xFF9D
#define GDK_KP_Insert           0xFF9E
#define GDK_KP_Delete           0xFF9F
#define GDK_KP_Multiply          0xFFAA
#define GDK_KP_Add              0xFFAB
#define GDK_KP_Separator         0xFFAC
#define GDK_KP_Subtract         0xFFAD
#define GDK_KP_Decimal          0xFFAE
#define GDK_KP_Divide           0xFFAF
#define GDK_KP_0                0xFFB0
#define GDK_KP_1                0xFFB1
#define GDK_KP_2                0xFFB2
#define GDK_KP_3                0xFFB3
#define GDK_KP_4                0xFFB4
#define GDK_KP_5                0xFFB5
#define GDK_KP_6                0xFFB6
#define GDK_KP_7                0xFFB7
#define GDK_KP_8                0xFFB8
#define GDK_KP_9                0xFFB9
#define GDK_KP_Equal            0xFFBD
#define GDK_F1                  0xFFBE
#define GDK_F2                  0xFFBF
#define GDK_F3                  0xFFC0
#define GDK_F4                  0xFFC1
#define GDK_F5                  0xFFC2
#define GDK_F6                  0xFFC3
#define GDK_F7                  0xFFC4
#define GDK_F8                  0xFFC5
#define GDK_F9                  0xFFC6
#define GDK_F10                 0xFFC7
#define GDK_F11                 0xFFC8
#define GDK_L1                  0xFFC8
#define GDK_F12                 0xFFC9
#define GDK_L2                  0xFFC9
#define GDK_F13                 0xFFCA
#define GDK_L3                  0xFFCA
#define GDK_F14                 0xFFCB
#define GDK_L4                  0xFFCB
#define GDK_F15                 0xFFCC

```

```

#define GDK_L5    0xFFCC
#define GDK_F16   0xFFCD
#define GDK_L6    0xFFCD
#define GDK_F17   0xFFCE
#define GDK_L7    0xFFCE
#define GDK_F18   0xFFCF
#define GDK_L8    0xFFCF
#define GDK_F19   0xFFD0
#define GDK_L9    0xFFD0
#define GDK_F20   0xFFD1
#define GDK_L10   0xFFD1
#define GDK_F21   0xFFD2
#define GDK_R1    0xFFD2
#define GDK_F22   0xFFD3
#define GDK_R2    0xFFD3
#define GDK_F23   0xFFD4
#define GDK_R3    0xFFD4
#define GDK_F24   0xFFD5
#define GDK_R4    0xFFD5
#define GDK_F25   0xFFD6
#define GDK_R5    0xFFD6
#define GDK_F26   0xFFD7
#define GDK_R6    0xFFD7
#define GDK_F27   0xFFD8
#define GDK_R7    0xFFD8
#define GDK_F28   0xFFD9
#define GDK_R8    0xFFD9
#define GDK_F29   0xFFDA
#define GDK_R9    0xFFDA
#define GDK_F30   0xFFDB
#define GDK_R10   0xFFDB
#define GDK_F31   0xFFDC
#define GDK_R11   0xFFDC
#define GDK_F32   0xFFDD
#define GDK_R12   0xFFDD
#define GDK_F33   0xFFDE
#define GDK_R13   0xFFDE
#define GDK_F34   0xFFDF
#define GDK_R14   0xFFDF
#define GDK_F35   0xFFE0
#define GDK_R15   0xFFE0
#define GDK_Shift_L    0xFFE1
#define GDK_Shift_R    0xFFE2
#define GDK_Control_L  0xFFE3
#define GDK_Control_R  0xFFE4
#define GDK_Caps_Lock  0xFFE5
#define GDK_Shift_Lock 0xFFE6
#define GDK_Meta_L     0xFFE7
#define GDK_Meta_R     0xFFE8
#define GDK_Alt_L      0xFFE9
#define GDK_Alt_R      0xFFEA
#define GDK_Super_L    0xFFEB
#define GDK_Super_R    0xFFEC
#define GDK_Hyper_L    0xFFED
#define GDK_Hyper_R    0xFFEE
#define GDK_Delete     0xFFFF
#define GDK_VoidSymbol 0xFFFFFFFF
#define GDK_Greek_IOTAiaeresis GDK_Greek_IOTAdieresis

```


16.26.4. gtk-2.0/gdk/gdkx.h

```

#define GDK_WINDOW_DESTROYED(d) \
    (((GdkWindowObject*) (GDK_WINDOW (d)))->destroyed)
#define GDK_WINDOW_TYPE(d) \
    (((GdkWindowObject*) (GDK_WINDOW (d)))->window_type)
#define GDK_COLORMAP_XCOLORMAP(cmap) \
    (gdk_x11_colormap_get_xcolormap (cmap))
#define GDK_DISPLAY_XDISPLAY(display) \
    (gdk_x11_display_get_xdisplay (display))
#define GDK_SCREEN_XDISPLAY(screen) \
    (gdk_x11_display_get_xdisplay (gdk_screen_get_display (screen)))
#define GDK_PIXMAP_XDISPLAY(win) \
    (gdk_x11_drawable_get_xdisplay (((GdkPixmapObject *)win)->impl))
#define GDK_WINDOW_XDISPLAY(win) \
    (gdk_x11_drawable_get_xdisplay (((GdkWindowObject *)win)->impl))
#define GDK_SCREEN_XNUMBER(screen) \
    (gdk_x11_screen_get_screen_number (screen))
#define GDK_PARENT_RELATIVE_BG ((GdkPixmap *)1L)
#define GDK_NO_BG ((GdkPixmap *)2L)
#define GDK_COLORMAP_XDISPLAY(cmap) (gdk_x11_colormap_get_xdisplay (cmap))
#define GDK_CURSOR_XCURSOR(cursor) (gdk_x11_cursor_get_xcursor (cursor))
#define GDK_CURSOR_XDISPLAY(cursor) (gdk_x11_cursor_get_xdisplay (cursor))
#define GDK_DRAWABLE_XDISPLAY(win) (gdk_x11_drawable_get_xdisplay (win))
#define GDK_DRAWABLE_XID(win) (gdk_x11_drawable_get_xid (win))
#define GDK_PIXMAP_XID(win) (gdk_x11_drawable_get_xid (win))
#define GDK_WINDOW_XID(win) (gdk_x11_drawable_get_xid (win))
#define GDK_WINDOW_XWINDOW(win) (gdk_x11_drawable_get_xid (win))
#define GDK_GC_XDISPLAY(gc) (gdk_x11_gc_get_xdisplay (gc))
#define GDK_GC_XGC(gc) (gdk_x11_gc_get_xgc (gc))
#define GDK_ROOT_WINDOW() (gdk_x11_get_default_root_xwindow ())
#define GDK_IMAGE_XDISPLAY(image) (gdk_x11_image_get_xdisplay (image))
#define GDK_IMAGE_XIMAGE(image) (gdk_x11_image_get_ximage (image))
#define GDK_SCREEN_XSCREEN(screen) (gdk_x11_screen_get_xscreen (screen))
#define GDK_VISUAL_XVISUAL(visual) (gdk_x11_visual_get_xvisual (visual))
#define GDK_DISPLAY() gdk_display

extern Display *gdk_display;
extern gboolean gdk_net_wm_supports(GdkAtom property);
extern void gdk_synthesize_window_state(GdkWindow * window,
                                         GdkWindowState unset_flags,
                                         GdkWindowState set_flags);
extern void gdk_window_destroy_notify(GdkWindow * window);
extern Atom gdk_x11_atom_to_xatom(GdkAtom atom);
extern Atom gdk_x11_atom_to_xatom_for_display(GdkDisplay * display,
                                              GdkAtom atom);
extern GdkColormap *gdk_x11_colormap_foreign_new(GdkVisual * visual,
                                                  Colormap xcolormap);
extern Colormap gdk_x11_colormap_get_xcolormap(GdkColormap * colormap);
extern Display *gdk_x11_colormap_get_xdisplay(GdkColormap * colormap);
extern Cursor gdk_x11_cursor_get_xcursor(GdkCursor * cursor);
extern Display *gdk_x11_cursor_get_xdisplay(GdkCursor * cursor);
extern guint32 gdk_x11_display_get_user_time(GdkDisplay * display);
extern Display *gdk_x11_display_get_xdisplay(GdkDisplay * display);
extern void gdk_x11_display_grab(GdkDisplay * display);
extern void gdk_x11_display_set_cursor_theme(GdkDisplay * display,
                                              const gchar * theme,
                                              const gint size);
extern void gdk_x11_display_ungrab(GdkDisplay * display);
extern Display *gdk_x11_drawable_get_xdisplay(GdkDrawable * drawable);
extern XID gdk_x11_drawable_get_xid(GdkDrawable * drawable);

```

```

extern Display *gdk_x11_gc_get_xdisplay(GdkGC * gc);
extern GC gdk_x11_gc_get_xgc(GdkGC * gc);
extern Window gdk_x11_get_default_root_xwindow(void);
extern gint gdk_x11_get_default_screen(void);
extern Display *gdk_x11_get_default_xdisplay(void);
extern guint32 gdk_x11_get_server_time(GdkWindow * window);
extern Atom gdk_x11_get_xatom_by_name(const gchar * atom_name);
extern Atom gdk_x11_get_xatom_by_name_for_display(GdkDisplay * display,
                                                  const gchar * atom_name);
extern const gchar *gdk_x11_get_xatom_name(Atom xatom);
extern const gchar *gdk_x11_get_xatom_name_for_display(GdkDisplay *
                                                       display,
                                                       Atom xatom);

extern void gdk_x11_grab_server(void);
extern Display *gdk_x11_image_get_xdisplay(GdkImage * image);
extern XImage *gdk_x11_image_get_ximage(GdkImage * image);
extern GdkDisplay *gdk_x11_lookup_xdisplay(Display * xdisplay);
extern void gdk_x11_register_standard_event_type(GdkDisplay * display,
                                                  gint event_base,
                                                  gint n_events);
extern int gdk_x11_screen_get_screen_number(GdkScreen * screen);
extern const char *gdk_x11_screen_get_window_manager_name(GdkScreen *
                                                           screen);
extern Screen *gdk_x11_screen_get_xscreen(GdkScreen * screen);
extern GdkVisual *gdk_x11_screen_lookup_visual(GdkScreen * screen,
                                                VisualID xvisualid);
extern gboolean gdk_x11_screen_supports_net_wm_hint(GdkScreen * screen,
                                                     GdkAtom property);
extern void gdk_x11_ungrab_server(void);
extern Visual *gdk_x11_visual_get_xvisual(GdkVisual * visual);
extern void gdk_x11_window_move_to_current_desktop(GdkWindow * window);
extern void gdk_x11_window_set_user_time(GdkWindow * window,
                                          guint32 timestamp);
extern GdkAtom gdk_x11_xatom_to_atom(Atom xatom);
extern GdkAtom gdk_x11_xatom_to_atom_for_display(GdkDisplay * display,
                                                  Atom xatom);
extern gpointer gdk_xid_table_lookup(XID xid);
extern gpointer gdk_xid_table_lookup_for_display(GdkDisplay * display,
                                                  XID xid);
extern GdkVisual *gdkx_visual_get(VisualID xvisualid);

```

16.27. Interfaces for libgtk-x11-2.0

[Table 16-101](#) defines the library name and shared object name for the libgtk-x11-2.0 library

Table 16-101. libgtk-x11-2.0 Definition

Library:	libgtk-x11-2.0
SONAME:	libgtk-x11-2.0.so.0

The behavior of the interfaces in this library is specified by the following specifications:

[GObject 2.12] [Gobject 2.12.13 Reference Manual](#)

[Gtk 2.10] [Gtk+ 2.10.14 Reference Manual](#)

[LSB] [This Specification](#)

16.27.1. GTK main Widgets library

16.27.1.1. Interfaces for GTK main Widgets library

An LSB conforming implementation shall provide the generic functions for GTK main Widgets library specified in [Table 16-102](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-102. libgtk-x11-2.0 - GTK main Widgets library Function Interfaces

gtk_about_dialog_get_artists [Gtk 2.10]	gtk_about_dialog_get_authors [Gtk 2.10]
gtk_about_dialog_get_comments [Gtk 2.10]	gtk_about_dialog_get_copyright [Gtk 2.10]
gtk_about_dialog_get_documenters [Gtk 2.10]	gtk_about_dialog_get_license [Gtk 2.10]
gtk_about_dialog_get_logo [Gtk 2.10]	gtk_about_dialog_get_logo_icon_name [Gtk 2.10]
gtk_about_dialog_get_name [Gtk 2.10]	gtk_about_dialog_get_translator_credits [Gtk 2.10]
gtk_about_dialog_get_type [GObject 2.12]	gtk_about_dialog_get_version [Gtk 2.10]
gtk_about_dialog_get_website [Gtk 2.10]	gtk_about_dialog_get_website_label [Gtk 2.10]
gtk_about_dialog_get_wrap_license [Gtk 2.10]	gtk_about_dialog_new [Gtk 2.10]
gtk_about_dialog_set_artists [Gtk 2.10]	gtk_about_dialog_set_authors [Gtk 2.10]
gtk_about_dialog_set_comments [Gtk 2.10]	gtk_about_dialog_set_copyright [Gtk 2.10]
gtk_about_dialog_set_documenters [Gtk 2.10]	gtk_about_dialog_set_email_hook [Gtk 2.10]
gtk_about_dialog_set_license [Gtk 2.10]	gtk_about_dialog_set_logo [Gtk 2.10]
gtk_about_dialog_set_logo_icon_name [Gtk 2.10]	gtk_about_dialog_set_name [Gtk 2.10]
gtk_about_dialog_set_translator_credits [Gtk 2.10]	gtk_about_dialog_set_url_hook [Gtk 2.10]
gtk_about_dialog_set_version [Gtk 2.10]	gtk_about_dialog_set_website [Gtk 2.10]
gtk_about_dialog_set_website_label [Gtk 2.10]	gtk_about_dialog_set_wrap_license [Gtk 2.10]
gtk_accel_flags_get_type [GObject 2.12]	gtk_accel_group_activate [Gtk 2.10]
gtk_accel_group_connect [Gtk 2.10]	gtk_accel_group_connect_by_path [Gtk 2.10]
gtk_accel_group_disconnect [Gtk 2.10]	gtk_accel_group_disconnect_key [Gtk 2.10]
gtk_accel_group_find [Gtk 2.10]	gtk_accel_group_from_accel_closure [Gtk 2.10]
gtk_accel_group_get_type [GObject 2.12]	gtk_accel_group_lock [Gtk 2.10]
gtk_accel_group_new [Gtk 2.10]	gtk_accel_group_query [Gtk 2.10]
gtk_accel_group_unlock [Gtk 2.10]	gtk_accel_groups_activate [Gtk 2.10]
gtk_accel_groups_from_object [Gtk 2.10]	gtk_accel_label_get_accel_widget [Gtk 2.10]
gtk_accel_label_get_accel_width [Gtk 2.10]	gtk_accel_label_get_type [GObject 2.12]

gtk_accel_label_new [Gtk 2.10]	gtk_accel_label_refetch [Gtk 2.10]
gtk_accel_label_set_accel_closure [Gtk 2.10]	gtk_accel_label_set_accel_widget [Gtk 2.10]
gtk_accel_map_add_entry [Gtk 2.10]	gtk_accel_map_add_filter [Gtk 2.10]
gtk_accel_map_change_entry [Gtk 2.10]	gtk_accel_map_foreach [Gtk 2.10]
gtk_accel_map_foreach_unfiltered [Gtk 2.10]	gtk_accel_map_get [Gtk 2.10]
gtk_accel_map_get_type [GObject 2.12]	gtk_accel_map_load [Gtk 2.10]
gtk_accel_map_load_fd [Gtk 2.10]	gtk_accel_map_load_scanner [Gtk 2.10]
gtk_accel_map_lock_path [Gtk 2.10]	gtk_accel_map_lookup_entry [Gtk 2.10]
gtk_accel_map_save [Gtk 2.10]	gtk_accel_map_save_fd [Gtk 2.10]
gtk_accel_map_unlock_path [Gtk 2.10]	gtk_accelerator_get_default_mod_mask [Gtk 2.10]
gtk_accelerator_get_label [Gtk 2.10]	gtk_accelerator_name [Gtk 2.10]
gtk_accelerator_parse [Gtk 2.10]	gtk_accelerator_set_default_mod_mask [Gtk 2.10]
gtk_accelerator_valid [Gtk 2.10]	gtk_accessible_connect_widget_destroyed [Gtk 2.10]
gtk_accessible_get_type [GObject 2.12]	gtk_action_activate [Gtk 2.10]
gtk_action_block_activate_from [Gtk 2.10]	gtk_action_connect_accelerator [Gtk 2.10]
gtk_action_connect_proxy [Gtk 2.10]	gtk_action_create_icon [Gtk 2.10]
gtk_action_create_menu_item [Gtk 2.10]	gtk_action_create_tool_item [Gtk 2.10]
gtk_action_disconnect_accelerator [Gtk 2.10]	gtk_action_disconnect_proxy [Gtk 2.10]
gtk_action_get_accel_closure [Gtk 2.10]	gtk_action_get_accel_path [Gtk 2.10]
gtk_action_get_name [Gtk 2.10]	gtk_action_get_proxies [Gtk 2.10]
gtk_action_get_sensitive [Gtk 2.10]	gtk_action_get_type [GObject 2.12]
gtk_action_get_visible [Gtk 2.10]	gtk_action_group_add_action [Gtk 2.10]
gtk_action_group_add_action_with_accel [Gtk 2.10]	gtk_action_group_add_actions [Gtk 2.10]
gtk_action_group_add_actions_full [Gtk 2.10]	gtk_action_group_add_radio_actions [Gtk 2.10]
gtk_action_group_add_radio_actions_full [Gtk 2.10]	gtk_action_group_add_toggle_actions [Gtk 2.10]
gtk_action_group_add_toggle_actions_full [Gtk 2.10]	gtk_action_group_get_action [Gtk 2.10]
gtk_action_group_get_name [Gtk 2.10]	gtk_action_group_get_sensitive [Gtk 2.10]
gtk_action_group_get_type [GObject 2.12]	gtk_action_group_get_visible [Gtk 2.10]
gtk_action_group_list_actions [Gtk 2.10]	gtk_action_group_new [Gtk 2.10]
gtk_action_group_remove_action [Gtk 2.10]	gtk_action_group_set_sensitive [Gtk 2.10]
gtk_action_group_set_translate_func [Gtk 2.10]	gtk_action_group_set_translation_domain [Gtk 2.10]
gtk_action_group_set_visible [Gtk 2.10]	gtk_action_group_translate_string [Gtk 2.10]
gtk_action_is_sensitive [Gtk 2.10]	gtk_action_is_visible [Gtk 2.10]

gtk_action_new [Gtk 2.10]	gtk_action_set_accel_group [Gtk 2.10]
gtk_action_set_accel_path [Gtk 2.10]	gtk_action_set_sensitive [Gtk 2.10]
gtk_action_set_visible [Gtk 2.10]	gtk_action_unblock_activate_from [Gtk 2.10]
gtk_adjustment_changed [Gtk 2.10]	gtk_adjustment_clamp_page [Gtk 2.10]
gtk_adjustment_get_type [GObject 2.12]	gtk_adjustment_get_value [Gtk 2.10]
gtk_adjustment_new [Gtk 2.10]	gtk_adjustment_set_value [Gtk 2.10]
gtk_adjustment_value_changed [Gtk 2.10]	gtk_alignment_get_padding [Gtk 2.10]
gtk_alignment_get_type [GObject 2.12]	gtk_alignment_new [Gtk 2.10]
gtk_alignment_set [Gtk 2.10]	gtk_alignment_set_padding [Gtk 2.10]
gtk_alternative_dialog_button_order [Gtk 2.10]	gtk_anchor_type_get_type [GObject 2.12]
gtk_arg_flags_get_type [GObject 2.12]	gtk_arrow_get_type [GObject 2.12]
gtk_arrow_new [Gtk 2.10]	gtk_arrow_set [Gtk 2.10]
gtk_arrow_type_get_type [GObject 2.12]	gtk_aspect_frame_get_type [GObject 2.12]
gtk_aspect_frame_new [Gtk 2.10]	gtk_aspect_frame_set [Gtk 2.10]
gtk_assistant_add_action_widget [Gtk 2.10]	gtk_assistant_append_page [Gtk 2.10]
gtk_assistant_get_current_page [Gtk 2.10]	gtk_assistant_get_n_pages [Gtk 2.10]
gtk_assistant_get_nth_page [Gtk 2.10]	gtk_assistant_get_page_complete [Gtk 2.10]
gtk_assistant_get_page_header_image [Gtk 2.10]	gtk_assistant_get_page_side_image [Gtk 2.10]
gtk_assistant_get_page_title [Gtk 2.10]	gtk_assistant_get_page_type [Gtk 2.10]
gtk_assistant_get_type [Gtk 2.10]	gtk_assistant_insert_page [Gtk 2.10]
gtk_assistant_new [Gtk 2.10]	gtk_assistant_page_type_get_type [Gtk 2.10]
gtk_assistant_prepend_page [Gtk 2.10]	gtk_assistant_remove_action_widget [Gtk 2.10]
gtk_assistant_set_current_page [Gtk 2.10]	gtk_assistant_set_forward_page_func [Gtk 2.10]
gtk_assistant_set_page_complete [Gtk 2.10]	gtk_assistant_set_page_header_image [Gtk 2.10]
gtk_assistant_set_page_side_image [Gtk 2.10]	gtk_assistant_set_page_title [Gtk 2.10]
gtk_assistant_set_page_type [Gtk 2.10]	gtk_assistant_update_buttons_state [Gtk 2.10]
gtk_attach_options_get_type [GObject 2.12]	gtk_bin_get_child [Gtk 2.10]
gtk_bin_get_type [GObject 2.12]	gtk_binding_entry_add_signal [Gtk 2.10]
gtk_binding_entry_add_signal [Gtk 2.10]	gtk_binding_entry_clear [Gtk 2.10]
gtk_binding_entry_remove [Gtk 2.10]	gtk_binding_parse_binding [Gtk 2.10]
gtk_binding_set_activate [Gtk 2.10]	gtk_binding_set_add_path [Gtk 2.10]
gtk_binding_set_by_class [Gtk 2.10]	gtk_binding_set_find [Gtk 2.10]
gtk_binding_set_new [Gtk 2.10]	gtk_bindings_activate [Gtk 2.10]

gtk_bindings_activate_event [Gtk 2.10]	gtk_border_copy [Gtk 2.10]
gtk_border_free [Gtk 2.10]	gtk_border_get_type [GObject 2.12]
gtk_box_get_homogeneous [Gtk 2.10]	gtk_box_get_spacing [Gtk 2.10]
gtk_box_get_type [GObject 2.12]	gtk_box_pack_end [Gtk 2.10]
gtk_box_pack_end_defaults [Gtk 2.10]	gtk_box_pack_start [Gtk 2.10]
gtk_box_pack_start_defaults [Gtk 2.10]	gtk_box_query_child_packing [Gtk 2.10]
gtk_box_reorder_child [Gtk 2.10]	gtk_box_set_child_packing [Gtk 2.10]
gtk_box_set_homogeneous [Gtk 2.10]	gtk_box_set_spacing [Gtk 2.10]
gtk_button_box_get_child_secondary [Gtk 2.10]	gtk_button_box_get_layout [Gtk 2.10]
gtk_button_box_get_type [GObject 2.12]	gtk_button_box_set_child_secondary [Gtk 2.10]
gtk_button_box_set_layout [Gtk 2.10]	gtk_button_box_style_get_type [GObject 2.12]
gtk_button_clicked [Gtk 2.10]	gtk_button_enter [Gtk 2.10]
gtk_button_get_alignment [Gtk 2.10]	gtk_button_get_focus_on_click [Gtk 2.10]
gtk_button_get_image [LSB]	gtk_button_get_image_position [Gtk 2.10]
gtk_button_get_label [Gtk 2.10]	gtk_button_get_relief [Gtk 2.10]
gtk_button_get_type [GObject 2.12]	gtk_button_get_use_stock [Gtk 2.10]
gtk_button_get_use_underline [Gtk 2.10]	gtk_button_leave [Gtk 2.10]
gtk_button_new [Gtk 2.10]	gtk_button_new_from_stock [Gtk 2.10]
gtk_button_new_with_label [Gtk 2.10]	gtk_button_new_with_mnemonic [Gtk 2.10]
gtk_button_pressed [Gtk 2.10]	gtk_button_released [Gtk 2.10]
gtk_button_set_alignment [Gtk 2.10]	gtk_button_set_focus_on_click [Gtk 2.10]
gtk_button_set_image [LSB]	gtk_button_set_image_position [Gtk 2.10]
gtk_button_set_label [Gtk 2.10]	gtk_button_set_relief [Gtk 2.10]
gtk_button_set_use_stock [Gtk 2.10]	gtk_button_set_use_underline [Gtk 2.10]
gtk_buttons_type_get_type [GObject 2.12]	gtk_calendar_clear_marks [Gtk 2.10]
gtk_calendar_display_options_get_type [GObject 2.12]	gtk_calendar_get_date [Gtk 2.10]
gtk_calendar_get_display_options [Gtk 2.10]	gtk_calendar_get_type [GObject 2.12]
gtk_calendar_mark_day [Gtk 2.10]	gtk_calendar_new [Gtk 2.10]
gtk_calendar_select_day [Gtk 2.10]	gtk_calendar_select_month [Gtk 2.10]
gtk_calendar_set_display_options [Gtk 2.10]	gtk_calendar_unmark_day [Gtk 2.10]
gtk_cell_editable_editing_done [Gtk 2.10]	gtk_cell_editable_get_type [GObject 2.12]
gtk_cell_editable_remove_widget [Gtk 2.10]	gtk_cell_editable_start_editing [Gtk 2.10]
gtk_cell_layout_add_attribute [Gtk 2.10]	gtk_cell_layout_clear [Gtk 2.10]

gtk_cell_layout_clear_attributes [Gtk 2.10]	gtk_cell_layout_get_type [GObject 2.12]
gtk_cell_layout_pack_end [Gtk 2.10]	gtk_cell_layout_pack_start [Gtk 2.10]
gtk_cell_layout_reorder [Gtk 2.10]	gtk_cell_layout_set_attributes [Gtk 2.10]
gtk_cell_layout_set_cell_data_func [Gtk 2.10]	gtk_cell_renderer_accel_get_type [Gtk 2.10]
gtk_cell_renderer_accel_mode_get_type [Gtk 2.10]	gtk_cell_renderer_accel_new [Gtk 2.10]
gtk_cell_renderer_activate [Gtk 2.10]	gtk_cell_renderer_combo_get_type [GObject 2.12]
gtk_cell_renderer_combo_new [Gtk 2.10]	gtk_cell_renderer_get_fixed_size [Gtk 2.10]
gtk_cell_renderer_get_size [Gtk 2.10]	gtk_cell_renderer_get_type [GObject 2.12]
gtk_cell_renderer_mode_get_type [GObject 2.12]	gtk_cell_renderer_pixbuf_get_type [GObject 2.12]
gtk_cell_renderer_pixbuf_new [Gtk 2.10]	gtk_cell_renderer_progress_get_type [GObject 2.12]
gtk_cell_renderer_progress_new [Gtk 2.10]	gtk_cell_renderer_render [Gtk 2.10]
gtk_cell_renderer_set_fixed_size [Gtk 2.10]	gtk_cell_renderer_spin_get_type [Gtk 2.10]
gtk_cell_renderer_spin_new [Gtk 2.10]	gtk_cell_renderer_start_editing [Gtk 2.10]
gtk_cell_renderer_state_get_type [GObject 2.12]	gtk_cell_renderer_stop_editing [Gtk 2.10]
gtk_cell_renderer_text_get_type [GObject 2.12]	gtk_cell_renderer_text_new [Gtk 2.10]
gtk_cell_renderer_text_set_fixed_height_from_font [Gtk 2.10]	gtk_cell_renderer_toggle_get_active [Gtk 2.10]
gtk_cell_renderer_toggle_get_radio [Gtk 2.10]	gtk_cell_renderer_toggle_get_type [GObject 2.12]
gtk_cell_renderer_toggle_new [Gtk 2.10]	gtk_cell_renderer_toggle_set_active [Gtk 2.10]
gtk_cell_renderer_toggle_set_radio [Gtk 2.10]	gtk_cell_view_get_cell_renderers [Gtk 2.10]
gtk_cell_view_get_displayed_row [Gtk 2.10]	gtk_cell_view_get_size_of_row [Gtk 2.10]
gtk_cell_view_get_type [GObject 2.12]	gtk_cell_view_new [Gtk 2.10]
gtk_cell_view_new_with_markup [Gtk 2.10]	gtk_cell_view_new_with_pixbuf [Gtk 2.10]
gtk_cell_view_new_with_text [Gtk 2.10]	gtk_cell_view_set_background_color [Gtk 2.10]
gtk_cell_view_set_displayed_row [Gtk 2.10]	gtk_cell_view_set_model [Gtk 2.10]
gtk_check_button_get_type [GObject 2.12]	gtk_check_button_new [Gtk 2.10]
gtk_check_button_new_with_label [Gtk 2.10]	gtk_check_button_new_with_mnemonic [Gtk 2.10]
gtk_check_menu_item_get_active [Gtk 2.10]	gtk_check_menu_item_get_draw_as_radio [Gtk 2.10]
gtk_check_menu_item_get_inconsistent [Gtk 2.10]	gtk_check_menu_item_get_type [GObject 2.12]
gtk_check_menu_item_new [Gtk 2.10]	gtk_check_menu_item_new_with_label [Gtk 2.10]
gtk_check_menu_item_new_with_mnemonic [Gtk 2.10]	gtk_check_menu_item_set_active [Gtk 2.10]
gtk_check_menu_item_set_draw_as_radio [Gtk 2.10]	gtk_check_menu_item_set_inconsistent [Gtk 2.10]
gtk_check_menu_item_toggled [Gtk 2.10]	gtk_check_version [Gtk 2.10]

gtk_clipboard_clear [Gtk 2.10]	gtk_clipboard_get [Gtk 2.10]
gtk_clipboard_get_display [Gtk 2.10]	gtk_clipboard_get_for_display [Gtk 2.10]
gtk_clipboard_get_owner [Gtk 2.10]	gtk_clipboard_get_type [GObject 2.12]
gtk_clipboard_request_contents [Gtk 2.10]	gtk_clipboard_request_image [Gtk 2.10]
gtk_clipboard_request_rich_text [Gtk 2.10]	gtk_clipboard_request_targets [Gtk 2.10]
gtk_clipboard_request_text [Gtk 2.10]	gtk_clipboard_set_can_store [Gtk 2.10]
gtk_clipboard_set_image [Gtk 2.10]	gtk_clipboard_set_text [Gtk 2.10]
gtk_clipboard_set_with_data [Gtk 2.10]	gtk_clipboard_set_with_owner [Gtk 2.10]
gtk_clipboard_store [Gtk 2.10]	gtk_clipboard_wait_for_contents [Gtk 2.10]
gtk_clipboard_wait_for_image [Gtk 2.10]	gtk_clipboard_wait_for_rich_text [Gtk 2.10]
gtk_clipboard_wait_for_targets [Gtk 2.10]	gtk_clipboard_wait_for_text [Gtk 2.10]
gtk_clipboard_wait_is_image_available [Gtk 2.10]	gtk_clipboard_wait_is_rich_text_available [Gtk 2.10]
gtk_clipboard_wait_is_target_available [Gtk 2.10]	gtk_clipboard_wait_is_text_available [Gtk 2.10]
gtk_color_button_get_alpha [Gtk 2.10]	gtk_color_button_get_color [Gtk 2.10]
gtk_color_button_get_title [Gtk 2.10]	gtk_color_button_get_type [GObject 2.12]
gtk_color_button_get_use_alpha [Gtk 2.10]	gtk_color_button_new [Gtk 2.10]
gtk_color_button_new_with_color [Gtk 2.10]	gtk_color_button_set_alpha [Gtk 2.10]
gtk_color_button_set_color [Gtk 2.10]	gtk_color_button_set_title [Gtk 2.10]
gtk_color_button_set_use_alpha [Gtk 2.10]	gtk_color_selection_dialog_get_type [GObject 2.12]
gtk_color_selection_dialog_new [Gtk 2.10]	gtk_color_selection_get_current_alpha [Gtk 2.10]
gtk_color_selection_get_current_color [Gtk 2.10]	gtk_color_selection_get_has_opacity_control [Gtk 2.10]
gtk_color_selection_get_has_palette [Gtk 2.10]	gtk_color_selection_get_previous_alpha [Gtk 2.10]
gtk_color_selection_get_previous_color [Gtk 2.10]	gtk_color_selection_get_type [GObject 2.12]
gtk_color_selection_is_adjusting [Gtk 2.10]	gtk_color_selection_new [Gtk 2.10]
gtk_color_selection_palette_from_string [Gtk 2.10]	gtk_color_selection_palette_to_string [Gtk 2.10]
gtk_color_selection_set_change_palette_with_screen_hook [Gtk 2.10]	gtk_color_selection_set_current_alpha [Gtk 2.10]
gtk_color_selection_set_current_color [Gtk 2.10]	gtk_color_selection_set_has_opacity_control [Gtk 2.10]
gtk_color_selection_set_has_palette [Gtk 2.10]	gtk_color_selection_set_previous_alpha [Gtk 2.10]
gtk_color_selection_set_previous_color [Gtk 2.10]	gtk_combo_box_append_text [Gtk 2.10]
gtk_combo_box_entry_get_text_column [Gtk 2.10]	gtk_combo_box_entry_get_type [GObject 2.12]
gtk_combo_box_entry_new [Gtk 2.10]	gtk_combo_box_entry_new_text [Gtk 2.10]

gtk_combo_box_entry_new_with_model [Gtk 2.10]	gtk_combo_box_entry_set_text_column [Gtk 2.10]
gtk_combo_box_get_active [Gtk 2.10]	gtk_combo_box_get_active_iter [Gtk 2.10]
gtk_combo_box_get_active_text [Gtk 2.10]	gtk_combo_box_get_add_tearoffs [Gtk 2.10]
gtk_combo_box_get_column_span_column [Gtk 2.10]	gtk_combo_box_get_focus_on_click [Gtk 2.10]
gtk_combo_box_get_model [Gtk 2.10]	gtk_combo_box_get_popup_accessible [Gtk 2.10]
gtk_combo_box_get_row_separator_func [Gtk 2.10]	gtk_combo_box_get_row_span_column [Gtk 2.10]
gtk_combo_box_get_title [Gtk 2.10]	gtk_combo_box_get_type [GObject 2.12]
gtk_combo_box_get_wrap_width [Gtk 2.10]	gtk_combo_box_insert_text [Gtk 2.10]
gtk_combo_box_new [Gtk 2.10]	gtk_combo_box_new_text [Gtk 2.10]
gtk_combo_box_new_with_model [Gtk 2.10]	gtk_combo_box_popdown [Gtk 2.10]
gtk_combo_box_popup [Gtk 2.10]	gtk_combo_box_prepend_text [Gtk 2.10]
gtk_combo_box_remove_text [Gtk 2.10]	gtk_combo_box_set_active [Gtk 2.10]
gtk_combo_box_set_active_iter [Gtk 2.10]	gtk_combo_box_set_add_tearoffs [Gtk 2.10]
gtk_combo_box_set_column_span_column [Gtk 2.10]	gtk_combo_box_set_focus_on_click [Gtk 2.10]
gtk_combo_box_set_model [Gtk 2.10]	gtk_combo_box_set_row_separator_func [Gtk 2.10]
gtk_combo_box_set_row_span_column [Gtk 2.10]	gtk_combo_box_set_title [Gtk 2.10]
gtk_combo_box_set_wrap_width [Gtk 2.10]	gtk_combo_get_type [GObject 2.12]
gtk_container_add [Gtk 2.10]	gtk_container_add_with_properties [Gtk 2.10]
gtk_container_check_resize [Gtk 2.10]	gtk_container_child_get [Gtk 2.10]
gtk_container_child_get_property [Gtk 2.10]	gtk_container_child_get_valist [Gtk 2.10]
gtk_container_child_set [Gtk 2.10]	gtk_container_child_set_property [Gtk 2.10]
gtk_container_child_set_valist [Gtk 2.10]	gtk_container_child_type [Gtk 2.10]
gtk_container_class_find_child_property [Gtk 2.10]	gtk_container_class_install_child_property [Gtk 2.10]
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gtk_window_begin_move_drag [Gtk 2.10]	gtk_window_begin_resize_drag [Gtk 2.10]
gtk_window_deiconify [Gtk 2.10]	gtk_window_fullscreen [Gtk 2.10]
gtk_window_get_accept_focus [Gtk 2.10]	gtk_window_get_decorated [Gtk 2.10]
gtk_window_get_default_icon_list [Gtk 2.10]	gtk_window_get_default_size [Gtk 2.10]
gtk_window_get_deletable [Gtk 2.10]	gtk_window_get_destroy_with_parent [Gtk 2.10]
gtk_window_get_focus [Gtk 2.10]	gtk_window_get_focus_on_map [Gtk 2.10]
gtk_window_get_frame_dimensions [Gtk 2.10]	gtk_window_get_gravity [Gtk 2.10]
gtk_window_get_group [Gtk 2.10]	gtk_window_get_has_frame [Gtk 2.10]
gtk_window_get_icon [Gtk 2.10]	gtk_window_get_icon_list [Gtk 2.10]
gtk_window_get_icon_name [Gtk 2.10]	gtk_window_get_mnemonic_modifier [Gtk 2.10]
gtk_window_get_modal [Gtk 2.10]	gtk_window_get_position [Gtk 2.10]

<code>gtk_window_get_resizable</code> [Gtk 2.10]	<code>gtk_window_get_role</code> [Gtk 2.10]
<code>gtk_window_get_screen</code> [Gtk 2.10]	<code>gtk_window_get_size</code> [Gtk 2.10]
<code>gtk_window_get_skip_pager_hint</code> [Gtk 2.10]	<code>gtk_window_get_skip_taskbar_hint</code> [Gtk 2.10]
<code>gtk_window_get_title</code> [Gtk 2.10]	<code>gtk_window_get_transient_for</code> [Gtk 2.10]
<code>gtk_window_get_type</code> [GObject 2.12]	<code>gtk_window_get_type_hint</code> [Gtk 2.10]
<code>gtk_window_get_urgency_hint</code> [Gtk 2.10]	<code>gtk_window_group_add_window</code> [Gtk 2.10]
<code>gtk_window_group_get_type</code> [GObject 2.12]	<code>gtk_window_group_new</code> [Gtk 2.10]
<code>gtk_window_group_remove_window</code> [Gtk 2.10]	<code>gtk_window_has_toplevel_focus</code> [Gtk 2.10]
<code>gtk_window_iconify</code> [Gtk 2.10]	<code>gtk_window_is_active</code> [Gtk 2.10]
<code>gtk_window_list_toplevels</code> [Gtk 2.10]	<code>gtk_window_maximize</code> [Gtk 2.10]
<code>gtk_window_mnemonic_activate</code> [Gtk 2.10]	<code>gtk_window_move</code> [Gtk 2.10]
<code>gtk_window_new</code> [Gtk 2.10]	<code>gtk_window_parse_geometry</code> [Gtk 2.10]
<code>gtk_window_position_get_type</code> [GObject 2.12]	<code>gtk_window_present</code> [Gtk 2.10]
<code>gtk_window_present_with_time</code> [Gtk 2.10]	<code>gtk_window_propagate_key_event</code> [Gtk 2.10]
<code>gtk_window_remove_accel_group</code> [Gtk 2.10]	<code>gtk_window_remove_mnemonic</code> [Gtk 2.10]
<code>gtk_window_reshow_with_initial_size</code> [Gtk 2.10]	<code>gtk_window_resize</code> [Gtk 2.10]
<code>gtk_window_set_accept_focus</code> [Gtk 2.10]	<code>gtk_window_set_auto_startup_notification</code> [Gtk 2.10]
<code>gtk_window_set_decorated</code> [Gtk 2.10]	<code>gtk_window_set_default</code> [Gtk 2.10]
<code>gtk_window_set_default_icon</code> [Gtk 2.10]	<code>gtk_window_set_default_icon_from_file</code> [Gtk 2.10]
<code>gtk_window_set_default_icon_list</code> [Gtk 2.10]	<code>gtk_window_set_default_icon_name</code> [Gtk 2.10]
<code>gtk_window_set_default_size</code> [Gtk 2.10]	<code>gtk_window_set_deletable</code> [Gtk 2.10]
<code>gtk_window_set_destroy_with_parent</code> [Gtk 2.10]	<code>gtk_window_set_focus</code> [Gtk 2.10]
<code>gtk_window_set_focus_on_map</code> [Gtk 2.10]	<code>gtk_window_set_frame_dimensions</code> [Gtk 2.10]
<code>gtk_window_set_geometry_hints</code> [Gtk 2.10]	<code>gtk_window_set_gravity</code> [Gtk 2.10]
<code>gtk_window_set_has_frame</code> [Gtk 2.10]	<code>gtk_window_set_icon</code> [Gtk 2.10]
<code>gtk_window_set_icon_from_file</code> [Gtk 2.10]	<code>gtk_window_set_icon_list</code> [Gtk 2.10]
<code>gtk_window_set_icon_name</code> [Gtk 2.10]	<code>gtk_window_set_keep_above</code> [Gtk 2.10]
<code>gtk_window_set_keep_below</code> [Gtk 2.10]	<code>gtk_window_set_mnemonic_modifier</code> [Gtk 2.10]
<code>gtk_window_set_modal</code> [Gtk 2.10]	<code>gtk_window_set_position</code> [Gtk 2.10]
<code>gtk_window_set_resizable</code> [Gtk 2.10]	<code>gtk_window_set_role</code> [Gtk 2.10]
<code>gtk_window_set_screen</code> [Gtk 2.10]	<code>gtk_window_set_skip_pager_hint</code> [Gtk 2.10]
<code>gtk_window_set_skip_taskbar_hint</code> [Gtk 2.10]	<code>gtk_window_set_title</code> [Gtk 2.10]
<code>gtk_window_set_transient_for</code> [Gtk 2.10]	<code>gtk_window_set_type_hint</code> [Gtk 2.10]

gtk_window_set_urgency_hint [Gtk 2.10]	gtk_window_set_wmclass [Gtk 2.10]
gtk_window_stick [Gtk 2.10]	gtk_window_type_get_type [GObject 2.12]
gtk_window_unfullscreen [Gtk 2.10]	gtk_window_unmaximize [Gtk 2.10]
gtk_window_unstick [Gtk 2.10]	gtk_wrap_mode_get_type [GObject 2.12]

An LSB conforming implementation shall provide the generic deprecated functions for GTK main Widgets library specified in [Table 16-103](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 16-103. libgtk-x11-2.0 - GTK main Widgets library Deprecated Function Interfaces

gtk_binding_parse_binding [Gtk 2.10]	gtk_file_selection_complete [Gtk 2.10]
gtk_file_selection_get_filename [Gtk 2.10]	gtk_file_selection_get_select_multiple [Gtk 2.10]
gtk_file_selection_get_selections [Gtk 2.10]	gtk_file_selection_hide_fileop_buttons [Gtk 2.10]
gtk_file_selection_new [Gtk 2.10]	gtk_file_selection_set_filename [Gtk 2.10]
gtk_file_selection_set_select_multiple [Gtk 2.10]	gtk_file_selection_show_fileop_buttons [Gtk 2.10]
gtk_menu_item_remove_submenu [Gtk 2.10]	gtk_rc_style_ref [Gtk 2.10]
gtk_rc_style_unref [Gtk 2.10]	gtk_toolbar_get_tooltips [LSB]
gtk_toolbar_set_tooltips [LSB]	gtk_tree_view_tree_to_widget_coords [Gtk 2.10]
gtk_tree_view_widget_to_tree_coords [Gtk 2.10]	gtk_widget_ref [Gtk 2.10]
gtk_widget_unref [Gtk 2.10]	

An LSB conforming implementation shall provide the generic data interfaces for GTK main Widgets library specified in [Table 16-104](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 16-104. libgtk-x11-2.0 - GTK main Widgets library Data Interfaces

gtk_binary_age [Gtk 2.10]	gtk_debug_flags [Gtk 2.10]
gtk_interface_age [Gtk 2.10]	gtk_major_version [Gtk 2.10]
gtk_micro_version [Gtk 2.10]	gtk_minor_version [Gtk 2.10]

16.28. Data Definitions for libgtk-x11-2.0

This section defines global identifiers and their values that are associated with interfaces contained in libgtk-x11-2.0. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the ISO C (1999) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

16.28.1. gtk-2.0/gtk/gtk.h

```
#define GTK_NOTE(type,action)
#define __GTK_ASSISTANT_H__
#define __GTK_PAGE_SETUP_H__
#define __GTK_PAPER_SIZE_H__
#define __GTK_PRINT_CONTEXT_H__
#define __GTK_PRINT_OPERATION_H__
#define __GTK_PRINT_SETTINGS_H__
#define __GTK_RECENT_CHOOSER_DIALOG_H__
#define __GTK_RECENT_CHOOSER_H__
#define __GTK_RECENT_CHOOSER_MENU_H__
#define __GTK_RECENT_CHOOSER_WIDGET_H__
#define GTK_OBJECT_FLOATING(obj) \
    ((GTK_OBJECT_FLAGS (obj) & GTK_FLOATING) != 0)
#define GTK_WIDGET_APP_PAINTABLE(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_APP_PAINTABLE) != 0)
#define GTK_WIDGET_CAN_DEFAULT(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_CAN_DEFAULT) != 0)
#define GTK_WIDGET_CAN_FOCUS(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_CAN_FOCUS) != 0)
#define GTK_WIDGET_COMPOSITE_CHILD(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_COMPOSITE_CHILD) != 0)
#define GTK_WIDGET_DOUBLE_BUFFERED(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_DOUBLE_BUFFERED) != 0)
#define GTK_WIDGET_HAS_DEFAULT(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_HAS_DEFAULT) != 0)
#define GTK_WIDGET_HAS_FOCUS(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_HAS_FOCUS) != 0)
#define GTK_WIDGET_HAS_GRAB(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_HAS_GRAB) != 0)
#define GTK_WIDGET_MAPPED(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_MAPPED) != 0)
#define GTK_WIDGET_NO_WINDOW(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_NO_WINDOW) != 0)
#define GTK_WIDGET_PARENT_SENSITIVE(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_PARENT_SENSITIVE) != 0)
#define GTK_WIDGET_RC_STYLE(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_RC_STYLE) != 0)
#define GTK_WIDGET_REALIZED(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_REALIZED) != 0)
```

```

#define GTK_WIDGET_RECEIVES_DEFAULT(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_RECEIVES_DEFAULT) != 0)
#define GTK_WIDGET_SENSITIVE(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_SENSITIVE) != 0)
#define GTK_WIDGET_TOPLEVEL(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_TOPLEVEL) != 0)
#define GTK_WIDGET_VISIBLE(wid) \
    ((GTK_WIDGET_FLAGS (wid) & GTK_VISIBLE) != 0)
#define GTK_TYPE_CALENDAR_DISPLAY_OPTIONS \
    (gtk_calendar_display_options_get_type())
#define GTK_TYPE_CELL_RENDERER_PIXBUF \
    (gtk_cell_renderer_pixbuf_get_type ())
#define GTK_TYPE_CELL_RENDERER_PROGRESS \
    (gtk_cell_renderer_progress_get_type ())
#define GTK_TYPE_CELL_RENDERER_TOGGLE \
    (gtk_cell_renderer_toggle_get_type ())
#define GTK_ICON_VIEW(obj) \
    (GTK_CHECK_CAST ((obj), GTK_TYPE_ICON_VIEW, GtkIconView))
#define GTK_OBJECT(object) \
    (GTK_CHECK_CAST ((object), GTK_TYPE_OBJECT, GObject))
#define GTK_ICON_VIEW_CLASS(klass) \
    (GTK_CHECK_CLASS_CAST ((klass), GTK_TYPE_ICON_VIEW, \
        GtkIconViewClass))
#define GTK_LIST_CLASS(klass) \
    (GTK_CHECK_CLASS_CAST ((klass), GTK_TYPE_LIST, GtkListClass))
#define GTK_OBJECT_CLASS(klass) \
    (GTK_CHECK_CLASS_CAST ((klass), GTK_TYPE_OBJECT, GObjectClass))
#define GTK_IS_ICON_VIEW_CLASS(klass) \
    (GTK_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ICON_VIEW))
#define GTK_IS_LIST_CLASS(klass) \
    (GTK_CHECK_CLASS_TYPE ((klass), GTK_TYPE_LIST))
#define GTK_IS_OBJECT_CLASS(klass) \
    (GTK_CHECK_CLASS_TYPE ((klass), GTK_TYPE_OBJECT))
#define GTK_ICON_VIEW_GET_CLASS(obj) \
    (GTK_CHECK_GET_CLASS ((obj), GTK_TYPE_ICON_VIEW, GtkIconViewClass))
#define GTK_LIST_GET_CLASS(obj) \
    (GTK_CHECK_GET_CLASS ((obj), GTK_TYPE_LIST, GtkListClass))
#define GTK_OBJECT_GET_CLASS(object) \
    (GTK_CHECK_GET_CLASS ((object), GTK_TYPE_OBJECT, GObjectClass))
#define GTK_TYPE_COLOR_SELECTION_DIALOG \
    (gtk_color_selection_dialog_get_type ())
#define GTK_TYPE_FONT_SELECTION_DIALOG \
    (gtk_font_selection_dialog_get_type ())
#define GTK_IS_RESIZE_CONTAINER(widget) \
    (GTK_IS_CONTAINER (widget) && ((GtkContainer*) (widget))->resize_mode \
    != GTK_RESIZE_PARENT)
#define GTK_CHECK_VERSION(major,minor,micro) \
    (GTK_MAJOR_VERSION > (major) || (GTK_MAJOR_VERSION == (major) && \
    GTK_MINOR_VERSION > (minor)) || (GTK_MAJOR_VERSION == (major) && \
    GTK_MINOR_VERSION == (minor) && GTK_MICRO_VERSION >= (micro)))
#define GTK_TYPE_PROGRESS_BAR_ORIENTATION \
    (gtk_progress_bar_orientation_get_type())
#define GTK_TYPE_SPIN_BUTTON_UPDATE_POLICY \
    (gtk_spin_button_update_policy_get_type())
#define GTK_TYPE_TREE_VIEW_COLUMN_SIZING \
    (gtk_tree_view_column_sizing_get_type())
#define GTK_TYPE_TREE_VIEW_DROP_POSITION \
    (gtk_tree_view_drop_position_get_type())
#define GTK_TYPE_UI_MANAGER_ITEM_TYPE \
    (gtk_ui_manager_item_type_get_type())
#define GTK_WIDGET_IS_SENSITIVE(wid) \
    (GTK_WIDGET_SENSITIVE (wid) && GTK_WIDGET_PARENT_SENSITIVE (wid))

```



```

#define GTK_WIDGET_DRAWABLE(wid) \
    (GTK_WIDGET_VISIBLE(wid) && GTK_WIDGET_MAPPED(wid))
#define GTK_ABOUT_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ABOUT_DIALOG, \
    GtkAboutDialogClass))
#define GTK_ACCEL_GROUP_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ACCEL_GROUP, \
    GtkAccelGroupClass))
#define GTK_ACCEL_LABEL_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ACCEL_LABEL, \
    GtkAccelLabelClass))
#define GTK_ACCEL_MAP_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ACCEL_MAP, \
    GtkAccelMapClass))
#define GTK_ACCESSIBLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ACCESSIBLE, \
    GtkAccessibleClass))
#define GTK_ACTION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ACTION, GtkActionClass))
#define GTK_ADJUSTMENT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ADJUSTMENT, \
    GtkAdjustmentClass))
#define GTK_ALIGNMENT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ALIGNMENT, \
    GtkAlignmentClass))
#define GTK_ARROW_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ARROW, GtkArrowClass))
#define GTK_ASPECT_FRAME_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_ASPECT_FRAME, \
    GtkAspectFrameClass))
#define GTK_BIN_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_BIN, GtkBinClass))
#define GTK_BOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_BOX, GtkBoxClass))
#define GTK_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_BUTTON, GtkButtonClass))
#define GTK_BUTTON_BOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_BUTTON_BOX, \
    GtkButtonBoxClass))
#define GTK_CALENDAR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_CALENDAR, \
    GtkCalendarClass))
#define GTK_CELL_RENDERER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_CELL_RENDERER, \
    GtkCellRendererClass))
#define GTK_CELL_RENDERER_COMBO_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_CELL_RENDERER_COMBO, \
    GtkCellRendererComboClass))
#define GTK_CELL_RENDERER_PIXBUF_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_CELL_RENDERER_PIXBUF, \
    GtkCellRendererPixbufClass))
#define GTK_CELL_RENDERER_PROGRESS_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_CELL_RENDERER_PROGRESS, \
    GtkCellRendererProgressClass))
#define GTK_CELL_RENDERER_TEXT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_CELL_RENDERER_TEXT, \
    GtkCellRendererTextClass))
#define GTK_CELL_RENDERER_TOGGLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_CELL_RENDERER_TOGGLE, \
    GtkCellRendererToggleClass))
#define GTK_CHECK_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST((klass), GTK_TYPE_CHECK_BUTTON, \

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        GtkCheckButtonClass))
#define GTK_CHECK_MENU_ITEM_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_CHECK_MENU_ITEM, \
        GtkCheckMenuItemClass))
#define GTK_COLOR_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_COLOR_BUTTON, \
        GtkColorButtonClass))
#define GTK_COLOR_SELECTION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_COLOR_SELECTION, \
        GtkColorSelectionClass))
#define GTK_COLOR_SELECTION_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_COLOR_SELECTION_DIALOG, \
        GtkColorSelectionDialogClass))
#define GTK_CONTAINER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_CONTAINER, \
        GtkContainerClass))
#define GTK_CURVE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_CURVE, GtkCurveClass))
#define GTK_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_DIALOG, GtkDialogClass))
#define GTK_DRAWING_AREA_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_DRAWING_AREA, \
        GtkDrawingAreaClass))
#define GTK_ENTRY_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_ENTRY, GtkEntryClass))
#define GTK_ENTRY_COMPLETION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_ENTRY_COMPLETION, \
        GtkEntryCompletionClass))
#define GTK_EVENT_BOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_EVENT_BOX, \
        GtkEventBoxClass))
#define GTK_EXPANDER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_EXPANDER, \
        GtkExpanderClass))
#define GTK_FILE_CHOOSER_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_FILE_CHOOSER_BUTTON, \
        GtkFileChooserButtonClass))
#define GTK_FILE_CHOOSER_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_FILE_CHOOSER_DIALOG, \
        GtkFileChooserDialogClass))
#define GTK_FILE_CHOOSER_WIDGET_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_FILE_CHOOSER_WIDGET, \
        GtkFileChooserWidgetClass))
#define GTK_FILE_SELECTION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_FILE_SELECTION, \
        GtkFileSelectionClass))
#define GTK_FIXED_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_FIXED, GtkFixedClass))
#define GTK_FONT_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_FONT_BUTTON, \
        GtkFontButtonClass))
#define GTK_FONT_SELECTION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_FONT_SELECTION, \
        GtkFontSelectionClass))
#define GTK_FONT_SELECTION_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_FONT_SELECTION_DIALOG, \
        GtkFontSelectionDialogClass))
#define GTK_FRAME_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_FRAME, GtkFrameClass))
#define GTK_GAMMA_CURVE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_GAMMA_CURVE, \
        GtkGammaCurveClass))

```

```

#define GTK_HANDLE_BOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_HANDLE_BOX, \
    GtkHandleBoxClass))
#define GTK_HBOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_HBOX, GtkHBoxClass))
#define GTK_HBUTTON_BOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_HBUTTON_BOX, \
    GtkHButtonBoxClass))
#define GTK_HPANED_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_HPANED, GtkHPanedClass))
#define GTK_HRULER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_HRULER, GtkHRulerClass))
#define GTK_HSCALE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_HSCALE, GtkHScaleClass))
#define GTK_HSCROLLBAR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_HSCROLLBAR, \
    GtkHScrollbarClass))
#define GTK_HSEPARATOR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_HSEPARATOR, \
    GtkHSeparatorClass))
#define GTK_ICON_FACTORY_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_ICON_FACTORY, \
    GtkIconFactoryClass))
#define GTK_ICON_THEME_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_ICON_THEME, \
    GtkIconThemeClass))
#define GTK_IMAGE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_IMAGE, GtkImageClass))
#define GTK_IMAGE_MENU_ITEM_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_IMAGE_MENU_ITEM, \
    GtkImageMenuItemClass))
#define GTK_IM_CONTEXT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_IM_CONTEXT, \
    GtkIMContextClass))
#define GTK_IM_CONTEXT_SIMPLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_IM_CONTEXT_SIMPLE, \
    GtkIMContextSimpleClass))
#define GTK_IM_MULTICONTEXT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_IM_MULTICONTEXT, \
    GtkIMMulticontextClass))
#define GTK_INPUT_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_INPUT_DIALOG, \
    GtkInputDialogClass))
#define GTK_INVISIBLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_INVISIBLE, \
    GtkInvisibleClass))
#define GTK_ITEM_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_ITEM, GtkItemClass))
#define GTK_LABEL_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_LABEL, GtkLabelClass))
#define GTK_LAYOUT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_LAYOUT, GtkLayoutClass))
#define GTK_LIST_STORE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_LIST_STORE, \
    GtkListStoreClass))
#define GTK_MENU_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_MENU, GtkMenuClass))
#define GTK_MENU_BAR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_MENU_BAR, \
    GtkMenuBarClass))
#define GTK_MENU_ITEM_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_MENU_ITEM, \

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    GtkMenuItemClass))
#define GTK_MENU_SHELL_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_MENU_SHELL, \
    GtkMenuShellClass))
#define GTK_MESSAGE_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_MESSAGE_DIALOG, \
    GtkMessageDialogClass))
#define GTK_MISC_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_MISC, GtkMiscClass))
#define GTK_NOTEBOOK_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_NOTEBOOK, \
    GtkNotebookClass))
#define GTK_PANED_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_PANED, GtkPanedClass))
#define GTK_PLUG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_PLUG, GtkPlugClass))
#define GTK_PROGRESS_BAR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_PROGRESS_BAR, \
    GtkProgressBarClass))
#define GTK_RADIO_ACTION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RADIO_ACTION, \
    GtkRadioActionClass))
#define GTK_RADIO_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RADIO_BUTTON, \
    GtkRadioButtonClass))
#define GTK_RADIO_MENU_ITEM_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RADIO_MENU_ITEM, \
    GtkRadioMenuItemClass))
#define GTK_RADIO_TOOL_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RADIO_TOOL_BUTTON, \
    GtkRadioToolButtonClass))
#define GTK_RANGE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RANGE, GtkRangeClass))
#define GTK_RC_STYLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RC_STYLE, \
    GtkRcStyleClass))
#define GTK_RULER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RULER, GtkRulerClass))
#define GTK_SCALE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SCALE, GtkScaleClass))
#define GTK_SCROLLBAR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SCROLLBAR, \
    GtkScrollbarClass))
#define GTK_SCROLLED_WINDOW_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SCROLLED_WINDOW, \
    GtkScrolledWindowClass))
#define GTK_SEPARATOR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SEPARATOR, \
    GtkSeparatorClass))
#define GTK_SEPARATOR_MENU_ITEM_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SEPARATOR_MENU_ITEM, \
    GtkSeparatorMenuItemClass))
#define GTK_SEPARATOR_TOOL_ITEM_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SEPARATOR_TOOL_ITEM, \
    GtkSeparatorToolItemClass))
#define GTK_SETTINGS_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SETTINGS, \
    GtkSettingsClass))
#define GTK_SIZE_GROUP_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SIZE_GROUP, \
    GtkSizeGroupClass))
#define GTK_SOCKET_CLASS(klass) \

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        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SOCKET, GtkSocketClass))
#define GTK_SPIN_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_SPIN_BUTTON, \
        GtkSpinButtonClass))
#define GTK_STATUSBAR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_STATUSBAR, \
        GtkStatusbarClass))
#define GTK_STYLE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_STYLE, GtkStyleClass))
#define GTK_TABLE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TABLE, GtkTableClass))
#define GTK_TEAROFF_MENU_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TEAROFF_MENU_ITEM, \
        GtkTearoffMenuItemClass))
#define GTK_TEXT_BUFFER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TEXT_BUFFER, \
        GtkTextBufferClass))
#define GTK_TEXT_CHILD_ANCHOR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TEXT_CHILD_ANCHOR, \
        GtkTextChildAnchorClass))
#define GTK_TEXT_MARK_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TEXT_MARK, \
        GtkTextMarkClass))
#define GTK_TEXT_TAG_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TEXT_TAG, \
        GtkTextTagClass))
#define GTK_TEXT_TAG_TABLE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TEXT_TAG_TABLE, \
        GtkTextTagTableClass))
#define GTK_TEXT_VIEW_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TEXT_VIEW, \
        GtkTextViewClass))
#define GTK_TOGGLE_ACTION_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TOGGLE_ACTION, \
        GtkToggleActionClass))
#define GTK_TOGGLE_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TOGGLE_BUTTON, \
        GtkToggleButtonClass))
#define GTK_TOGGLE_TOOL_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TOGGLE_TOOL_BUTTON, \
        GtkToggleToolButtonClass))
#define GTK_TOOLBAR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TOOLBAR, \
        GtkToolbarClass))
#define GTK_TOOLTIPS_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TOOLTIPS, \
        GtkTooltipsClass))
#define GTK_TOOL_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TOOL_BUTTON, \
        GtkToolButtonClass))
#define GTK_TOOL_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TOOL_ITEM, \
        GtkToolItemClass))
#define GTK_TREE_MODEL_SORT_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TREE_MODEL_SORT, \
        GtkTreeModelSortClass))
#define GTK_TREE_SELECTION_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TREE_SELECTION, \
        GtkTreeSelectionClass))
#define GTK_TREE_STORE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TREE_STORE, \
        GtkTreeStoreClass))

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#define GTK_TREE_VIEW_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TREE_VIEW, \
    GtkTreeViewClass))
#define GTK_TREE_VIEW_COLUMN_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_TREE_VIEW_COLUMN, \
    GtkTreeViewColumnClass))
#define GTK_UI_MANAGER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_UI_MANAGER, \
    GtkUIManagerClass))
#define GTK_VBOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_VBOX, GtkVBoxClass))
#define GTK_VBUTTON_BOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_VBUTTON_BOX, \
    GtkVButtonBoxClass))
#define GTK_VIEWPORT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_VIEWPORT, \
    GtkViewportClass))
#define GTK_VPANED_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_VPANED, GtkVPanedClass))
#define GTK_VRULER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_VRULER, GtkVRulerClass))
#define GTK_VSCALE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_VSCALE, GtkVScaleClass))
#define GTK_VSCROLLBAR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_VSCROLLBAR, \
    GtkVScrollbarClass))
#define GTK_VSEPARATOR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_VSEPARATOR, \
    GtkVSeparatorClass))
#define GTK_WIDGET_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_WIDGET, GtkWidgetClass))
#define GTK_WINDOW_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_WINDOW, GtkWindowClass))
#define GTK_WINDOW_GROUP_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_WINDOW_GROUP, \
    GtkWindowGroupClass))
#define GTK_CELL_EDITABLE_CLASS(obj) \
    (G_TYPE_CHECK_CLASS_CAST ((obj), GTK_TYPE_CELL_EDITABLE, \
    GtkCellEditableIface))
#define GTK_TREE_SORTABLE_CLASS(obj) \
    (G_TYPE_CHECK_CLASS_CAST ((obj), GTK_TYPE_TREE_SORTABLE, \
    GtkTreeSortableIface))
#define GTK_ACTION_GROUP_CLASS(vtable) \
    (G_TYPE_CHECK_CLASS_CAST ((vtable), GTK_TYPE_ACTION_GROUP, \
    GtkActionGroupClass))
#define GTK_CELL_VIEW_CLASS(vtable) \
    (G_TYPE_CHECK_CLASS_CAST ((vtable), GTK_TYPE_CELL_VIEW, \
    GtkCellViewClass))
#define GTK_COMBO_BOX_CLASS(vtable) \
    (G_TYPE_CHECK_CLASS_CAST ((vtable), GTK_TYPE_COMBO_BOX, \
    GtkComboBoxClass))
#define GTK_COMBO_BOX_ENTRY_CLASS(vtable) \
    (G_TYPE_CHECK_CLASS_CAST ((vtable), GTK_TYPE_COMBO_BOX_ENTRY, \
    GtkComboBoxEntryClass))
#define GTK_EDITABLE_CLASS(vtable) \
    (G_TYPE_CHECK_CLASS_CAST ((vtable), GTK_TYPE_EDITABLE, \
    GtkEditableClass))
#define GTK_TREE_MODEL_FILTER_CLASS(vtable) \
    (G_TYPE_CHECK_CLASS_CAST ((vtable), GTK_TYPE_TREE_MODEL_FILTER, \
    GtkTreeModelFilterClass))
#define GTK_MENU_TOOL_BUTTON_CLASS(k) \
    (G_TYPE_CHECK_CLASS_CAST((k), GTK_TYPE_MENU_TOOL_BUTTON, \

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        GtkMenuToolButtonClass))
#define GTK_IS_MENU_TOOL_BUTTON_CLASS(k) \
    (G_TYPE_CHECK_CLASS_TYPE ((k), GTK_TYPE_MENU_TOOL_BUTTON))
#define GTK_IS_ABOUT_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ABOUT_DIALOG))
#define GTK_IS_ACCEL_GROUP_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ACCEL_GROUP))
#define GTK_IS_ACCEL_LABEL_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ACCEL_LABEL))
#define GTK_IS_ACCEL_MAP_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ACCEL_MAP))
#define GTK_IS_ACCESSIBLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ACCESSIBLE))
#define GTK_IS_ACTION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ACTION))
#define GTK_IS_ADJUSTMENT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ADJUSTMENT))
#define GTK_IS_ALIGNMENT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ALIGNMENT))
#define GTK_IS_ARROW_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ARROW))
#define GTK_IS_ASPECT_FRAME_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ASPECT_FRAME))
#define GTK_IS_BIN_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_BIN))
#define GTK_IS_BOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_BOX))
#define GTK_IS_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_BUTTON))
#define GTK_IS_BUTTON_BOX_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_BUTTON_BOX))
#define GTK_IS_CALENDAR_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CALENDAR))
#define GTK_IS_CELL_RENDERER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CELL_RENDERER))
#define GTK_IS_CELL_RENDERER_COMBO_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CELL_RENDERER_COMBO))
#define GTK_IS_CELL_RENDERER_PIXBUF_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CELL_RENDERER_PIXBUF))
#define GTK_IS_CELL_RENDERER_PROGRESS_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CELL_RENDERER_PROGRESS))
#define GTK_IS_CELL_RENDERER_TEXT_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CELL_RENDERER_TEXT))
#define GTK_IS_CELL_RENDERER_TOGGLE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CELL_RENDERER_TOGGLE))
#define GTK_IS_CHECK_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CHECK_BUTTON))
#define GTK_IS_CHECK_MENU_ITEM_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CHECK_MENU_ITEM))
#define GTK_IS_COLOR_BUTTON_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_COLOR_BUTTON))
#define GTK_IS_COLOR_SELECTION_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_COLOR_SELECTION))
#define GTK_IS_COLOR_SELECTION_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_COLOR_SELECTION_DIALOG))
#define GTK_IS_CONTAINER_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CONTAINER))
#define GTK_IS_CURVE_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CURVE))
#define GTK_IS_DIALOG_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_DIALOG))
#define GTK_IS_DRAWING_AREA_CLASS(klass) \
    (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_DRAWING_AREA))

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        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_DRAWING_AREA))
#define GTK_IS_ENTRY_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ENTRY))
#define GTK_IS_ENTRY_COMPLETION_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ENTRY_COMPLETION))
#define GTK_IS_EVENT_BOX_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_EVENT_BOX))
#define GTK_IS_EXPANDER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_EXPANDER))
#define GTK_IS_FILE_CHOOSER_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_FILE_CHOOSER_BUTTON))
#define GTK_IS_FILE_CHOOSER_DIALOG_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_FILE_CHOOSER_DIALOG))
#define GTK_IS_FILE_CHOOSER_WIDGET_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_FILE_CHOOSER_WIDGET))
#define GTK_IS_FILE_SELECTION_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_FILE_SELECTION))
#define GTK_IS_FIXED_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_FIXED))
#define GTK_IS_FONT_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_FONT_BUTTON))
#define GTK_IS_FONT_SELECTION_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_FONT_SELECTION))
#define GTK_IS_FONT_SELECTION_DIALOG_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_FONT_SELECTION_DIALOG))
#define GTK_IS_FRAME_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_FRAME))
#define GTK_IS_GAMMA_CURVE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_GAMMA_CURVE))
#define GTK_IS_HANDLE_BOX_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_HANDLE_BOX))
#define GTK_IS_HBOX_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_HBOX))
#define GTK_IS_HBUTTON_BOX_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_HBUTTON_BOX))
#define GTK_IS_HPANED_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_HPANED))
#define GTK_IS_HRULER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_HRULER))
#define GTK_IS_HSCALE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_HSCALE))
#define GTK_IS_HSCROLLBAR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_HSCROLLBAR))
#define GTK_IS_HSEPARATOR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_HSEPARATOR))
#define GTK_IS_ICON_FACTORY_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ICON_FACTORY))
#define GTK_IS_ICON_THEME_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ICON_THEME))
#define GTK_IS_IMAGE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_IMAGE))
#define GTK_IS_IMAGE_MENU_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_IMAGE_MENU_ITEM))
#define GTK_IS_IM_CONTEXT_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_IM_CONTEXT))
#define GTK_IS_IM_CONTEXT_SIMPLE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_IM_CONTEXT_SIMPLE))
#define GTK_IS_IM_MULTICONTEXT_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_IM_MULTICONTEXT))
#define GTK_IS_INPUT_DIALOG_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_INPUT_DIALOG))
#define GTK_IS_INVISIBLE_CLASS(klass) \

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        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_INVISIBLE))
#define GTK_IS_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_ITEM))
#define GTK_IS_LABEL_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_LABEL))
#define GTK_IS_LAYOUT_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_LAYOUT))
#define GTK_IS_LIST_STORE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_LIST_STORE))
#define GTK_IS_MENU_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_MENU))
#define GTK_IS_MENU_BAR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_MENU_BAR))
#define GTK_IS_MENU_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_MENU_ITEM))
#define GTK_IS_MENU_SHELL_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_MENU_SHELL))
#define GTK_IS_MESSAGE_DIALOG_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_MESSAGE_DIALOG))
#define GTK_IS_MISC_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_MISC))
#define GTK_IS_NOTEBOOK_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_NOTEBOOK))
#define GTK_IS_PANED_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_PANED))
#define GTK_IS_PLUG_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_PLUG))
#define GTK_IS_PROGRESS_BAR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_PROGRESS_BAR))
#define GTK_IS_RADIO_ACTION_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RADIO_ACTION))
#define GTK_IS_RADIO_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RADIO_BUTTON))
#define GTK_IS_RADIO_MENU_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RADIO_MENU_ITEM))
#define GTK_IS_RADIO_TOOL_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RADIO_TOOL_BUTTON))
#define GTK_IS_RANGE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RANGE))
#define GTK_IS_RC_STYLE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RC_STYLE))
#define GTK_IS_RULER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RULER))
#define GTK_IS_SCALE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SCALE))
#define GTK_IS_SCROLLBAR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SCROLLBAR))
#define GTK_IS_SCROLLED_WINDOW_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SCROLLED_WINDOW))
#define GTK_IS_SEPARATOR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SEPARATOR))
#define GTK_IS_SEPARATOR_MENU_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SEPARATOR_MENU_ITEM))
#define GTK_IS_SEPARATOR_TOOL_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SEPARATOR_TOOL_ITEM))
#define GTK_IS_SETTINGS_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SETTINGS))
#define GTK_IS_SIZE_GROUP_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SIZE_GROUP))
#define GTK_IS_SOCKET_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SOCKET))
#define GTK_IS_SPIN_BUTTON_CLASS(klass) \

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        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_SPIN_BUTTON))
#define GTK_IS_STATUSBAR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_STATUSBAR))
#define GTK_IS_STYLE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_STYLE))
#define GTK_IS_TABLE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TABLE))
#define GTK_IS_TEAROFF_MENU_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TEAROFF_MENU_ITEM))
#define GTK_IS_TEXT_BUFFER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TEXT_BUFFER))
#define GTK_IS_TEXT_CHILD_ANCHOR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TEXT_CHILD_ANCHOR))
#define GTK_IS_TEXT_MARK_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TEXT_MARK))
#define GTK_IS_TEXT_TAG_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TEXT_TAG))
#define GTK_IS_TEXT_TAG_TABLE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TEXT_TAG_TABLE))
#define GTK_IS_TEXT_VIEW_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TEXT_VIEW))
#define GTK_IS_TOGGLE_ACTION_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TOGGLE_ACTION))
#define GTK_IS_TOGGLE_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TOGGLE_BUTTON))
#define GTK_IS_TOGGLE_TOOL_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TOGGLE_TOOL_BUTTON))
#define GTK_IS_TOOLBAR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TOOLBAR))
#define GTK_IS_TOOLTIPS_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TOOLTIPS))
#define GTK_IS_TOOL_BUTTON_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TOOL_BUTTON))
#define GTK_IS_TOOL_ITEM_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TOOL_ITEM))
#define GTK_IS_TREE_MODEL_SORT_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TREE_MODEL_SORT))
#define GTK_IS_TREE_SELECTION_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TREE_SELECTION))
#define GTK_IS_TREE_STORE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TREE_STORE))
#define GTK_IS_TREE_VIEW_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TREE_VIEW))
#define GTK_IS_TREE_VIEW_COLUMN_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_TREE_VIEW_COLUMN))
#define GTK_IS_UI_MANAGER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_UI_MANAGER))
#define GTK_IS_VBOX_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_VBOX))
#define GTK_IS_VBUTTON_BOX_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_VBUTTON_BOX))
#define GTK_IS_VIEWPORT_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_VIEWPORT))
#define GTK_IS_VPANED_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_VPANED))
#define GTK_IS_VRULER_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_VRULER))
#define GTK_IS_VSCALE_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_VSCALE))
#define GTK_IS_VSCROLLBAR_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_VSCROLLBAR))
#define GTK_IS_VSEPARATOR_CLASS(klass) \

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        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_VSEPARATOR))
#define GTK_IS_WIDGET_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_WIDGET))
#define GTK_IS_WINDOW_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_WINDOW))
#define GTK_IS_WINDOW_GROUP_CLASS(klass) \
        (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_WINDOW_GROUP))
#define GTK_IS_ACTION_GROUP_CLASS(vtable) \
        (G_TYPE_CHECK_CLASS_TYPE ((vtable), GTK_TYPE_ACTION_GROUP))
#define GTK_IS_CELL_VIEW_CLASS(vtable) \
        (G_TYPE_CHECK_CLASS_TYPE ((vtable), GTK_TYPE_CELL_VIEW))
#define GTK_IS_COMBO_BOX_CLASS(vtable) \
        (G_TYPE_CHECK_CLASS_TYPE ((vtable), GTK_TYPE_COMBO_BOX))
#define GTK_IS_COMBO_BOX_ENTRY_CLASS(vtable) \
        (G_TYPE_CHECK_CLASS_TYPE ((vtable), GTK_TYPE_COMBO_BOX_ENTRY))
#define GTK_IS_EDITABLE_CLASS(vtable) \
        (G_TYPE_CHECK_CLASS_TYPE ((vtable), GTK_TYPE_EDITABLE))
#define GTK_IS_TREE_MODEL_FILTER_CLASS(vtable) \
        (G_TYPE_CHECK_CLASS_TYPE ((vtable), GTK_TYPE_TREE_MODEL_FILTER))
#define GTK_ACCEL_MAP(accel_map) \
        (G_TYPE_CHECK_INSTANCE_CAST ((accel_map), GTK_TYPE_ACCEL_MAP, \
        GtkAccelMap))
#define GTK_MENU_TOOL_BUTTON(o) \
        (G_TYPE_CHECK_INSTANCE_CAST ((o), GTK_TYPE_MENU_TOOL_BUTTON, \
        GtkMenuToolButton))
#define GTK_TOOL_ITEM(o) \
        (G_TYPE_CHECK_INSTANCE_CAST ((o), GTK_TYPE_TOOL_ITEM, GtkToolItem))
#define GTK_ACCEL_LABEL(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ACCEL_LABEL, \
        GtkAccelLabel))
#define GTK_ACCESSIBLE(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ACCESSIBLE, \
        GtkAccessible))
#define GTK_ACTION(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ACTION, GtkAction))
#define GTK_ACTION_GROUP(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ACTION_GROUP, \
        GtkActionGroup))
#define GTK_ADJUSTMENT(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ADJUSTMENT, \
        GtkAdjustment))
#define GTK_ALIGNMENT(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ALIGNMENT, \
        GtkAlignment))
#define GTK_ARROW(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ARROW, GtkArrow))
#define GTK_ASPECT_FRAME(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ASPECT_FRAME, \
        GtkAspectFrame))
#define GTK_BIN(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_BIN, GtkBin))
#define GTK_BOX(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_BOX, GtkBox))
#define GTK_BUTTON(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_BUTTON, GtkButton))
#define GTK_BUTTON_BOX(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_BUTTON_BOX, \
        GtkButtonBox))
#define GTK_CALENDAR(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CALENDAR, GtkCalendar))
#define GTK_CELL_EDITABLE(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_EDITABLE, \

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        GtkCellEditable))
#define GTK_CELL_LAYOUT(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_LAYOUT, \
    GtkCellLayout))
#define GTK_CELL_RENDERER(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_RENDERER, \
    GtkCellRenderer))
#define GTK_CELL_RENDERER_COMBO(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_RENDERER_COMBO, \
    GtkCellRendererCombo))
#define GTK_CELL_RENDERER_PIXBUF(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_RENDERER_PIXBUF, \
    GtkCellRendererPixbuf))
#define GTK_CELL_RENDERER_PROGRESS(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_RENDERER_PROGRESS, \
    GtkCellRendererProgress))
#define GTK_CELL_RENDERER_TEXT(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_RENDERER_TEXT, \
    GtkCellRendererText))
#define GTK_CELL_RENDERER_TOGGLE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_RENDERER_TOGGLE, \
    GtkCellRendererToggle))
#define GTK_CELL_VIEW(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_VIEW, GtkCellView))
#define GTK_CHECK_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CHECK_BUTTON, \
    GtkCheckButton))
#define GTK_CHECK_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CHECK_MENU_ITEM, \
    GtkCheckMenuItem))
#define GTK_CLIPBOARD(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CLIPBOARD, \
    GtkClipboard))
#define GTK_COLOR_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_COLOR_BUTTON, \
    GtkColorButton))
#define GTK_COLOR_SELECTION(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_COLOR_SELECTION, \
    GtkColorSelection))
#define GTK_COLOR_SELECTION_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_COLOR_SELECTION_DIALOG, \
    GtkColorSelectionDialog))
#define GTK_COMBO_BOX(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_COMBO_BOX, GtkComboBox))
#define GTK_COMBO_BOX_ENTRY(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_COMBO_BOX_ENTRY, \
    GtkComboBoxEntry))
#define GTK_CONTAINER(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CONTAINER, \
    GtkContainer))
#define GTK_CURVE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CURVE, GtkCurve))
#define GTK_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_DIALOG, GtkDialog))
#define GTK_DRAWING_AREA(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_DRAWING_AREA, \
    GtkDrawingArea))
#define GTK_EDITABLE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_EDITABLE, GtkEditable))
#define GTK_ENTRY(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ENTRY, GtkEntry))
#define GTK_ENTRY_COMPLETION(obj) \

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        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ENTRY_COMPLETION, \
        GtkEntryCompletion))
#define GTK_EVENT_BOX(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_EVENT_BOX, GtkEventBox))
#define GTK_EXPANDER(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_EXPANDER, GtkExpander))
#define GTK_FILE_CHOOSER(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FILE_CHOOSER, \
        GtkFileChooser))
#define GTK_FILE_CHOOSER_DIALOG(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FILE_CHOOSER_DIALOG, \
        GtkFileChooserDialog))
#define GTK_FILE_CHOOSER_WIDGET(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FILE_CHOOSER_WIDGET, \
        GtkFileChooserWidget))
#define GTK_FILE_FILTER(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FILE_FILTER, \
        GtkFileFilter))
#define GTK_FILE_SELECTION(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FILE_SELECTION, \
        GtkFileSelection))
#define GTK_FIXED(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FIXED, GtkFixed))
#define GTK_FONT_BUTTON(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FONT_BUTTON, \
        GtkFontButton))
#define GTK_FONT_SELECTION(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FONT_SELECTION, \
        GtkFontSelection))
#define GTK_FONT_SELECTION_DIALOG(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FONT_SELECTION_DIALOG, \
        GtkFontSelectionDialog))
#define GTK_FRAME(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_FRAME, GtkFrame))
#define GTK_GAMMA_CURVE(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_GAMMA_CURVE, \
        GtkGammaCurve))
#define GTK_HANDLE_BOX(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_HANDLE_BOX, \
        GtkHandleBox))
#define GTK_HBOX(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_HBOX, GtkHBox))
#define GTK_HBUTTON_BOX(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_HBUTTON_BOX, \
        GtkHButtonBox))
#define GTK_HPANED(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_HPANED, GtkHPaned))
#define GTK_HRULER(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_HRULER, GtkHRuler))
#define GTK_HSCALE(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_HSCALE, GtkHScale))
#define GTK_HSCROLLBAR(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_HSCROLLBAR, \
        GtkHScrollbar))
#define GTK_HSEPARATOR(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_HSEPARATOR, \
        GtkHSeparator))
#define GTK_ICON_THEME(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ICON_THEME, \
        GtkIconTheme))
#define GTK_IMAGE(obj) \
        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_IMAGE, GtkImage))

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#define GTK_IMAGE_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_IMAGE_MENU_ITEM, \
    GtkImageMenuItem))
#define GTK_IM_CONTEXT(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_IM_CONTEXT, \
    GtkIMContext))
#define GTK_IM_CONTEXT_SIMPLE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_IM_CONTEXT_SIMPLE, \
    GtkIMContextSimple))
#define GTK_IM_MULTICONTEXT(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_IM_MULTICONTEXT, \
    GtkIMMulticontext))
#define GTK_INPUT_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_INPUT_DIALOG, \
    GtkInputDialog))
#define GTK_INVISIBLE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_INVISIBLE, \
    GtkInvisible))
#define GTK_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_ITEM, GtkItem))
#define GTK_LABEL(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_LABEL, GtkLabel))
#define GTK_LAYOUT(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_LAYOUT, GtkLayout))
#define GTK_LIST_STORE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_LIST_STORE, \
    GtkListStore))
#define GTK_MENU(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_MENU, GtkMenu))
#define GTK_MENU_BAR(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_MENU_BAR, GtkMenuBar))
#define GTK_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_MENU_ITEM, GtkMenuItem))
#define GTK_MENU_SHELL(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_MENU_SHELL, \
    GtkMenuShell))
#define GTK_MESSAGE_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_MESSAGE_DIALOG, \
    GtkMessageDialog))
#define GTK_MISC(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_MISC, GtkMisc))
#define GTK_NOTEBOOK(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_NOTEBOOK, GtkNotebook))
#define GTK_PANED(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_PANED, GtkPaned))
#define GTK_PLUG(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_PLUG, GtkPlug))
#define GTK_PROGRESS_BAR(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_PROGRESS_BAR, \
    GtkProgressBar))
#define GTK_RADIO_ACTION(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RADIO_ACTION, \
    GtkRadioAction))
#define GTK_RADIO_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RADIO_BUTTON, \
    GtkRadioButton))
#define GTK_RADIO_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RADIO_MENU_ITEM, \
    GtkRadioMenuItem))
#define GTK_RADIO_TOOL_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RADIO_TOOL_BUTTON, \
    GtkRadioToolButton))

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#define GTK_RANGE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RANGE, GtkRange))
#define GTK_RULER(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RULER, GtkRuler))
#define GTK_SCALE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SCALE, GtkScale))
#define GTK_SCROLLBAR(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SCROLLBAR, \
    GtkScrollbar))
#define GTK_SCROLLED_WINDOW(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SCROLLED_WINDOW, \
    GtkScrolledWindow))
#define GTK_SEPARATOR(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SEPARATOR, \
    GtkSeparator))
#define GTK_SEPARATOR_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SEPARATOR_MENU_ITEM, \
    GtkSeparatorMenuItem))
#define GTK_SEPARATOR_TOOL_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SEPARATOR_TOOL_ITEM, \
    GtkSeparatorToolItem))
#define GTK_SETTINGS(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SETTINGS, GtkSettings))
#define GTK_SIZE_GROUP(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SIZE_GROUP, \
    GtkSizeGroup))
#define GTK_SOCKET(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SOCKET, GtkSocket))
#define GTK_SPIN_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_SPIN_BUTTON, \
    GtkSpinButton))
#define GTK_STATUSBAR(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_STATUSBAR, \
    GtkStatusbar))
#define GTK_TABLE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TABLE, GtkTable))
#define GTK_TEAROFF_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TEAROFF_MENU_ITEM, \
    GtkTearoffMenuItem))
#define GTK_TEXT_BUFFER(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TEXT_BUFFER, \
    GtkTextBuffer))
#define GTK_TEXT_TAG(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TEXT_TAG, GtkTextTag))
#define GTK_TEXT_TAG_TABLE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TEXT_TAG_TABLE, \
    GtkTextTagTable))
#define GTK_TEXT_VIEW(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TEXT_VIEW, GtkTextView))
#define GTK_TOGGLE_ACTION(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TOGGLE_ACTION, \
    GtkToggleAction))
#define GTK_TOGGLE_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TOGGLE_BUTTON, \
    GtkToggleButton))
#define GTK_TOGGLE_TOOL_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TOGGLE_TOOL_BUTTON, \
    GtkToggleToolButton))
#define GTK_TOOLBAR(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TOOLBAR, GtkToolbar))
#define GTK_TOOLTIPS(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TOOLTIPS, GtkTooltips))

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#define GTK_TOOL_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TOOL_BUTTON, \
    GtkToolButton))
#define GTK_TREE_DRAG_DEST(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_DRAG_DEST, \
    GtkTreeDragDest))
#define GTK_TREE_DRAG_SOURCE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_DRAG_SOURCE, \
    GtkTreeDragSource))
#define GTK_TREE_MODEL(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_MODEL, \
    GtkTreeModel))
#define GTK_TREE_MODEL_FILTER(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_MODEL_FILTER, \
    GtkTreeModelFilter))
#define GTK_TREE_MODEL_SORT(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_MODEL_SORT, \
    GtkTreeModelSort))
#define GTK_TREE_SELECTION(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_SELECTION, \
    GtkTreeSelection))
#define GTK_TREE_SORTABLE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_SORTABLE, \
    GtkTreeSortable))
#define GTK_TREE_STORE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_STORE, \
    GtkTreeStore))
#define GTK_TREE_VIEW(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_VIEW, GtkTreeView))
#define GTK_TREE_VIEW_COLUMN(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_TREE_VIEW_COLUMN, \
    GtkTreeViewColumn))
#define GTK_UI_MANAGER(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_UI_MANAGER, \
    GtkUIManager))
#define GTK_VBOX(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_VBOX, GtkVBox))
#define GTK_VBUTTON_BOX(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_VBUTTON_BOX, \
    GtkVButtonBox))
#define GTK_VIEWPORT(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_VIEWPORT, GtkViewport))
#define GTK_VPANED(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_VPANED, GtkVPaned))
#define GTK_VRULER(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_VRULER, GtkVRuler))
#define GTK_VSCALE(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_VSCALE, GtkVScale))
#define GTK_VSCROLLBAR(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_VSCROLLBAR, \
    GtkVScrollbar))
#define GTK_VSEPARATOR(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_VSEPARATOR, \
    GtkVSeparator))
#define GTK_WINDOW(obj) \
    (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_WINDOW, GtkWindow))
#define GTK_ABOUT_DIALOG(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GTK_TYPE_ABOUT_DIALOG, \
    GtkAboutDialog))
#define GTK_ACCEL_GROUP(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GTK_TYPE_ACCEL_GROUP, \
    GtkAccelGroup))

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#define GTK_FILE_CHOOSER_BUTTON(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GTK_TYPE_FILE_CHOOSER_BUTTON, \
    GtkFileChooserButton))
#define GTK_ICON_FACTORY(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GTK_TYPE_ICON_FACTORY, \
    GtkIconFactory))
#define GTK_RC_STYLE(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GTK_TYPE_RC_STYLE, \
    GtkRcStyle))
#define GTK_STYLE(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GTK_TYPE_STYLE, GtkStyle))
#define GTK_TEXT_CHILD_ANCHOR(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GTK_TYPE_TEXT_CHILD_ANCHOR, \
    GtkTextChildAnchor))
#define GTK_TEXT_MARK(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GTK_TYPE_TEXT_MARK, \
    GtkTextMark))
#define GTK_WINDOW_GROUP(object) \
    (G_TYPE_CHECK_INSTANCE_CAST ((object), GTK_TYPE_WINDOW_GROUP, \
    GtkWindowGroup))
#define GTK_WIDGET(widget) \
    (G_TYPE_CHECK_INSTANCE_CAST ((widget), GTK_TYPE_WIDGET, GtkWidget))
#define GTK_IS_ACCEL_MAP(accel_map) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((accel_map), GTK_TYPE_ACCEL_MAP))
#define GTK_IS_MENU_TOOL_BUTTON(o) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((o), GTK_TYPE_MENU_TOOL_BUTTON))
#define GTK_IS_TOOL_ITEM(o) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((o), GTK_TYPE_TOOL_ITEM))
#define GTK_IS_ACCEL_LABEL(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ACCEL_LABEL))
#define GTK_IS_ACCESSIBLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ACCESSIBLE))
#define GTK_IS_ACTION(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ACTION))
#define GTK_IS_ACTION_GROUP(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ACTION_GROUP))
#define GTK_IS_ADJUSTMENT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ADJUSTMENT))
#define GTK_IS_ALIGNMENT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ALIGNMENT))
#define GTK_IS_ARROW(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ARROW))
#define GTK_IS_ASPECT_FRAME(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ASPECT_FRAME))
#define GTK_IS_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_BUTTON))
#define GTK_IS_BUTTON_BOX(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_BUTTON_BOX))
#define GTK_IS_CALENDAR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CALENDAR))
#define GTK_IS_CELL_EDITABLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_EDITABLE))
#define GTK_IS_CELL_LAYOUT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_LAYOUT))
#define GTK_IS_CELL_RENDERER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_RENDERER))
#define GTK_IS_CELL_RENDERER_COMBO(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_RENDERER_COMBO))
#define GTK_IS_CELL_RENDERER_PIXBUF(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_RENDERER_PIXBUF))
#define GTK_IS_CELL_RENDERER_PROGRESS(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_RENDERER_PROGRESS))

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#define GTK_IS_CELL_RENDERER_TEXT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_RENDERER_TEXT))
#define GTK_IS_CELL_RENDERER_TOGGLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_RENDERER_TOGGLE))
#define GTK_IS_CELL_VIEW(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_VIEW))
#define GTK_IS_CHECK_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CHECK_BUTTON))
#define GTK_IS_CHECK_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CHECK_MENU_ITEM))
#define GTK_IS_CLIPBOARD(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CLIPBOARD))
#define GTK_IS_COLOR_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_COLOR_BUTTON))
#define GTK_IS_COLOR_SELECTION(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_COLOR_SELECTION))
#define GTK_IS_COLOR_SELECTION_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_COLOR_SELECTION_DIALOG))
#define GTK_IS_COMBO_BOX(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_COMBO_BOX))
#define GTK_IS_COMBO_BOX_ENTRY(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_COMBO_BOX_ENTRY))
#define GTK_IS_CONTAINER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CONTAINER))
#define GTK_IS_CURVE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CURVE))
#define GTK_IS_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_DIALOG))
#define GTK_IS_DRAWING_AREA(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_DRAWING_AREA))
#define GTK_IS_EDITABLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_EDITABLE))
#define GTK_IS_ENTRY(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ENTRY))
#define GTK_IS_ENTRY_COMPLETION(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ENTRY_COMPLETION))
#define GTK_IS_EVENT_BOX(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_EVENT_BOX))
#define GTK_IS_EXPANDER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_EXPANDER))
#define GTK_IS_FILE_CHOOSER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FILE_CHOOSER))
#define GTK_IS_FILE_CHOOSER_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FILE_CHOOSER_DIALOG))
#define GTK_IS_FILE_CHOOSER_WIDGET(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FILE_CHOOSER_WIDGET))
#define GTK_IS_FILE_FILTER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FILE_FILTER))
#define GTK_IS_FILE_SELECTION(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FILE_SELECTION))
#define GTK_IS_FIXED(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FIXED))
#define GTK_IS_FONT_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FONT_BUTTON))
#define GTK_IS_FONT_SELECTION(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FONT_SELECTION))
#define GTK_IS_FONT_SELECTION_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FONT_SELECTION_DIALOG))
#define GTK_IS_FRAME(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_FRAME))
#define GTK_IS_GAMMA_CURVE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_GAMMA_CURVE))

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#define GTK_IS_HANDLE_BOX(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_HANDLE_BOX))
#define GTK_IS_HBOX(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_HBOX))
#define GTK_IS_HBUTTON_BOX(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_HBUTTON_BOX))
#define GTK_IS_HPANED(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_HPANED))
#define GTK_IS_HRULER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_HRULER))
#define GTK_IS_HSCALE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_HSCALE))
#define GTK_IS_HSCROLLBAR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_HSCROLLBAR))
#define GTK_IS_HSEPARATOR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_HSEPARATOR))
#define GTK_IS_ICON_THEME(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ICON_THEME))
#define GTK_IS_IMAGE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_IMAGE))
#define GTK_IS_IMAGE_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_IMAGE_MENU_ITEM))
#define GTK_IS_IM_CONTEXT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_IM_CONTEXT))
#define GTK_IS_IM_CONTEXT_SIMPLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_IM_CONTEXT_SIMPLE))
#define GTK_IS_IM_MULTICONTEXT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_IM_MULTICONTEXT))
#define GTK_IS_INPUT_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_INPUT_DIALOG))
#define GTK_IS_INVISIBLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_INVISIBLE))
#define GTK_IS_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_ITEM))
#define GTK_IS_LABEL(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_LABEL))
#define GTK_IS_LAYOUT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_LAYOUT))
#define GTK_IS_LIST_STORE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_LIST_STORE))
#define GTK_IS_MENU(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_MENU))
#define GTK_IS_MENU_BAR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_MENU_BAR))
#define GTK_IS_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_MENU_ITEM))
#define GTK_IS_MENU_SHELL(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_MENU_SHELL))
#define GTK_IS_MESSAGE_DIALOG(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_MESSAGE_DIALOG))
#define GTK_IS_MISC(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_MISC))
#define GTK_IS_NOTEBOOK(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_NOTEBOOK))
#define GTK_IS_PANED(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_PANED))
#define GTK_IS_PLUG(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_PLUG))
#define GTK_IS_PROGRESS_BAR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_PROGRESS_BAR))
#define GTK_IS_RADIO_ACTION(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RADIO_ACTION))

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#define GTK_IS_RADIO_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RADIO_BUTTON))
#define GTK_IS_RADIO_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RADIO_MENU_ITEM))
#define GTK_IS_RADIO_TOOL_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RADIO_TOOL_BUTTON))
#define GTK_IS_RANGE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RANGE))
#define GTK_IS_RULER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RULER))
#define GTK_IS_SCALE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SCALE))
#define GTK_IS_SCROLLBAR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SCROLLBAR))
#define GTK_IS_SCROLLED_WINDOW(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SCROLLED_WINDOW))
#define GTK_IS_SEPARATOR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SEPARATOR))
#define GTK_IS_SEPARATOR_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SEPARATOR_MENU_ITEM))
#define GTK_IS_SEPARATOR_TOOL_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SEPARATOR_TOOL_ITEM))
#define GTK_IS_SETTINGS(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SETTINGS))
#define GTK_IS_SIZE_GROUP(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SIZE_GROUP))
#define GTK_IS_SOCKET(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SOCKET))
#define GTK_IS_SPIN_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_SPIN_BUTTON))
#define GTK_IS_STATUSBAR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_STATUSBAR))
#define GTK_IS_TABLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TABLE))
#define GTK_IS_TEAROFF_MENU_ITEM(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TEAROFF_MENU_ITEM))
#define GTK_IS_TEXT_BUFFER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TEXT_BUFFER))
#define GTK_IS_TEXT_TAG(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TEXT_TAG))
#define GTK_IS_TEXT_TAG_TABLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TEXT_TAG_TABLE))
#define GTK_IS_TEXT_VIEW(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TEXT_VIEW))
#define GTK_IS_TOGGLE_ACTION(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TOGGLE_ACTION))
#define GTK_IS_TOGGLE_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TOGGLE_BUTTON))
#define GTK_IS_TOGGLE_TOOL_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TOGGLE_TOOL_BUTTON))
#define GTK_IS_TOOLBAR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TOOLBAR))
#define GTK_IS_TOOLTIPS(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TOOLTIPS))
#define GTK_IS_TOOL_BUTTON(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TOOL_BUTTON))
#define GTK_IS_TREE_DRAG_DEST(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_DRAG_DEST))
#define GTK_IS_TREE_DRAG_SOURCE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_DRAG_SOURCE))
#define GTK_IS_TREE_MODEL(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_MODEL))

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#define GTK_IS_TREE_MODEL_FILTER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_MODEL_FILTER))
#define GTK_IS_TREE_MODEL_SORT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_MODEL_SORT))
#define GTK_IS_TREE_SELECTION(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_SELECTION))
#define GTK_IS_TREE_SORTABLE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_SORTABLE))
#define GTK_IS_TREE_STORE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_STORE))
#define GTK_IS_TREE_VIEW(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_VIEW))
#define GTK_IS_TREE_VIEW_COLUMN(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_TREE_VIEW_COLUMN))
#define GTK_IS_UI_MANAGER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_UI_MANAGER))
#define GTK_IS_VBOX(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_VBOX))
#define GTK_IS_VBUTTON_BOX(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_VBUTTON_BOX))
#define GTK_IS_VIEWPORT(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_VIEWPORT))
#define GTK_IS_VPANED(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_VPANED))
#define GTK_IS_VRULER(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_VRULER))
#define GTK_IS_VSCALE(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_VSCALE))
#define GTK_IS_VSCROLLBAR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_VSCROLLBAR))
#define GTK_IS_VSEPARATOR(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_VSEPARATOR))
#define GTK_IS_WINDOW(obj) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_WINDOW))
#define GTK_IS_ABOUT_DIALOG(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GTK_TYPE_ABOUT_DIALOG))
#define GTK_IS_ACCEL_GROUP(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GTK_TYPE_ACCEL_GROUP))
#define GTK_IS_FILE_CHOOSER_BUTTON(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GTK_TYPE_FILE_CHOOSER_BUTTON))
#define GTK_IS_ICON_FACTORY(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GTK_TYPE_ICON_FACTORY))
#define GTK_IS_RC_STYLE(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GTK_TYPE_RC_STYLE))
#define GTK_IS_STYLE(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GTK_TYPE_STYLE))
#define GTK_IS_TEXT_CHILD_ANCHOR(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GTK_TYPE_TEXT_CHILD_ANCHOR))
#define GTK_IS_TEXT_MARK(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GTK_TYPE_TEXT_MARK))
#define GTK_IS_WINDOW_GROUP(object) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((object), GTK_TYPE_WINDOW_GROUP))
#define GTK_IS_WIDGET(widget) \
    (G_TYPE_CHECK_INSTANCE_TYPE ((widget), GTK_TYPE_WIDGET))
#define GTK_ACTION_GROUP_GET_CLASS(inst) \
    (G_TYPE_INSTANCE_GET_CLASS ((inst), GTK_TYPE_ACTION_GROUP, \
    GtkActionGroupClass))
#define GTK_CELL_VIEW_GET_CLASS(inst) \
    (G_TYPE_INSTANCE_GET_CLASS ((inst), GTK_TYPE_CELL_VIEW, \
    GtkCellViewClass))
#define GTK_COMBO_BOX_GET_CLASS(inst) \
    (G_TYPE_INSTANCE_GET_CLASS ((inst), GTK_TYPE_COMBO_BOX, \

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        GtkComboBoxClass))
#define GTK_COMBO_BOX_ENTRY_GET_CLASS(inst) \
        (G_TYPE_INSTANCE_GET_CLASS ((inst), GTK_TYPE_COMBO_BOX_ENTRY, \
        GtkComboBoxEntryClass))
#define GTK_MENU_TOOL_BUTTON_GET_CLASS(o) \
        (G_TYPE_INSTANCE_GET_CLASS ((o), GTK_TYPE_MENU_TOOL_BUTTON, \
        GtkMenuToolButtonClass))
#define GTK_ABOUT_DIALOG_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ABOUT_DIALOG, \
        GtkAboutDialogClass))
#define GTK_ACCEL_GROUP_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ACCEL_GROUP, \
        GtkAccelGroupClass))
#define GTK_ACCEL_LABEL_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ACCEL_LABEL, \
        GtkAccelLabelClass))
#define GTK_ACCEL_MAP_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ACCEL_MAP, \
        GtkAccelMapClass))
#define GTK_ACCESSIBLE_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ACCESSIBLE, \
        GtkAccessibleClass))
#define GTK_ADJUSTMENT_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ADJUSTMENT, \
        GtkAdjustmentClass))
#define GTK_ALIGNMENT_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ALIGNMENT, \
        GtkAlignmentClass))
#define GTK_ARROW_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ARROW, GtkArrowClass))
#define GTK_ASPECT_FRAME_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ASPECT_FRAME, \
        GtkAspectFrameClass))
#define GTK_BIN_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_BIN, GtkBinClass))
#define GTK_BOX_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_BOX, GtkBoxClass))
#define GTK_BUTTON_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_BUTTON, GtkButtonClass))
#define GTK_BUTTON_BOX_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_BUTTON_BOX, \
        GtkButtonBoxClass))
#define GTK_CALENDAR_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CALENDAR, \
        GtkCalendarClass))
#define GTK_CELL_RENDERER_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CELL_RENDERER, \
        GtkCellRendererClass))
#define GTK_CELL_RENDERER_COMBO_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CELL_RENDERER_COMBO, \
        GtkCellRendererTextClass))
#define GTK_CELL_RENDERER_PIXBUF_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CELL_RENDERER_PIXBUF, \
        GtkCellRendererPixbufClass))
#define GTK_CELL_RENDERER_PROGRESS_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CELL_RENDERER_PROGRESS, \
        GtkCellRendererProgressClass))
#define GTK_CELL_RENDERER_TEXT_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CELL_RENDERER_TEXT, \
        GtkCellRendererTextClass))
#define GTK_CELL_RENDERER_TOGGLE_GET_CLASS(obj) \
        (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CELL_RENDERER_TOGGLE, \

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        GtkCellRendererToggleClass))
#define GTK_CHECK_BUTTON_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CHECK_BUTTON, \
    GtkCheckButtonClass))
#define GTK_CHECK_MENU_ITEM_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CHECK_MENU_ITEM, \
    GtkCheckMenuItemClass))
#define GTK_COLOR_BUTTON_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_COLOR_BUTTON, \
    GtkColorButtonClass))
#define GTK_COLOR_SELECTION_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_COLOR_SELECTION, \
    GtkColorSelectionClass))
#define GTK_COLOR_SELECTION_DIALOG_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_COLOR_SELECTION_DIALOG, \
    GtkColorSelectionDialogClass))
#define GTK_CONTAINER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CONTAINER, \
    GtkContainerClass))
#define GTK_CURVE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CURVE, GtkCurveClass))
#define GTK_DIALOG_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_DIALOG, GtkDialogClass))
#define GTK_DRAWING_AREA_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_DRAWING_AREA, \
    GtkDrawingAreaClass))
#define GTK_ENTRY_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ENTRY, GtkEntryClass))
#define GTK_ENTRY_COMPLETION_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ENTRY_COMPLETION, \
    GtkEntryCompletionClass))
#define GTK_EVENT_BOX_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_EVENT_BOX, \
    GtkEventBoxClass))
#define GTK_EXPANDER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_EXPANDER, \
    GtkExpanderClass))
#define GTK_FILE_CHOOSER_DIALOG_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_FILE_CHOOSER_DIALOG, \
    GtkFileChooserDialogClass))
#define GTK_FILE_CHOOSER_WIDGET_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_FILE_CHOOSER_WIDGET, \
    GtkFileChooserWidgetClass))
#define GTK_FILE_SELECTION_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_FILE_SELECTION, \
    GtkFileSelectionClass))
#define GTK_FIXED_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_FIXED, GtkFixedClass))
#define GTK_FONT_BUTTON_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_FONT_BUTTON, \
    GtkFontButtonClass))
#define GTK_FONT_SELECTION_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_FONT_SELECTION, \
    GtkFontSelectionClass))
#define GTK_FONT_SELECTION_DIALOG_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_FONT_SELECTION_DIALOG, \
    GtkFontSelectionDialogClass))
#define GTK_FRAME_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_FRAME, GtkFrameClass))
#define GTK_GAMMA_CURVE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_GAMMA_CURVE, \
    GtkGammaCurveClass))

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#define GTK_HANDLE_BOX_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_HANDLE_BOX, \
    GtkHandleBoxClass))
#define GTK_HBOX_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_HBOX, GtkHBoxClass))
#define GTK_HBUTTON_BOX_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_HBUTTON_BOX, \
    GtkHButtonBoxClass))
#define GTK_HPANED_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_HPANED, GtkHPanedClass))
#define GTK_HRULER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_HRULER, GtkHRulerClass))
#define GTK_HSCALE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_HSCALE, GtkHScaleClass))
#define GTK_HSCROLLBAR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_HSCROLLBAR, \
    GtkHScrollbarClass))
#define GTK_HSEPARATOR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_HSEPARATOR, \
    GtkHSeparatorClass))
#define GTK_ICON_FACTORY_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ICON_FACTORY, \
    GtkIconFactoryClass))
#define GTK_ICON_THEME_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ICON_THEME, \
    GtkIconThemeClass))
#define GTK_IMAGE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_IMAGE, GtkImageClass))
#define GTK_IMAGE_MENU_ITEM_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_IMAGE_MENU_ITEM, \
    GtkImageMenuItemClass))
#define GTK_IM_CONTEXT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_IM_CONTEXT, \
    GtkIMContextClass))
#define GTK_IM_CONTEXT_SIMPLE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_IM_CONTEXT_SIMPLE, \
    GtkIMContextSimpleClass))
#define GTK_IM_MULTICONTEXT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_IM_MULTICONTEXT, \
    GtkIMMulticontextClass))
#define GTK_INPUT_DIALOG_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_INPUT_DIALOG, \
    GtkInputDialogClass))
#define GTK_INVISIBLE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_INVISIBLE, \
    GtkInvisibleClass))
#define GTK_ITEM_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_ITEM, GtkItemClass))
#define GTK_LABEL_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_LABEL, GtkLabelClass))
#define GTK_LAYOUT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_LAYOUT, GtkLayoutClass))
#define GTK_LIST_STORE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_LIST_STORE, \
    GtkListStoreClass))
#define GTK_MENU_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_MENU, GtkMenuClass))
#define GTK_MENU_BAR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_MENU_BAR, \
    GtkMenuBarClass))
#define GTK_MENU_ITEM_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_MENU_ITEM, \

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    GtkMenuItemClass))
#define GTK_MENU_SHELL_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_MENU_SHELL, \
    GtkMenuShellClass))
#define GTK_MESSAGE_DIALOG_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_MESSAGE_DIALOG, \
    GtkMessageDialogClass))
#define GTK_MISC_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_MISC, GtkMiscClass))
#define GTK_NOTEBOOK_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_NOTEBOOK, \
    GtkNotebookClass))
#define GTK_PANED_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_PANED, GtkPanedClass))
#define GTK_PLUG_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_PLUG, GtkPlugClass))
#define GTK_PROGRESS_BAR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_PROGRESS_BAR, \
    GtkProgressBarClass))
#define GTK_RADIO_BUTTON_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_RADIO_BUTTON, \
    GtkRadioButtonClass))
#define GTK_RADIO_MENU_ITEM_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_RADIO_MENU_ITEM, \
    GtkRadioMenuItemClass))
#define GTK_RANGE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_RANGE, GtkRangeClass))
#define GTK_RC_STYLE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_RC_STYLE, \
    GtkRcStyleClass))
#define GTK_RULER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_RULER, GtkRulerClass))
#define GTK_SCALE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_SCALE, GtkScaleClass))
#define GTK_SCROLLBAR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_SCROLLBAR, \
    GtkScrollbarClass))
#define GTK_SCROLLED_WINDOW_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_SCROLLED_WINDOW, \
    GtkScrolledWindowClass))
#define GTK_SEPARATOR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_SEPARATOR, \
    GtkSeparatorClass))
#define GTK_SEPARATOR_MENU_ITEM_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_SEPARATOR_MENU_ITEM, \
    GtkSeparatorMenuItemClass))
#define GTK_SETTINGS_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_SETTINGS, \
    GtkSettingsClass))
#define GTK_SIZE_GROUP_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_SIZE_GROUP, \
    GtkSizeGroupClass))
#define GTK_SOCKET_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_SOCKET, GtkSocketClass))
#define GTK_SPIN_BUTTON_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_SPIN_BUTTON, \
    GtkSpinButtonClass))
#define GTK_STATUSBAR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_STATUSBAR, \
    GtkStatusbarClass))
#define GTK_STYLE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_STYLE, GtkStyleClass))

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#define GTK_TABLE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TABLE, GtkTableClass))
#define GTK_TEAROFF_MENU_ITEM_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TEAROFF_MENU_ITEM, \
    GtkTearoffMenuItemClass))
#define GTK_TEXT_BUFFER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TEXT_BUFFER, \
    GtkTextBufferClass))
#define GTK_TEXT_CHILD_ANCHOR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TEXT_CHILD_ANCHOR, \
    GtkTextChildAnchorClass))
#define GTK_TEXT_MARK_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TEXT_MARK, \
    GtkTextMarkClass))
#define GTK_TEXT_TAG_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TEXT_TAG, \
    GtkTextTagClass))
#define GTK_TEXT_TAG_TABLE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TEXT_TAG_TABLE, \
    GtkTextTagTableClass))
#define GTK_TEXT_VIEW_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TEXT_VIEW, \
    GtkTextViewClass))
#define GTK_TOGGLE_BUTTON_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TOGGLE_BUTTON, \
    GtkToggleButtonClass))
#define GTK_TOOLBAR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TOOLBAR, \
    GtkToolbarClass))
#define GTK_TOOLTIPS_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TOOLTIPS, \
    GtkTooltipsClass))
#define GTK_TREE_MODEL_FILTER_GET_CLASS(inst) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TREE_MODEL_FILTER, \
    GtkTreeModelFilterClass))
#define GTK_TREE_MODEL_SORT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TREE_MODEL_SORT, \
    GtkTreeModelSortClass))
#define GTK_TREE_SELECTION_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TREE_SELECTION, \
    GtkTreeSelectionClass))
#define GTK_TREE_STORE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TREE_STORE, \
    GtkTreeStoreClass))
#define GTK_TREE_VIEW_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TREE_VIEW, \
    GtkTreeViewClass))
#define GTK_TREE_VIEW_COLUMN_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_TREE_VIEW_COLUMN, \
    GtkTreeViewColumnClass))
#define GTK_VBOX_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_VBOX, GtkVBoxClass))
#define GTK_VBUTTON_BOX_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_VBUTTON_BOX, \
    GtkVButtonBoxClass))
#define GTK_VIEWPORT_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_VIEWPORT, \
    GtkViewportClass))
#define GTK_VPANED_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_VPANED, GtkVPanedClass))
#define GTK_VRULER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_VRULER, GtkVRulerClass))

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#define GTK_VSCALE_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_VSCALE, GtkVScaleClass))
#define GTK_VSCROLLBAR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_VSCROLLBAR, \
    GtkVScrollbarClass))
#define GTK_VSEPARATOR_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_VSEPARATOR, \
    GtkVSeparatorClass))
#define GTK_WIDGET_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_WIDGET, GtkWidgetClass))
#define GTK_WINDOW_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_WINDOW, GtkWindowClass))
#define GTK_WINDOW_GROUP_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_WINDOW_GROUP, \
    GtkWindowGroupClass))
#define GTK_FILE_CHOOSER_BUTTON_GET_CLASS(object) \
    (G_TYPE_INSTANCE_GET_CLASS ((object), GTK_TYPE_FILE_CHOOSER_BUTTON, \
    GtkFileChooserButtonClass))
#define GTK_TOOL_ITEM_GET_CLASS(o) \
    (G_TYPE_INSTANCE_GET_CLASS((o), GTK_TYPE_TOOL_ITEM, \
    GtkToolItemClass))
#define GTK_ACTION_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS((obj), GTK_TYPE_ACTION, GtkActionClass))
#define GTK_RADIO_ACTION_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS((obj), GTK_TYPE_RADIO_ACTION, \
    GtkRadioActionClass))
#define GTK_RADIO_TOOL_BUTTON_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS((obj), GTK_TYPE_RADIO_TOOL_BUTTON, \
    GtkRadioToolButtonClass))
#define GTK_SEPARATOR_TOOL_ITEM_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS((obj), GTK_TYPE_SEPARATOR_TOOL_ITEM, \
    GtkSeparatorToolItemClass))
#define GTK_TOGGLE_ACTION_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS((obj), GTK_TYPE_TOGGLE_ACTION, \
    GtkToggleActionClass))
#define GTK_TOGGLE_TOOL_BUTTON_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS((obj), GTK_TYPE_TOGGLE_TOOL_BUTTON, \
    GtkToggleToolButtonClass))
#define GTK_TOOL_BUTTON_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS((obj), GTK_TYPE_TOOL_BUTTON, \
    GtkToolButtonClass))
#define GTK_UI_MANAGER_GET_CLASS(obj) \
    (G_TYPE_INSTANCE_GET_CLASS((obj), GTK_TYPE_UI_MANAGER, \
    GtkUIManagerClass))
#define GTK_EDITABLE_GET_CLASS(inst) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((inst), GTK_TYPE_EDITABLE, \
    GtkEditableClass))
#define GTK_CELL_EDITABLE_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), GTK_TYPE_CELL_EDITABLE, \
    GtkCellEditableIface))
#define GTK_CELL_LAYOUT_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), GTK_TYPE_CELL_LAYOUT, \
    GtkCellLayoutIface))
#define GTK_TREE_DRAG_DEST_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), GTK_TYPE_TREE_DRAG_DEST, \
    GtkTreeDragDestIface))
#define GTK_TREE_DRAG_SOURCE_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), GTK_TYPE_TREE_DRAG_SOURCE, \
    GtkTreeDragSourceIface))
#define GTK_TREE_MODEL_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), GTK_TYPE_TREE_MODEL, \
    GtkTreeModelIface))

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#define GTK_TREE_SORTABLE_GET_IFACE(obj) \
    (G_TYPE_INSTANCE_GET_INTERFACE ((obj), GTK_TYPE_TREE_SORTABLE, \
    GtkTreeSortableIface))
#define GTK_OBJECT_TYPE_NAME(object) \
    (g_type_name (GTK_OBJECT_TYPE (object)))
#define GTK_CONTAINER_WARN_INVALID_CHILD_PROPERTY_ID(object,property_id,pspec) \
    G_OBJECT_WARN_INVALID_PSPEC ((object), "child property id", \
    (property_id), (pspec))
#define GTK_OBJECT_UNSET_FLAGS(obj,flag) \
    G_STMT_START{ (GTK_OBJECT_FLAGS (obj) &= ~(flag)); }G_STMT_END
#define GTK_OBJECT_SET_FLAGS(obj,flag) \
    G_STMT_START{ (GTK_OBJECT_FLAGS (obj) |= (flag)); }G_STMT_END
#define GTK_WIDGET_UNSET_FLAGS(wid,flag) \
    G_STMT_START{ (GTK_WIDGET_FLAGS (wid) &= ~(flag)); }G_STMT_END
#define GTK_WIDGET_SET_FLAGS(wid,flag) \
    G_STMT_START{ (GTK_WIDGET_FLAGS (wid) |= (flag)); }G_STMT_END
#define GTK_MAJOR_VERSION (2)
#define GTK_TEXT_VIEW_PRIORITY_VALIDATE (GDK_PRIORITY_REDRAW + 5)
#define GTK_TYPE_ABOUT_DIALOG (gtk_about_dialog_get_type ())
#define GTK_TYPE_ACCEL_FLAGS (gtk_accel_flags_get_type ())
#define GTK_TYPE_ACCEL_GROUP (gtk_accel_group_get_type ())
#define GTK_TYPE_ACCEL_LABEL (gtk_accel_label_get_type ())
#define GTK_TYPE_ACCEL_MAP (gtk_accel_map_get_type ())
#define GTK_TYPE_ACCESSIBLE (gtk_accessible_get_type ())
#define GTK_TYPE_ACTION (gtk_action_get_type ())
#define GTK_TYPE_ACTION_GROUP (gtk_action_group_get_type ())
#define GTK_TYPE_ADJUSTMENT (gtk_adjustment_get_type ())
#define GTK_TYPE_ALIGNMENT (gtk_alignment_get_type ())
#define GTK_TYPE_ANCHOR_TYPE (gtk_anchor_type_get_type ())
#define GTK_TYPE_ARG_FLAGS (gtk_arg_flags_get_type ())
#define GTK_TYPE_ARROW (gtk_arrow_get_type ())
#define GTK_TYPE_ARROW_TYPE (gtk_arrow_type_get_type ())
#define GTK_TYPE_ASPECT_FRAME (gtk_aspect_frame_get_type ())
#define GTK_TYPE_ASSISTANT (gtk_assistant_get_type ())
#define GTK_TYPE_ATTACH_OPTIONS (gtk_attach_options_get_type ())
#define GTK_TYPE_BIN (gtk_bin_get_type ())
#define GTK_TYPE_BORDER (gtk_border_get_type ())
#define GTK_TYPE_BOX (gtk_box_get_type ())
#define GTK_TYPE_BUTTONS_TYPE (gtk_buttons_type_get_type ())
#define GTK_TYPE_BUTTON_BOX (gtk_button_box_get_type ())
#define GTK_TYPE_BUTTON_BOX_STYLE (gtk_button_box_style_get_type ())
#define GTK_TYPE_BUTTON (gtk_button_get_type ())
#define GTK_TYPE_CALENDAR (gtk_calendar_get_type ())
#define GTK_TYPE_CELL_EDITABLE (gtk_cell_editable_get_type ())
#define GTK_TYPE_CELL_LAYOUT (gtk_cell_layout_get_type ())
#define GTK_TYPE_CELL_RENDERER_ACCEL (gtk_cell_renderer_accel_get_type ())
#define GTK_TYPE_CELL_RENDERER_ACCEL_MODE (gtk_cell_renderer_accel_mode_get_type ())
#define GTK_TYPE_CELL_RENDERER_COMBO (gtk_cell_renderer_combo_get_type ())
#define GTK_TYPE_CELL_RENDERER (gtk_cell_renderer_get_type ())
#define GTK_TYPE_CELL_RENDERER_MODE (gtk_cell_renderer_mode_get_type ())
#define GTK_TYPE_CELL_RENDERER_SPIN (gtk_cell_renderer_spin_get_type ())
#define GTK_TYPE_CELL_RENDERER_STATE (gtk_cell_renderer_state_get_type ())
#define GTK_TYPE_CELL_RENDERER_TEXT (gtk_cell_renderer_text_get_type ())
#define GTK_TYPE_CELL_VIEW (gtk_cell_view_get_type ())
#define GTK_TYPE_CHECK_BUTTON (gtk_check_button_get_type ())
#define GTK_LIST(obj) (GTK_CHECK_CAST ((obj), GTK_TYPE_LIST, GtkList))
#define GTK_TYPE_CHECK_MENU_ITEM (gtk_check_menu_item_get_type ())
#define GTK_IS_ICON_VIEW(obj) (GTK_CHECK_TYPE ((obj), GTK_TYPE_ICON_VIEW))
#define GTK_IS_LIST(obj) (GTK_CHECK_TYPE ((obj), GTK_TYPE_LIST))
#define GTK_IS_OBJECT(object) (GTK_CHECK_TYPE ((object), GTK_TYPE_OBJECT))
#define GTK_TYPE_CLIPBOARD (gtk_clipboard_get_type ())
#define GTK_TYPE_COLOR_BUTTON (gtk_color_button_get_type ())

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#define GTK_TYPE_COLOR_SELECTION      (gtk_color_selection_get_type ())
#define GTK_TYPE_COMBO_BOX_ENTRY      (gtk_combo_box_entry_get_type ())
#define GTK_TYPE_COMBO_BOX            (gtk_combo_box_get_type ())
#define GTK_TYPE_CONTAINER            (gtk_container_get_type ())
#define GTK_TYPE_CORNER_TYPE          (gtk_corner_type_get_type())
#define GTK_TYPE_CURVE                (gtk_curve_get_type ())
#define GTK_TYPE_CURVE_TYPE           (gtk_curve_type_get_type())
#define GTK_TYPE_DEBUG_FLAG           (gtk_debug_flag_get_type())
#define GTK_TYPE_DELETE_TYPE          (gtk_delete_type_get_type())
#define GTK_TYPE_DEST_DEFAULTS        (gtk_dest_defaults_get_type())
#define GTK_TYPE_DIALOG_FLAGS         (gtk_dialog_flags_get_type())
#define GTK_TYPE_DIALOG               (gtk_dialog_get_type ())
#define GTK_TYPE_DIRECTION_TYPE       (gtk_direction_type_get_type())
#define GTK_TYPE_DRAWING_AREA         (gtk_drawing_area_get_type ())
#define GTK_TYPE_EDITABLE             (gtk_editable_get_type ())
#define GTK_TYPE_ENTRY_COMPLETION      (gtk_entry_completion_get_type ())
#define GTK_TYPE_ENTRY                (gtk_entry_get_type ())
#define GTK_TYPE_EVENT_BOX            (gtk_event_box_get_type ())
#define GTK_TYPE_EXPANDER              (gtk_expander_get_type ())
#define GTK_TYPE_EXPANDER_STYLE        (gtk_expander_style_get_type())
#define GTK_TYPE_FILE_CHOOSER_ACTION   (gtk_file_chooser_action_get_type())
#define GTK_TYPE_FILE_CHOOSER_BUTTON   (gtk_file_chooser_button_get_type ())
#define GTK_TYPE_FILE_CHOOSER_DIALOG   (gtk_file_chooser_dialog_get_type ())
#define GTK_TYPE_FILE_CHOOSER_ERROR    (gtk_file_chooser_error_get_type())
#define GTK_FILE_CHOOSER_ERROR         (gtk_file_chooser_error_quark ())
#define GTK_TYPE_FILE_CHOOSER         (gtk_file_chooser_get_type ())
#define GTK_TYPE_FILE_CHOOSER_WIDGET   (gtk_file_chooser_widget_get_type ())
#define GTK_TYPE_FILE_FILTER_FLAGS     (gtk_file_filter_flags_get_type())
#define GTK_TYPE_FILE_FILTER          (gtk_file_filter_get_type ())
#define GTK_TYPE_FILE_SELECTION        (gtk_file_selection_get_type ())
#define GTK_TYPE_FIXED                (gtk_fixed_get_type ())
#define GTK_TYPE_FONT_BUTTON           (gtk_font_button_get_type ())
#define GTK_TYPE_FONT_SELECTION        (gtk_font_selection_get_type ())
#define GTK_TYPE_FRAME                (gtk_frame_get_type ())
#define GTK_TYPE_GAMMA_CURVE          (gtk_gamma_curve_get_type ())
#define GTK_TYPE_HANDLE_BOX            (gtk_handle_box_get_type ())
#define GTK_TYPE_HBOX                 (gtk_hbox_get_type ())
#define GTK_TYPE_HBUTTON_BOX           (gtk_hbutton_box_get_type ())
#define GTK_TYPE_HPANED                (gtk_hpaned_get_type ())
#define GTK_TYPE_HRULER                (gtk_hruler_get_type ())
#define GTK_TYPE_HSCALE                (gtk_hscale_get_type ())
#define GTK_TYPE_HSCROLLBAR            (gtk_hscrollbar_get_type ())
#define GTK_TYPE_HSEPARATOR            (gtk_hseparator_get_type ())
#define GTK_TYPE_ICON_FACTORY          (gtk_icon_factory_get_type ())
#define GTK_TYPE_ICON_INFO             (gtk_icon_info_get_type ())
#define GTK_TYPE_ICON_LOOKUP_FLAGS     (gtk_icon_lookup_flags_get_type())
#define GTK_TYPE_ICON_SET              (gtk_icon_set_get_type ())
#define GTK_TYPE_ICON_SIZE             (gtk_icon_size_get_type())
#define GTK_TYPE_ICON_SOURCE           (gtk_icon_source_get_type ())
#define GTK_TYPE_ICON_THEME_ERROR      (gtk_icon_theme_error_get_type())
#define GTK_TYPE_ICON_THEME            (gtk_icon_theme_get_type ())
#define GTK_TYPE_ICON_VIEW             (gtk_icon_view_get_type ())
#define GTK_TYPE_IDENTIFIER            (gtk_identifier_get_type ())
#define GTK_TYPE_IMAGE                (gtk_image_get_type ())
#define GTK_TYPE_IMAGE_MENU_ITEM       (gtk_image_menu_item_get_type ())
#define GTK_TYPE_IMAGE_TYPE            (gtk_image_type_get_type())
#define GTK_TYPE_IM_CONTEXT            (gtk_im_context_get_type ())
#define GTK_TYPE_IM_CONTEXT_SIMPLE     (gtk_im_context_simple_get_type ())
#define GTK_TYPE_IM_MULTICONTEXT       (gtk_im_multicontext_get_type ())
#define GTK_TYPE_IM_PREEDIT_STYLE      (gtk_im_preedit_style_get_type())
#define GTK_TYPE_IM_STATUS_STYLE       (gtk_im_status_style_get_type())
#define GTK_TYPE_INPUT_DIALOG          (gtk_input_dialog_get_type ())

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#define GTK_TYPE_INVISIBLE      (gtk_invisible_get_type ())
#define GTK_TYPE_ITEM          (gtk_item_get_type ())
#define GTK_TYPE_JUSTIFICATION (gtk_justification_get_type())
#define GTK_TYPE_LABEL         (gtk_label_get_type ())
#define GTK_TYPE_LAYOUT        (gtk_layout_get_type ())
#define GTK_TYPE_LINK_BUTTON   (gtk_link_button_get_type ())
#define __GTK_LINK_BUTTON_H__  (gtk_link_button_get_type ())
#define GTK_TYPE_LIST          (gtk_list_get_type ())
#define GTK_TYPE_LIST_STORE    (gtk_list_store_get_type ())
#define GTK_TYPE_MATCH_TYPE    (gtk_match_type_get_type())
#define GTK_TYPE_MENU_BAR      (gtk_menu_bar_get_type ())
#define GTK_TYPE_MENU_DIRECTION_TYPE (gtk_menu_direction_type_get_type())
#define GTK_TYPE_MENU         (gtk_menu_get_type ())
#define GTK_TYPE_MENU_ITEM     (gtk_menu_item_get_type ())
#define GTK_TYPE_MENU_SHELL    (gtk_menu_shell_get_type ())
#define GTK_TYPE_MENU_TOOL_BUTTON (gtk_menu_tool_button_get_type ())
#define GTK_TYPE_MESSAGE_DIALOG (gtk_message_dialog_get_type ())
#define GTK_TYPE_MESSAGE_TYPE  (gtk_message_type_get_type())
#define GTK_TYPE_METRIC_TYPE   (gtk_metric_type_get_type())
#define GTK_TYPE_MISC          (gtk_misc_get_type ())
#define GTK_TYPE_MOVEMENT_STEP (gtk_movement_step_get_type())
#define GTK_TYPE_NOTEBOOK      (gtk_notebook_get_type ())
#define GTK_TYPE_NOTEBOOK_TAB  (gtk_notebook_tab_get_type())
#define GTK_OBJECT_FLAGS(obj)  (GTK_OBJECT (obj)->flags)
#define GTK_WIDGET_FLAGS(wid)  (GTK_OBJECT_FLAGS (wid))
#define GTK_TYPE_OBJECT_FLAGS  (gtk_object_flags_get_type())
#define GTK_TYPE_OBJECT        (gtk_object_get_type ())
#define GTK_WIDGET_TYPE(wid)   (GTK_OBJECT_TYPE (wid))
#define GTK_TYPE_ORIENTATION   (gtk_orientation_get_type())
#define GTK_TYPE_PACK_TYPE     (gtk_pack_type_get_type())
#define GTK_TYPE_PAGE_ORIENTATION (gtk_page_orientation_get_type ())
#define GTK_TYPE_PAGE_SETUP    (gtk_page_setup_get_type ())
#define GTK_TYPE_PAGE_SET      (gtk_page_set_get_type ())
#define GTK_TYPE_PANED         (gtk_paned_get_type ())
#define GTK_TYPE_PAPER_SIZE    (gtk_paper_size_get_type ())
#define GTK_TYPE_PATH_PRIORITY_TYPE (gtk_path_priority_type_get_type())
#define GTK_TYPE_PATH_TYPE     (gtk_path_type_get_type())
#define GTK_TYPE_PLUG          (gtk_plug_get_type ())
#define GTK_TYPE_POLICY_TYPE   (gtk_policy_type_get_type())
#define GTK_TYPE_POSITION_TYPE (gtk_position_type_get_type())
#define GTK_TYPE_PRINT_CONTEXT (gtk_print_context_get_type ())
#define GTK_TYPE_PRINT_DUPLEX  (gtk_print_duplex_get_type ())
#define GTK_TYPE_PRINT_ERROR    (gtk_print_error_get_type ())
#define GTK_TYPE_PRINT_OPERATION_ACTION (gtk_print_operation_action_get_type ())
#define GTK_TYPE_PRINT_OPERATION (gtk_print_operation_get_type ())
#define GTK_TYPE_PRINT_OPERATION_RESULT (gtk_print_operation_result_get_type ())
#define GTK_TYPE_PRINT_PAGES   (gtk_print_pages_get_type ())
#define GTK_TYPE_PRINT_QUALITY (gtk_print_quality_get_type ())
#define GTK_TYPE_PRINT_SETTINGS (gtk_print_settings_get_type ())
#define GTK_TYPE_PRINT_STATUS   (gtk_print_status_get_type ())
#define GTK_TYPE_PROGRESS_BAR  (gtk_progress_bar_get_type ())
#define GTK_TYPE_PROGRESS_BAR_STYLE (gtk_progress_bar_style_get_type())
#define GTK_TYPE_RADIO_ACTION  (gtk_radio_action_get_type ())
#define GTK_TYPE_RADIO_BUTTON   (gtk_radio_button_get_type ())
#define GTK_TYPE_RADIO_MENU_ITEM (gtk_radio_menu_item_get_type ())
#define GTK_TYPE_RADIO_TOOL_BUTTON (gtk_radio_tool_button_get_type ())
#define GTK_TYPE_RANGE         (gtk_range_get_type ())
#define GTK_TYPE_RC_FLAGS      (gtk_rc_flags_get_type())
#define GTK_TYPE_RC_STYLE      (gtk_rc_style_get_type ())
#define GTK_TYPE_RC_TOKEN_TYPE (gtk_rc_token_type_get_type())
#define GTK_TYPE_RECENT_CHOOSER_DIALOG (gtk_recent_chooser_dialog_get_type ())
#define GTK_TYPE_RECENT_CHOOSER_ERROR (gtk_recent_chooser_error_get_type ())

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#define GTK_RECENT_CHOOSER_ERROR      (gtk_recent_chooser_error_quark ())
#define GTK_TYPE_RECENT_CHOOSER      (gtk_recent_chooser_get_type ())
#define GTK_TYPE_RECENT_CHOOSER_MENU  (gtk_recent_chooser_menu_get_type ())
#define GTK_TYPE_RECENT_CHOOSER_WIDGET (gtk_recent_chooser_widget_get_type ())
#define GTK_TYPE_RECENT_FILTER_FLAGS  (gtk_recent_filter_flags_get_type ())
#define GTK_TYPE_RECENT_MANAGER_ERROR (gtk_recent_manager_error_get_type ())
#define GTK_TYPE_RECENT_SORT_TYPE     (gtk_recent_sort_type_get_type ())
#define GTK_TYPE_RELIEF_STYLE         (gtk_relief_style_get_type ())
#define GTK_TYPE_REQUISITION          (gtk_requisition_get_type ())
#define GTK_TYPE_RESIZE_MODE          (gtk_resize_mode_get_type ())
#define GTK_TYPE_RESPONSE_TYPE        (gtk_response_type_get_type ())
#define GTK_TYPE_RULER                (gtk_ruler_get_type ())
#define GTK_TYPE_SCALE                (gtk_scale_get_type ())
#define GTK_TYPE_SCROLLBAR            (gtk_scrollbar_get_type ())
#define GTK_TYPE_SCROLLED_WINDOW      (gtk_scrolled_window_get_type ())
#define GTK_TYPE_SCROLL_STEP          (gtk_scroll_step_get_type ())
#define GTK_TYPE_SCROLL_TYPE          (gtk_scroll_type_get_type ())
#define GTK_TYPE_SELECTION_DATA       (gtk_selection_data_get_type ())
#define GTK_TYPE_SELECTION_MODE       (gtk_selection_mode_get_type ())
#define GTK_TYPE_SENSITIVITY_TYPE     (gtk_sensitivity_type_get_type ())
#define GTK_TYPE_SEPARATOR            (gtk_separator_get_type ())
#define GTK_TYPE_SEPARATOR_MENU_ITEM  (gtk_separator_menu_item_get_type ())
#define GTK_TYPE_SEPARATOR_TOOL_ITEM  (gtk_separator_tool_item_get_type ())
#define GTK_TYPE_SETTINGS             (gtk_settings_get_type ())
#define GTK_TYPE_SHADOW_TYPE          (gtk_shadow_type_get_type ())
#define GTK_TYPE_SIDE_TYPE            (gtk_side_type_get_type ())
#define GTK_TYPE_SIGNAL_RUN_TYPE      (gtk_signal_run_type_get_type ())
#define GTK_TYPE_SIZE_GROUP           (gtk_size_group_get_type ())
#define GTK_TYPE_SIZE_GROUP_MODE      (gtk_size_group_mode_get_type ())
#define GTK_TYPE_SOCKET               (gtk_socket_get_type ())
#define GTK_TYPE_SORT_TYPE            (gtk_sort_type_get_type ())
#define GTK_TYPE_SPIN_BUTTON          (gtk_spin_button_get_type ())
#define GTK_TYPE_SPIN_TYPE            (gtk_spin_type_get_type ())
#define GTK_TYPE_STATE_TYPE           (gtk_state_type_get_type ())
#define GTK_TYPE_STATUSBAR            (gtk_statusbar_get_type ())
#define GTK_STYLE_ATTACHED(style)      (GTK_STYLE (style)->attach_count > 0)
#define GTK_TYPE_STYLE               (gtk_style_get_type ())
#define GTK_TYPE_SUBMENU_DIRECTION    (gtk_submenu_direction_get_type ())
#define GTK_TYPE_SUBMENU_PLACEMENT    (gtk_submenu_placement_get_type ())
#define GTK_TYPE_TABLE                (gtk_table_get_type ())
#define GTK_TYPE_TARGET_FLAGS         (gtk_target_flags_get_type ())
#define GTK_TYPE_TARGET_LIST          (gtk_target_list_get_type ())
#define GTK_TYPE_TEAROFF_MENU_ITEM    (gtk_tearoff_menu_item_get_type ())
#define GTK_TYPE_TEXT_ATTRIBUTES      (gtk_text_attributes_get_type ())
#define GTK_TYPE_TEXT_BUFFER          (gtk_text_buffer_get_type ())
#define GTK_TYPE_TEXT_BUFFER_TARGET_INFO (gtk_text_buffer_target_info_get_type ())
#define GTK_TYPE_TEXT_CHILD_ANCHOR    (gtk_text_child_anchor_get_type ())
#define GTK_TYPE_TEXT_DIRECTION       (gtk_text_direction_get_type ())
#define GTK_TYPE_TEXT_ITER            (gtk_text_iter_get_type ())
#define GTK_TYPE_TEXT_MARK            (gtk_text_mark_get_type ())
#define GTK_TYPE_TEXT_SEARCH_FLAGS    (gtk_text_search_flags_get_type ())
#define GTK_TYPE_TEXT_TAG             (gtk_text_tag_get_type ())
#define GTK_TYPE_TEXT_TAG_TABLE       (gtk_text_tag_table_get_type ())
#define GTK_TYPE_TEXT_VIEW            (gtk_text_view_get_type ())
#define GTK_TYPE_TEXT_WINDOW_TYPE     (gtk_text_window_type_get_type ())
#define GTK_TYPE_TOGGLE_ACTION        (gtk_toggle_action_get_type ())
#define GTK_TYPE_TOGGLE_BUTTON        (gtk_toggle_button_get_type ())
#define GTK_TYPE_TOGGLE_TOOL_BUTTON   (gtk_toggle_tool_button_get_type ())
#define GTK_TYPE_TOOLBAR_CHILD_TYPE   (gtk_toolbar_child_type_get_type ())
#define GTK_TYPE_TOOLBAR              (gtk_toolbar_get_type ())
#define GTK_TYPE_TOOLBAR_SPACE_STYLE  (gtk_toolbar_space_style_get_type ())
#define GTK_TYPE_TOOLBAR_STYLE        (gtk_toolbar_style_get_type ())

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#define GTK_TYPE_TOOLTIPS      (gtk_tooltips_get_type ())
#define GTK_TYPE_TOOL_BUTTON  (gtk_tool_button_get_type ())
#define GTK_TYPE_TOOL_ITEM    (gtk_tool_item_get_type ())
#define GTK_TYPE_TREE_DRAG_DEST (gtk_tree_drag_dest_get_type ())
#define GTK_TYPE_TREE_DRAG_SOURCE (gtk_tree_drag_source_get_type ())
#define GTK_TYPE_TREE_ITER     (gtk_tree_iter_get_type ())
#define GTK_TYPE_TREE_MODEL_FILTER (gtk_tree_model_filter_get_type ())
#define GTK_TYPE_TREE_MODEL_FLAGS (gtk_tree_model_flags_get_type ())
#define GTK_TYPE_TREE_MODEL    (gtk_tree_model_get_type ())
#define GTK_TYPE_TREE_MODEL_SORT (gtk_tree_model_sort_get_type ())
#define GTK_TYPE_TREE_PATH     (gtk_tree_path_get_type ())
#define GTK_TYPE_TREE_ROW_REFERENCE (gtk_tree_row_reference_get_type ())
#define GTK_TYPE_TREE_SELECTION (gtk_tree_selection_get_type ())
#define GTK_TYPE_TREE_SORTABLE (gtk_tree_sortable_get_type ())
#define GTK_TYPE_TREE_STORE    (gtk_tree_store_get_type ())
#define GTK_TYPE_TREE_VIEW_COLUMN (gtk_tree_view_column_get_type ())
#define GTK_TYPE_TREE_VIEW     (gtk_tree_view_get_type ())
#define GTK_TYPE_TREE_VIEW_GRID_LINES (gtk_tree_view_grid_lines_get_type ())
#define GTK_TYPE_TREE_VIEW_MODE (gtk_tree_view_mode_get_type ())
#define GTK_TYPE_UI_MANAGER    (gtk_ui_manager_get_type ())
#define GTK_TYPE_UNIT          (gtk_unit_get_type ())
#define GTK_TYPE_UPDATE_TYPE   (gtk_update_type_get_type ())
#define GTK_TYPE_VBOX          (gtk_vbox_get_type ())
#define GTK_TYPE_VBUTTON_BOX   (gtk_vbutton_box_get_type ())
#define GTK_TYPE_VIEWPORT      (gtk_viewport_get_type ())
#define GTK_TYPE_VISIBILITY    (gtk_visibility_get_type ())
#define GTK_TYPE_VPANED        (gtk_vpaned_get_type ())
#define GTK_TYPE_VRULER        (gtk_vruler_get_type ())
#define GTK_TYPE_VSCALE        (gtk_vscale_get_type ())
#define GTK_TYPE_VSCROLLBAR    (gtk_vscrollbar_get_type ())
#define GTK_TYPE_VSEPARATOR    (gtk_vseparator_get_type ())
#define GTK_WIDGET_SAVED_STATE(wid) (GTK_WIDGET (wid)->saved_state)
#define GTK_WIDGET_STATE(wid)      (GTK_WIDGET (wid)->state)
#define GTK_TYPE_WIDGET_FLAGS    (gtk_widget_flags_get_type ())
#define GTK_TYPE_WIDGET         (gtk_widget_get_type ())
#define GTK_TYPE_WIDGET_HELP_TYPE (gtk_widget_help_type_get_type ())
#define GTK_TYPE_WINDOW         (gtk_window_get_type ())
#define GTK_TYPE_WINDOW_GROUP    (gtk_window_group_get_type ())
#define GTK_TYPE_WINDOW_POSITION (gtk_window_position_get_type ())
#define GTK_TYPE_WINDOW_TYPE     (gtk_window_type_get_type ())
#define GTK_TYPE_WRAP_MODE       (gtk_wrap_mode_get_type ())
#define GTK_PRIORITY_RESIZE      (G_PRIORITY_HIGH_IDLE + 10)
#define GTK_ASSISTANT_CLASS(c)   (G_TYPE_CHECK_CLASS_CAST ((c), GTK_TYPE_ASSISTANT, GtkAssistantClass))
#define GTK_CELL_RENDERER_ACCEL_CLASS(klass) (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_CELL_RENDERER_ACCEL, GtkCellRendererAccelClass))
#define GTK_CELL_RENDERER_SPIN_CLASS(klass)  (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_CELL_RENDERER_SPIN, GtkCellRendererSpinClass))
#define GTK_LINK_BUTTON_CLASS(klass)         (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_LINK_BUTTON, GtkLinkButtonClass))
#define GTK_PRINT_OPERATION_CLASS(klass)      (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_PRINT_OPERATION, GtkPrintOperationClass))
#define GTK_RECENT_CHOOSER_DIALOG_CLASS(klass) (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RECENT_CHOOSER_DIALOG, GtkRecentChooserDialogClass))
#define GTK_RECENT_CHOOSER_MENU_CLASS(klass)  (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RECENT_CHOOSER_MENU, GtkRecentChooserMenuClass))
#define GTK_RECENT_CHOOSER_WIDGET_CLASS(klass) (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RECENT_CHOOSER_WIDGET, GtkRecentChooserWidgetClass))
#define GTK_IS_ASSISTANT_CLASS(c)             (G_TYPE_CHECK_CLASS_TYPE ((c), GTK_TYPE_ASSISTANT))
#define GTK_IS_CELL_RENDERER_ACCEL_CLASS(klass) (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CELL_RENDERER_ACCEL))
#define GTK_IS_CELL_RENDERER_SPIN_CLASS(klass) (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_CELL_RENDERER_SPIN))
#define GTK_IS_LINK_BUTTON_CLASS(klass)       (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_LINK_BUTTON))
#define GTK_IS_PRINT_OPERATION_CLASS(klass)   (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_PRINT_OPERATION))
#define GTK_IS_RECENT_CHOOSER_DIALOG_CLASS(klass) (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RECENT_CHOOSER_DIALOG))
#define GTK_IS_RECENT_CHOOSER_MENU_CLASS(klass) (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RECENT_CHOOSER_MENU))
#define GTK_IS_RECENT_CHOOSER_WIDGET_CLASS(klass) (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RECENT_CHOOSER_WIDGET))
#define GTK_ASSISTANT(o)                   (G_TYPE_CHECK_INSTANCE_CAST ((o), GTK_TYPE_ASSISTANT, GtkAssistant))
#define GTK_CELL_RENDERER_ACCEL(obj)       (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_RENDERER_ACCEL, GtkCellRendererAccel))
#define GTK_CELL_RENDERER_SPIN(obj)        (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_CELL_RENDERER_SPIN, GtkCellRendererSpin))
#define GTK_LINK_BUTTON(obj)               (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_LINK_BUTTON, GtkLinkButton))

```


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```
#define GTK_PAGE_SETUP(obj)      (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_PAGE_SETUP, GtkPageS
#define GTK_PRINT_CONTEXT(obj)   (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_PRINT_CONTEXT, GtkPr
#define GTK_PRINT_OPERATION(obj) (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_PRINT_OPERAT
#define GTK_PRINT_SETTINGS(obj)  (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_PRINT_SETTINGS, GtkP
#define GTK_RECENT_CHOOSER(obj)  (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RECENT_CHOOSER, GtkR
#define GTK_RECENT_CHOOSER_DIALOG(obj) (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RECENT_CHOOS
#define GTK_RECENT_CHOOSER_MENU(obj) (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RECENT_CHOOS
#define GTK_RECENT_CHOOSER_WIDGET(obj) (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RECENT_CHOOS
#define GTK_IS_ASSISTANT(o)      (G_TYPE_CHECK_INSTANCE_TYPE ((o), GTK_TYPE_ASSISTANT))
#define GTK_IS_BIN(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_BIN))
#define GTK_IS_BOX(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_BOX))
#define GTK_IS_CELL_RENDERER_ACCEL(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_RENDERE
#define GTK_IS_CELL_RENDERER_SPIN(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_CELL_RENDERE
#define GTK_IS_LINK_BUTTON(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_LINK_BUTTON))
#define GTK_IS_PAGE_SETUP(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_PAGE_SETUP))
#define GTK_IS_PRINT_CONTEXT(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_PRINT_CONTEXT)
#define GTK_IS_PRINT_OPERATION(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_PRINT_OPERAT
#define GTK_IS_PRINT_SETTINGS(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_PRINT_SETTIN
#define GTK_IS_RECENT_CHOOSER(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RECENT_CHOOS
#define GTK_IS_RECENT_CHOOSER_DIALOG(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RECH
#define GTK_IS_RECENT_CHOOSER_MENU(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RECENT_CHOOS
#define GTK_IS_RECENT_CHOOSER_WIDGET(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RECH
#define GTK_OBJECT_TYPE(object) (G_TYPE_FROM_INSTANCE (object))
#define GTK_ASSISTANT_GET_CLASS(o) (G_TYPE_INSTANCE_GET_CLASS ((o), GTK_TYPE_ASSISTANT, GtkA
#define GTK_CELL_RENDERER_ACCEL_GET_CLASS(obj) (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CELL
#define GTK_CELL_RENDERER_SPIN_GET_CLASS(obj) (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_CELL
#define GTK_LINK_BUTTON_GET_CLASS(obj) (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_LINK_BUTTON,
#define GTK_PRINT_OPERATION_GET_CLASS(obj) (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_PRINT
#define GTK_RECENT_CHOOSER_DIALOG_GET_CLASS(obj) (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TY
#define GTK_RECENT_CHOOSER_MENU_GET_CLASS(obj) (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_RECE
#define GTK_RECENT_CHOOSER_WIDGET_GET_CLASS(obj) (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TY
#define GTK_RECENT_CHOOSER_GET_IFACE(inst) (G_TYPE_INSTANCE_GET_INTERFACE ((inst), GTK_TYPE_
#define GTK_BUTTONBOX_DEFAULT -1
#define GTK_INPUT_ERROR -1
#define GTK_PATH_PRIO_MASK 0x0f
#define GTK_MINOR_VERSION 10
#define GTK_BINARY_AGE 1004
#define GTK_INTERFACE_AGE 4
#define GTK_MICRO_VERSION 4
#define GTK_MAX_COMPOSE_LEN 7
#define GTK_PRINT_SETTINGS_COLLATE "collate"
#define GTK_PRINT_SETTINGS_DEFAULT_SOURCE "default-source"
#define GTK_PRINT_SETTINGS_DITHER "dither"
#define GTK_PRINT_SETTINGS_DUPLEX "duplex"
#define GTKMAIN_C_VAR extern
#define GTKVAR extern
#define GTK_PRINT_SETTINGS_FINISHINGS "finishings"
#define GTK_STOCK_ABOUT "gtk-about"
#define GTK_STOCK_ADD "gtk-add"
#define GTK_STOCK_APPLY "gtk-apply"
#define GTK_STOCK_BOLD "gtk-bold"
#define GTK_STOCK_CANCEL "gtk-cancel"
#define GTK_STOCK_CDROM "gtk-cdrom"
#define GTK_STOCK_CLEAR "gtk-clear"
#define GTK_STOCK_CLOSE "gtk-close"
#define GTK_STOCK_COLOR_PICKER "gtk-color-picker"
#define GTK_STOCK_CONNECT "gtk-connect"
#define GTK_STOCK_CONVERT "gtk-convert"
#define GTK_STOCK_COPY "gtk-copy"
#define GTK_STOCK_CUT "gtk-cut"
#define GTK_STOCK_DELETE "gtk-delete"
#define GTK_STOCK_DIALOG_AUTHENTICATION "gtk-dialog-authentication"
```

```

#define GTK_STOCK_DIALOG_ERROR    "gtk-dialog-error"
#define GTK_STOCK_DIALOG_INFO    "gtk-dialog-info"
#define GTK_STOCK_DIALOG_QUESTION "gtk-dialog-question"
#define GTK_STOCK_DIALOG_WARNING "gtk-dialog-warning"
#define GTK_STOCK_DIRECTORY      "gtk-directory"
#define GTK_STOCK_DISCONNECT     "gtk-disconnect"
#define GTK_STOCK_DND            "gtk-dnd"
#define GTK_STOCK_DND_MULTIPLE   "gtk-dnd-multiple"
#define GTK_STOCK_EDIT           "gtk-edit"
#define GTK_STOCK_EXECUTE        "gtk-execute"
#define GTK_STOCK_FILE           "gtk-file"
#define GTK_STOCK_FIND           "gtk-find"
#define GTK_STOCK_FIND_AND_REPLACE "gtk-find-and-replace"
#define GTK_STOCK_FLOPPY        "gtk-floppy"
#define GTK_STOCK_FULLSCREEN     "gtk-fullscreen"
#define GTK_STOCK_GO_BACK       "gtk-go-back"
#define GTK_STOCK_GO_DOWN       "gtk-go-down"
#define GTK_STOCK_GO_FORWARD     "gtk-go-forward"
#define GTK_STOCK_GO_UP         "gtk-go-up"
#define GTK_STOCK_GOTO_BOTTOM    "gtk-goto-bottom"
#define GTK_STOCK_GOTO_FIRST     "gtk-goto-first"
#define GTK_STOCK_GOTO_LAST      "gtk-goto-last"
#define GTK_STOCK_GOTO_TOP       "gtk-goto-top"
#define GTK_STOCK_HARDDISK       "gtk-harddisk"
#define GTK_STOCK_HELP          "gtk-help"
#define GTK_STOCK_HOME           "gtk-home"
#define GTK_STOCK_INDENT         "gtk-indent"
#define GTK_STOCK_INDEX          "gtk-index"
#define GTK_STOCK_INFO           "gtk-info"
#define GTK_STOCK_ITALIC         "gtk-italic"
#define GTK_STOCK_JUMP_TO        "gtk-jump-to"
#define GTK_STOCK_JUSTIFY_CENTER "gtk-justify-center"
#define GTK_STOCK_JUSTIFY_FILL   "gtk-justify-fill"
#define GTK_STOCK_JUSTIFY_LEFT   "gtk-justify-left"
#define GTK_STOCK_JUSTIFY_RIGHT  "gtk-justify-right"
#define GTK_STOCK_LEAVE_FULLSCREEN "gtk-leave-fullscreen"
#define GTK_STOCK_MEDIA_FORWARD  "gtk-media-forward"
#define GTK_STOCK_MEDIA_NEXT     "gtk-media-next"
#define GTK_STOCK_MEDIA_PAUSE    "gtk-media-pause"
#define GTK_STOCK_MEDIA_PLAY     "gtk-media-play"
#define GTK_STOCK_MEDIA_PREVIOUS "gtk-media-previous"
#define GTK_STOCK_MEDIA_RECORD   "gtk-media-record"
#define GTK_STOCK_MEDIA_REWIND   "gtk-media-rewind"
#define GTK_STOCK_MEDIA_STOP     "gtk-media-stop"
#define GTK_STOCK_MISSING_IMAGE  "gtk-missing-image"
#define GTK_STOCK_NETWORK        "gtk-network"
#define GTK_STOCK_NEW            "gtk-new"
#define GTK_STOCK_NO             "gtk-no"
#define GTK_STOCK_OK             "gtk-ok"
#define GTK_STOCK_OPEN           "gtk-open"
#define GTK_STOCK_PASTE          "gtk-paste"
#define GTK_STOCK_PREFERENCES    "gtk-preferences"
#define GTK_STOCK_PRINT          "gtk-print"
#define GTK_STOCK_PRINT_PREVIEW  "gtk-print-preview"
#define GTK_STOCK_PROPERTIES     "gtk-properties"
#define GTK_STOCK_QUIT           "gtk-quit"
#define GTK_STOCK_REDO           "gtk-redo"
#define GTK_STOCK_REFRESH        "gtk-refresh"
#define GTK_STOCK_REMOVE         "gtk-remove"
#define GTK_STOCK_REVERT_TO_SAVED "gtk-revert-to-saved"
#define GTK_STOCK_SAVE           "gtk-save"
#define GTK_STOCK_SAVE_AS        "gtk-save-as"

```

```

#define GTK_STOCK_SELECT_ALL      "gtk-select-all"
#define GTK_STOCK_SELECT_COLOR    "gtk-select-color"
#define GTK_STOCK_SELECT_FONT     "gtk-select-font"
#define GTK_STOCK_SORT_ASCENDING  "gtk-sort-ascending"
#define GTK_STOCK_SORT_DESCENDING "gtk-sort-descending"
#define GTK_STOCK_SPELL_CHECK     "gtk-spell-check"
#define GTK_STOCK_STOP            "gtk-stop"
#define GTK_STOCK_STRIKETHROUGH   "gtk-strikethrough"
#define GTK_STOCK_UNDELETE        "gtk-undo"
#define GTK_STOCK_UNDERLINE       "gtk-underline"
#define GTK_STOCK_UNDO            "gtk-undo"
#define GTK_STOCK_UNINDENT        "gtk-unindent"
#define GTK_STOCK_YES             "gtk-yes"
#define GTK_STOCK_ZOOM_100        "gtk-zoom-100"
#define GTK_STOCK_ZOOM_FIT        "gtk-zoom-fit"
#define GTK_STOCK_ZOOM_IN         "gtk-zoom-in"
#define GTK_STOCK_ZOOM_OUT        "gtk-zoom-out"
#define gtk_accel_label_accelerator_width  gtk_accel_label_get_accel_width
#define gtk_binding_entry_add      gtk_binding_entry_clear
#define GTK_ICON_THEME_ERROR       gtk_icon_theme_error_quark ()
#define GTK_PRINT_ERROR           gtk_print_error_quark ()
#define GTK_SIGNAL_FUNC(f)        G_CALLBACK(f)
#define GTK_CHECK_CLASS_CAST      G_TYPE_CHECK_CLASS_CAST
#define GTK_CHECK_CLASS_TYPE      G_TYPE_CHECK_CLASS_TYPE
#define GTK_CHECK_CAST            G_TYPE_CHECK_INSTANCE_CAST
#define GTK_CHECK_TYPE            G_TYPE_CHECK_INSTANCE_TYPE
#define GTK_CHECK_GET_CLASS       G_TYPE_INSTANCE_GET_CLASS
#define GTK_PAPER_NAME_A3         "iso_a3"
#define GTK_PAPER_NAME_A4         "iso_a4"
#define GTK_PAPER_NAME_A5         "iso_a5"
#define GTK_PAPER_NAME_B5         "iso_b5"
#define GTK_PRINT_SETTINGS_MEDIA_TYPE  "media-type"
#define GTK_PRINT_SETTINGS_N_COPIES   "n-copies"
#define GTK_PAPER_NAME_EXECUTIVE     "na_executive"
#define GTK_PAPER_NAME_LEGAL         "na_legal"
#define GTK_PAPER_NAME_LETTER        "na_letter"
#define GTK_PRINT_SETTINGS_NUMBER_UP  "number-up"
#define GTK_PRINT_SETTINGS_NUMBER_UP_LAYOUT  "number-up-layout"
#define GTK_PRINT_SETTINGS_ORIENTATION  "orientation"
#define GTK_PRINT_SETTINGS_OUTPUT_BIN  "output-bin"
#define GTK_PRINT_SETTINGS_OUTPUT_FILE_FORMAT  "output-file-format"
#define GTK_PRINT_SETTINGS_OUTPUT_URI  "output-uri"
#define GTK_PRINT_SETTINGS_PAGE_RANGES  "page-ranges"
#define GTK_PRINT_SETTINGS_PAGE_SET    "page-set"
#define GTK_PRINT_SETTINGS_PAPER_FORMAT  "paper-format"
#define GTK_PRINT_SETTINGS_PAPER_HEIGHT  "paper-height"
#define GTK_PRINT_SETTINGS_PAPER_WIDTH  "paper-width"
#define GTK_PRINT_SETTINGS_PRINT_PAGES  "print-pages"
#define GTK_PRINT_SETTINGS_PRINTER     "printer"
#define GTK_PRINT_SETTINGS_PRINTER_LPI  "printer-lpi"
#define GTK_PRINT_SETTINGS_QUALITY      "quality"
#define GTK_PRINT_SETTINGS_RESOLUTION  "resolution"
#define GTK_PRINT_SETTINGS_RESOLUTION_X  "resolution-x"
#define GTK_PRINT_SETTINGS_RESOLUTION_Y  "resolution-y"
#define GTK_PRINT_SETTINGS_REVERSE      "reverse"
#define GTK_PRINT_SETTINGS_SCALE        "scale"
#define GTK_PRINT_SETTINGS_USE_COLOR    "use-color"
#define GTK_PRINT_SETTINGS_WIN32_DRIVER_EXTRA  "win32-driver-extra"
#define GTK_PRINT_SETTINGS_WIN32_DRIVER_VERSION  "win32-driver-version"

typedef struct _GtkIconSet GtkIconSet;
typedef struct _GtkObject {

```

```

    GObject parent_instance;
    guint32 flags;
} GtkWidget;

typedef enum {
    GTK_RC_FG = 1,
    GTK_RC_BG = 2,
    GTK_RC_TEXT = 4,
    GTK_RC_BASE = 8
} GtkRcFlags;

typedef struct _GtkRcStyle {
    GObject parent_instance;
    gchar *name;
    gchar *bg_pixmap_name[5];
    PangoFontDescription *font_desc;
    GtkRcFlags color_flags[5];
    GdkColor fg[5];
    GdkColor bg[5];
    GdkColor text[5];
    GdkColor base[5];
    gint xthickness;
    gint ythickness;
    GArray *rc_properties;
    GSList *rc_style_lists;
    GSList *icon_factories;
    guint engine_specified:1;
} GtkRcStyle;

typedef struct _GtkStyle {
    GObject parent_instance;
    GdkColor fg[5];
    GdkColor bg[5];
    GdkColor light[5];
    GdkColor dark[5];
    GdkColor mid[5];
    GdkColor text[5];
    GdkColor base[5];
    GdkColor text_aa[5];
    GdkColor black;
    GdkColor white;
    PangoFontDescription *font_desc;
    gint xthickness;
    gint ythickness;
    GdkGC *fg_gc[5];
    GdkGC *bg_gc[5];
    GdkGC *light_gc[5];
    GdkGC *dark_gc[5];
    GdkGC *mid_gc[5];
    GdkGC *text_gc[5];
    GdkGC *base_gc[5];
    GdkGC *text_aa_gc[5];
    GdkGC *black_gc;
    GdkGC *white_gc;
    GdkPixmap *bg_pixmap[5];
    gint attach_count;
    gint depth;
    GdkColormap *colormap;
    GdkFont *private_font;
    PangoFontDescription *private_font_desc;
    GtkRcStyle *rc_style;
    GSList *styles;
    GArray *property_cache;
    GSList *icon_factories;
} GtkStyle;

```

```

typedef struct _GtkRequisition {
    gint width;
    gint height;
} GtkRequisition;
typedef GdkRectangle GtkAllocation;
typedef struct _GtkWidget {
    GObject object;
    guint16 private_flags;
    guint8 state;
    guint8 saved_state;
    gchar *name;
    GtkStyle *style;
    GtkRequisition requisition;
    GtkAllocation allocation;
    GdkWindow *window;
    GtkWidget *parent;
} GtkWidget;
typedef struct _GtkAdjustment {
    GObject parent_instance;
    gdouble lower;
    gdouble upper;
    gdouble value;
    gdouble step_increment;
    gdouble page_increment;
    gdouble page_size;
} GtkAdjustment;
typedef struct _GtkProgress {
    GtkWidget widget;
    GtkAdjustment *adjustment;
    GdkPixmap *offscreen_pixmap;
    gchar *format;
    gfloat x_align;
    gfloat y_align;
    guint show_text:1;
    guint activity_mode:1;
    guint use_text_format:1;
} GtkProgress;
typedef enum {
    GTK_PROGRESS_CONTINUOUS = 0,
    GTK_PROGRESS_DISCRETE = 1
} GtkProgressBarStyle;
typedef enum {
    GTK_PROGRESS_LEFT_TO_RIGHT = 0,
    GTK_PROGRESS_RIGHT_TO_LEFT = 1,
    GTK_PROGRESS_BOTTOM_TO_TOP = 2,
    GTK_PROGRESS_TOP_TO_BOTTOM = 3
} GtkProgressBarOrientation;
typedef struct _GtkProgressBar {
    GtkProgress progress;
    GtkProgressBarStyle bar_style;
    GtkProgressBarOrientation orientation;
    guint blocks;
    gint in_block;
    gint activity_pos;
    guint activity_step;
    guint activity_blocks;
    gdouble pulse_fraction;
    guint activity_dir:1;
    guint ellipsize:3;
} GtkProgressBar;
typedef struct _GtkTextTagTable {
    GObject parent_instance;

```

```

    GHashTable *hash;
    GSList *anonymous;
    gint anon_count;
    GSList *buffers;
} GtkTextTagTable;
typedef struct _GtkTextBTree GtkTextBTree;
typedef struct _GtkTextLogAttrCache GtkTextLogAttrCache;
typedef struct _GtkTextBuffer {
    GObject parent_instance;
    GtkTextTagTable *tag_table;
    GtkTextBTree *btree;
    GSList *clipboard_contents_buffers;
    GSList *selection_clipboards;
    GtkTextLogAttrCache *log_attr_cache;
    guint user_action_count;
    guint modified:1;
} GtkTextBuffer;
typedef struct _GtkTextIter {
    gpointer dummy1;
    gpointer dummy2;
    gint dummy3;
    gint dummy4;
    gint dummy5;
    gint dummy6;
    gint dummy7;
    gint dummy8;
    gpointer dummy9;
    gpointer dummy10;
    gint dummy11;
    gint dummy12;
    gint dummy13;
    gpointer dummy14;
} GtkTextIter;
typedef GType GtkType;
typedef struct _GtkContainer {
    GtkWidget widget;
    GtkWidget *focus_child;
    guint border_width:16;
    guint need_resize:1;
    guint resize_mode:2;
    guint reallocate_redraws:1;
    guint has_focus_chain:1;
} GtkContainer;
typedef struct _GtkBin {
    GtkContainer container;
    GtkWidget *child;
} GtkBin;
typedef struct _GtkComboBoxPrivate GtkComboBoxPrivate;
typedef struct _GtkComboBox {
    GtkBin parent_instance;
    GtkComboBoxPrivate *priv;
} GtkComboBox;
typedef struct _GtkMisc {
    GtkWidget widget;
    gfloat xalign;
    gfloat yalign;
    guint16 xpad;
    guint16 ypad;
} GtkMisc;
typedef struct _GtkBox {
    GtkContainer container;
    GList *children;

```

```

    guint16 spacing;
    guint homogeneous:1;
} GtkWidget;
typedef struct _GtkHBox {
    GtkWidget box;
} GtkHBox;
typedef struct _GtkStatusbar {
    GtkHBox parent_widget;
    GtkWidget *frame;
    GtkWidget *label;
    GSList *messages;
    GSList *keys;
    guint seq_context_id;
    guint seq_message_id;
    GdkWindow *grip_window;
    guint has_resize_grip:1;
} GtkStatusbar;
typedef struct _GtkTargetList {
    GList *list;
    guint ref_count;
} GtkTargetList;
typedef struct _GtkWindow {
    GtkBin bin;
    gchar *title;
    gchar *wmclass_name;
    gchar *wmclass_class;
    gchar *wm_role;
    GtkWidget *focus_widget;
    GtkWidget *default_widget;
    GtkWindow *transient_parent;
    GtkWindowGeometryInfo *geometry_info;
    GdkWindow *frame;
    GtkWindowGroup *group;
    guint16 configure_request_count;
    guint allow_shrink:1;
    guint allow_grow:1;
    guint configure_notify_received:1;
    guint need_default_position:1;
    guint need_default_size:1;
    guint position:3;
    guint type:4;
    guint has_user_ref_count:1;
    guint has_focus:1;
    guint modal:1;
    guint destroy_with_parent:1;
    guint has_frame:1;
    guint iconify_initially:1;
    guint stick_initially:1;
    guint maximize_initially:1;
    guint decorated:1;
    guint type_hint:3;
    guint gravity:5;
    guint is_active:1;
    guint has_toplevel_focus:1;
    guint frame_left;
    guint frame_top;
    guint frame_right;
    guint frame_bottom;
    guint keys_changed_handler;
    GdkModifierType mnemonic_modifier;
    GdkScreen *screen;
} GtkWindow;

```

```

typedef struct _GtkWindowGeometryInfo GtkWindowGeometryInfo;
typedef struct _GtkWindowGroup {
    GObject parent_instance;
    GSList *grabs;
} GtkWindowGroup;
typedef struct _GtkTreeRowReference GtkTreeRowReference;
typedef enum {
    GTK_TREE_MODEL_ITERS_PERSIST = 1,
    GTK_TREE_MODEL_LIST_ONLY = 2
} GtkTreeModelFlags;
typedef struct _GtkTreeModel GtkTreeModel;
typedef struct _GtkTargetEntry {
    gchar *target;
    guint flags;
    guint info;
} GtkTargetEntry;
typedef struct _GtkIMContext {
    GObject parent_instance;
} GtkIMContext;
typedef struct _GtkEntry {
    GtkWidget widget;
    gchar *text;
    guint editable:1;
    guint visible:1;
    guint overwrite_mode:1;
    guint in_drag:1;
    guint16 text_length;
    guint16 text_max_length;
    GdkWindow *text_area;
    GtkIMContext *im_context;
    GtkWidget *popup_menu;
    gint current_pos;
    gint selection_bound;
    PangoLayout *cached_layout;
    guint cache_includes_preedit:1;
    guint need_im_reset:1;
    guint has_frame:1;
    guint activates_default:1;
    guint cursor_visible:1;
    guint in_click:1;
    guint is_cell_renderer:1;
    guint editing_canceled:1;
    guint mouse_cursor_obscured:1;
    guint select_words:1;
    guint select_lines:1;
    guint resolved_dir:4;
    guint truncate_multiline:1;
    guint button;
    guint blink_timeout;
    guint recompute_idle;
    gint scroll_offset;
    gint ascent;
    gint descent;
    guint16 text_size;
    guint16 n_bytes;
    guint16 preedit_length;
    guint16 preedit_cursor;
    gint dnd_position;
    gint drag_start_x;
    gint drag_start_y;
    gunichar invisible_char;
    gint width_chars;

```



```

} GtkEntry;
typedef struct _GtkComboBoxEntryPrivate GtkComboBoxEntryPrivate;
typedef struct _GtkComboBoxEntry {
    GtkComboBox parent_instance;
    GtkComboBoxEntryPrivate *priv;
} GtkComboBoxEntry;
typedef struct _GtkLayout {
    GtkContainer container;
    GList *children;
    guint width;
    guint height;
    GtkAdjustment *hadjustment;
    GtkAdjustment *vadjustment;
    GdkWindow *bin_window;
    GdkVisibilityState visibility;
    gint scroll_x;
    gint scroll_y;
    guint freeze_count;
} GtkLayout;
typedef struct _GtkTreeIter {
    gint stamp;
    gpointer user_data;
    gpointer user_data2;
    gpointer user_data3;
} GtkTreeIter;
typedef gint (*GtkTreeIterCompareFunc) (GtkTreeModel *, GtkTreeIter *,
                                         GtkTreeIter *, gpointer);
typedef void (*GtkDestroyNotify) (gpointer);
typedef struct _GtkTreeStore {
    GObject parent;
    gint stamp;
    gpointer root;
    gpointer last;
    gint n_columns;
    gint sort_column_id;
    GList *sort_list;
    GtkSortType order;
    GType *column_headers;
    GtkTreeIterCompareFunc default_sort_func;
    gpointer default_sort_data;
    GtkDestroyNotify default_sort_destroy;
    guint columns_dirty:1;
} GtkTreeStore;
typedef struct _GtkDialog {
    GtkWindow window;
    GtkWidget *vbox;
    GtkWidget *action_area;
    GtkWidget *separator;
} GtkDialog;
typedef struct _GtkAboutDialog {
    GtkDialog parent_instance;
    gpointer private_data;
} GtkAboutDialog;
typedef void (*GtkAboutDialogActivateLinkFunc) (GtkAboutDialog *,
                                                  const gchar *, gpointer);
typedef struct _GtkTreeSortable GtkTreeSortable;
typedef struct _GtkRangeLayout GtkRangeLayout;
typedef struct _GtkRangeStepTimer GtkRangeStepTimer;
typedef struct _GtkRange {
    GtkWidget widget;
    GtkAdjustment *adjustment;
    GtkUpdateType update_policy;

```

```

    guint inverted:1;
    guint flippable:1;
    guint has_stepper_a:1;
    guint has_stepper_b:1;
    guint has_stepper_c:1;
    guint has_stepper_d:1;
    guint need_recalc:1;
    guint slider_size_fixed:1;
    gint min_slider_size;
    GtkOrientation orientation;
    GdkRectangle range_rect;
    gint slider_start;
    gint slider_end;
    gint round_digits;
    guint trough_click_forward:1;
    guint update_pending:1;
    GtkRangeLayout *layout;
    GtkRangeStepTimer *timer;
    gint slide_initial_slider_position;
    gint slide_initial_coordinate;
    guint update_timeout_id;
    GdkWindow *event_window;
} GtkRange;
typedef struct _GtkAccelKey {
    guint accel_key;
    GdkModifierType accel_mods;
    guint accel_flags:16;
} GtkAccelKey;
typedef struct _GtkAccelGroupEntry {
    GtkAccelKey key;
    GClosure *closure;
    GQuark accel_path_quark;
} GtkAccelGroupEntry;
typedef struct _GtkAccelGroup {
    GObject parent;
    guint lock_count;
    GdkModifierType modifier_mask;
    GSList *acceleratables;
    guint n_accels;
    GtkAccelGroupEntry *priv_accels;
} GtkAccelGroup;
typedef struct _GtkSocket {
    GtkContainer container;
    guint16 request_width;
    guint16 request_height;
    guint16 current_width;
    guint16 current_height;
    GdkWindow *plug_window;
    GtkWidget *plug_widget;
    gshort xembed_version;
    guint same_app:1;
    guint focus_in:1;
    guint have_size:1;
    guint need_map:1;
    guint is_mapped:1;
    guint active:1;
    GtkAccelGroup *accel_group;
    GtkWidget *toplevel;
} GtkSocket;
typedef struct _GtkCellEditable GtkCellEditable;
typedef enum {
    GTK_TREE_VIEW_COLUMN_GROW_ONLY = 0,

```

```

    GTK_TREE_VIEW_COLUMN_AUTOSIZE = 1,
    GTK_TREE_VIEW_COLUMN_FIXED = 2
} GtkTreeViewColumnSizing;
typedef struct _GtkTreeViewColumn {
    GObject parent;
    GtkWidget *tree_view;
    GtkWidget *button;
    GtkWidget *child;
    GtkWidget *arrow;
    GtkWidget *alignment;
    GdkWindow *window;
    GtkCellEditable *editable_widget;
    gfloat xalign;
    guint property_changed_signal;
    gint spacing;
    GtkTreeViewColumnSizing column_type;
    gint requested_width;
    gint button_request;
    gint resized_width;
    gint width;
    gint fixed_width;
    gint min_width;
    gint max_width;
    gint drag_x;
    gint drag_y;
    gchar *title;
    GList *cell_list;
    guint sort_clicked_signal;
    guint sort_column_changed_signal;
    gint sort_column_id;
    GtkSortType sort_order;
    guint visible:1;
    guint resizable:1;
    guint clickable:1;
    guint dirty:1;
    guint show_sort_indicator:1;
    guint maybe_reordered:1;
    guint reorderable:1;
    guint use_resized_width:1;
    guint expand:1;
} GtkTreeViewColumn;
typedef struct _GtkCellRenderer {
    GObject parent;
    gfloat xalign;
    gfloat yalign;
    gint width;
    gint height;
    guint16 xpad;
    guint16 ypad;
    guint mode:2;
    guint visible:1;
    guint is_expander:1;
    guint is_expanded:1;
    guint cell_background_set:1;
    guint sensitive:1;
    guint editing:1;
} GtkCellRenderer;
typedef struct _GtkButtonBox {
    GtkBox box;
    gint child_min_width;
    gint child_min_height;
    gint child_ipad_x;

```

```

    gint child_ipad_y;
    GtkWidgetStyle layout_style;
} GtkWidget;
typedef struct _GtkActionPrivate GtkActionPrivate;
typedef struct _GtkAction {
    GObject object;
    GtkActionPrivate *private_data;
} GtkAction;
typedef struct _GtkToggleActionPrivate GtkToggleActionPrivate;
typedef struct _GtkToggleAction {
    GtkAction parent;
    GtkToggleActionPrivate *private_data;
} GtkToggleAction;
typedef struct _GtkTextAppearance {
    GdkColor bg_color;
    GdkColor fg_color;
    GdkBitmap *bg_stipple;
    GdkBitmap *fg_stipple;
    gint rise;
    gpointer padding1;
    guint underline:4;
    guint strikethrough:1;
    guint draw_bg:1;
    guint inside_selection:1;
    guint is_text:1;
    guint pad1:1;
    guint pad2:1;
    guint pad3:1;
    guint pad4:1;
} GtkTextAppearance;
typedef struct _GtkTextAttributes {
    guint refcount;
    GtkTextAppearance appearance;
    GtkJustification justification;
    GtkTextDirection direction;
    PangoFontDescription *font;
    gdouble font_scale;
    gint left_margin;
    gint indent;
    gint right_margin;
    gint pixels_above_lines;
    gint pixels_below_lines;
    gint pixels_inside_wrap;
    PangoTabArray *tabs;
    GtkWrapMode wrap_mode;
    PangoLanguage *language;
    gpointer padding1;
    guint invisible:1;
    guint bg_full_height:1;
    guint editable:1;
    guint realized:1;
    guint pad1:1;
    guint pad2:1;
    guint pad3:1;
    guint pad4:1;
} GtkTextAttributes;
typedef struct _GtkTextTag {
    GObject parent_instance;
    GtkTextTagTable *table;
    char *name;
    int priority;
    GtkTextAttributes *values;

```

```

    quint bg_color_set:1;
    quint bg_stipple_set:1;
    quint fg_color_set:1;
    quint scale_set:1;
    quint fg_stipple_set:1;
    quint justification_set:1;
    quint left_margin_set:1;
    quint indent_set:1;
    quint rise_set:1;
    quint strikethrough_set:1;
    quint right_margin_set:1;
    quint pixels_above_lines_set:1;
    quint pixels_below_lines_set:1;
    quint pixels_inside_wrap_set:1;
    quint tabs_set:1;
    quint underline_set:1;
    quint wrap_mode_set:1;
    quint bg_full_height_set:1;
    quint invisible_set:1;
    quint editable_set:1;
    quint language_set:1;
    quint pad1:1;
    quint pad2:1;
    quint pad3:1;
} GtkTextTag;
typedef struct _GtkFileFilter GtkFileFilter;
typedef enum {
    GTK_FILE_FILTER_FILENAME = 1,
    GTK_FILE_FILTER_URI = 2,
    GTK_FILE_FILTER_DISPLAY_NAME = 4,
    GTK_FILE_FILTER_MIME_TYPE = 8
} GtkFileFilterFlags;
typedef struct _GtkFileFilterInfo {
    GtkFileFilterFlags contains;
    const gchar *filename;
    const gchar *uri;
    const gchar *display_name;
    const gchar *mime_type;
} GtkFileFilterInfo;
typedef struct _GtkIconSource GtkIconSource;
typedef struct _GtkToolItemPrivate GtkToolItemPrivate;
typedef struct _GtkToolItem {
    GtkBin parent;
    GtkToolItemPrivate *priv;
} GtkToolItem;
typedef struct _GtkToolButtonPrivate GtkToolButtonPrivate;
typedef struct _GtkToolButton {
    GtkToolItem parent;
    GtkToolButtonPrivate *priv;
} GtkToolButton;
typedef struct _GtkIconViewPrivate GtkIconViewPrivate;
typedef struct _GtkIconView {
    GtkContainer parent;
    GtkIconViewPrivate *priv;
} GtkIconView;
typedef struct _GtkLabelSelectionInfo GtkLabelSelectionInfo;
typedef struct _GtkLabel {
    GtkMisc misc;
    gchar *label;
    quint jtype:2;
    quint wrap:1;
    quint use_underline:1;

```

```

    guint use_markup:1;
    guint ellipsize:3;
    guint mnemonic_keyval;
    gchar *text;
    PangoAttrList *attrs;
    PangoAttrList *effective_attrs;
    PangoLayout *layout;
    GtkWidget *mnemonic_widget;
    GtkWindow *mnemonic_window;
    GtkLabelSelectionInfo *select_info;
} GtkWidget;

typedef struct _GtkSettingsPropertyValue GtkSettingsPropertyValue;
typedef struct _GtkRcContext GtkRcContext;
typedef struct _GtkSettings {
    GObject parent_instance;
    GData *queued_settings;
    GtkSettingsPropertyValue *property_values;
    GtkRcContext *rc_context;
    GdkScreen *screen;
} GtkSettings;

typedef struct _GtkUIManagerPrivate GtkUIManagerPrivate;
typedef struct _GtkUIManager {
    GObject parent;
    GtkUIManagerPrivate *private_data;
} GtkUIManager;

typedef struct _GtkItem {
    GtkBin bin;
} GtkItem;

typedef struct _GtkMenuItem {
    GtkItem item;
    GtkWidget *submenu;
    GdkWindow *event_window;
    guint16 toggle_size;
    guint16 accelerator_width;
    gchar *accel_path;
    guint show_submenu_indicator:1;
    guint submenu_placement:1;
    guint submenu_direction:1;
    guint right_justify:1;
    guint timer_from_keypress:1;
    guint timer;
} GtkMenuItem;

typedef struct _GtkCheckMenuItem {
    GtkMenuItem menu_item;
    guint active:1;
    guint always_show_toggle:1;
    guint inconsistent:1;
    guint draw_as_radio:1;
} GtkCheckMenuItem;

typedef struct _GtkRadioMenuItem {
    GtkCheckMenuItem check_menu_item;
    GSList *group;
} GtkRadioMenuItem;

typedef struct _GtkCellViewPrivate GtkCellViewPrivate;
typedef struct _GtkCellView {
    GtkWidget parent_instance;
    GtkCellViewPrivate *priv;
} GtkCellView;

typedef struct _GtkSelectionData {
    GdkAtom selection;
    GdkAtom target;
    GdkAtom type;

```

```

    gint format;
    guchar *data;
    gint length;
    GdkDisplay *display;
} GtkSelectionData;
typedef struct _GtkFileChooser GtkFileChooser;
typedef struct _GtkDrawingArea {
    GtkWidget widget;
    gpointer draw_data;
} GtkDrawingArea;
typedef struct _GtkCurve {
    GtkDrawingArea graph;
    gint cursor_type;
    gfloat min_x;
    gfloat max_x;
    gfloat min_y;
    gfloat max_y;
    GdkPixmap *pixmap;
    GtkCurveType curve_type;
    gint height;
    gint grab_point;
    gint last;
    gint num_points;
    GdkPoint *point;
    gint num_ctlpoints;
    gfloat *ctlpoint;
} GtkCurve;
typedef struct _GtkNotebookPage GtkNotebookPage;
typedef struct _GtkNotebook {
    GtkContainer container;
    GtkNotebookPage *cur_page;
    GList *children;
    GList *first_tab;
    GList *focus_tab;
    GtkWidget *menu;
    GdkWindow *event_window;
    guint32 timer;
    guint16 tab_hborder;
    guint16 tab_vborder;
    guint show_tabs:1;
    guint homogeneous:1;
    guint show_border:1;
    guint tab_pos:2;
    guint scrollable:1;
    guint in_child:3;
    guint click_child:3;
    guint button:2;
    guint need_timer:1;
    guint child_has_focus:1;
    guint have_visible_child:1;
    guint focus_out:1;
    guint has_before_previous:1;
    guint has_before_next:1;
    guint has_after_previous:1;
    guint has_after_next:1;
} GtkNotebook;
typedef struct _GtkIconFactory {
    GObject parent_instance;
    GHashTable *icons;
} GtkIconFactory;
typedef struct _GtkRadioActionPrivate GtkRadioActionPrivate;
typedef struct _GtkRadioAction {

```

```

    GtkToggleAction parent;
    GtkRadioActionPrivate *private_data;
} GtkRadioAction;
typedef struct _GtkTextMark {
    GObject parent_instance;
    gpointer segment;
} GtkTextMark;
typedef struct _GtkVBox {
    GtkBox box;
} GtkVBox;
typedef struct _GtkColorSelection {
    GtkVBox parent_instance;
    gpointer private_data;
} GtkColorSelection;
typedef enum {
    GTK_CALENDAR_SHOW_HEADING = 1,
    GTK_CALENDAR_SHOW_DAY_NAMES = 2,
    GTK_CALENDAR_NO_MONTH_CHANGE = 4,
    GTK_CALENDAR_SHOW_WEEK_NUMBERS = 8,
    GTK_CALENDAR_WEEK_START_MONDAY = 16
} GtkCalendarDisplayOptions;
typedef struct _GtkCalendar {
    GtkWidget widget;
    GtkStyle *header_style;
    GtkStyle *label_style;
    gint month;
    gint year;
    gint selected_day;
    gint day_month[6][7];
    gint day[6][7];
    gint num_marked_dates;
    gint marked_date[31];
    GtkCalendarDisplayOptions display_flags;
    GdkColor marked_date_color[31];
    GdkGC *gc;
    GdkGC *xor_gc;
    gint focus_row;
    gint focus_col;
    gint highlight_row;
    gint highlight_col;
    gpointer private_data;
    gchar grow_space[32];
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkCalendar;
typedef struct _GtkIconInfo GtkIconInfo;
typedef struct _GtkTreePath GtkTreePath;
typedef struct _GtkTreeDragSource GtkTreeDragSource;
typedef struct _GtkTableRowCol {
    guint16 requisition;
    guint16 allocation;
    guint16 spacing;
    guint need_expand:1;
    guint need_shrink:1;
    guint expand:1;
    guint shrink:1;
    guint empty:1;
} GtkTableRowCol;
typedef struct _GtkTable {
    GtkContainer container;

```



```

    GList *children;
    GtkTableRowCol *rows;
    GtkTableRowCol *cols;
    guint16 nrows;
    guint16 ncols;
    guint16 column_spacing;
    guint16 row_spacing;
    guint homogeneous:1;
} GtkWidget;

typedef gboolean(*GtkFunction) (gpointer);
typedef void (*GtkSignalFunc) (void);
typedef struct _GtkArg GtkArg;
typedef void (*GtkCallbackMarshal) (GtkObject *, gpointer, guint,
                                     GtkArg *);

typedef struct _GtkMenuShell {
    GtkWidget container;
    GList *children;
    GtkWidget *active_menu_item;
    GtkWidget *parent_menu_shell;
    guint button;
    guint32 activate_time;
    guint active:1;
    guint have_grab:1;
    guint have_xgrab:1;
    guint ignore_leave:1;
    guint menu_flag:1;
    guint ignore_enter:1;
} GtkMenuShell;

typedef struct _GtkMenu {
    GtkMenuShell menu_shell;
    GtkWidget *parent_menu_item;
    GtkWidget *old_active_menu_item;
    GtkAccelGroup *accel_group;
    gchar *accel_path;
    GtkMenuPositionFunc position_func;
    gpointer position_func_data;
    guint toggle_size;
    GtkWidget *toplevel;
    GtkWidget *tearoff_window;
    GtkWidget *tearoff_hbox;
    GtkWidget *tearoff_scrollbar;
    GtkAdjustment *tearoff_adjustment;
    GdkWindow *view_window;
    GdkWindow *bin_window;
    gint scroll_offset;
    gint saved_scroll_offset;
    gint scroll_step;
    guint timeout_id;
    GdkRegion *navigation_region;
    guint navigation_timeout;
    guint needs_destruction_ref_count:1;
    guint torn_off:1;
    guint tearoff_active:1;
    guint scroll_fast:1;
    guint upper_arrow_visible:1;
    guint lower_arrow_visible:1;
    guint upper_arrow_prelight:1;
    guint lower_arrow_prelight:1;
} GtkMenu;

typedef void (*GtkMenuPositionFunc) (GtkMenu *, gint *, gint *, gboolean *,
                                     gpointer);

typedef struct _GtkButton {

```

```

    GtkBin bin;
    GdkWindow *event_window;
    gchar *label_text;
    guint activate_timeout;
    guint constructed:1;
    guint in_button:1;
    guint button_down:1;
    guint relief:2;
    guint use_underline:1;
    guint use_stock:1;
    guint depressed:1;
    guint depress_on_activate:1;
    guint focus_on_click:1;
} GtkButton;
typedef struct _GtkToggleButton {
    GtkButton button;
    guint active:1;
    guint draw_indicator:1;
    guint inconsistent:1;
} GtkToggleButton;
typedef struct _GtkIconThemePrivate GtkIconThemePrivate;
typedef struct _GtkIconTheme {
    GObject parent_instance;
    GtkIconThemePrivate *priv;
} GtkIconTheme;
typedef struct _GtkTextWindow GtkTextWindow;
typedef struct _GtkTextPendingScroll GtkTextPendingScroll;
typedef struct _GtkTextView {
    GtkContainer parent_instance;
    struct _GtkTextLayout *layout;
    GtkTextBuffer *buffer;
    guint selection_drag_handler;
    guint scroll_timeout;
    gint pixels_above_lines;
    gint pixels_below_lines;
    gint pixels_inside_wrap;
    GtkWrapMode wrap_mode;
    GtkJustification justify;
    gint left_margin;
    gint right_margin;
    gint indent;
    PangoTabArray *tabs;
    guint editable:1;
    guint overwrite_mode:1;
    guint cursor_visible:1;
    guint need_im_reset:1;
    guint accepts_tab:1;
    guint reserved:1;
    guint onscreen_validated:1;
    guint mouse_cursor_obscured:1;
    GtkTextWindow *text_window;
    GtkTextWindow *left_window;
    GtkTextWindow *right_window;
    GtkTextWindow *top_window;
    GtkTextWindow *bottom_window;
    GtkAdjustment *hadjustment;
    GtkAdjustment *vadjustment;
    gint xoffset;
    gint yoffset;
    gint width;
    gint height;
    gint virtual_cursor_x;

```

```

gint virtual_cursor_y;
GtkTextMark *first_para_mark;
gint first_para_pixels;
GtkTextMark *dnd_mark;
guint blink_timeout;
guint first_validate_idle;
guint incremental_validate_idle;
GtkIMContext *im_context;
GtkWidget *popup_menu;
gint drag_start_x;
gint drag_start_y;
GSList *children;
GtkTextPendingScroll *pending_scroll;
gint pending_place_cursor_button;
} GtkTextView;
typedef enum {
    GTK_TEXT_WINDOW_PRIVATE = 0,
    GTK_TEXT_WINDOW_WIDGET = 1,
    GTK_TEXT_WINDOW_TEXT = 2,
    GTK_TEXT_WINDOW_LEFT = 3,
    GTK_TEXT_WINDOW_RIGHT = 4,
    GTK_TEXT_WINDOW_TOP = 5,
    GTK_TEXT_WINDOW_BOTTOM = 6
} GtkTextWindowType;
typedef struct _GtkObjectClass {
    GObjectClass parent_class;
    void (*set_arg) (GtkObject *, GtkArg *, guint);
    void (*get_arg) (GtkObject *, GtkArg *, guint);
    void (*destroy) (GtkObject *);
} GtkObjectClass;
typedef enum {
    GTK_WIDGET_HELP_TOOLTIP = 0,
    GTK_WIDGET_HELP_WHATS_THIS = 1
} GtkWidgetHelpType;
typedef struct _GtkWidgetClass {
    GtkObjectClass parent_class;
    guint activate_signal;
    guint set_scroll_adjustments_signal;
    void (*dispatch_child_properties_changed) (GtkWidget *, guint,
                                                GParamSpec * *);

    void (*show) (GtkWidget *);
    void (*show_all) (GtkWidget *);
    void (*hide) (GtkWidget *);
    void (*hide_all) (GtkWidget *);
    void (*map) (GtkWidget *);
    void (*unmap) (GtkWidget *);
    void (*realize) (GtkWidget *);
    void (*unrealize) (GtkWidget *);
    void (*size_request) (GtkWidget *, GtkRequisition *);
    void (*size_allocate) (GtkWidget *, GtkAllocation *);
    void (*state_changed) (GtkWidget *, GtkStateType);
    void (*parent_set) (GtkWidget *, GtkWidget *);
    void (*hierarchy_changed) (GtkWidget *, GtkWidget *);
    void (*style_set) (GtkWidget *, GtkStyle *);
    void (*direction_changed) (GtkWidget *, GtkTextDirection);
    void (*grab_notify) (GtkWidget *, gboolean);
    void (*child_notify) (GtkWidget *, GParamSpec *);
    gboolean(*mnemonic_activate) (GtkWidget *, gboolean);
    void (*grab_focus) (GtkWidget *);
    gboolean(*focus) (GtkWidget *, GtkDirectionType);
    gboolean(*event) (GtkWidget *, GdkEvent *);
    gboolean(*button_press_event) (GtkWidget *, GdkEventButton *);

```

```

gboolean(*button_release_event) (GtkWidget *, GdkEventButton *);
gboolean(*scroll_event) (GtkWidget *, GdkEventScroll *);
gboolean(*motion_notify_event) (GtkWidget *, GdkEventMotion *);
gboolean(*delete_event) (GtkWidget *, GdkEventAny *);
gboolean(*destroy_event) (GtkWidget *, GdkEventAny *);
gboolean(*expose_event) (GtkWidget *, GdkEventExpose *);
gboolean(*key_press_event) (GtkWidget *, GdkEventKey *);
gboolean(*key_release_event) (GtkWidget *, GdkEventKey *);
gboolean(*enter_notify_event) (GtkWidget *, GdkEventCrossing *);
gboolean(*leave_notify_event) (GtkWidget *, GdkEventCrossing *);
gboolean(*configure_event) (GtkWidget *, GdkEventConfigure *);
gboolean(*focus_in_event) (GtkWidget *, GdkEventFocus *);
gboolean(*focus_out_event) (GtkWidget *, GdkEventFocus *);
gboolean(*map_event) (GtkWidget *, GdkEventAny *);
gboolean(*unmap_event) (GtkWidget *, GdkEventAny *);
gboolean(*property_notify_event) (GtkWidget *, GdkEventProperty *);
gboolean(*selection_clear_event) (GtkWidget *, GdkEventSelection *);
gboolean(*selection_request_event) (GtkWidget *, GdkEventSelection *);
gboolean(*selection_notify_event) (GtkWidget *, GdkEventSelection *);
gboolean(*proximity_in_event) (GtkWidget *, GdkEventProximity *);
gboolean(*proximity_out_event) (GtkWidget *, GdkEventProximity *);
gboolean(*visibility_notify_event) (GtkWidget *,
                                   GdkEventVisibility *);

gboolean(*client_event) (GtkWidget *, GdkEventClient *);
gboolean(*no_expose_event) (GtkWidget *, GdkEventAny *);
gboolean(*window_state_event) (GtkWidget *, GdkEventWindowState *);
void (*selection_get) (GtkWidget *, GtkSelectionData *, guint, guint);
void (*selection_received) (GtkWidget *, GtkSelectionData *, guint);
void (*drag_begin) (GtkWidget *, GdkDragContext *);
void (*drag_end) (GtkWidget *, GdkDragContext *);
void (*drag_data_get) (GtkWidget *, GdkDragContext *,
                      GtkSelectionData *, guint, guint);
void (*drag_data_delete) (GtkWidget *, GdkDragContext *);
void (*drag_leave) (GtkWidget *, GdkDragContext *, guint);
gboolean(*drag_motion) (GtkWidget *, GdkDragContext *, gint, gint,
                       guint);
gboolean(*drag_drop) (GtkWidget *, GdkDragContext *, gint, gint,
                     guint);
void (*drag_data_received) (GtkWidget *, GdkDragContext *, gint, gint,
                           GtkSelectionData *, guint, guint);
gboolean(*popup_menu) (GtkWidget *);
gboolean(*show_help) (GtkWidget *, GtkWidgetHelpType);
AtkObject *(*get_accessible) (GtkWidget *);
void (*screen_changed) (GtkWidget *, GdkScreen *);
gboolean(*can_activate_accel) (GtkWidget *, guint);
void (*_gtk_reserved2) (void);
void (*_gtk_reserved3) (void);
void (*_gtk_reserved4) (void);
void (*_gtk_reserved5) (void);
void (*_gtk_reserved6) (void);
void (*_gtk_reserved7) (void);
} GtkWidgetClass;
typedef gboolean(*GtkRcPropertyParser) (const GParamSpec *,
                                       const GString *, GValue *);

typedef enum {
    GTK_IMAGE_EMPTY = 0,
    GTK_IMAGE_PIXMAP = 1,
    GTK_IMAGE_IMAGE = 2,
    GTK_IMAGE_PIXBUF = 3,
    GTK_IMAGE_STOCK = 4,
    GTK_IMAGE_ICON_SET = 5,
    GTK_IMAGE_ANIMATION = 6,

```

```

    GTK_IMAGE_ICON_NAME = 7
} GtkImageType;
typedef struct _GtkImagePixmapData {
    GdkPixmap *pixmap;
} GtkImagePixmapData;
typedef struct _GtkImageImageData {
    GdkImage *image;
} GtkImageImageData;
typedef struct _GtkImagePixbufData {
    GdkPixbuf *pixbuf;
} GtkImagePixbufData;
typedef struct _GtkImageStockData {
    gchar *stock_id;
} GtkImageStockData;
typedef struct _GtkImageIconSetData {
    GtkIconSet *icon_set;
} GtkImageIconSetData;
typedef struct _GtkImageAnimationData {
    GdkPixbufAnimation *anim;
    GdkPixbufAnimationIter *iter;
    guint frame_timeout;
} GtkImageAnimationData;
typedef struct _GtkImageIconNameData {
    gchar *icon_name;
    GdkPixbuf *pixbuf;
    guint theme_change_id;
} GtkImageIconNameData;
typedef struct _GtkImage {
    GtkMisc misc;
    GtkImageType storage_type;
    union {
        GtkImagePixmapData pixmap;
        GtkImageImageData image;
        GtkImagePixbufData pixbuf;
        GtkImageStockData stock;
        GtkImageIconSetData icon_set;
        GtkImageAnimationData anim;
        GtkImageIconNameData name;
    } data;
    GdkBitmap *mask;
    GtkIconSize icon_size;
} GtkImage;
typedef struct _GtkTreeViewPrivate GtkTreeViewPrivate;
typedef struct _GtkTreeView {
    GtkContainer parent;
    GtkTreeViewPrivate *priv;
} GtkTreeView;
typedef enum {
    GTK_UPDATE_ALWAYS = 0,
    GTK_UPDATE_IF_VALID = 1
} GtkSpinButtonUpdatePolicy;
typedef struct _GtkSpinButton {
    GtkEntry entry;
    GtkAdjustment *adjustment;
    GdkWindow *panel;
    guint32 timer;
    gdouble climb_rate;
    gdouble timer_step;
    GtkSpinButtonUpdatePolicy update_policy;
    guint in_child:2;
    guint click_child:2;
    guint button:2;

```

```

    guint need_timer:1;
    guint timer_calls:3;
    guint digits:10;
    guint numeric:1;
    guint wrap:1;
    guint snap_to_ticks:1;
} GtkSpinButton;
typedef struct _GtkCellLayout GtkCellLayout;
typedef struct _GtkFileSelection {
    GtkDialog parent_instance;
    GtkWidget *dir_list;
    GtkWidget *file_list;
    GtkWidget *selection_entry;
    GtkWidget *selection_text;
    GtkWidget *main_vbox;
    GtkWidget *ok_button;
    GtkWidget *cancel_button;
    GtkWidget *help_button;
    GtkWidget *history_pulldown;
    GtkWidget *history_menu;
    GList *history_list;
    GtkWidget *fileop_dialog;
    GtkWidget *fileop_entry;
    gchar *fileop_file;
    gpointer cmpl_state;
    GtkWidget *fileop_c_dir;
    GtkWidget *fileop_del_file;
    GtkWidget *fileop_ren_file;
    GtkWidget *button_area;
    GtkWidget *action_area;
    GPtrArray *selected_names;
    gchar *last_selected;
} GtkFileSelection;
typedef struct _GtkTooltips {
    GObject parent_instance;
    GtkWidget *tip_window;
    GtkWidget *tip_label;
    GtkTooltipsData *active_tips_data;
    GList *tips_data_list;
    guint delay:30;
    guint enabled:1;
    guint have_grab:1;
    guint use_sticky_delay:1;
    gint timer_tag;
    GTimeVal last_popdown;
} GtkTooltips;
typedef struct _GtkTooltipsData {
    GtkTooltips *tooltips;
    GtkWidget *widget;
    gchar *tip_text;
    gchar *tip_private;
} GtkTooltipsData;
typedef gboolean(*GtkTreeViewRowSeparatorFunc) (GtkTreeModel *,
                                                GtkTreeIter *, gpointer);
typedef struct _GtkEntryCompletionPrivate GtkEntryCompletionPrivate;
typedef struct _GtkEntryCompletion {
    GObject parent_instance;
    GtkEntryCompletionPrivate *priv;
} GtkEntryCompletion;
typedef struct _GtkClipboard GtkClipboard;
typedef struct _GtkTreeModelFilterPrivate GtkTreeModelFilterPrivate;
typedef struct _GtkTreeModelFilter {

```

```

    GObject parent;
    GtkTreeModelFilterPrivate *priv;
} GtkTreeModelFilter;
typedef struct _GtkTreeModelSort {
    GObject parent;
    gpointer root;
    gint stamp;
    guint child_flags;
    GtkTreeModel *child_model;
    gint zero_ref_count;
    GList *sort_list;
    gint sort_column_id;
    GtkSortType order;
    GtkTreeIterCompareFunc default_sort_func;
    gpointer default_sort_data;
    GtkDestroyNotify default_sort_destroy;
    guint changed_id;
    guint inserted_id;
    guint has_child_toggled_id;
    guint deleted_id;
    guint reordered_id;
} GtkTreeModelSort;
typedef void (*GtkTreeCellDataFunc) (GtkTreeViewColumn *,
                                     GtkCellRenderer *, GtkTreeModel *,
                                     GtkTreeIter *, gpointer);
typedef struct _GtkColorButtonPrivate GtkColorButtonPrivate;
typedef struct _GtkColorButton {
    GtkButton button;
    GtkColorButtonPrivate *priv;
} GtkColorButton;
typedef enum {
    GTK_FILE_CHOOSER_ACTION_OPEN = 0,
    GTK_FILE_CHOOSER_ACTION_SAVE = 1,
    GTK_FILE_CHOOSER_ACTION_SELECT_FOLDER = 2,
    GTK_FILE_CHOOSER_ACTION_CREATE_FOLDER = 3
} GtkFileChooserAction;
typedef void (*GtkCallback) (GtkWidget *, gpointer);
typedef struct _GtkHandleBox {
    GtkBin bin;
    GdkWindow *bin_window;
    GdkWindow *float_window;
    GtkShadowType shadow_type;
    guint handle_position:2;
    guint float_window_mapped:1;
    guint child_detached:1;
    guint in_drag:1;
    guint shrink_on_detach:1;
    int snap_edge:3;
    gint deskoff_x;
    gint deskoff_y;
    GtkAllocation attach_allocation;
    GtkAllocation float_allocation;
} GtkHandleBox;
typedef struct _GtkActionGroupPrivate GtkActionGroupPrivate;
typedef struct _GtkActionGroup {
    GObject parent;
    GtkActionGroupPrivate *private_data;
} GtkActionGroup;
typedef struct _GtkBindingSet {
    gchar *set_name;
    gint priority;
    GSList *widget_path_specs;

```

```

    GSList *widget_class_specs;
    GSList *class_branch_specs;
    GtkBindingEntry *entries;
    GtkBindingEntry *current;
    guint parsed:1;
} GtkBindingSet;
typedef struct _GtkBindingEntry {
    guint keyval;
    GdkModifierType modifiers;
    GtkBindingSet *binding_set;
    guint destroyed:1;
    guint in_emission:1;
    GtkBindingEntry *set_next;
    GtkBindingEntry *hash_next;
    GtkBindingSignal *signals;
} GtkBindingEntry;
typedef struct _GtkBindingSignal {
    GtkBindingSignal *next;
    gchar *signal_name;
    guint n_args;
    GtkBindingArg *args;
} GtkBindingSignal;
typedef struct _GtkBindingArg {
    GType arg_type;
    union {
        glong long_data;
        gdouble double_data;
        gchar *string_data;
    } d;
} GtkBindingArg;
typedef struct _GtkScrolledWindow {
    GtkBin container;
    GtkWidget *hscrollbar;
    GtkWidget *vscrollbar;
    guint hscrollbar_policy:2;
    guint vscrollbar_policy:2;
    guint hscrollbar_visible:1;
    guint vscrollbar_visible:1;
    guint window_placement:2;
    guint focus_out:1;
    guint16 shadow_type;
} GtkScrolledWindow;
typedef struct _GtkFrame {
    GtkBin bin;
    GtkWidget *label_widget;
    gint16 shadow_type;
    gfloat label_xalign;
    gfloat label_yalign;
    GtkAllocation child_allocation;
} GtkFrame;
typedef struct _GtkTextChildAnchor {
    GObject parent_instance;
    gpointer segment;
} GtkTextChildAnchor;
typedef struct _GtkSeparatorToolItemPrivate GtkSeparatorToolItemPrivate;
typedef struct _GtkSeparatorToolItem {
    GtkToolItem parent;
    GtkSeparatorToolItemPrivate *priv;
} GtkSeparatorToolItem;
typedef struct _GtkTreeSelection {
    GObject parent;
    GtkTreeView *tree_view;

```



```

    GtkSelectionMode type;
    GtkTreeSelectionFunc user_func;
    gpointer user_data;
    GtkDestroyNotify destroy;
} GtkTreeSelection;
typedef gboolean(*GtkTreeSelectionFunc) (GtkTreeSelection *,
                                         GtkTreeModel *, GtkTreePath *,
                                         gboolean, gpointer);

typedef struct _GtkExpanderPrivate GtkExpanderPrivate;
typedef struct _GtkExpander {
    GtkBin bin;
    GtkExpanderPrivate *priv;
} GtkExpander;
typedef enum {
    GTK_UI_MANAGER_AUTO = 0,
    GTK_UI_MANAGER_MENUBAR = 1,
    GTK_UI_MANAGER_MENU = 2,
    GTK_UI_MANAGER_TOOLBAR = 4,
    GTK_UI_MANAGER_PLACEHOLDER = 8,
    GTK_UI_MANAGER_POPUP = 16,
    GTK_UI_MANAGER_MENUITEM = 32,
    GTK_UI_MANAGER_TOOLITEM = 64,
    GTK_UI_MANAGER_SEPARATOR = 128,
    GTK_UI_MANAGER_ACCELERATOR = 256
} GtkUIManagerItemType;
typedef struct _GtkFontSelectionDialog {
    GtkDialog parent_instance;
    GtkWidget *fontsel;
    GtkWidget *main_vbox;
    GtkWidget *action_area;
    GtkWidget *ok_button;
    GtkWidget *apply_button;
    GtkWidget *cancel_button;
    gint dialog_width;
    gboolean auto_resize;
} GtkFontSelectionDialog;
typedef struct _GtkPanedPrivate GtkPanedPrivate;
typedef struct _GtkPaned {
    GtkContainer container;
    GtkWidget *child1;
    GtkWidget *child2;
    GdkWindow *handle;
    GdkGC *xor_gc;
    GdkCursorType cursor_type;
    GdkRectangle handle_pos;
    gint child1_size;
    gint last_allocation;
    gint min_position;
    gint max_position;
    guint position_set:1;
    guint in_drag:1;
    guint child1_shrink:1;
    guint child1_resize:1;
    guint child2_shrink:1;
    guint child2_resize:1;
    guint orientation:1;
    guint in_recursion:1;
    guint handle_prelit:1;
    GtkWidget *last_child1_focus;
    GtkWidget *last_child2_focus;
    GtkPanedPrivate *priv;
    gint drag_pos;

```

```

    gint original_position;
} GtkPaned;
typedef struct _GtkViewport {
    GtkBin bin;
    GtkShadowType shadow_type;
    GdkWindow *view_window;
    GdkWindow *bin_window;
    GtkAdjustment *hadjustment;
    GtkAdjustment *vadjustment;
} GtkViewport;
typedef struct _GtkScale {
    GtkRange range;
    gint digits;
    guint draw_value:1;
    guint value_pos:2;
} GtkScale;
typedef struct _GtkListStore {
    GObject parent;
    gint stamp;
    gpointer seq;
    gpointer _gtk_reserved1;
    GList *sort_list;
    gint n_columns;
    gint sort_column_id;
    GtkSortType order;
    GType *column_headers;
    gint length;
    GtkTreeIterCompareFunc default_sort_func;
    gpointer default_sort_data;
    GtkDestroyNotify default_sort_destroy;
    guint columns_dirty:1;
} GtkListStore;
typedef struct _GtkEditable GtkEditable;
typedef void (*GtkClipboardGetFunc) (GtkClipboard *, GtkSelectionData *,
                                     guint, gpointer);
typedef void (*GtkClipboardClearFunc) (GtkClipboard *, gpointer);
typedef struct _GtkRadioActionEntry {
    const gchar *name;
    const gchar *stock_id;
    const gchar *label;
    const gchar *accelerator;
    const gchar *tooltip;
    gint value;
} GtkRadioActionEntry;
typedef gboolean(*GtkTreeViewColumnDropFunc) (GtkTreeView *,
                                              GtkTreeViewColumn *,
                                              GtkTreeViewColumn *,
                                              GtkTreeViewColumn *,
                                              gpointer);

typedef struct _GtkEventBox {
    GtkBin bin;
} GtkEventBox;
typedef struct _GtkTreeDragDest GtkTreeDragDest;
typedef struct _GtkToggleActionEntry {
    const gchar *name;
    const gchar *stock_id;
    const gchar *label;
    const gchar *accelerator;
    const gchar *tooltip;
    GCallback callback;
    gboolean is_active;
} GtkToggleActionEntry;

```

```

typedef struct _GtkAccelLabel {
    GtkWidget label;
    guint gtk_reserved;
    guint accel_padding;
    GtkWidget *accel_widget;
    GClosure *accel_closure;
    GtkAccelGroup *accel_group;
    gchar *accel_string;
    guint16 accel_string_width;
} GtkAccelLabel;
typedef struct _GtkImageMenuItem {
    GtkMenuItem menu_item;
    GtkWidget *image;
} GtkImageMenuItem;
typedef struct _GtkPlug {
    GtkWidget window;
    GdkWindow *socket_window;
    GtkWidget *modality_window;
    GtkWidgetGroup *modality_group;
    GHashTable *grabbed_keys;
    guint same_app:1;
} GtkPlug;
typedef struct _GtkFileChooserButtonPrivate GtkFileChooserButtonPrivate;
typedef struct _GtkFileChooserButton {
    GtkHBox parent;
    GtkFileChooserButtonPrivate *priv;
} GtkFileChooserButton;
typedef struct _GtkStockItem {
    gchar *stock_id;
    gchar *label;
    GdkModifierType modifier;
    guint keyval;
    gchar *translation_domain;
} GtkStockItem;
typedef gchar *(*GtkTranslateFunc) (const gchar *, gpointer);
typedef struct _GtkToolbar {
    GtkContainer container;
    gint num_children;
    GList *children;
    GtkOrientation orientation;
    GtkToolbarStyle style;
    GtkIconSize icon_size;
    GtkTooltips *tooltips;
    gint button_maxw;
    gint button_maxh;
    guint style_set_connection;
    guint icon_size_connection;
    guint style_set:1;
    guint icon_size_set:1;
} GtkToolbar;
typedef void (*GtkCellLayoutDataFunc) (GtkCellLayout *, GtkCellRenderer *,
                                       GtkTreeModel *, GtkTreeIter *,
                                       gpointer);
typedef struct _GtkCellRendererToggle {
    GtkCellRenderer parent;
    guint active:1;
    guint activatable:1;
    guint radio:1;
} GtkCellRendererToggle;
typedef void (*GtkClipboardImageReceivedFunc) (GtkClipboard *, GdkPixbuf *,
                                              gpointer);
typedef enum {

```

```

    GTK_CELL_RENDERER_SELECTED = 1,
    GTK_CELL_RENDERER_PRELIT = 2,
    GTK_CELL_RENDERER_INSENSITIVE = 4,
    GTK_CELL_RENDERER_SORTED = 8,
    GTK_CELL_RENDERER_FOCUSED = 16
} GtkCellRendererState;
typedef struct _GtkActionEntry {
    const gchar *name;
    const gchar *stock_id;
    const gchar *label;
    const gchar *accelerator;
    const gchar *tooltip;
    GCallback callback;
} GtkActionEntry;
typedef struct _GtkCheckButton {
    GtkToggleButton toggle_button;
} GtkCheckButton;
typedef struct _GtkRadioButton {
    GtkCheckButton check_button;
    GSList *group;
} GtkRadioButton;
typedef struct _GtkAlignment {
    GtkBin bin;
    gfloat xalign;
    gfloat yalign;
    gfloat xscale;
    gfloat yscale;
} GtkAlignment;
typedef struct _GtkContainerClass {
    GtkWidgetClass parent_class;
    void (*add) (GtkContainer *, GtkWidget *);
    void (*remove) (GtkContainer *, GtkWidget *);
    void (*check_resize) (GtkContainer *);
    void (*forall) (GtkContainer *, gboolean, GCallback, gpointer);
    void (*set_focus_child) (GtkContainer *, GtkWidget *);
    GType(*child_type) (GtkContainer *);
    gchar *(*composite_name) (GtkContainer *, GtkWidget *);
    void (*set_child_property) (GtkContainer *, GtkWidget *, guint,
                               const GValue *, GParamSpec *);
    void (*get_child_property) (GtkContainer *, GtkWidget *, guint,
                               GValue *, GParamSpec *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkContainerClass;
typedef struct _GtkFontButtonPrivate GtkFontButtonPrivate;
typedef struct _GtkFontButton {
    GtkButton button;
    GtkFontButtonPrivate *priv;
} GtkFontButton;
typedef struct _GtkBorder {
    gint left;
    gint right;
    gint top;
    gint bottom;
} GtkBorder;
typedef struct _GtkMessageDialog {
    GtkDialog parent_instance;
    GtkWidget *image;
    GtkWidget *label;
} GtkMessageDialog;

```

```

typedef struct _GtkRulerMetric {
    gchar *metric_name;
    gchar *abbrev;
    gdouble pixels_per_unit;
    gdouble ruler_scale[10];
    gint subdivide[5];
} GtkRulerMetric;
typedef struct _GtkRuler {
    GtkWidget widget;
    GdkPixmap *backing_store;
    GdkGC *non_gr_exp_gc;
    GtkRulerMetric *metric;
    gint xsrc;
    gint ysrc;
    gint slider_size;
    gdouble lower;
    gdouble upper;
    gdouble position;
    gdouble max_size;
} GtkRuler;
typedef enum {
    GTK_ACCEL_VISIBLE = 1,
    GTK_ACCEL_LOCKED = 2,
    GTK_ACCEL_MASK = 7
} GtkAccelFlags;
typedef gboolean(*GtkTextCharPredicate) (gunichar, gpointer);
typedef struct _GtkMenuToolButtonPrivate GtkMenuToolButtonPrivate;
typedef struct _GtkMenuToolButton {
    GtkToolButton parent;
    GtkMenuToolButtonPrivate *priv;
} GtkMenuToolButton;
typedef struct _GtkToggleToolButtonPrivate GtkToggleToolButtonPrivate;
typedef struct _GtkToggleToolButton {
    GtkToolButton parent;
    GtkToggleToolButtonPrivate *priv;
} GtkToggleToolButton;
typedef struct _GtkRadioToolButton {
    GtkToggleToolButton parent;
} GtkRadioToolButton;
typedef struct _GtkSizeGroup {
    GObject parent_instance;
    GSList *widgets;
    guint8 mode;
    guint have_width:1;
    guint have_height:1;
    GtkRequisition requisition;
} GtkSizeGroup;
typedef enum {
    GTK_SIZE_GROUP_NONE = 0,
    GTK_SIZE_GROUP_HORIZONTAL = 1,
    GTK_SIZE_GROUP_VERTICAL = 2,
    GTK_SIZE_GROUP_BOTH = 3
} GtkSizeGroupMode;
typedef enum {
    GTK_DIALOG_MODAL = 1,
    GTK_DIALOG_DESTROY_WITH_PARENT = 2,
    GTK_DIALOG_NO_SEPARATOR = 4
} GtkDialogFlags;
typedef void (*GtkTreeSelectionForeachFunc) (GtkTreeModel *, GtkTreePath *,
                                              GtkTreeIter *, gpointer);
typedef enum {
    GTK_ICON_LOOKUP_NO_SVG = 1,

```

```

    GTK_ICON_LOOKUP_FORCE_SVG = 2,
    GTK_ICON_LOOKUP_USE_BUILTIN = 4
} GtkIconLookupFlags;
typedef gboolean(*GtkTreeViewSearchEqualFunc) (GtkTreeModel *, gint,
                                              const gchar *,
                                              GtkTreeIter *, gpointer);

typedef struct _GtkIMContextSimple {
    GtkIMContext object;
    GSList *tables;
    guint compose_buffer[8];
    gunichar tentative_match;
    gint tentative_match_len;
    guint in_hex_sequence:1;
} GtkIMContextSimple;
typedef void (*GtkClipboardTargetsReceivedFunc) (GtkClipboard *, GdkAtom *,
                                              gint, gpointer);

typedef struct _GtkFontSelection {
    GtkVBox parent_instance;
    GtkWidget *font_entry;
    GtkWidget *family_list;
    GtkWidget *font_style_entry;
    GtkWidget *face_list;
    GtkWidget *size_entry;
    GtkWidget *size_list;
    GtkWidget *pixels_button;
    GtkWidget *points_button;
    GtkWidget *filter_button;
    GtkWidget *preview_entry;
    PangoFontFamily *family;
    PangoFontFace *face;
    gint size;
    GdkFont *font;
} GtkFontSelection;
typedef void (*GtkClipboardTextReceivedFunc) (GtkClipboard *,
                                              const gchar *, gpointer);
typedef gboolean(*GtkAccelGroupFindFunc) (GtkAccelKey *, GClosure *,
                                          gpointer);
typedef void (*GtkTreeDestroyCountFunc) (GtkTreeView *, GtkTreePath *,
                                          gint, gpointer);

typedef enum {
    GTK_TREE_VIEW_DROP_BEFORE = 0,
    GTK_TREE_VIEW_DROP_AFTER = 1,
    GTK_TREE_VIEW_DROP_INTO_OR_BEFORE = 2,
    GTK_TREE_VIEW_DROP_INTO_OR_AFTER = 3
} GtkTreeViewDropPosition;
typedef struct _GtkAspectFrame {
    GtkFrame frame;
    gfloat xalign;
    gfloat yalign;
    gfloat ratio;
    gboolean obey_child;
    GtkAllocation center_allocation;
} GtkAspectFrame;
typedef gboolean(*GtkFileFilterFunc) (const GtkFileFilterInfo *, gpointer);
typedef struct _GtkIMMulticontextPrivate GtkIMMulticontextPrivate;
typedef struct _GtkIMMulticontext {
    GtkIMContext object;
    GtkIMContext *slave;
    GtkIMMulticontextPrivate *priv;
    const gchar *context_id;
} GtkIMMulticontext;
typedef enum {

```

```

    GTK_BUTTONS_NONE = 0,
    GTK_BUTTONS_OK = 1,
    GTK_BUTTONS_CLOSE = 2,
    GTK_BUTTONS_CANCEL = 3,
    GTK_BUTTONS_YES_NO = 4,
    GTK_BUTTONS_OK_CANCEL = 5
} GtkButtonsType;
typedef void (*GtkAccelMapForeach) (gpointer, const gchar *, guint,
                                   GdkModifierType, gboolean);
typedef void (*GtkColorSelectionChangePaletteWithScreenFunc) (GdkScreen *,
                                                             const
                                                             GdkColor *,
                                                             gint);
typedef void (*GtkClipboardReceivedFunc) (GtkClipboard *,
                                         GtkSelectionData *, gpointer);
typedef void (*GtkTreeViewMappingFunc) (GtkTreeView *, GtkTreePath *,
                                       gpointer);
typedef gboolean(*GtkTreeModelFilterVisibleFunc) (GtkTreeModel *,
                                                  GtkTreeIter *, gpointer);
typedef enum {
    GTK_TEXT_SEARCH_VISIBLE_ONLY = 1,
    GTK_TEXT_SEARCH_TEXT_ONLY = 2
} GtkTextSearchFlags;
typedef struct _GtkFixed {
    GtkContainer container;
    GList *children;
} GtkFixed;
typedef enum {
    GTK_DEST_DEFAULT_MOTION = 1,
    GTK_DEST_DEFAULT_HIGHLIGHT = 2,
    GTK_DEST_DEFAULT_DROP = 4,
    GTK_DEST_DEFAULT_ALL = 7
} GtkDestDefaults;
typedef gint(*GtkKeySnoopFunc) (GtkWidget *, GdkEventKey *, gpointer);
typedef enum {
    GTK_SPIN_STEP_FORWARD = 0,
    GTK_SPIN_STEP_BACKWARD = 1,
    GTK_SPIN_PAGE_FORWARD = 2,
    GTK_SPIN_PAGE_BACKWARD = 3,
    GTK_SPIN_HOME = 4,
    GTK_SPIN_END = 5,
    GTK_SPIN_USER_DEFINED = 6
} GtkSpinType;
typedef void (*GtkMenuDetachFunc) (GtkWidget *, GtkMenu *);
typedef struct _GtkInvisible {
    GtkWidget widget;
    gboolean has_user_ref_count;
    GdkScreen *screen;
} GtkInvisible;
typedef void (*GtkTextTagTableForeach) (GtkTextTag *, gpointer);
typedef gboolean(*GtkEntryCompletionMatchFunc) (GtkEntryCompletion *,
                                                const gchar *,
                                                GtkTreeIter *, gpointer);
typedef struct _GtkAccessible {
    AtkObject parent;
    GtkWidget *widget;
} GtkAccessible;
typedef struct _GtkArrow {
    GtkMisc misc;
    gint16 arrow_type;
    gint16 shadow_type;
} GtkArrow;

```

```

typedef void (*GtkIconViewForeachFunc) (GtkIconView *, GtkTreePath *,
                                         gpointer);
typedef void (*GtkTreeModelFilterModifyFunc) (GtkTreeModel *,
                                              GtkTreeIter *, GValue *,
                                              gint, gpointer);

typedef struct _GtkCellRendererText {
    GtkCellRenderer parent;
    gchar *text;
    PangoFontDescription *font;
    gdouble font_scale;
    PangoColor foreground;
    PangoColor background;
    PangoAttrList *extra_attrs;
    PangoUnderline underline_style;
    gint rise;
    gint fixed_height_rows;
    guint strikethrough:1;
    guint editable:1;
    guint scale_set:1;
    guint foreground_set:1;
    guint background_set:1;
    guint underline_set:1;
    guint rise_set:1;
    guint strikethrough_set:1;
    guint editable_set:1;
    guint calc_fixed_height:1;
} GtkCellRendererText;
typedef gboolean(*GtkTreeModelForeachFunc) (GtkTreeModel *, GtkTreePath *,
                                             GtkTreeIter *, gpointer);

typedef struct _GtkSettingsValue {
    gchar *origin;
    GValue value;
} GtkSettingsValue;
typedef struct _GtkAccelMap GtkAccelMap;
typedef struct _GtkBinClass {
    GtkContainerClass parent_class;
} GtkBinClass;
typedef struct _GtkWindowClass {
    GtkBinClass parent_class;
    void (*set_focus) (GtkWindow *, GtkWidget *);
    gboolean(*frame_event) (GtkWindow *, GdkEvent *);
    void (*activate_focus) (GtkWindow *);
    void (*activate_default) (GtkWindow *);
    void (*move_focus) (GtkWindow *, GtkDirectionType);
    void (*keys_changed) (GtkWindow *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkWindowClass;
typedef struct _GtkRangeClass {
    GtkWidgetClass parent_class;
    gchar *slider_detail;
    gchar *stepper_detail;
    void (*value_changed) (GtkRange *);
    void (*adjust_bounds) (GtkRange *, gdouble);
    void (*move_slider) (GtkRange *, GtkScrollType);
    void (*get_range_border) (GtkRange *, GtkBorder *);
    gboolean(*change_value) (GtkRange *, GtkScrollType, gdouble);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
}

```



```

} GtkRangeClass;
typedef struct _GtkScaleClass {
    GtkRangeClass parent_class;
    gchar *(*format_value) (GtkScale *, gdouble);
    void (*draw_value) (GtkScale *);
    void (*get_layout_offsets) (GtkScale *, gint *, gint *);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkScaleClass;
typedef struct _GtkBoxClass {
    GtkContainerClass parent_class;
} GtkBoxClass;
typedef struct _GtkMiscClass {
    GtkWidgetClass parent_class;
} GtkMiscClass;
typedef struct _GtkHRuler {
    GtkRuler ruler;
} GtkHRuler;
typedef struct _GtkHBoxClass {
    GtkBoxClass parent_class;
} GtkHBoxClass;
typedef struct _GtkPanedClass {
    GtkContainerClass parent_class;
    gboolean(*cycle_child_focus) (GtkPaned *, gboolean);
    gboolean(*toggle_handle_focus) (GtkPaned *);
    gboolean(*move_handle) (GtkPaned *, GtkScrollType);
    gboolean(*cycle_handle_focus) (GtkPaned *, gboolean);
    gboolean(*accept_position) (GtkPaned *);
    gboolean(*cancel_position) (GtkPaned *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkPanedClass;
typedef struct _GtkHPanedClass {
    GtkPanedClass parent_class;
} GtkHPanedClass;
typedef struct _GtkSizeGroupClass {
    GObjectClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkSizeGroupClass;
typedef struct _GtkViewportClass {
    GtkBinClass parent_class;
    void (*set_scroll_adjustments) (GtkViewport *, GtkAdjustment *,
                                   GtkAdjustment *);
} GtkViewportClass;
typedef struct _GtkEditableClass {
    GTypeInterface base_iface;
    void (*insert_text) (GtkEditable *, const gchar *, gint, gint *);
    void (*delete_text) (GtkEditable *, gint, gint);
    void (*changed) (GtkEditable *);
    void (*do_insert_text) (GtkEditable *, const gchar *, gint, gint *);
    void (*do_delete_text) (GtkEditable *, gint, gint);
    gchar *(*get_chars) (GtkEditable *, gint, gint);
    void (*set_selection_bounds) (GtkEditable *, gint, gint);
    gboolean(*get_selection_bounds) (GtkEditable *, gint *, gint *);
    void (*set_position) (GtkEditable *, gint);
    gint(*get_position) (GtkEditable *);

```

```

} GtkEditableClass;
typedef enum {
    GTK_NOTEBOOK_TAB_FIRST = 0,
    GTK_NOTEBOOK_TAB_LAST = 1
} GtkNotebookTab;
typedef struct _GtkDialogClass {
    GtkWindowClass parent_class;
    void (*response) (GtkDialog *, gint);
    void (*close) (GtkDialog *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkDialogClass;
typedef struct _GtkCellRendererPixbuf {
    GtkCellRenderer parent;
    GdkPixbuf *pixbuf;
    GdkPixbuf *pixbuf_expander_open;
    GdkPixbuf *pixbuf_expander_closed;
} GtkCellRendererPixbuf;
typedef struct _GtkTreeViewColumnClass {
    GObjectClass parent_class;
    void (*clicked) (GtkTreeViewColumn *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTreeViewColumnClass;
typedef struct _GtkRulerClass {
    GtkWidgetClass parent_class;
    void (*draw_ticks) (GtkRuler *);
    void (*draw_pos) (GtkRuler *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkRulerClass;
typedef struct _GtkHRulerClass {
    GtkRulerClass parent_class;
} GtkHRulerClass;
typedef struct _GtkAccelMapClass GtkAccelMapClass;
typedef struct _GtkInvisibleClass {
    GtkWidgetClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkInvisibleClass;
typedef struct _GtkVRulerClass {
    GtkRulerClass parent_class;
} GtkVRulerClass;
typedef struct _GtkToolItemClass {
    GtkBinClass parent_class;
    gboolean(*create_menu_proxy) (GtkToolItem *);
    void (*toolbar_reconfigured) (GtkToolItem *);
    gboolean(*set_tooltip) (GtkToolItem *, GtkTooltips *, const gchar *,
                           const gchar *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkToolItemClass;

```

```

typedef struct _GtkWindowGroupClass {
    GObjectClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkWindowGroupClass;
typedef struct _GtkWidgetAuxInfo {
    gint x;
    gint y;
    gint width;
    gint height;
    guint x_set:1;
    guint y_set:1;
} GtkWidgetAuxInfo;
typedef struct _GtkItemClass {
    GtkBinClass parent_class;
    void (*select) (GtkItem *);
    void (*deselect) (GtkItem *);
    void (*toggle) (GtkItem *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkItemClass;
typedef struct _GtkMenuItemClass {
    GtkItemClass parent_class;
    guint hide_on_activate:1;
    void (*activate) (GtkMenuItem *);
    void (*activate_item) (GtkMenuItem *);
    void (*toggle_size_request) (GtkMenuItem *, gint *);
    void (*toggle_size_allocate) (GtkMenuItem *, gint);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkMenuItemClass;
typedef struct _GtkCheckMenuItemClass {
    GtkMenuItemClass parent_class;
    void (*toggled) (GtkCheckMenuItem *);
    void (*draw_indicator) (GtkCheckMenuItem *, GdkRectangle *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkCheckMenuItemClass;
typedef struct _GtkRcProperty {
    GQuark type_name;
    GQuark property_name;
    gchar *origin;
    GValue value;
} GtkRcProperty;
typedef struct _GtkFontSelectionDialogClass {
    GtkDialogClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkFontSelectionDialogClass;
typedef struct _GtkFileChooserDialogPrivate GtkFileChooserDialogPrivate;
typedef struct _GtkFileChooserDialog {
    GtkDialog parent_instance;

```

```

    GtkFileChooserDialogPrivate *priv;
} GtkFileChooserDialog;
typedef struct _GtkActionClass {
    GObjectClass parent_class;
    void (*activate) (GtkAction *);
    GType menu_item_type;
    GType toolbar_item_type;
    GtkWidget *(*create_menu_item) (GtkAction *);
    GtkWidget *(*create_tool_item) (GtkAction *);
    void (*connect_proxy) (GtkAction *, GtkWidget *);
    void (*disconnect_proxy) (GtkAction *, GtkWidget *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkActionClass;
typedef struct _GtkToggleActionClass {
    GtkActionClass parent_class;
    void (*toggled) (GtkToggleAction *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkToggleActionClass;
typedef struct _GtkVBoxClass {
    GtkBoxClass parent_class;
} GtkVBoxClass;
typedef struct _GtkButtonBoxClass {
    GtkBoxClass parent_class;
} GtkButtonBoxClass;
typedef struct _GtkHButtonBoxClass {
    GtkButtonBoxClass parent_class;
} GtkHButtonBoxClass;
typedef struct _GtkThemeEngine GtkThemeEngine;
typedef struct _GtkTreeStoreClass {
    GObjectClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTreeStoreClass;
typedef struct _GtkBoxChild {
    GtkWidget *widget;
    guint16 padding;
    guint expand:1;
    guint fill:1;
    guint pack:1;
    guint is_secondary:1;
} GtkBoxChild;
typedef struct _GtkHButtonBox {
    GtkButtonBox button_box;
} GtkHButtonBox;
typedef struct _GtkAccelGroupClass {
    GObjectClass parent_class;
    void (*accel_changed) (GtkAccelGroup *, guint, GdkModifierType,
                          GClosure *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkAccelGroupClass;
typedef struct _GtkSeparator {

```

```

    GtkWidget widget;
} GtkSeparator;
typedef struct _GtkButtonClass {
    GtkBinClass parent_class;
    void (*pressed) (GtkButton *);
    void (*released) (GtkButton *);
    void (*clicked) (GtkButton *);
    void (*enter) (GtkButton *);
    void (*leave) (GtkButton *);
    void (*activate) (GtkButton *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkButtonClass;
typedef void (*GtkWindowKeysForeachFunc) (GtkWindow *, guint,
                                           GdkModifierType, gboolean,
                                           gpointer);

typedef struct _GtkIconFactoryClass {
    GObjectClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkIconFactoryClass;
typedef struct _GtkTreeSelectionClass {
    GObjectClass parent_class;
    void (*changed) (GtkTreeSelection *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTreeSelectionClass;
typedef struct _GtkMenuShellClass {
    GtkContainerClass parent_class;
    guint submenu_placement:1;
    void (*deactivate) (GtkMenuShell *);
    void (*selection_done) (GtkMenuShell *);
    void (*move_current) (GtkMenuShell *, GtkMenuDirectionType);
    void (*activate_current) (GtkMenuShell *, gboolean);
    void (*cancel) (GtkMenuShell *);
    void (*select_item) (GtkMenuShell *, GtkWidget *);
    void (*insert) (GtkMenuShell *, GtkWidget *, gint);
    gint (*get_popup_delay) (GtkMenuShell *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
} GtkMenuShellClass;
typedef struct _GtkTreeDragSourceIface {
    GTypeInterface g_iface;
    gboolean (*row_draggable) (GtkTreeDragSource *, GtkTreePath *);
    gboolean (*drag_data_get) (GtkTreeDragSource *, GtkTreePath *,
                              GtkSelectionData *);
    gboolean (*drag_data_delete) (GtkTreeDragSource *, GtkTreePath *);
} GtkTreeDragSourceIface;
typedef struct _GtkLabelClass {
    GtkMiscClass parent_class;
    void (*move_cursor) (GtkLabel *, GtkMovementStep, gint, gboolean);
    void (*copy_clipboard) (GtkLabel *);
    void (*populate_popup) (GtkLabel *, GtkMenu *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);

```

```

    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkLabelClass;
typedef struct _GtkScrollbar {
    GtkRange range;
} GtkScrollbar;
typedef struct _GtkWidgetShapeInfo {
    gint16 offset_x;
    gint16 offset_y;
    GdkBitmap *shape_mask;
} GtkWidgetShapeInfo;
typedef struct _GtkActionGroupClass {
    GObjectClass parent_class;
    GtkAction *(*get_action) (GtkActionGroup *, const gchar *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkActionGroupClass;
typedef struct _GtkSettingsClass {
    GObjectClass parent_class;
} GtkSettingsClass;
typedef struct _GtkIMContextClass {
    GObjectClass parent_class;
    void (*preedit_start) (GtkIMContext *);
    void (*preedit_end) (GtkIMContext *);
    void (*preedit_changed) (GtkIMContext *);
    void (*commit) (GtkIMContext *, const gchar *);
    gboolean(*retrieve_surrounding) (GtkIMContext *);
    gboolean(*delete_surrounding) (GtkIMContext *, gint, gint);
    void (*set_client_window) (GtkIMContext *, GdkWindow *);
    void (*get_preedit_string) (GtkIMContext *, gchar *,
                               PangoAttrList *, gint *);
    gboolean(*filter_keypress) (GtkIMContext *, GdkEventKey *);
    void (*focus_in) (GtkIMContext *);
    void (*focus_out) (GtkIMContext *);
    void (*reset) (GtkIMContext *);
    void (*set_cursor_location) (GtkIMContext *, GdkRectangle *);
    void (*set_use_preedit) (GtkIMContext *, gboolean);
    void (*set_surrounding) (GtkIMContext *, const gchar *, gint, gint);
    gboolean(*get_surrounding) (GtkIMContext *, gchar *, gint *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
    void (*_gtk_reserved6) (void);
} GtkIMContextClass;
typedef struct _GtkCellRendererClass {
    GObjectClass parent_class;
    void (*get_size) (GtkCellRenderer *, GtkWidget *, GdkRectangle *,
                     gint *, gint *, gint *, gint *);
    void (*render) (GtkCellRenderer *, GdkDrawable *, GtkWidget *,
                   GdkRectangle *, GdkRectangle *, GdkRectangle *,
                   GtkCellRendererState);
    gboolean(*activate) (GtkCellRenderer *, GdkEvent *, GtkWidget *,
                        const gchar *, GdkRectangle *, GdkRectangle *,
                        GtkCellRendererState);
    GtkWidget *(*start_editing) (GtkCellRenderer *, GdkEvent *,
                                GtkWidget *, const gchar *,
                                GdkRectangle *, GdkRectangle *,
                                GtkCellRendererState);

```

```

    void (*editing_canceled) (GtkCellRenderer *);
    void (*editing_started) (GtkCellRenderer *, GtkCellEditable *,
                             const gchar *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
} GtkCellRendererClass;
typedef struct _GtkToolButtonClass {
    GtkToolItemClass parent_class;
    GType button_type;
    void (*clicked) (GtkToolButton *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkToolButtonClass;
typedef struct _GtkMenuToolButtonClass {
    GtkToolButtonClass parent_class;
    void (*show_menu) (GtkMenuToolButton *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkMenuToolButtonClass;
typedef struct _GtkVSeparator {
    GtkSeparator separator;
} GtkVSeparator;
typedef struct _GtkDrawingAreaClass {
    GtkWidgetClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkDrawingAreaClass;
typedef struct _GtkTargetPair {
    GdkAtom target;
    guint flags;
    guint info;
} GtkTargetPair;
typedef struct _GtkCellViewClass {
    GtkWidgetClass parent_class;
} GtkCellViewClass;
typedef struct _GtkCellLayoutIface {
    GTypeInterface g_iface;
    void (*pack_start) (GtkCellLayout *, GtkCellRenderer *, gboolean);
    void (*pack_end) (GtkCellLayout *, GtkCellRenderer *, gboolean);
    void (*clear) (GtkCellLayout *);
    void (*add_attribute) (GtkCellLayout *, GtkCellRenderer *,
                           const gchar *, gint);
    void (*set_cell_data_func) (GtkCellLayout *, GtkCellRenderer *,
                                GtkCellLayoutDataFunc, gpointer,
                                GDestroyNotify);
    void (*clear_attributes) (GtkCellLayout *, GtkCellRenderer *);
    void (*reorder) (GtkCellLayout *, GtkCellRenderer *, gint);
} GtkCellLayoutIface;
typedef struct _GtkAlignmentPrivate GtkAlignmentPrivate;
typedef struct _GtkFixedClass {
    GtkContainerClass parent_class;
} GtkFixedClass;
typedef struct _GtkHScaleClass {
    GtkScaleClass parent_class;
} GtkHScaleClass;
typedef struct _GtkScrollbarClass {

```

```

    GtkRangeClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkScrollbarClass;
typedef struct _GtkAccelLabelClass {
    GtkLabelClass parent_class;
    gchar *signal_quote1;
    gchar *signal_quote2;
    gchar *mod_name_shift;
    gchar *mod_name_control;
    gchar *mod_name_alt;
    gchar *mod_seperator;
    gchar *accel_seperator;
    guint latin1_to_char:1;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkAccelLabelClass;
typedef void (*GtkModuleDisplayInitFunc) (GdkDisplay *);
typedef struct _GtkTextBufferClass {
    GObjectClass parent_class;
    void (*insert_text) (GtkTextBuffer *, GtkTextIter *, const gchar *,
                        gint);
    void (*insert_pixbuf) (GtkTextBuffer *, GtkTextIter *, GdkPixbuf *);
    void (*insert_child_anchor) (GtkTextBuffer *, GtkTextIter *,
                                GtkTextChildAnchor *);
    void (*delete_range) (GtkTextBuffer *, GtkTextIter *, GtkTextIter *);
    void (*changed) (GtkTextBuffer *);
    void (*modified_changed) (GtkTextBuffer *);
    void (*mark_set) (GtkTextBuffer *, const GtkTextIter *, GtkTextMark *);
    void (*mark_deleted) (GtkTextBuffer *, GtkTextMark *);
    void (*apply_tag) (GtkTextBuffer *, GtkTextTag *, const GtkTextIter *,
                      const GtkTextIter *);
    void (*remove_tag) (GtkTextBuffer *, GtkTextTag *, const GtkTextIter *,
                       const GtkTextIter *);
    void (*begin_user_action) (GtkTextBuffer *);
    void (*end_user_action) (GtkTextBuffer *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
    void (*_gtk_reserved6) (void);
} GtkTextBufferClass;
typedef struct _GtkVRuler {
    GtkRuler ruler;
} GtkVRuler;
typedef struct _GtkSocketClass {
    GtkContainerClass parent_class;
    void (*plug_added) (GtkSocket *);
    gboolean(*plug_removed) (GtkSocket *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkSocketClass;
typedef struct _GtkIconThemeClass {
    GObjectClass parent_class;
    void (*changed) (GtkIconTheme *);

```



```

} GtkIconThemeClass;
typedef struct _GtkVPaned {
    GtkPaned paned;
} GtkVPaned;
typedef struct _GtkTableChild {
    GtkWidget *widget;
    guint16 left_attach;
    guint16 right_attach;
    guint16 top_attach;
    guint16 bottom_attach;
    guint16 xpadding;
    guint16 ypadding;
    guint xexpand:1;
    guint yexpand:1;
    guint xshrink:1;
    guint yshrink:1;
    guint xfill:1;
    guint yfill:1;
} GtkTableChild;
typedef struct _GtkArrowClass {
    GtkMiscClass parent_class;
} GtkArrowClass;
typedef struct _GtkHScrollbar {
    GtkScrollbar scrollbar;
} GtkHScrollbar;
typedef struct _GtkFileChooserWidgetPrivate GtkFileChooserWidgetPrivate;
typedef struct _GtkFileChooserWidget {
    GtkVBox parent_instance;
    GtkFileChooserWidgetPrivate *priv;
} GtkFileChooserWidget;
typedef struct _GtkPlugClass {
    GtkWindowClass parent_class;
    void (*embedded) (GtkPlug *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkPlugClass;
typedef struct _GtkCellRendererPixbufClass {
    GtkCellRendererClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkCellRendererPixbufClass;
typedef struct _GtkVButtonBoxClass {
    GtkButtonBoxClass parent_class;
} GtkVButtonBoxClass;
typedef struct _GtkTextChildAnchorClass {
    GObjectClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTextChildAnchorClass;
typedef struct _GtkCellRendererCombo {
    GtkCellRendererText parent;
    GtkTreeModel *model;
    gint text_column;
    gboolean has_entry;
    guint focus_out_id;
} GtkCellRendererCombo;

```

```

typedef struct _GtkTreeModelIface {
    GTypeInterface g_iface;
    void (*row_changed) (GtkTreeModel *, GtkTreePath *, GtkTreeIter *);
    void (*row_inserted) (GtkTreeModel *, GtkTreePath *, GtkTreeIter *);
    void (*row_has_child_toggled) (GtkTreeModel *, GtkTreePath *,
                                   GtkTreeIter *);
    void (*row_deleted) (GtkTreeModel *, GtkTreePath *);
    void (*rows_reordered) (GtkTreeModel *, GtkTreePath *, GtkTreeIter *,
                             gint *);
    GtkTreeModelFlags (*get_flags) (GtkTreeModel *);
    gint (*get_n_columns) (GtkTreeModel *);
    GType (*get_column_type) (GtkTreeModel *, gint);
    gboolean (*get_iter) (GtkTreeModel *, GtkTreeIter *, GtkTreePath *);
    GtkTreePath * (*get_path) (GtkTreeModel *, GtkTreeIter *);
    void (*get_value) (GtkTreeModel *, GtkTreeIter *, gint, GValue *);
    gboolean (*iter_next) (GtkTreeModel *, GtkTreeIter *);
    gboolean (*iter_children) (GtkTreeModel *, GtkTreeIter *,
                              GtkTreeIter *);
    gboolean (*iter_has_child) (GtkTreeModel *, GtkTreeIter *);
    gint (*iter_n_children) (GtkTreeModel *, GtkTreeIter *);
    gboolean (*iter_nth_child) (GtkTreeModel *, GtkTreeIter *,
                               GtkTreeIter *, gint);
    gboolean (*iter_parent) (GtkTreeModel *, GtkTreeIter *, GtkTreeIter *);
    void (*ref_node) (GtkTreeModel *, GtkTreeIter *);
    void (*unref_node) (GtkTreeModel *, GtkTreeIter *);
} GtkTreeModelIface;

typedef struct _GtkAccessibleClass {
    AtkObjectClass parent_class;
    void (*connect_widget_destroyed) (GtkAccessible *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkAccessibleClass;

typedef struct _GtkCellRendererTextClass {
    GtkCellRendererClass parent_class;
    void (*edited) (GtkCellRendererText *, const gchar *, const gchar *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkCellRendererTextClass;

typedef struct _GtkVScaleClass {
    GtkScaleClass parent_class;
} GtkVScaleClass;

typedef struct _GtkCurveClass {
    GtkDrawingAreaClass parent_class;
    void (*curve_type_changed) (GtkCurve *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkCurveClass;

typedef struct _GtkSeparatorToolItemClass {
    GtkToolItemClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkSeparatorToolItemClass;

typedef struct _GtkStyleClass {
    GObjectClass parent_class;

```

```

void (*realize) (GtkStyle *);
void (*unrealize) (GtkStyle *);
void (*copy) (GtkStyle *, GtkStyle *);
GtkStyle *(*clone) (GtkStyle *);
void (*init_from_rc) (GtkStyle *, GtkRcStyle *);
void (*set_background) (GtkStyle *, GdkWindow *, GtkStateType);
GdkPixbuf *(*render_icon) (GtkStyle *, const GtkIconSource *,
                           GtkTextDirection, GtkStateType, GtkIconSize,
                           GtkWidget *, const gchar *);
void (*draw_hline) (GtkStyle *, GdkWindow *, GtkStateType,
                   GdkRectangle *, GtkWidget *, const gchar *, gint,
                   gint, gint);
void (*draw_vline) (GtkStyle *, GdkWindow *, GtkStateType,
                   GdkRectangle *, GtkWidget *, const gchar *, gint,
                   gint, gint);
void (*draw_shadow) (GtkStyle *, GdkWindow *, GtkStateType,
                   GtkShadowType, GdkRectangle *, GtkWidget *,
                   const gchar *, gint, gint, gint, gint);
void (*draw_polygon) (GtkStyle *, GdkWindow *, GtkStateType,
                   GtkShadowType, GdkRectangle *, GtkWidget *,
                   const gchar *, GdkPoint *, gint, gboolean);
void (*draw_arrow) (GtkStyle *, GdkWindow *, GtkStateType,
                   GtkShadowType, GdkRectangle *, GtkWidget *,
                   const gchar *, GtkArrowType, gboolean, gint, gint,
                   gint, gint);
void (*draw_diamond) (GtkStyle *, GdkWindow *, GtkStateType,
                   GtkShadowType, GdkRectangle *, GtkWidget *,
                   const gchar *, gint, gint, gint, gint);
void (*draw_string) (GtkStyle *, GdkWindow *, GtkStateType,
                   GdkRectangle *, GtkWidget *, const gchar *, gint,
                   gint, const gchar *);
void (*draw_box) (GtkStyle *, GdkWindow *, GtkStateType, GtkShadowType,
                 GdkRectangle *, GtkWidget *, const gchar *, gint,
                 gint, gint, gint);
void (*draw_flat_box) (GtkStyle *, GdkWindow *, GtkStateType,
                    GtkShadowType, GdkRectangle *, GtkWidget *,
                    const gchar *, gint, gint, gint, gint);
void (*draw_check) (GtkStyle *, GdkWindow *, GtkStateType,
                  GtkShadowType, GdkRectangle *, GtkWidget *,
                  const gchar *, gint, gint, gint, gint);
void (*draw_option) (GtkStyle *, GdkWindow *, GtkStateType,
                   GtkShadowType, GdkRectangle *, GtkWidget *,
                   const gchar *, gint, gint, gint, gint);
void (*draw_tab) (GtkStyle *, GdkWindow *, GtkStateType, GtkShadowType,
                 GdkRectangle *, GtkWidget *, const gchar *, gint,
                 gint, gint, gint);
void (*draw_shadow_gap) (GtkStyle *, GdkWindow *, GtkStateType,
                      GtkShadowType, GdkRectangle *, GtkWidget *,
                      const gchar *, gint, gint, gint, gint,
                      GtkPositionType, gint, gint);
void (*draw_box_gap) (GtkStyle *, GdkWindow *, GtkStateType,
                    GtkShadowType, GdkRectangle *, GtkWidget *,
                    const gchar *, gint, gint, gint, gint,
                    GtkPositionType, gint, gint);
void (*draw_extension) (GtkStyle *, GdkWindow *, GtkStateType,
                      GtkShadowType, GdkRectangle *, GtkWidget *,
                      const gchar *, gint, gint, gint, gint,
                      GtkPositionType);
void (*draw_focus) (GtkStyle *, GdkWindow *, GtkStateType,
                   GdkRectangle *, GtkWidget *, const gchar *, gint,
                   gint, gint, gint);
void (*draw_slider) (GtkStyle *, GdkWindow *, GtkStateType,

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        GtkShadowType, GdkRectangle *, GtkWidget *,
        const gchar *, gint, gint, gint, gint,
        GtkOrientation);
void (*draw_handle) (GtkStyle *, GdkWindow *, GtkStateType,
        GtkShadowType, GdkRectangle *, GtkWidget *,
        const gchar *, gint, gint, gint, gint,
        GtkOrientation);
void (*draw_expander) (GtkStyle *, GdkWindow *, GtkStateType,
        GdkRectangle *, GtkWidget *, const gchar *,
        gint, gint, GtkExpanderStyle);
void (*draw_layout) (GtkStyle *, GdkWindow *, GtkStateType, gboolean,
        GdkRectangle *, GtkWidget *, const gchar *, gint,
        gint, PangoLayout *);
void (*draw_resize_grip) (GtkStyle *, GdkWindow *, GtkStateType,
        GdkRectangle *, GtkWidget *, const gchar *,
        GdkWindowEdge, gint, gint, gint, gint);

void (*_gtk_reserved1) (void);
void (*_gtk_reserved2) (void);
void (*_gtk_reserved3) (void);
void (*_gtk_reserved4) (void);
void (*_gtk_reserved5) (void);
void (*_gtk_reserved6) (void);
void (*_gtk_reserved7) (void);
void (*_gtk_reserved8) (void);
void (*_gtk_reserved9) (void);
void (*_gtk_reserved10) (void);
void (*_gtk_reserved11) (void);
void (*_gtk_reserved12) (void);
} GtkStyleClass;
typedef struct _GtkSeparatorMenuItemClass {
    GtkMenuItemClass parent_class;
} GtkSeparatorMenuItemClass;
typedef struct _GtkIMMulticontextClass {
    GtkIMContextClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkIMMulticontextClass;
typedef struct _GtkToggleToolButtonClass {
    GtkToolButtonClass parent_class;
    void (*toggled) (GtkToggleToolButton *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkToggleToolButtonClass;
typedef struct _GtkRadioToolButtonClass {
    GtkToggleToolButtonClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkRadioToolButtonClass;
typedef struct _GtkCellRendererProgressClass {
    GtkCellRendererClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkCellRendererProgressClass;
typedef struct _GtkVScrollbar {

```

```

    GtkScrollbar scrollbar;
} GtkVScrollbar;
typedef struct _GtkVPanedClass {
    GtkPanedClass parent_class;
} GtkVPanedClass;
typedef struct _GtkToggleButtonClass {
    GtkButtonClass parent_class;
    void (*toggled) (GtkToggleButton *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkToggleButtonClass;
typedef struct _GtkCellRendererToggleClass {
    GtkCellRendererClass parent_class;
    void (*toggled) (GtkCellRendererToggle *, const gchar *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkCellRendererToggleClass;
typedef struct _GtkVButtonBox {
    GtkButtonBox button_box;
} GtkVButtonBox;
typedef struct _GtkTreeDragDestIface {
    GTypeInterface g_iface;
    gboolean(*drag_data_received) (GtkTreeDragDest *, GtkTreePath *,
                                   GtkSelectionData *);
    gboolean(*row_drop_possible) (GtkTreeDragDest *, GtkTreePath *,
                                   GtkSelectionData *);
} GtkTreeDragDestIface;
typedef struct _GtkColorSelectionClass {
    GtkVBoxClass parent_class;
    void (*color_changed) (GtkColorSelection *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkColorSelectionClass;
typedef struct _GtkCellRendererProgressPrivate
    GtkCellRendererProgressPrivate;
typedef struct _GtkCellRendererProgress {
    GtkCellRenderer parent_instance;
    GtkCellRendererProgressPrivate *priv;
} GtkCellRendererProgress;
typedef struct _GtkImageClass {
    GtkMiscClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkImageClass;
typedef struct _GtkMessageDialogClass {
    GtkDialogClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkMessageDialogClass;
typedef struct _GtkTreeSortableIface {
    GTypeInterface g_iface;
    void (*sort_column_changed) (GtkTreeSortable *);

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```

    gboolean(*get_sort_column_id) (GtkTreeSortable *, gint *,
                                   GtkSortType *);
void (*set_sort_column_id) (GtkTreeSortable *, gint, GtkSortType);
void (*set_sort_func) (GtkTreeSortable *, gint, GtkTreeIterCompareFunc,
                       gpointer, GtkDestroyNotify);
void (*set_default_sort_func) (GtkTreeSortable *,
                               GtkTreeIterCompareFunc, gpointer,
                               GtkDestroyNotify);
    gboolean(*has_default_sort_func) (GtkTreeSortable *);
} GtkTreeSortableIface;
typedef struct _GtkCalendarClass {
    GtkWidgetClass parent_class;
    void (*month_changed) (GtkCalendar *);
    void (*day_selected) (GtkCalendar *);
    void (*day_selected_double_click) (GtkCalendar *);
    void (*prev_month) (GtkCalendar *);
    void (*next_month) (GtkCalendar *);
    void (*prev_year) (GtkCalendar *);
    void (*next_year) (GtkCalendar *);
} GtkCalendarClass;
typedef struct _GtkEntryClass {
    GtkWidgetClass parent_class;
    void (*populate_popup) (GtkEntry *, GtkMenu *);
    void (*activate) (GtkEntry *);
    void (*move_cursor) (GtkEntry *, GtkMovementStep, gint, gboolean);
    void (*insert_at_cursor) (GtkEntry *, const gchar *);
    void (*delete_from_cursor) (GtkEntry *, GtkDeleteType, gint);
    void (*backspace) (GtkEntry *);
    void (*cut_clipboard) (GtkEntry *);
    void (*copy_clipboard) (GtkEntry *);
    void (*paste_clipboard) (GtkEntry *);
    void (*toggle_overwrite) (GtkEntry *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
} GtkEntryClass;
typedef struct _GtkSpinButtonClass {
    GtkEntryClass parent_class;
    gint(*input) (GtkSpinButton *, gdouble *);
    gint(*output) (GtkSpinButton *);
    void (*value_changed) (GtkSpinButton *);
    void (*change_value) (GtkSpinButton *, GtkScrollType);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkSpinButtonClass;
typedef struct _GtkInputDialog {
    GtkDialog dialog;
    GtkWidget *axis_list;
    GtkWidget *axis_listbox;
    GtkWidget *mode_optionmenu;
    GtkWidget *close_button;
    GtkWidget *save_button;
    GtkWidget *axis_items[7];
    GdkDevice *current_device;
    GtkWidget *keys_list;
    GtkWidget *keys_listbox;
} GtkInputDialog;
typedef struct _GtkInputDialogClass {
    GtkDialogClass parent_class;
    void (*enable_device) (GtkInputDialog *, GdkDevice *);

```

```

void (*disable_device) (GtkInputDialog *, GdkDevice *);
void (*_gtk_reserved1) (void);
void (*_gtk_reserved2) (void);
void (*_gtk_reserved3) (void);
void (*_gtk_reserved4) (void);
} GtkInputDialogClass;
typedef struct _GtkEntryCompletionClass {
    GObjectClass parent_class;
    gboolean(*match_selected) (GtkEntryCompletion *, GtkTreeModel *,
                               GtkTreeIter *);
    void (*action_activated) (GtkEntryCompletion *, gint);
    gboolean(*insert_prefix) (GtkEntryCompletion *, const gchar *);
    void (*_gtk_reserved0) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
} GtkEntryCompletionClass;
typedef struct _GtkAlignmentClass {
    GtkBinClass parent_class;
} GtkAlignmentClass;
typedef struct _GtkTreeModelFilterClass {
    GObjectClass parent_class;
    void (*_gtk_reserved0) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
} GtkTreeModelFilterClass;
typedef struct _GtkRcStyleClass {
    GObjectClass parent_class;
    GtkRcStyle *(*create_rc_style) (GtkRcStyle *);
    guint(*parse) (GtkRcStyle *, GtkSettings *, GScanner *);
    void (*merge) (GtkRcStyle *, GtkRcStyle *);
    GtkStyle *(*create_style) (GtkRcStyle *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkRcStyleClass;
typedef struct _GtkUIManagerClass {
    GObjectClass parent_class;
    void (*add_widget) (GtkUIManager *, GtkWidget *);
    void (*actions_changed) (GtkUIManager *);
    void (*connect_proxy) (GtkUIManager *, GtkAction *, GtkWidget *);
    void (*disconnect_proxy) (GtkUIManager *, GtkAction *, GtkWidget *);
    void (*pre_activate) (GtkUIManager *, GtkAction *);
    void (*post_activate) (GtkUIManager *, GtkAction *);
    GtkWidget *(*get_widget) (GtkUIManager *, const gchar *);
    GtkAction *(*get_action) (GtkUIManager *, const gchar *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
} GtkUIManagerClass;
typedef struct _GtkSeparatorClass {
    GtkWidgetClass parent_class;
} GtkSeparatorClass;
typedef struct _GtkVSeparatorClass {
    GtkSeparatorClass parent_class;
} GtkVSeparatorClass;
typedef struct _GtkCheckButtonClass {
    GtkToggleButtonClass parent_class;
    void (*draw_indicator) (GtkCheckButton *, GdkRectangle *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);

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```

    void (*_gtk_reserved4) (void);
} GtkCheckButtonClass;
typedef struct _GtkRadioMenuItemClass {
    GtkCheckMenuItemClass parent_class;
    void (*group_changed) (GtkRadioMenuItem *);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkRadioMenuItemClass;
typedef struct _GtkTextViewClass {
    GtkContainerClass parent_class;
    void (*set_scroll_adjustments) (GtkTextView *, GtkAdjustment *,
                                    GtkAdjustment *);
    void (*populate_popup) (GtkTextView *, GtkMenu *);
    void (*move_cursor) (GtkTextView *, GtkMovementStep, gint, gboolean);
    void (*page_horizontally) (GtkTextView *, gint, gboolean);
    void (*set_anchor) (GtkTextView *);
    void (*insert_at_cursor) (GtkTextView *, const gchar *);
    void (*delete_from_cursor) (GtkTextView *, GtkDeleteType, gint);
    void (*backspace) (GtkTextView *);
    void (*cut_clipboard) (GtkTextView *);
    void (*copy_clipboard) (GtkTextView *);
    void (*paste_clipboard) (GtkTextView *);
    void (*toggle_overwrite) (GtkTextView *);
    void (*move_focus) (GtkTextView *, GtkDirectionType);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
    void (*_gtk_reserved6) (void);
    void (*_gtk_reserved7) (void);
} GtkTextViewClass;
typedef void (*GtkColorSelectionChangePaletteFunc) (const GdkColor *,
                                                    gint);
typedef struct _GtkTreeModelSortClass {
    GObjectClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTreeModelSortClass;
typedef struct _GtkCellEditableIface {
    GTypeInterface g_iface;
    void (*editing_done) (GtkCellEditable *);
    void (*remove_widget) (GtkCellEditable *);
    void (*start_editing) (GtkCellEditable *, GdkEvent *);
} GtkCellEditableIface;
typedef struct _GtkToolbarClass {
    GtkContainerClass parent_class;
    void (*orientation_changed) (GtkToolbar *, GtkOrientation);
    void (*style_changed) (GtkToolbar *, GtkToolbarStyle);
    gboolean(*popup_context_menu) (GtkToolbar *, gint, gint, gint);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
} GtkToolbarClass;
typedef struct _GtkHandleBoxClass {
    GtkBinClass parent_class;
    void (*child_attached) (GtkHandleBox *, GtkWidget *);
    void (*child_detached) (GtkHandleBox *, GtkWidget *);
    void (*_gtk_reserved1) (void);

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    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkHandleBoxClass;
typedef struct _GtkHSeparator {
    GtkSeparator separator;
} GtkHSeparator;
typedef struct _GtkTextTagTableClass {
    GObjectClass parent_class;
    void (*tag_changed) (GtkTextTagTable *, GtkTextTag *, gboolean);
    void (*tag_added) (GtkTextTagTable *, GtkTextTag *);
    void (*tag_removed) (GtkTextTagTable *, GtkTextTag *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTextTagTableClass;
typedef struct _GtkComboBoxClass {
    GtkBinClass parent_class;
    void (*changed) (GtkComboBox *);
    gchar *(*get_active_text) (GtkComboBox *);
    void (*_gtk_reserved0) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
} GtkComboBoxClass;
typedef struct _GtkComboBoxEntryClass {
    GtkComboBoxClass parent_class;
    void (*_gtk_reserved0) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
} GtkComboBoxEntryClass;
typedef struct _GtkFontSelectionClass {
    GtkVBoxClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkFontSelectionClass;
typedef struct _GtkFrameClass {
    GtkBinClass parent_class;
    void (*compute_child_allocation) (GtkFrame *, GtkAllocation *);
} GtkFrameClass;
typedef struct _GtkHScrollbarClass {
    GtkScrollbarClass parent_class;
} GtkHScrollbarClass;
typedef struct _GtkFileSelectionClass {
    GtkDialogClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkFileSelectionClass;
typedef struct _GtkScrolledWindowClass {
    GtkBinClass parent_class;
    gint scrollbar_spacing;
    void (*scroll_child) (GtkScrolledWindow *, GtkScrollType, gboolean);
    void (*move_focus_out) (GtkScrolledWindow *, GtkDirectionType);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
}

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```

} GtkScrolledWindowClass;
typedef struct _GtkTextMarkClass {
    GObjectClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTextMarkClass;
typedef struct _GtkToolbarPrivate GtkToolbarPrivate;
typedef struct _GtkVScale {
    GtkScale scale;
} GtkVScale;
typedef struct _GtkFixedChild {
    GtkWidget *widget;
    gint x;
    gint y;
} GtkFixedChild;
typedef struct _GtkLayoutClass {
    GtkContainerClass parent_class;
    void (*set_scroll_adjustments) (GtkLayout *, GtkAdjustment *,
                                    GtkAdjustment *);

    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkLayoutClass;
typedef struct _GtkEventBoxClass {
    GtkBinClass parent_class;
} GtkEventBoxClass;
typedef struct _GtkIMContextSimpleClass {
    GtkIMContextClass parent_class;
} GtkIMContextSimpleClass;
typedef struct _GtkExpanderClass {
    GtkBinClass parent_class;
    void (*activate) (GtkExpander *);
} GtkExpanderClass;
typedef struct _GtkProgressClass {
    GtkWidgetClass parent_class;
    void (*paint) (GtkProgress *);
    void (*update) (GtkProgress *);
    void (*act_mode_enter) (GtkProgress *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkProgressClass;
typedef void (*GtkModuleInitFunc) (gint *, gchar * **);
typedef struct _GtkFileChooserDialogClass {
    GtkDialogClass parent_class;
} GtkFileChooserDialogClass;
typedef struct _GtkVScrollbarClass {
    GtkScrollbarClass parent_class;
} GtkVScrollbarClass;
typedef struct _GtkTableClass {
    GtkContainerClass parent_class;
} GtkTableClass;
typedef struct _GtkFontButtonClass {
    GtkButtonClass parent_class;
    void (*font_set) (GtkFontButton *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);

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    void (*_gtk_reserved4) (void);
} GtkFontButtonClass;
typedef struct _GtkHSeparatorClass {
    GtkSeparatorClass parent_class;
} GtkHSeparatorClass;
typedef struct _GtkColorSelectionDialogClass {
    GtkDialogClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkColorSelectionDialogClass;
typedef struct _GtkColorButtonClass {
    GtkButtonClass parent_class;
    void (*color_set) (GtkColorButton *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkColorButtonClass;
typedef struct _GtkMenuBar {
    GtkMenuShell menu_shell;
} GtkMenuBar;
typedef struct _GtkMenuBarClass {
    GtkMenuShellClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkMenuBarClass;
typedef struct _GtkColorSelectionDialog {
    GtkDialog parent_instance;
    GtkWidget *colorsel;
    GtkWidget *ok_button;
    GtkWidget *cancel_button;
    GtkWidget *help_button;
} GtkColorSelectionDialog;
typedef struct _GtkStatusbarClass {
    GtkHBoxClass parent_class;
    gpointer reserved;
    void (*text_pushed) (GtkStatusbar *, guint, const gchar *);
    void (*text_popped) (GtkStatusbar *, guint, const gchar *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkStatusbarClass;
typedef struct _GtkSeparatorMenuItem {
    GtkMenuItem menu_item;
} GtkSeparatorMenuItem;
typedef struct _GtkAboutDialogClass {
    GtkDialogClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkAboutDialogClass;
typedef struct _GtkListStoreClass {
    GObjectClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);

```

```

    void (*_gtk_reserved4) (void);
} GtkListStoreClass;
typedef struct _GtkFileChooserButtonClass {
    GtkHBoxClass parent_class;
    void *_gtk_reserved1;
    void *_gtk_reserved2;
    void *_gtk_reserved3;
    void *_gtk_reserved4;
    void *_gtk_reserved5;
    void *_gtk_reserved6;
    void *_gtk_reserved7;
    void *_gtk_reserved8;
} GtkFileChooserButtonClass;
typedef enum {
    GTK_TOOLBAR_SPACE_EMPTY = 0,
    GTK_TOOLBAR_SPACE_LINE = 1
} GtkToolbarSpaceStyle;
typedef struct _GtkMenuClass {
    GtkMenuShellClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkMenuClass;
typedef struct _GtkHScale {
    GtkScale scale;
} GtkHScale;
typedef struct _GtkGammaCurveClass {
    GtkVBoxClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkGammaCurveClass;
typedef struct _GtkCellRendererComboClass {
    GtkCellRendererTextClass parent;
} GtkCellRendererComboClass;
typedef struct _GtkTearoffMenuItem {
    GtkMenuItem menu_item;
    guint torn_off:1;
} GtkTearoffMenuItem;
typedef struct _GtkNotebookClass {
    GtkContainerClass parent_class;
    void (*switch_page) (GtkNotebook *, GtkNotebookPage *, guint);
    gboolean(*select_page) (GtkNotebook *, gboolean);
    gboolean(*focus_tab) (GtkNotebook *, GtkNotebookTab);
    void (*change_current_page) (GtkNotebook *, gint);
    void (*move_focus_out) (GtkNotebook *, GtkDirectionType);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkNotebookClass;
typedef struct _GtkImageMenuItemClass {
    GtkMenuItemClass parent_class;
} GtkImageMenuItemClass;
typedef struct _GtkTooltipsClass {
    GtkObjectClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
}

```

```

} GtkTooltipsClass;
typedef struct _GtkTreeViewClass {
    GtkContainerClass parent_class;
    void (*set_scroll_adjustments) (GtkTreeView *, GtkAdjustment *,
                                    GtkAdjustment *);
    void (*row_activated) (GtkTreeView *, GtkTreePath *,
                           GtkTreeViewColumn *);
    gboolean(*test_expand_row) (GtkTreeView *, GtkTreeIter *,
                                GtkTreePath *);
    gboolean(*test_collapse_row) (GtkTreeView *, GtkTreeIter *,
                                  GtkTreePath *);
    void (*row_expanded) (GtkTreeView *, GtkTreeIter *, GtkTreePath *);
    void (*row_collapsed) (GtkTreeView *, GtkTreeIter *, GtkTreePath *);
    void (*columns_changed) (GtkTreeView *);
    void (*cursor_changed) (GtkTreeView *);
    gboolean(*move_cursor) (GtkTreeView *, GtkMovementStep, gint);
    gboolean(*select_all) (GtkTreeView *);
    gboolean(*unselect_all) (GtkTreeView *);
    gboolean(*select_cursor_row) (GtkTreeView *, gboolean);
    gboolean(*toggle_cursor_row) (GtkTreeView *);
    gboolean(*expand_collapse_cursor_row) (GtkTreeView *, gboolean,
                                           gboolean, gboolean);
    gboolean(*select_cursor_parent) (GtkTreeView *);
    gboolean(*start_interactive_search) (GtkTreeView *);
    void (*_gtk_reserved0) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTreeViewClass;
typedef struct _GtkFileChooserWidgetClass {
    GtkVBoxClass parent_class;
} GtkFileChooserWidgetClass;
typedef struct _GtkTearoffMenuItemClass {
    GtkMenuItemClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTearoffMenuItemClass;
typedef struct _GtkRadioButtonClass {
    GtkCheckButtonClass parent_class;
    void (*group_changed) (GtkRadioButton *);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkRadioButtonClass;
typedef struct _GtkAdjustmentClass {
    GtkObjectClass parent_class;
    void (*changed) (GtkAdjustment *);
    void (*value_changed) (GtkAdjustment *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkAdjustmentClass;
typedef struct _GtkHPaned {
    GtkPaned paned;
} GtkHPaned;
typedef struct _GtkRadioActionClass {
    GtkToggleActionClass parent_class;
    void (*changed) (GtkRadioAction *, GtkRadioAction *);

```

```

    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkRadioActionClass;
typedef struct _GtkTextTagClass {
    GObjectClass parent_class;
    gboolean(*event) (GtkTextTag *, GObject *, GdkEvent *,
                     const GtkTextIter *);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkTextTagClass;
typedef struct _GtkIconViewClass {
    GtkContainerClass parent_class;
    void (*set_scroll_adjustments) (GtkIconView *, GtkAdjustment *,
                                   GtkAdjustment *);
    void (*item_activated) (GtkIconView *, GtkTreePath *);
    void (*selection_changed) (GtkIconView *);
    void (*select_all) (GtkIconView *);
    void (*unselect_all) (GtkIconView *);
    void (*select_cursor_item) (GtkIconView *);
    void (*toggle_cursor_item) (GtkIconView *);
    gboolean(*move_cursor) (GtkIconView *, GtkMovementStep, gint);
    gboolean(*activate_cursor_item) (GtkIconView *);
} GtkIconViewClass;
typedef struct _GtkProgressBarClass {
    GtkProgressClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkProgressBarClass;
typedef struct _GtkAspectFrameClass {
    GtkFrameClass parent_class;
} GtkAspectFrameClass;
typedef struct _GtkGammaCurve {
    GtkVBox vbox;
    GtkWidget *table;
    GtkWidget *curve;
    GtkWidget *button[5];
    gfloat gamma;
    GtkWidget *gamma_dialog;
    GtkWidget *gamma_text;
} GtkGammaCurve;
typedef gboolean(*GtkAccelGroupActivate) (GtkAccelGroup *, GObject *,
                                         guint, GdkModifierType);
enum {
    GTK_TREE_SORTABLE_DEFAULT_SORT_COLUMN_ID = -1,
    GTK_TREE_SORTABLE_UNSORTED_SORT_COLUMN_ID = -2
};
typedef enum {
    GTK_DEBUG_MISC = 1 << 0,
    GTK_DEBUG_PLUGSOCKET = 1 << 1,
    GTK_DEBUG_TEXT = 1 << 2,
    GTK_DEBUG_TREE = 1 << 3,
    GTK_DEBUG_UPDATES = 1 << 4,
    GTK_DEBUG_KEYBINDINGS = 1 << 5,
    GTK_DEBUG_MULTIHEAD = 1 << 6,
    GTK_DEBUG_MODULES = 1 << 7,
    GTK_DEBUG_GEOMETRY = 1 << 8,

```

```

    GTK_DEBUG_ICONTHEME = 1 << 9
} GtkDebugFlag;
typedef enum {
    GTK_CELL_RENDERER_MODE_INERT,
    GTK_CELL_RENDERER_MODE_ACTIVATABLE,
    GTK_CELL_RENDERER_MODE_EDITABLE
} GtkCellRendererMode;
typedef enum {
    GTK_ICON_THEME_NOT_FOUND,
    GTK_ICON_THEME_FAILED
} GtkIconThemeError;
typedef enum {
    GTK_RESPONSE_NONE = -1,
    GTK_RESPONSE_REJECT = -2,
    GTK_RESPONSE_ACCEPT = -3,
    GTK_RESPONSE_DELETE_EVENT = -4,
    GTK_RESPONSE_OK = -5,
    GTK_RESPONSE_CANCEL = -6,
    GTK_RESPONSE_CLOSE = -7,
    GTK_RESPONSE_YES = -8,
    GTK_RESPONSE_NO = -9,
    GTK_RESPONSE_APPLY = -10,
    GTK_RESPONSE_HELP = -11
} GtkResponseType;
typedef enum {
    GTK_TARGET_SAME_APP = 1 << 0,
    GTK_TARGET_SAME_WIDGET = 1 << 1
} GtkTargetFlags;
typedef enum {
    GTK_FILE_CHOOSER_ERROR_NONEXISTENT,
    GTK_FILE_CHOOSER_ERROR_BAD_FILENAME
} GtkFileChooserError;
typedef enum {
    GTK_IN_DESTRUCTION = 1 << 0,
    GTK_FLOATING = 1 << 1,
    GTK_RESERVED_1 = 1 << 2,
    GTK_RESERVED_2 = 1 << 3
} GtkObjectFlags;
typedef enum {
    GTK_RC_TOKEN_INVALID = G_TOKEN_LAST,
    GTK_RC_TOKEN_INCLUDE,
    GTK_RC_TOKEN_NORMAL,
    GTK_RC_TOKEN_ACTIVE,
    GTK_RC_TOKEN_PRELIGHT,
    GTK_RC_TOKEN_SELECTED,
    GTK_RC_TOKEN_INSENSITIVE,
    GTK_RC_TOKEN_FG,
    GTK_RC_TOKEN_BG,
    GTK_RC_TOKEN_TEXT,
    GTK_RC_TOKEN_BASE,
    GTK_RC_TOKEN_XTHICKNESS,
    GTK_RC_TOKEN_YTHICKNESS,
    GTK_RC_TOKEN_FONT,
    GTK_RC_TOKEN_FONTSET,
    GTK_RC_TOKEN_FONT_NAME,
    GTK_RC_TOKEN_BG_PIXMAP,
    GTK_RC_TOKEN_PIXMAP_PATH,
    GTK_RC_TOKEN_STYLE,
    GTK_RC_TOKEN_BINDING,
    GTK_RC_TOKEN_BIND,
    GTK_RC_TOKEN_WIDGET,
    GTK_RC_TOKEN_WIDGET_CLASS,

```

```

    GTK_RC_TOKEN_CLASS,
    GTK_RC_TOKEN_LOWEST,
    GTK_RC_TOKEN_GTK,
    GTK_RC_TOKEN_APPLICATION,
    GTK_RC_TOKEN_THEME,
    GTK_RC_TOKEN_RC,
    GTK_RC_TOKEN_HIGHEST,
    GTK_RC_TOKEN_ENGINE,
    GTK_RC_TOKEN_MODULE_PATH,
    GTK_RC_TOKEN_IM_MODULE_PATH,
    GTK_RC_TOKEN_IM_MODULE_FILE,
    GTK_RC_TOKEN_STOCK,
    GTK_RC_TOKEN_LTR,
    GTK_RC_TOKEN_RTL,
    GTK_RC_TOKEN_LAST
} GtkRcTokenType;
typedef enum {
    GTK_TOPLEVEL = 1 << 4,
    GTK_NO_WINDOW = 1 << 5,
    GTK_REALIZED = 1 << 6,
    GTK_MAPPED = 1 << 7,
    GTK_VISIBLE = 1 << 8,
    GTK_SENSITIVE = 1 << 9,
    GTK_PARENT_SENSITIVE = 1 << 10,
    GTK_CAN_FOCUS = 1 << 11,
    GTK_HAS_FOCUS = 1 << 12,
    GTK_CAN_DEFAULT = 1 << 13,
    GTK_HAS_DEFAULT = 1 << 14,
    GTK_HAS_GRAB = 1 << 15,
    GTK_RC_STYLE = 1 << 16,
    GTK_COMPOSITE_CHILD = 1 << 17,
    GTK_NO_REPARENT = 1 << 18,
    GTK_APP_PAINTABLE = 1 << 19,
    GTK_RECEIVES_DEFAULT = 1 << 20,
    GTK_DOUBLE_BUFFERED = 1 << 21,
    GTK_NO_SHOW_ALL = 1 << 22
} GtkWidgetFlags;
typedef enum {
    GTK_ICON_VIEW_NO_DROP,
    GTK_ICON_VIEW_DROP_INTRO,
    GTK_ICON_VIEW_DROP_LEFT,
    GTK_ICON_VIEW_DROP_RIGHT,
    GTK_ICON_VIEW_DROP_ABOVE,
    GTK_ICON_VIEW_DROP_BELOW
} GtkIconViewDropPosition;
typedef struct _GtkPageSetup GtkPageSetup;
typedef struct _GtkPrintContext GtkPrintContext;
typedef struct _GtkPaperSize GtkPaperSize;
typedef struct _GtkPrintOperationClass {
    GObjectClass parent_class;
    void (*done) (void);
    void (*begin_print) (void);
    gboolean(*paginate) (void);
    void (*request_page_setup) (void);
    void (*draw_page) (void);
    void (*end_print) (void);
    void (*status_changed) (void);
    GtkWidget *(*create_custom_widget) (void);
    void (*custom_widget_apply) (void);
    gboolean(*preview) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);

```



```

    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
    void (*_gtk_reserved6) (void);
    void (*_gtk_reserved7) (void);
} GtkPrintOperationClass;
typedef struct _GtkPrintOperationPrivate GtkPrintOperationPrivate;
typedef struct _GtkPrintOperation {
    GObject parent_instance;
    GtkPrintOperationPrivate *priv;
} GtkPrintOperation;
typedef enum {
    GTK_PRINT_STATUS_INITIAL,
    GTK_PRINT_STATUS_PREPARING,
    GTK_PRINT_STATUS_GENERATING_DATA,
    GTK_PRINT_STATUS_SENDING_DATA,
    GTK_PRINT_STATUS_PENDING,
    GTK_PRINT_STATUS_PENDING_ISSUE,
    GTK_PRINT_STATUS_PRINTING,
    GTK_PRINT_STATUS_FINISHED,
    GTK_PRINT_STATUS_FINISHED_ABORTED
} GtkPrintStatus;
typedef enum {
    GTK_PRINT_OPERATION_RESULT_ERROR,
    GTK_PRINT_OPERATION_RESULT_APPLY,
    GTK_PRINT_OPERATION_RESULT_CANCEL,
    GTK_PRINT_OPERATION_RESULT_IN_PROGRESS
} GtkPrintOperationResult;
typedef enum {
    GTK_PRINT_OPERATION_ACTION_PRINT_DIALOG,
    GTK_PRINT_OPERATION_ACTION_PRINT,
    GTK_PRINT_OPERATION_ACTION_PREVIEW,
    GTK_PRINT_OPERATION_ACTION_EXPORT
} GtkPrintOperationAction;
typedef enum {
    GTK_PRINT_ERROR_GENERAL,
    GTK_PRINT_ERROR_INTERNAL_ERROR,
    GTK_PRINT_ERROR_NOMEM,
    GTK_PRINT_ERROR_INVALID_FILE
} GtkPrintError;
typedef void (*GtkPageSetupDoneFunc) (GtkPageSetup *, gpointer);
typedef struct _GtkPrintSettings GtkPrintSettings;
typedef void (*GtkPrintSettingsFunc) (const char *, const char *,
                                      gpointer);

typedef struct _GtkPageRange {
    gint start;
    gint end;
} GtkPageRange;
typedef struct _GtkLinkButton {
    GtkButton parent_instance;
    GtkLinkButtonPrivate *priv;
} GtkLinkButton;
typedef struct _GtkLinkButtonClass {
    GtkButtonClass parent_class;
    void (*_gtk_padding1) (void);
    void (*_gtk_padding2) (void);
    void (*_gtk_padding3) (void);
    void (*_gtk_padding4) (void);
} GtkLinkButtonClass;
typedef struct _GtkLinkButtonPrivate GtkLinkButtonPrivate;
typedef void (*GtkLinkButtonUriFunc) (GtkLinkButton *, const char *,
                                      gpointer);

```

```

typedef GtkNotebook *(*GtkNotebookWindowCreationFunc) (GtkNotebook *,
                                                         GtkWidget *, gint,
                                                         gint, gpointer);

typedef enum {
    GTK_ASSISTANT_PAGE_CONTENT,
    GTK_ASSISTANT_PAGE_INTRO,
    GTK_ASSISTANT_PAGE_CONFIRM,
    GTK_ASSISTANT_PAGE_SUMMARY,
    GTK_ASSISTANT_PAGE_PROGRESS
} GtkAssistantPageType;
typedef struct _GtkAssistant {
    GtkWindow parent;
    GtkWidget *cancel;
    GtkWidget *forward;
    GtkWidget *back;
    GtkWidget *apply;
    GtkWidget *close;
    GtkWidget *last;
    GtkAssistantPrivate *priv;
} GtkAssistant;
typedef struct _GtkAssistantPrivate GtkAssistantPrivate;
typedef struct _GtkAssistantClass {
    GtkWindowClass parent_class;
    void (*prepare) (void);
    void (*apply) (void);
    void (*close) (void);
    void (*cancel) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
} GtkAssistantClass;
typedef gint(*GtkAssistantPageFunc) (gint, gpointer);
typedef enum {
    GTK_RECENT_SORT_NONE,
    GTK_RECENT_SORT_MRU,
    GTK_RECENT_SORT_LRU,
    GTK_RECENT_SORT_CUSTOM
} GtkRecentSortType;
typedef gint(*GtkRecentSortFunc) (GtkRecentInfo *, GtkRecentInfo *,
                                   gpointer);
typedef struct _GtkRecentChooser GtkRecentChooser;
typedef struct _GtkRecentChooserIface {
    GTypeInterface base_iface;
    gboolean(*set_current_uri) (void);
    gchar *(*get_current_uri) (void);
    gboolean(*select_uri) (void);
    void (*unselect_uri) (void);
    void (*select_all) (void);
    void (*unselect_all) (void);
    GList *(*get_items) (void);
    GtkRecentManager *(*get_recent_manager) (void);
    void (*add_filter) (void);
    void (*remove_filter) (void);
    GSList *(*list_filters) (void);
    void (*set_sort_func) (void);
    void (*item_activated) (void);
    void (*selection_changed) (void);
} GtkRecentChooserIface;
typedef enum {
    GTK_RECENT_CHOOSER_ERROR_NOT_FOUND,

```

```

    GTK_RECENT_CHOOSER_ERROR_INVALID_URI
} GtkRecentChooserError;
typedef struct _GtkRecentChooserDialog {
    GtkDialog parent_instance;
    GtkRecentChooserDialogPrivate *priv;
} GtkRecentChooserDialog;
typedef struct _GtkRecentChooserDialogClass {
    GtkDialogClass parent_class;
} GtkRecentChooserDialogClass;
typedef struct _GtkRecentChooserDialogPrivate
    GtkRecentChooserDialogPrivate;
typedef struct _GtkRecentChooserWidget {
    GtkVBox parent_instance;
    GtkRecentChooserWidgetPrivate *priv;
} GtkRecentChooserWidget;
typedef struct _GtkRecentChooserWidgetClass {
    GtkVBoxClass parent_class;
} GtkRecentChooserWidgetClass;
typedef struct _GtkRecentChooserWidgetPrivate
    GtkRecentChooserWidgetPrivate;
typedef struct _GtkRecentChooserMenu {
    GtkMenu parent_instance;
    GtkRecentChooserMenuPrivate *priv;
} GtkRecentChooserMenu;
typedef struct _GtkRecentChooserMenuClass {
    GtkMenuClass parent_class;
    void (*gtk_recent1) (void);
    void (*gtk_recent2) (void);
    void (*gtk_recent3) (void);
    void (*gtk_recent4) (void);
} GtkRecentChooserMenuClass;
typedef struct _GtkRecentChooserMenuPrivate GtkRecentChooserMenuPrivate;
typedef void (*GtkClipboardRichTextReceivedFunc) (GtkClipboard *, GdkAtom,
                                                    const unsigned char *,
                                                    gsize, gpointer);

typedef struct _GtkCellRendererSpin {
    GtkCellRendererText parent;
} GtkCellRendererSpin;
typedef struct _GtkCellRendererSpinClass {
    GtkCellRendererTextClass parent;
} GtkCellRendererSpinClass;
typedef struct _GtkCellRendererSpinPrivate GtkCellRendererSpinPrivate;
typedef struct _GtkCellRendererAccel {
    GtkCellRendererText parent;
    guint accel_key;
    GdkModifierType accel_mods;
    guint keycode;
    GtkCellRendererAccelMode accel_mode;
    GtkWidget *edit_widget;
    GtkWidget *grab_widget;
    GtkWidget *sizing_label;
} GtkCellRendererAccel;
typedef struct _GtkCellRendererAccelClass {
    GtkCellRendererTextClass parent_class;
    void (*accel_edited) (void);
    void (*accel_cleared) (void);
    void (*_gtk_reserved0) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
} GtkCellRendererAccelClass;

```

```

typedef enum {
    GTK_CELL_RENDERER_ACCEL_MODE_GTK,
    GTK_CELL_RENDERER_ACCEL_MODE_OTHER
} GtkCellRendererAccelMode;
typedef void (*GtkTreeViewSearchPositionFunc) (GtkTreeView *, GtkWidget *,
                                                gpointer);
extern const gchar *const *gtk_about_dialog_get_artists(GtkAboutDialog *
                                                         about);
extern const gchar *const *gtk_about_dialog_get_authors(GtkAboutDialog *
                                                         about);
extern const gchar *gtk_about_dialog_get_comments(GtkAboutDialog * about);
extern const gchar *gtk_about_dialog_get_copyright(GtkAboutDialog * about);
extern const gchar *const *gtk_about_dialog_get_documenters(GtkAboutDialog
                                                            * about);
extern const gchar *gtk_about_dialog_get_license(GtkAboutDialog * about);
extern GdkPixbuf *gtk_about_dialog_get_logo(GtkAboutDialog * about);
extern const gchar *gtk_about_dialog_get_logo_icon_name(GtkAboutDialog *
                                                         about);
extern const gchar *gtk_about_dialog_get_name(GtkAboutDialog * about);
extern const gchar *gtk_about_dialog_get_translator_credits(GtkAboutDialog
                                                            * about);

extern GType gtk_about_dialog_get_type(void);
extern const gchar *gtk_about_dialog_get_version(GtkAboutDialog * about);
extern const gchar *gtk_about_dialog_get_website(GtkAboutDialog * about);
extern const gchar *gtk_about_dialog_get_website_label(GtkAboutDialog *
                                                         about);

extern gboolean gtk_about_dialog_get_wrap_license(GtkAboutDialog * about);
extern GtkWidget *gtk_about_dialog_new(void);
extern void gtk_about_dialog_set_artists(GtkAboutDialog * about,
                                         const gchar * *artists);
extern void gtk_about_dialog_set_authors(GtkAboutDialog * about,
                                         const gchar * *authors);
extern void gtk_about_dialog_set_comments(GtkAboutDialog * about,
                                         const gchar * comments);
extern void gtk_about_dialog_set_copyright(GtkAboutDialog * about,
                                         const gchar * copyright);
extern void gtk_about_dialog_set_documenters(GtkAboutDialog * about,
                                             const gchar * *documenters);

extern GtkAboutDialogActivateLinkFunc
gtk_about_dialog_set_email_hook(GtkAboutDialogActivateLinkFunc func,
                                gpointer data, GDestroyNotify destroy);
extern void gtk_about_dialog_set_license(GtkAboutDialog * about,
                                         const gchar * license);
extern void gtk_about_dialog_set_logo(GtkAboutDialog * about,
                                      GdkPixbuf * logo);
extern void gtk_about_dialog_set_logo_icon_name(GtkAboutDialog * about,
                                                const gchar * icon_name);
extern void gtk_about_dialog_set_name(GtkAboutDialog * about,
                                      const gchar * name);
extern void gtk_about_dialog_set_translator_credits(GtkAboutDialog * about,
                                                    const gchar *
                                                    translator_credits);

extern GtkAboutDialogActivateLinkFunc
gtk_about_dialog_set_url_hook(GtkAboutDialogActivateLinkFunc func,
                              gpointer data, GDestroyNotify destroy);
extern void gtk_about_dialog_set_version(GtkAboutDialog * about,
                                         const gchar * version);
extern void gtk_about_dialog_set_website(GtkAboutDialog * about,
                                         const gchar * website);
extern void gtk_about_dialog_set_website_label(GtkAboutDialog * about,
                                              const gchar *
                                              website_label);

```

```

extern void gtk_about_dialog_set_wrap_license(GtkAboutDialog * about,
                                              gboolean wrap_license);

extern GType gtk_accel_flags_get_type(void);
extern gboolean gtk_accel_group_activate(GtkAccelGroup * accel_group,
                                         GQuark accel_quark,
                                         GObject * acceleratable,
                                         guint accel_key,
                                         GdkModifierType accel_mods);
extern void gtk_accel_group_connect(GtkAccelGroup * accel_group,
                                    guint accel_key,
                                    GdkModifierType accel_mods,
                                    GtkAccelFlags accel_flags,
                                    GClosure * closure);
extern void gtk_accel_group_connect_by_path(GtkAccelGroup * accel_group,
                                             const gchar * accel_path,
                                             GClosure * closure);
extern gboolean gtk_accel_group_disconnect(GtkAccelGroup * accel_group,
                                           GClosure * closure);
extern gboolean gtk_accel_group_disconnect_key(GtkAccelGroup * accel_group,
                                              guint accel_key,
                                              GdkModifierType accel_mods);
extern GtkAccelKey *gtk_accel_group_find(GtkAccelGroup * accel_group,
                                         GtkAccelGroupFindFunc find_func,
                                         gpointer data);
extern GtkAccelGroup *gtk_accel_group_from_accel_closure(GClosure *
                                                         closure);

extern GType gtk_accel_group_get_type(void);
extern void gtk_accel_group_lock(GtkAccelGroup * accel_group);
extern GtkAccelGroup *gtk_accel_group_new(void);
extern GtkAccelGroupEntry *gtk_accel_group_query(GtkAccelGroup *
                                                  accel_group,
                                                  guint accel_key,
                                                  GdkModifierType
                                                  accel_mods,
                                                  guint * n_entries);
extern void gtk_accel_group_unlock(GtkAccelGroup * accel_group);
extern gboolean gtk_accel_groups_activate(GObject * object,
                                          guint accel_key,
                                          GdkModifierType accel_mods);
extern GSList *gtk_accel_groups_from_object(GObject * object);
extern GtkWidget *gtk_accel_label_get_accel_widget(GtkAccelLabel *
                                                  accel_label);

extern guint gtk_accel_label_get_accel_width(GtkAccelLabel * accel_label);
extern GType gtk_accel_label_get_type(void);
extern GtkWidget *gtk_accel_label_new(const gchar * string);
extern gboolean gtk_accel_label_refetch(GtkAccelLabel * accel_label);
extern void gtk_accel_label_set_accel_closure(GtkAccelLabel * accel_label,
                                              GClosure * accel_closure);
extern void gtk_accel_label_set_accel_widget(GtkAccelLabel * accel_label,
                                              GtkWidget * accel_widget);
extern void gtk_accel_map_add_entry(const gchar * accel_path,
                                   guint accel_key,
                                   GdkModifierType accel_mods);
extern void gtk_accel_map_add_filter(const gchar * filter_pattern);
extern gboolean gtk_accel_map_change_entry(const gchar * accel_path,
                                           guint accel_key,
                                           GdkModifierType accel_mods,
                                           gboolean replace);
extern void gtk_accel_map_foreach(gpointer data,
                                  GtkAccelMapForeach foreach_func);
extern void gtk_accel_map_foreach_unfiltered(gpointer data,
                                              GtkAccelMapForeach

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                                foreach_func);
extern GtkAccelMap *gtk_accel_map_get(void);
extern GType gtk_accel_map_get_type(void);
extern void gtk_accel_map_load(const gchar * file_name);
extern void gtk_accel_map_load_fd(gint fd);
extern void gtk_accel_map_load_scanner(GScanner * scanner);
extern void gtk_accel_map_lock_path(const gchar * accel_path);
extern gboolean gtk_accel_map_lookup_entry(const gchar * accel_path,
                                           GtkAccelKey * key);
extern void gtk_accel_map_save(const gchar * file_name);
extern void gtk_accel_map_save_fd(gint fd);
extern void gtk_accel_map_unlock_path(const gchar * accel_path);
extern guint gtk_accelerator_get_default_mod_mask(void);
extern gchar *gtk_accelerator_get_label(guint accelerator_key,
                                         GdkModifierType accelerator_mods);
extern gchar *gtk_accelerator_name(guint accelerator_key,
                                   GdkModifierType accelerator_mods);
extern void gtk_accelerator_parse(const gchar * accelerator,
                                  guint * accelerator_key,
                                  GdkModifierType * accelerator_mods);
extern void gtk_accelerator_set_default_mod_mask(GdkModifierType
                                                  default_mod_mask);
extern gboolean gtk_accelerator_valid(guint keyval,
                                      GdkModifierType modifiers);
extern void gtk_accessible_connect_widget_destroyed(GtkAccessible *
                                                    accessible);

extern GType gtk_accessible_get_type(void);
extern void gtk_action_activate(GtkAction * action);
extern void gtk_action_block_activate_from(GtkAction * action,
                                           GtkWidget * proxy);
extern void gtk_action_connect_accelerator(GtkAction * action);
extern void gtk_action_connect_proxy(GtkAction * action,
                                     GtkWidget * proxy);
extern GtkWidget *gtk_action_create_icon(GtkAction * action,
                                         GtkIconSize icon_size);
extern GtkWidget *gtk_action_create_menu_item(GtkAction * action);
extern GtkWidget *gtk_action_create_tool_item(GtkAction * action);
extern void gtk_action_disconnect_accelerator(GtkAction * action);
extern void gtk_action_disconnect_proxy(GtkAction * action,
                                       GtkWidget * proxy);
extern GClosure *gtk_action_get_accel_closure(GtkAction * action);
extern const gchar *gtk_action_get_accel_path(GtkAction * action);
extern const gchar *gtk_action_get_name(GtkAction * action);
extern GSList *gtk_action_get_proxies(GtkAction * action);
extern gboolean gtk_action_get_sensitive(GtkAction * action);
extern GType gtk_action_get_type(void);
extern gboolean gtk_action_get_visible(GtkAction * action);
extern void gtk_action_group_add_action(GtkActionGroup * action_group,
                                       GtkAction * action);
extern void gtk_action_group_add_action_with_accel(GtkActionGroup *
                                                  action_group,
                                                  GtkAction * action,
                                                  const gchar *
                                                  accelerator);
extern void gtk_action_group_add_actions(GtkActionGroup * action_group,
                                         const GtkActionEntry * entries,
                                         guint n_entries,
                                         gpointer user_data);
extern void gtk_action_group_add_actions_full(GtkActionGroup *
                                              action_group,
                                              const GtkActionEntry *
                                              entries,
                                              guint n_entries,

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                                gpointer user_data,
                                GDestroyNotify destroy);
extern void gtk_action_group_add_radio_actions(GtkActionGroup *
                                action_group,
                                const GtkRadioActionEntry *
                                entries, guint n_entries,
                                gint value,
                                GCallback on_change,
                                gpointer user_data);
extern void gtk_action_group_add_radio_actions_full(GtkActionGroup *
                                action_group,
                                const
                                GtkRadioActionEntry *
                                entries,
                                guint n_entries,
                                gint value,
                                GCallback on_change,
                                gpointer user_data,
                                GDestroyNotify
                                destroy);
extern void gtk_action_group_add_toggle_actions(GtkActionGroup *
                                action_group,
                                const GtkToggleActionEntry
                                * entries, guint n_entries,
                                gpointer user_data);
extern void gtk_action_group_add_toggle_actions_full(GtkActionGroup *
                                action_group,
                                const
                                GtkToggleActionEntry *
                                entries,
                                guint n_entries,
                                gpointer user_data,
                                GDestroyNotify
                                destroy);
extern GtkAction *gtk_action_group_get_action(GtkActionGroup *
                                action_group,
                                const gchar * action_name);
extern const gchar *gtk_action_group_get_name(GtkActionGroup *
                                action_group);
extern gboolean gtk_action_group_get_sensitive(GtkActionGroup *
                                action_group);
extern GType gtk_action_group_get_type(void);
extern gboolean gtk_action_group_get_visible(GtkActionGroup *
                                action_group);
extern GList *gtk_action_group_list_actions(GtkActionGroup * action_group);
extern GtkActionGroup *gtk_action_group_new(const gchar * name);
extern void gtk_action_group_remove_action(GtkActionGroup * action_group,
                                GtkAction * action);
extern void gtk_action_group_set_sensitive(GtkActionGroup * action_group,
                                gboolean sensitive);
extern void gtk_action_group_set_translate_func(GtkActionGroup *
                                action_group,
                                GtkTranslateFunc func,
                                gpointer data,
                                GtkDestroyNotify notify);
extern void gtk_action_group_set_translation_domain(GtkActionGroup *
                                action_group,
                                const gchar * domain);
extern void gtk_action_group_set_visible(GtkActionGroup * action_group,
                                gboolean visible);
extern const gchar *gtk_action_group_translate_string(GtkActionGroup *
                                action_group,

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const gchar *
string);
extern gboolean gtk_action_is_sensitive(GtkAction * action);
extern gboolean gtk_action_is_visible(GtkAction * action);
extern GtkAction *gtk_action_new(const gchar * name, const gchar * label,
                                const gchar * tooltip,
                                const gchar * stock_id);
extern void gtk_action_set_accel_group(GtkAction * action,
                                       GtkAccelGroup * accel_group);
extern void gtk_action_set_accel_path(GtkAction * action,
                                       const gchar * accel_path);
extern void gtk_action_set_sensitive(GtkAction * action,
                                       gboolean sensitive);
extern void gtk_action_set_visible(GtkAction * action, gboolean visible);
extern void gtk_action_unblock_activate_from(GtkAction * action,
                                              GtkWidget * proxy);
extern void gtk_adjustment_changed(GtkAdjustment * adjustment);
extern void gtk_adjustment_clamp_page(GtkAdjustment * adjustment,
                                       gdouble lower, gdouble upper);
extern GType gtk_adjustment_get_type(void);
extern gdouble gtk_adjustment_get_value(GtkAdjustment * adjustment);
extern GObject *gtk_adjustment_new(gdouble value, gdouble lower,
                                   gdouble upper, gdouble step_increment,
                                   gdouble page_increment,
                                   gdouble page_size);
extern void gtk_adjustment_set_value(GtkAdjustment * adjustment,
                                       gdouble value);
extern void gtk_adjustment_value_changed(GtkAdjustment * adjustment);
extern void gtk_alignment_get_padding(GtkAlignment * alignment,
                                       guint * padding_top,
                                       guint * padding_bottom,
                                       guint * padding_left,
                                       guint * padding_right);
extern GType gtk_alignment_get_type(void);
extern GtkWidget *gtk_alignment_new(gfloat xalign, gfloat yalign,
                                    gfloat xscale, gfloat yscale);
extern void gtk_alignment_set(GtkAlignment * alignment, gfloat xalign,
                              gfloat yalign, gfloat xscale, gfloat yscale);
extern void gtk_alignment_set_padding(GtkAlignment * alignment,
                                       guint padding_top,
                                       guint padding_bottom,
                                       guint padding_left,
                                       guint padding_right);
extern gboolean gtk_alternative_dialog_button_order(GdkScreen * screen);
extern GType gtk_anchor_type_get_type(void);
extern GType gtk_arg_flags_get_type(void);
extern GType gtk_arrow_get_type(void);
extern GtkWidget *gtk_arrow_new(GtkArrowType arrow_type,
                                 GtkShadowType shadow_type);
extern void gtk_arrow_set(GtkArrow * arrow, GtkArrowType arrow_type,
                           GtkShadowType shadow_type);
extern GType gtk_arrow_type_get_type(void);
extern GType gtk_aspect_frame_get_type(void);
extern GtkWidget *gtk_aspect_frame_new(const gchar * label, gfloat xalign,
                                       gfloat yalign, gfloat ratio,
                                       gboolean obey_child);
extern void gtk_aspect_frame_set(GtkAspectRatio * aspect_frame,
                                  gfloat xalign, gfloat yalign,
                                  gfloat ratio, gboolean obey_child);
extern void gtk_assistant_add_action_widget(GtkAssistant * assistant,
                                             GtkWidget * child);
extern gint gtk_assistant_append_page(GtkAssistant * assistant,

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        GtkWidget * page);
extern gint gtk_assistant_get_current_page(GtkAssistant * assistant);
extern gint gtk_assistant_get_n_pages(GtkAssistant * assistant);
extern GtkWidget *gtk_assistant_get_nth_page(GtkAssistant * assistant,
        gint page_num);
extern gboolean gtk_assistant_get_page_complete(GtkAssistant * assistant,
        GtkWidget * page);
extern GdkPixbuf *gtk_assistant_get_page_header_image(GtkAssistant *
        assistant,
        GtkWidget * page);
extern GdkPixbuf *gtk_assistant_get_page_side_image(GtkAssistant *
        assistant,
        GtkWidget * page);
extern const char *gtk_assistant_get_page_title(GtkAssistant * assistant,
        GtkWidget * page);
extern GtkAssistantPageType gtk_assistant_get_page_type(GtkAssistant *
        assistant,
        GtkWidget * page);

extern GType gtk_assistant_get_type(void);
extern gint gtk_assistant_insert_page(GtkAssistant * assistant,
        GtkWidget * page, gint position);
extern GtkWidget *gtk_assistant_new(void);
extern GType gtk_assistant_page_type_get_type(void);
extern gint gtk_assistant_prepend_page(GtkAssistant * assistant,
        GtkWidget * page);
extern void gtk_assistant_remove_action_widget(GtkAssistant * assistant,
        GtkWidget * child);
extern void gtk_assistant_set_current_page(GtkAssistant * assistant,
        gint page_num);
extern void gtk_assistant_set_forward_page_func(GtkAssistant * assistant,
        GtkAssistantPageFunc
        page_func, gpointer data,
        GDestroyNotify destroy);
extern void gtk_assistant_set_page_complete(GtkAssistant * assistant,
        GtkWidget * page,
        gboolean complete);
extern void gtk_assistant_set_page_header_image(GtkAssistant * assistant,
        GtkWidget * page,
        GdkPixbuf * pixbuf);
extern void gtk_assistant_set_page_side_image(GtkAssistant * assistant,
        GtkWidget * page,
        GdkPixbuf * pixbuf);
extern void gtk_assistant_set_page_title(GtkAssistant * assistant,
        GtkWidget * page,
        const char *title);
extern void gtk_assistant_set_page_type(GtkAssistant * assistant,
        GtkWidget * page,
        GtkAssistantPageType type);
extern void gtk_assistant_update_buttons_state(GtkAssistant * assistant);
extern GType gtk_attach_options_get_type(void);
extern GtkWidget *gtk_bin_get_child(GtkBin * bin);
extern GType gtk_bin_get_type(void);
extern const guint gtk_binary_age;
extern void gtk_binding_entry_add_signal(GtkBindingSet * binding_set,
        guint keyval,
        GdkModifierType modifiers,
        const gchar * signal_name,
        guint n_args, ...);
extern void gtk_binding_entry_add_signal1(GtkBindingSet * binding_set,
        guint keyval,
        GdkModifierType modifiers,
        const gchar * signal_name,

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                                GSList * binding_args);
extern void gtk_binding_entry_clear(GtkBindingSet * binding_set,
                                guint keyval,
                                GdkModifierType modifiers);
extern void gtk_binding_entry_remove(GtkBindingSet * binding_set,
                                guint keyval,
                                GdkModifierType modifiers);
extern guint gtk_binding_parse_binding(GScanner * scanner);
extern gboolean gtk_binding_set_activate(GtkBindingSet * binding_set,
                                guint keyval,
                                GdkModifierType modifiers,
                                GObject * object);
extern void gtk_binding_set_add_path(GtkBindingSet * binding_set,
                                GtkPathType path_type,
                                const gchar * path_pattern,
                                GtkPathPriorityType priority);
extern GtkBindingSet *gtk_binding_set_by_class(gpointer object_class);
extern GtkBindingSet *gtk_binding_set_find(const gchar * set_name);
extern GtkBindingSet *gtk_binding_set_new(const gchar * set_name);
extern gboolean gtk_bindings_activate(GObject * object, guint keyval,
                                GdkModifierType modifiers);
extern gboolean gtk_bindings_activate_event(GObject * object,
                                GdkEventKey * event);
extern GtkBorder *gtk_border_copy(const GtkBorder * border_);
extern void gtk_border_free(GtkBorder * border_);
extern GType gtk_border_get_type(void);
extern gboolean gtk_box_get_homogeneous(GtkBox * box);
extern gint gtk_box_get_spacing(GtkBox * box);
extern GType gtk_box_get_type(void);
extern void gtk_box_pack_end(GtkBox * box, GtkWidget * child,
                                gboolean expand, gboolean fill,
                                guint padding);
extern void gtk_box_pack_end_defaults(GtkBox * box, GtkWidget * widget);
extern void gtk_box_pack_start(GtkBox * box, GtkWidget * child,
                                gboolean expand, gboolean fill,
                                guint padding);
extern void gtk_box_pack_start_defaults(GtkBox * box, GtkWidget * widget);
extern void gtk_box_query_child_packing(GtkBox * box, GtkWidget * child,
                                gboolean * expand, gboolean * fill,
                                guint * padding,
                                GtkPackType * pack_type);
extern void gtk_box_reorder_child(GtkBox * box, GtkWidget * child,
                                gint position);
extern void gtk_box_set_child_packing(GtkBox * box, GtkWidget * child,
                                gboolean expand, gboolean fill,
                                guint padding,
                                GtkPackType pack_type);
extern void gtk_box_set_homogeneous(GtkBox * box, gboolean homogeneous);
extern void gtk_box_set_spacing(GtkBox * box, gint spacing);
extern gboolean gtk_button_box_get_child_secondary(GtkButtonBox * widget,
                                GtkWidget * child);
extern GtkButtonBoxStyle gtk_button_box_get_layout(GtkButtonBox * widget);
extern GType gtk_button_box_get_type(void);
extern void gtk_button_box_set_child_secondary(GtkButtonBox * widget,
                                GtkWidget * child,
                                gboolean is_secondary);
extern void gtk_button_box_set_layout(GtkButtonBox * widget,
                                GtkButtonBoxStyle layout_style);
extern GType gtk_button_box_style_get_type(void);
extern void gtk_button_clicked(GtkButton * button);
extern void gtk_button_enter(GtkButton * button);
extern void gtk_button_get_alignment(GtkButton * button, gfloat * xalign,

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                                gfloat * yalign);
extern gboolean gtk_button_get_focus_on_click(GtkButton * button);
extern GtkWidget *gtk_button_get_image(GtkButton * button);
extern GtkPositionType gtk_button_get_image_position(GtkButton * button);
extern const gchar *gtk_button_get_label(GtkButton * button);
extern GtkReliefStyle gtk_button_get_relief(GtkButton * button);
extern GType gtk_button_get_type(void);
extern gboolean gtk_button_get_use_stock(GtkButton * button);
extern gboolean gtk_button_get_use_underline(GtkButton * button);
extern void gtk_button_leave(GtkButton * button);
extern GtkWidget *gtk_button_new(void);
extern GtkWidget *gtk_button_new_from_stock(const gchar * stock_id);
extern GtkWidget *gtk_button_new_with_label(const gchar * label);
extern GtkWidget *gtk_button_new_with_mnemonic(const gchar * label);
extern void gtk_button_pressed(GtkButton * button);
extern void gtk_button_released(GtkButton * button);
extern void gtk_button_set_alignment(GtkButton * button, gfloat xalign,
                                gfloat yalign);
extern void gtk_button_set_focus_on_click(GtkButton * button,
                                gboolean focus_on_click);
extern void gtk_button_set_image(GtkButton * button, GtkWidget * image);
extern void gtk_button_set_image_position(GtkButton * button,
                                GtkPositionType position);
extern void gtk_button_set_label(GtkButton * button, const gchar * label);
extern void gtk_button_set_relief(GtkButton * button,
                                GtkReliefStyle newstyle);
extern void gtk_button_set_use_stock(GtkButton * button,
                                gboolean use_stock);
extern void gtk_button_set_use_underline(GtkButton * button,
                                gboolean use_underline);
extern GType gtk_buttons_type_get_type(void);
extern void gtk_calendar_clear_marks(GtkCalendar * calendar);
extern GType gtk_calendar_display_options_get_type(void);
extern void gtk_calendar_get_date(GtkCalendar * calendar, guint * year,
                                guint * month, guint * day);
extern GtkCalendarDisplayOptions
gtk_calendar_get_display_options(GtkCalendar * calendar);
extern GType gtk_calendar_get_type(void);
extern gboolean gtk_calendar_mark_day(GtkCalendar * calendar, guint day);
extern GtkWidget *gtk_calendar_new(void);
extern void gtk_calendar_select_day(GtkCalendar * calendar, guint day);
extern gboolean gtk_calendar_select_month(GtkCalendar * calendar,
                                guint month, guint year);
extern void gtk_calendar_set_display_options(GtkCalendar * calendar,
                                GtkCalendarDisplayOptions
                                flags);
extern gboolean gtk_calendar_unmark_day(GtkCalendar * calendar, guint day);
extern void gtk_cell_editable_editing_done(GtkCellEditable *
                                cell_editable);
extern GType gtk_cell_editable_get_type(void);
extern void gtk_cell_editable_remove_widget(GtkCellEditable *
                                cell_editable);
extern void gtk_cell_editable_start_editing(GtkCellEditable *
                                cell_editable,
                                GdkEvent * event);
extern void gtk_cell_layout_add_attribute(GtkCellLayout * cell_layout,
                                GtkCellRenderer * cell,
                                const gchar * attribute,
                                gint column);
extern void gtk_cell_layout_clear(GtkCellLayout * cell_layout);
extern void gtk_cell_layout_clear_attributes(GtkCellLayout * cell_layout,
                                GtkCellRenderer * cell);

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extern GType gtk_cell_layout_get_type(void);
extern void gtk_cell_layout_pack_end(GtkCellLayout * cell_layout,
                                     GtkCellRenderer * cell,
                                     gboolean expand);
extern void gtk_cell_layout_pack_start(GtkCellLayout * cell_layout,
                                       GtkCellRenderer * cell,
                                       gboolean expand);
extern void gtk_cell_layout_reorder(GtkCellLayout * cell_layout,
                                    GtkCellRenderer * cell, gint position);
extern void gtk_cell_layout_set_attributes(GtkCellLayout * cell_layout,
                                           GtkCellRenderer * cell, ...);
extern void gtk_cell_layout_set_cell_data_func(GtkCellLayout * cell_layout,
                                               GtkCellRenderer * cell,
                                               GtkCellLayoutDataFunc func,
                                               gpointer func_data,
                                               GDestroyNotify destroy);

extern GType gtk_cell_renderer_accel_get_type(void);
extern GType gtk_cell_renderer_accel_mode_get_type(void);
extern GtkCellRenderer *gtk_cell_renderer_accel_new(void);
extern gboolean gtk_cell_renderer_activate(GtkCellRenderer * cell,
                                           GdkEvent * event,
                                           GtkWidget * widget,
                                           const gchar * path,
                                           const GdkRectangle *
                                           background_area,
                                           const GdkRectangle * cell_area,
                                           GtkCellRendererState flags);

extern GType gtk_cell_renderer_combo_get_type(void);
extern GtkCellRenderer *gtk_cell_renderer_combo_new(void);
extern void gtk_cell_renderer_get_fixed_size(GtkCellRenderer * cell,
                                              gint * width, gint * height);
extern void gtk_cell_renderer_get_size(GtkCellRenderer * cell,
                                       GtkWidget * widget,
                                       const GdkRectangle * cell_area,
                                       gint * x_offset, gint * y_offset,
                                       gint * width, gint * height);

extern GType gtk_cell_renderer_get_type(void);
extern GType gtk_cell_renderer_mode_get_type(void);
extern GType gtk_cell_renderer_pixbuf_get_type(void);
extern GtkCellRenderer *gtk_cell_renderer_pixbuf_new(void);
extern GType gtk_cell_renderer_progress_get_type(void);
extern GtkCellRenderer *gtk_cell_renderer_progress_new(void);
extern void gtk_cell_renderer_render(GtkCellRenderer * cell,
                                     GdkWindow * window,
                                     GtkWidget * widget,
                                     const GdkRectangle * background_area,
                                     const GdkRectangle * cell_area,
                                     const GdkRectangle * expose_area,
                                     GtkCellRendererState flags);
extern void gtk_cell_renderer_set_fixed_size(GtkCellRenderer * cell,
                                              gint width, gint height);

extern GType gtk_cell_renderer_spin_get_type(void);
extern GtkCellRenderer *gtk_cell_renderer_spin_new(void);
extern GtkCellEditable *gtk_cell_renderer_start_editing(GtkCellRenderer *
                                                         cell,
                                                         GdkEvent * event,
                                                         GtkWidget * widget,
                                                         const gchar * path,
                                                         const GdkRectangle
                                                         * background_area,
                                                         const GdkRectangle
                                                         * cell_area,

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                                GtkCellRendererState
                                flags);
extern GType gtk_cell_renderer_state_get_type(void);
extern void gtk_cell_renderer_stop_editing(GtkCellRenderer * cell,
                                           gboolean canceled);
extern GType gtk_cell_renderer_text_get_type(void);
extern GtkCellRenderer *gtk_cell_renderer_text_new(void);
extern void
gtk_cell_renderer_text_set_fixed_height_from_font(GtkCellRendererText *
                                                  renderer,
                                                  gint number_of_rows);
extern gboolean gtk_cell_renderer_toggle_get_active(GtkCellRendererToggle *
                                                  toggle);
extern gboolean gtk_cell_renderer_toggle_get_radio(GtkCellRendererToggle *
                                                  toggle);
extern GType gtk_cell_renderer_toggle_get_type(void);
extern GtkCellRenderer *gtk_cell_renderer_toggle_new(void);
extern void gtk_cell_renderer_toggle_set_active(GtkCellRendererToggle *
                                                  toggle, gboolean setting);
extern void gtk_cell_renderer_toggle_set_radio(GtkCellRendererToggle *
                                                  toggle, gboolean radio);
extern GList *gtk_cell_view_get_cell_renderers(GtkCellView * cell_view);
extern GtkTreePath *gtk_cell_view_get_displayed_row(GtkCellView *
                                                  cell_view);
extern gboolean gtk_cell_view_get_size_of_row(GtkCellView * cell_view,
                                              GtkTreePath * path,
                                              GtkRequisition *
                                              requisition);

extern GType gtk_cell_view_get_type(void);
extern GtkWidget *gtk_cell_view_new(void);
extern GtkWidget *gtk_cell_view_new_with_markup(const gchar * markup);
extern GtkWidget *gtk_cell_view_new_with_pixbuf(GdkPixbuf * pixbuf);
extern GtkWidget *gtk_cell_view_new_with_text(const gchar * text);
extern void gtk_cell_view_set_background_color(GtkCellView * cell_view,
                                              const GdkColor * color);
extern void gtk_cell_view_set_displayed_row(GtkCellView * cell_view,
                                           GtkTreePath * path);
extern void gtk_cell_view_set_model(GtkCellView * cell_view,
                                   GtkTreeModel * model);
extern GType gtk_check_button_get_type(void);
extern GtkWidget *gtk_check_button_new(void);
extern GtkWidget *gtk_check_button_new_with_label(const gchar * label);
extern GtkWidget *gtk_check_button_new_with_mnemonic(const gchar * label);
extern gboolean gtk_check_menu_item_get_active(GtkCheckMenuItem *
                                              check_menu_item);
extern gboolean gtk_check_menu_item_get_draw_as_radio(GtkCheckMenuItem *
                                              check_menu_item);
extern gboolean gtk_check_menu_item_get_inconsistent(GtkCheckMenuItem *
                                              check_menu_item);
extern GType gtk_check_menu_item_get_type(void);
extern GtkWidget *gtk_check_menu_item_new(void);
extern GtkWidget *gtk_check_menu_item_new_with_label(const gchar * label);
extern GtkWidget *gtk_check_menu_item_new_with_mnemonic(const gchar *
                                                         label);
extern void gtk_check_menu_item_set_active(GtkCheckMenuItem *
                                           check_menu_item,
                                           gboolean is_active);
extern void gtk_check_menu_item_set_draw_as_radio(GtkCheckMenuItem *
                                                  check_menu_item,
                                                  gboolean draw_as_radio);
extern void gtk_check_menu_item_set_inconsistent(GtkCheckMenuItem *
                                                  check_menu_item,

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                                gboolean setting);
extern void gtk_check_menu_item_toggled(GtkCheckMenuItem *
                                check_menu_item);
extern const gchar *gtk_check_version(guint required_major,
                                guint required_minor,
                                guint required_micro);
extern void gtk_clipboard_clear(GtkClipboard * clipboard);
extern GtkClipboard *gtk_clipboard_get(GdkAtom selection);
extern GdkDisplay *gtk_clipboard_get_display(GtkClipboard * clipboard);
extern GtkClipboard *gtk_clipboard_get_for_display(GdkDisplay * display,
                                GdkAtom selection);
extern GObject *gtk_clipboard_get_owner(GtkClipboard * clipboard);
extern GType gtk_clipboard_get_type(void);
extern void gtk_clipboard_request_contents(GtkClipboard * clipboard,
                                GdkAtom target,
                                GtkClipboardReceivedFunc
                                callback, gpointer user_data);
extern void gtk_clipboard_request_image(GtkClipboard * clipboard,
                                GtkClipboardImageReceivedFunc
                                callback, gpointer user_data);
extern void gtk_clipboard_request_rich_text(GtkClipboard * clipboard,
                                GtkTextBuffer * buffer,
                                GtkClipboardRichTextReceivedFunc
                                callback, gpointer user_data);
extern void gtk_clipboard_request_targets(GtkClipboard * clipboard,
                                GtkClipboardTargetsReceivedFunc
                                callback, gpointer user_data);
extern void gtk_clipboard_request_text(GtkClipboard * clipboard,
                                GtkClipboardTextReceivedFunc
                                callback, gpointer user_data);
extern void gtk_clipboard_set_can_store(GtkClipboard * clipboard,
                                const GtkTargetEntry * targets,
                                gint n_targets);
extern void gtk_clipboard_set_image(GtkClipboard * clipboard,
                                GdkPixbuf * pixbuf);
extern void gtk_clipboard_set_text(GtkClipboard * clipboard,
                                const gchar * text, gint len);
extern gboolean gtk_clipboard_set_with_data(GtkClipboard * clipboard,
                                const GtkTargetEntry * targets,
                                guint n_targets,
                                GtkClipboardGetFunc get_func,
                                GtkClipboardClearFunc
                                clear_func,
                                gpointer user_data);
extern gboolean gtk_clipboard_set_with_owner(GtkClipboard * clipboard,
                                const GtkTargetEntry *
                                targets, guint n_targets,
                                GtkClipboardGetFunc get_func,
                                GtkClipboardClearFunc
                                clear_func, GObject * owner);
extern void gtk_clipboard_store(GtkClipboard * clipboard);
extern GtkSelectionData *gtk_clipboard_wait_for_contents(GtkClipboard *
                                clipboard,
                                GdkAtom target);
extern GdkPixbuf *gtk_clipboard_wait_for_image(GtkClipboard * clipboard);
extern guint8 *gtk_clipboard_wait_for_rich_text(GtkClipboard * clipboard,
                                GtkTextBuffer * buffer,
                                GdkAtom * format,
                                gsize * length);
extern gboolean gtk_clipboard_wait_for_targets(GtkClipboard * clipboard,
                                GdkAtom * *targets,
                                gint * n_targets);

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extern gchar *gtk_clipboard_wait_for_text(GtkClipboard * clipboard);
extern gboolean gtk_clipboard_wait_is_image_available(GtkClipboard *
                                                    clipboard);
extern gboolean gtk_clipboard_wait_is_rich_text_available(GtkClipboard *
                                                         clipboard,
                                                         GtkTextBuffer *
                                                         buffer);
extern gboolean gtk_clipboard_wait_is_target_available(GtkClipboard *
                                                       clipboard,
                                                       GdkAtom target);
extern gboolean gtk_clipboard_wait_is_text_available(GtkClipboard *
                                                     clipboard);
extern guint16 gtk_color_button_get_alpha(GtkColorButton * color_button);
extern void gtk_color_button_get_color(GtkColorButton * color_button,
                                       GdkColor * color);
extern const gchar *gtk_color_button_get_title(GtkColorButton *
                                               color_button);
extern GType gtk_color_button_get_type(void);
extern gboolean gtk_color_button_get_use_alpha(GtkColorButton *
                                               color_button);
extern GtkWidget *gtk_color_button_new(void);
extern GtkWidget *gtk_color_button_new_with_color(const GdkColor * color);
extern void gtk_color_button_set_alpha(GtkColorButton * color_button,
                                       guint16 alpha);
extern void gtk_color_button_set_color(GtkColorButton * color_button,
                                       const GdkColor * color);
extern void gtk_color_button_set_title(GtkColorButton * color_button,
                                       const gchar * title);
extern void gtk_color_button_set_use_alpha(GtkColorButton * color_button,
                                           gboolean use_alpha);
extern GType gtk_color_selection_dialog_get_type(void);
extern GtkWidget *gtk_color_selection_dialog_new(const gchar * title);
extern guint16 gtk_color_selection_get_current_alpha(GtkColorSelection *
                                                    colorsel);
extern void gtk_color_selection_get_current_color(GtkColorSelection *
                                                  colorsel,
                                                  GdkColor * color);

extern gboolean
gtk_color_selection_get_has_opacity_control(GtkColorSelection * colorsel);
extern gboolean gtk_color_selection_get_has_palette(GtkColorSelection *
                                                    colorsel);
extern guint16 gtk_color_selection_get_previous_alpha(GtkColorSelection *
                                                      colorsel);
extern void gtk_color_selection_get_previous_color(GtkColorSelection *
                                                  colorsel,
                                                  GdkColor * color);

extern GType gtk_color_selection_get_type(void);
extern gboolean gtk_color_selection_is_adjusting(GtkColorSelection *
                                                 colorsel);
extern GtkWidget *gtk_color_selection_new(void);
extern gboolean gtk_color_selection_palette_from_string(const gchar * str,
                                                       GdkColor * *colors,
                                                       gint * n_colors);
extern gchar *gtk_color_selection_palette_to_string(const GdkColor *
                                                    colors, gint n_colors);
extern GtkColorSelectionChangePaletteWithScreenFunc
gtk_color_selection_set_change_palette_with_screen_hook
(GtkColorSelectionChangePaletteWithScreenFunc func);
extern void gtk_color_selection_set_current_alpha(GtkColorSelection *
                                                  colorsel, guint16 alpha);
extern void gtk_color_selection_set_current_color(GtkColorSelection *
                                                  colorsel,

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                                const GdkColor * color);
extern void gtk_color_selection_set_has_opacity_control(GtkColorSelection *
                                colorsel,
                                gboolean
                                has_opacity);
extern void gtk_color_selection_set_has_palette(GtkColorSelection *
                                colorsel,
                                gboolean has_palette);
extern void gtk_color_selection_set_previous_alpha(GtkColorSelection *
                                colorsel,
                                guint16 alpha);
extern void gtk_color_selection_set_previous_color(GtkColorSelection *
                                colorsel,
                                const GdkColor * color);
extern void gtk_combo_box_append_text(GtkComboBox * combo_box,
                                const gchar * text);
extern gint gtk_combo_box_entry_get_text_column(GtkComboBoxEntry *
                                entry_box);
extern GType gtk_combo_box_entry_get_type(void);
extern GtkWidget *gtk_combo_box_entry_new(void);
extern GtkWidget *gtk_combo_box_entry_new_text(void);
extern GtkWidget *gtk_combo_box_entry_new_with_model(GtkTreeModel * model,
                                gint text_column);
extern void gtk_combo_box_entry_set_text_column(GtkComboBoxEntry *
                                entry_box,
                                gint text_column);
extern gint gtk_combo_box_get_active(GtkComboBox * combo_box);
extern gboolean gtk_combo_box_get_active_iter(GtkComboBox * combo_box,
                                GtkTreeIter * iter);
extern gchar *gtk_combo_box_get_active_text(GtkComboBox * combo_box);
extern gboolean gtk_combo_box_get_add_tearoffs(GtkComboBox * combo_box);
extern gint gtk_combo_box_get_column_span_column(GtkComboBox * combo_box);
extern gboolean gtk_combo_box_get_focus_on_click(GtkComboBox * combo);
extern GtkTreeModel *gtk_combo_box_get_model(GtkComboBox * combo_box);
extern AtkObject *gtk_combo_box_get_popup_accessible(GtkComboBox *
                                combo_box);

extern GtkTreeViewRowSeparatorFunc
gtk_combo_box_get_row_separator_func(GtkComboBox * combo_box);
extern gint gtk_combo_box_get_row_span_column(GtkComboBox * combo_box);
extern const gchar *gtk_combo_box_get_title(GtkComboBox * combo_box);
extern GType gtk_combo_box_get_type(void);
extern gint gtk_combo_box_get_wrap_width(GtkComboBox * combo_box);
extern void gtk_combo_box_insert_text(GtkComboBox * combo_box,
                                gint position, const gchar * text);

extern GtkWidget *gtk_combo_box_new(void);
extern GtkWidget *gtk_combo_box_new_text(void);
extern GtkWidget *gtk_combo_box_new_with_model(GtkTreeModel * model);
extern void gtk_combo_box_popdown(GtkComboBox * combo_box);
extern void gtk_combo_box_popup(GtkComboBox * combo_box);
extern void gtk_combo_box_prepend_text(GtkComboBox * combo_box,
                                const gchar * text);
extern void gtk_combo_box_remove_text(GtkComboBox * combo_box,
                                gint position);
extern void gtk_combo_box_set_active(GtkComboBox * combo_box, gint index_);
extern void gtk_combo_box_set_active_iter(GtkComboBox * combo_box,
                                GtkTreeIter * iter);
extern void gtk_combo_box_set_add_tearoffs(GtkComboBox * combo_box,
                                gboolean add_tearoffs);
extern void gtk_combo_box_set_column_span_column(GtkComboBox * combo_box,
                                gint column_span);
extern void gtk_combo_box_set_focus_on_click(GtkComboBox * combo,
                                gboolean focus_on_click);

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extern void gtk_combo_box_set_model(GtkComboBox * combo_box,
                                   GtkTreeModel * model);
extern void gtk_combo_box_set_row_separator_func(GtkComboBox * combo_box,
                                                  GtkTreeViewRowSeparatorFunc
                                                  func, gpointer data,
                                                  GtkDestroyNotify destroy);
extern void gtk_combo_box_set_row_span_column(GtkComboBox * combo_box,
                                               gint row_span);
extern void gtk_combo_box_set_title(GtkComboBox * combo_box,
                                    const gchar * title);
extern void gtk_combo_box_set_wrap_width(GtkComboBox * combo_box,
                                          gint width);

extern GType gtk_combo_get_type(void);
extern void gtk_container_add(GtkContainer * container,
                              GtkWidget * widget);
extern void gtk_container_add_with_properties(GtkContainer * container,
                                              GtkWidget * widget,
                                              const gchar *
                                              first_prop_name, ...);
extern void gtk_container_check_resize(GtkContainer * container);
extern void gtk_container_child_get(GtkContainer * container,
                                    GtkWidget * child,
                                    const gchar * first_prop_name, ...);
extern void gtk_container_child_get_property(GtkContainer * container,
                                              GtkWidget * child,
                                              const gchar * property_name,
                                              GValue * value);
extern void gtk_container_child_get_valist(GtkContainer * container,
                                            GtkWidget * child,
                                            const gchar *
                                            first_property_name,
                                            va_list var_args);
extern void gtk_container_child_set(GtkContainer * container,
                                    GtkWidget * child,
                                    const gchar * first_prop_name, ...);
extern void gtk_container_child_set_property(GtkContainer * container,
                                              GtkWidget * child,
                                              const gchar * property_name,
                                              const GValue * value);
extern void gtk_container_child_set_valist(GtkContainer * container,
                                            GtkWidget * child,
                                            const gchar *
                                            first_property_name,
                                            va_list var_args);
extern GType gtk_container_child_type(GtkContainer * container);
extern GParamSpec *gtk_container_class_find_child_property(GObjectClass *
                                                           cclass,
                                                           const gchar *
                                                           property_name);
extern void gtk_container_class_install_child_property(GtkContainerClass *
                                                       cclass,
                                                       guint property_id,
                                                       GParamSpec * pspec);
extern GParamSpec **gtk_container_class_list_child_properties(GObjectClass
                                                              * cclass,
                                                              guint *
                                                              n_properties);

extern void gtk_container_forall(GtkContainer * container,
                                 GtkCallback callback,
                                 gpointer callback_data);
extern void gtk_container_foreach(GtkContainer * container,
                                  GtkCallback callback,

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        gpointer callback_data);
extern guint gtk_container_get_border_width(GtkContainer * container);
extern GList *gtk_container_get_children(GtkContainer * container);
extern gboolean gtk_container_get_focus_chain(GtkContainer * container,
        GList * *focusable_widgets);
extern GtkAdjustment *gtk_container_get_focus_hadjustment(GtkContainer *
        container);
extern GtkAdjustment *gtk_container_get_focus_vadjustment(GtkContainer *
        container);
extern GtkResizeMode gtk_container_get_resize_mode(GtkContainer *
        container);
extern GType gtk_container_get_type(void);
extern void gtk_container_propagate_expose(GtkContainer * container,
        GtkWidget * child,
        GdkEventExpose * event);
extern void gtk_container_remove(GtkContainer * container,
        GtkWidget * widget);
extern void gtk_container_resize_children(GtkContainer * container);
extern void gtk_container_set_border_width(GtkContainer * container,
        guint border_width);
extern void gtk_container_set_focus_chain(GtkContainer * container,
        GList * focusable_widgets);
extern void gtk_container_set_focus_child(GtkContainer * container,
        GtkWidget * child);
extern void gtk_container_set_focus_hadjustment(GtkContainer * container,
        GtkAdjustment *
        adjustment);
extern void gtk_container_set_focus_vadjustment(GtkContainer * container,
        GtkAdjustment *
        adjustment);
extern void gtk_container_set_reallocate_redraws(GtkContainer * container,
        gboolean needs_redraws);
extern void gtk_container_set_resize_mode(GtkContainer * container,
        GtkResizeMode resize_mode);
extern void gtk_container_unset_focus_chain(GtkContainer * container);
extern GType gtk_corner_type_get_type(void);
extern GType gtk_curve_get_type(void);
extern void gtk_curve_get_vector(GtkCurve * curve, int veclen,
        gfloat * vector);
extern GtkWidget *gtk_curve_new(void);
extern void gtk_curve_reset(GtkCurve * curve);
extern void gtk_curve_set_curve_type(GtkCurve * curve, GtkCurveType type);
extern void gtk_curve_set_gamma(GtkCurve * curve, gfloat gamma);
extern void gtk_curve_set_range(GtkCurve * curve, gfloat min_x,
        gfloat max_x, gfloat min_y, gfloat max_y);
extern void gtk_curve_set_vector(GtkCurve * curve, int veclen,
        gfloat * vector);
extern GType gtk_curve_type_get_type(void);
extern GType gtk_debug_flag_get_type(void);
extern guint gtk_debug_flags;
extern GType gtk_delete_type_get_type(void);
extern GType gtk_dest_defaults_get_type(void);
extern void gtk_dialog_add_action_widget(GtkDialog * dialog,
        GtkWidget * child,
        gint response_id);
extern GtkWidget *gtk_dialog_add_button(GtkDialog * dialog,
        const gchar * button_text,
        gint response_id);
extern void gtk_dialog_add_buttons(GtkDialog * dialog,
        const gchar * first_button_text, ...);
extern GType gtk_dialog_flags_get_type(void);
extern gboolean gtk_dialog_get_has_separator(GtkDialog * dialog);

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extern gint gtk_dialog_get_response_for_widget(GtkDialog * dialog,
                                              GtkWidget * widget);

extern GType gtk_dialog_get_type(void);
extern GtkWidget *gtk_dialog_new(void);
extern GtkWidget *gtk_dialog_new_with_buttons(const gchar * title,
                                              GtkWindow * parent,
                                              GtkDialogFlags flags,
                                              const gchar *
                                              first_button_text, ...);

extern void gtk_dialog_response(GtkDialog * dialog, gint response_id);
extern gint gtk_dialog_run(GtkDialog * dialog);
extern void gtk_dialog_set_alternative_button_order(GtkDialog * dialog,
                                                    gint first_response_id,
                                                    ...);

extern void gtk_dialog_set_alternative_button_order_from_array(GtkDialog *
                                                                dialog,
                                                                gint
                                                                n_params,
                                                                gint *
                                                                new_order);

extern void gtk_dialog_set_default_response(GtkDialog * dialog,
                                           gint response_id);
extern void gtk_dialog_set_has_separator(GtkDialog * dialog,
                                         gboolean setting);
extern void gtk_dialog_set_response_sensitive(GtkDialog * dialog,
                                              gint response_id,
                                              gboolean setting);

extern GType gtk_direction_type_get_type(void);
extern void gtk_disable_setlocale(void);
extern GdkDragContext *gtk_drag_begin(GtkWidget * widget,
                                     GtkTargetList * targets,
                                     GdkDragAction actions, gint button,
                                     GdkEvent * event);

extern gboolean gtk_drag_check_threshold(GtkWidget * widget, gint start_x,
                                       gint start_y, gint current_x,
                                       gint current_y);

extern void gtk_drag_dest_add_image_targets(GtkWidget * widget);
extern void gtk_drag_dest_add_text_targets(GtkWidget * widget);
extern void gtk_drag_dest_add_uri_targets(GtkWidget * widget);
extern GdkAtom gtk_drag_dest_find_target(GtkWidget * widget,
                                         GdkDragContext * context,
                                         GtkTargetList * target_list);

extern GtkTargetList *gtk_drag_dest_get_target_list(GtkWidget * widget);
extern gboolean gtk_drag_dest_get_track_motion(GtkWidget * widget);
extern void gtk_drag_dest_set(GtkWidget * widget, GtkDestDefaults flags,
                              const GtkTargetEntry * targets,
                              gint n_targets, GdkDragAction actions);
extern void gtk_drag_dest_set_proxy(GtkWidget * widget,
                                   GdkWindow * proxy_window,
                                   GdkDragProtocol protocol,
                                   gboolean use_coordinates);

extern void gtk_drag_dest_set_target_list(GtkWidget * widget,
                                         GtkTargetList * target_list);
extern void gtk_drag_dest_set_track_motion(GtkWidget * widget,
                                           gboolean track_motion);

extern void gtk_drag_dest_unset(GtkWidget * widget);
extern void gtk_drag_finish(GdkDragContext * context, gboolean success,
                           gboolean del, guint32 time_);
extern void gtk_drag_get_data(GtkWidget * widget, GdkDragContext * context,
                              GdkAtom target, guint32 time_);
extern GtkWidget *gtk_drag_get_source_widget(GdkDragContext * context);
extern void gtk_drag_highlight(GtkWidget * widget);

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extern void gtk_drag_set_icon_default(GdkDragContext * context);
extern void gtk_drag_set_icon_name(GdkDragContext * context,
                                   const gchar * icon_name, gint hot_x,
                                   gint hot_y);
extern void gtk_drag_set_icon_pixbuf(GdkDragContext * context,
                                     GdkPixbuf * pixbuf, gint hot_x,
                                     gint hot_y);
extern void gtk_drag_set_icon_pixmap(GdkDragContext * context,
                                     GdkColormap * colormap,
                                     GdkPixmap * pixmap, GdkBitmap * mask,
                                     gint hot_x, gint hot_y);
extern void gtk_drag_set_icon_stock(GdkDragContext * context,
                                    const gchar * stock_id, gint hot_x,
                                    gint hot_y);
extern void gtk_drag_set_icon_widget(GdkDragContext * context,
                                     GtkWidget * widget, gint hot_x,
                                     gint hot_y);

extern void gtk_drag_source_add_image_targets(GtkWidget * widget);
extern void gtk_drag_source_add_text_targets(GtkWidget * widget);
extern void gtk_drag_source_add_uri_targets(GtkWidget * widget);
extern GtkTargetList *gtk_drag_source_get_target_list(GtkWidget * widget);
extern void gtk_drag_source_set(GtkWidget * widget,
                                GdkModifierType start_button_mask,
                                const GtkTargetEntry * targets,
                                gint n_targets, GdkDragAction actions);
extern void gtk_drag_source_set_icon(GtkWidget * widget,
                                     GdkColormap * colormap,
                                     GdkPixmap * pixmap, GdkBitmap * mask);
extern void gtk_drag_source_set_icon_name(GtkWidget * widget,
                                           const gchar * icon_name);
extern void gtk_drag_source_set_icon_pixbuf(GtkWidget * widget,
                                             GdkPixbuf * pixbuf);
extern void gtk_drag_source_set_icon_stock(GtkWidget * widget,
                                           const gchar * stock_id);
extern void gtk_drag_source_set_target_list(GtkWidget * widget,
                                             GtkTargetList * target_list);
extern void gtk_drag_source_unset(GtkWidget * widget);
extern void gtk_drag_unhighlight(GtkWidget * widget);
extern void gtk_draw_insertion_cursor(GtkWidget * widget,
                                       GdkDrawable * drawable,
                                       const GdkRectangle * area,
                                       const GdkRectangle * location,
                                       gboolean is_primary,
                                       GtkTextDirection direction,
                                       gboolean draw_arrow);

extern GType gtk_drawing_area_get_type(void);
extern GtkWidget *gtk_drawing_area_new(void);
extern void gtk_editable_copy_clipboard(GtkEditable * editable);
extern void gtk_editable_cut_clipboard(GtkEditable * editable);
extern void gtk_editable_delete_selection(GtkEditable * editable);
extern void gtk_editable_delete_text(GtkEditable * editable,
                                     gint start_pos, gint end_pos);
extern gchar *gtk_editable_get_chars(GtkEditable * editable,
                                     gint start_pos, gint end_pos);
extern gboolean gtk_editable_get_editable(GtkEditable * editable);
extern gint gtk_editable_get_position(GtkEditable * editable);
extern gboolean gtk_editable_get_selection_bounds(GtkEditable * editable,
                                                  gint * start,
                                                  gint * end);

extern GType gtk_editable_get_type(void);
extern void gtk_editable_insert_text(GtkEditable * editable,
                                     const gchar * new_text,

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        gint new_text_length,
        gint * position);
extern void gtk_editable_paste_clipboard(GtkEditable * editable);
extern void gtk_editable_select_region(GtkEditable * editable, gint start,
        gint end);
extern void gtk_editable_set_editable(GtkEditable * editable,
        gboolean is_editable);
extern void gtk_editable_set_position(GtkEditable * editable,
        gint position);
extern void gtk_entry_completion_complete(GtkEntryCompletion * completion);
extern void gtk_entry_completion_delete_action(GtkEntryCompletion *
        completion, gint index_);
extern GtkWidget *gtk_entry_completion_get_entry(GtkEntryCompletion *
        completion);

extern gboolean
gtk_entry_completion_get_inline_completion(GtkEntryCompletion *
        completion);
extern gint gtk_entry_completion_get_minimum_key_length(GtkEntryCompletion
        * completion);
extern GtkTreeModel *gtk_entry_completion_get_model(GtkEntryCompletion *
        completion);

extern gboolean
gtk_entry_completion_get_popup_completion(GtkEntryCompletion * completion);
extern gboolean gtk_entry_completion_get_popup_set_width(GtkEntryCompletion
        * completion);

extern gboolean
gtk_entry_completion_get_popup_single_match(GtkEntryCompletion *
        completion);
extern gint gtk_entry_completion_get_text_column(GtkEntryCompletion *
        completion);

extern GType gtk_entry_completion_get_type(void);
extern void gtk_entry_completion_insert_action_markup(GtkEntryCompletion *
        completion,
        gint index_,
        const gchar *
        markup);
extern void gtk_entry_completion_insert_action_text(GtkEntryCompletion *
        completion,
        gint index_,
        const gchar * text);
extern void gtk_entry_completion_insert_prefix(GtkEntryCompletion *
        completion);
extern GtkEntryCompletion *gtk_entry_completion_new(void);
extern void gtk_entry_completion_set_inline_completion(GtkEntryCompletion *
        completion,
        gboolean
        inline_completion);
extern void gtk_entry_completion_set_match_func(GtkEntryCompletion *
        completion,
        GtkEntryCompletionMatchFunc
        func, gpointer func_data,
        GDestroyNotify
        func_notify);
extern void gtk_entry_completion_set_minimum_key_length(GtkEntryCompletion
        * completion,
        gint length);
extern void gtk_entry_completion_set_model(GtkEntryCompletion * completion,
        GtkTreeModel * model);
extern void gtk_entry_completion_set_popup_completion(GtkEntryCompletion *
        completion,
        gboolean
        popup_completion);

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extern void gtk_entry_completion_set_popup_set_width(GtkEntryCompletion *
                                                    completion,
                                                    gboolean
                                                    popup_set_width);
extern void gtk_entry_completion_set_popup_single_match(GtkEntryCompletion
                                                         * completion,
                                                         gboolean
                                                         popup_single_match);
extern void gtk_entry_completion_set_text_column(GtkEntryCompletion *
                                                  completion, gint column);
extern gboolean gtk_entry_get_activates_default(GtkEntry * entry);
extern gfloat gtk_entry_get_alignment(GtkEntry * entry);
extern GtkEntryCompletion *gtk_entry_get_completion(GtkEntry * entry);
extern gboolean gtk_entry_get_has_frame(GtkEntry * entry);
extern const GtkBorder *gtk_entry_get_inner_border(GtkEntry * entry);
extern gunichar gtk_entry_get_invisible_char(GtkEntry * entry);
extern PangoLayout *gtk_entry_get_layout(GtkEntry * entry);
extern void gtk_entry_get_layout_offsets(GtkEntry * entry, gint * x,
                                         gint * y);
extern gint gtk_entry_get_max_length(GtkEntry * entry);
extern const gchar *gtk_entry_get_text(GtkEntry * entry);
extern GType gtk_entry_get_type(void);
extern gboolean gtk_entry_get_visibility(GtkEntry * entry);
extern gint gtk_entry_get_width_chars(GtkEntry * entry);
extern gint gtk_entry_layout_index_to_text_index(GtkEntry * entry,
                                                  gint layout_index);

extern GtkWidget *gtk_entry_new(void);
extern void gtk_entry_set_activates_default(GtkEntry * entry,
                                           gboolean setting);
extern void gtk_entry_set_alignment(GtkEntry * entry, gfloat xalign);
extern void gtk_entry_set_completion(GtkEntry * entry,
                                     GtkEntryCompletion * completion);
extern void gtk_entry_set_has_frame(GtkEntry * entry, gboolean setting);
extern void gtk_entry_set_inner_border(GtkEntry * entry,
                                       const GtkBorder * border);
extern void gtk_entry_set_invisible_char(GtkEntry * entry, gunichar ch);
extern void gtk_entry_set_max_length(GtkEntry * entry, gint max);
extern void gtk_entry_set_text(GtkEntry * entry, const gchar * text);
extern void gtk_entry_set_visibility(GtkEntry * entry, gboolean visible);
extern void gtk_entry_set_width_chars(GtkEntry * entry, gint n_chars);
extern gint gtk_entry_text_index_to_layout_index(GtkEntry * entry,
                                                  gint text_index);

extern gboolean gtk_event_box_get_above_child(GtkEventBox * event_box);
extern GType gtk_event_box_get_type(void);
extern gboolean gtk_event_box_get_visible_window(GtkEventBox * event_box);
extern GtkWidget *gtk_event_box_new(void);
extern void gtk_event_box_set_above_child(GtkEventBox * event_box,
                                           gboolean above_child);
extern void gtk_event_box_set_visible_window(GtkEventBox * event_box,
                                           gboolean visible_window);

extern gboolean gtk_events_pending(void);
extern gboolean gtk_expander_get_expanded(GtkExpander * expander);
extern const char *gtk_expander_get_label(GtkExpander * expander);
extern GtkWidget *gtk_expander_get_label_widget(GtkExpander * expander);
extern gint gtk_expander_get_spacing(GtkExpander * expander);
extern GType gtk_expander_get_type(void);
extern gboolean gtk_expander_get_use_markup(GtkExpander * expander);
extern gboolean gtk_expander_get_use_underline(GtkExpander * expander);
extern GtkWidget *gtk_expander_new(const gchar * label);
extern GtkWidget *gtk_expander_new_with_mnemonic(const gchar * label);
extern void gtk_expander_set_expanded(GtkExpander * expander,
                                       gboolean expanded);

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extern void gtk_expander_set_label(GtkExpander * expander,
                                   const gchar * label);
extern void gtk_expander_set_label_widget(GtkExpander * expander,
                                           GtkWidget * label_widget);
extern void gtk_expander_set_spacing(GtkExpander * expander, gint spacing);
extern void gtk_expander_set_use_markup(GtkExpander * expander,
                                         gboolean use_markup);
extern void gtk_expander_set_use_underline(GtkExpander * expander,
                                           gboolean use_underline);
extern GType gtk_expander_style_get_type(void);
extern gboolean gtk_false(void);
extern GType gtk_file_chooser_action_get_type(void);
extern void gtk_file_chooser_add_filter(GtkFileChooser * chooser,
                                         GtkFileFilter * filter);
extern gboolean gtk_file_chooser_add_shortcut_folder(GtkFileChooser *
                                                    chooser,
                                                    const char *folder,
                                                    GError * *error);
extern gboolean gtk_file_chooser_add_shortcut_folder_uri(GtkFileChooser *
                                                         chooser,
                                                         const char *uri,
                                                         GError * *error);

extern gboolean
gtk_file_chooser_button_get_focus_on_click(GtkFileChooserButton * button);
extern const gchar *gtk_file_chooser_button_get_title(GtkFileChooserButton
                                                       * button);

extern GType gtk_file_chooser_button_get_type(void);
extern gint gtk_file_chooser_button_get_width_chars(GtkFileChooserButton *
                                                    button);
extern GtkWidget *gtk_file_chooser_button_new(const gchar * title,
                                              GtkFileChooserAction action);
extern GtkWidget *gtk_file_chooser_button_new_with_backend(const gchar *
                                                         title,
                                                         GtkFileChooserAction
                                                         action,
                                                         const gchar *
                                                         backend);

extern GtkWidget *gtk_file_chooser_button_new_with_dialog(GtkWidget *
                                                         dialog);
extern void gtk_file_chooser_button_set_focus_on_click(GtkFileChooserButton
                                                         * button,
                                                         gboolean
                                                         focus_on_click);
extern void gtk_file_chooser_button_set_title(GtkFileChooserButton *
                                              button, const gchar * title);
extern void gtk_file_chooser_button_set_width_chars(GtkFileChooserButton *
                                                    button, gint n_chars);
extern GType gtk_file_chooser_dialog_get_type(void);
extern GtkWidget *gtk_file_chooser_dialog_new(const gchar * title,
                                              GtkWindow * parent,
                                              GtkFileChooserAction action,
                                              const gchar *
                                              first_button_text, ...);
extern GtkWidget *gtk_file_chooser_dialog_new_with_backend(const gchar *
                                                         title,
                                                         GtkWindow *
                                                         parent,
                                                         GtkFileChooserAction
                                                         action,
                                                         const gchar *
                                                         backend,
                                                         const gchar *

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first_button_text,
...);

extern GType gtk_file_chooser_error_get_type(void);
extern GQuark gtk_file_chooser_error_quark(void);
extern GtkFileChooserAction gtk_file_chooser_get_action(GtkFileChooser *
                                                         chooser);
extern gchar *gtk_file_chooser_get_current_folder(GtkFileChooser *
                                                  chooser);
extern gchar *gtk_file_chooser_get_current_folder_uri(GtkFileChooser *
                                                      chooser);
extern gboolean
gtk_file_chooser_get_do_overwrite_confirmation(GtkFileChooser * chooser);
extern GtkWidget *gtk_file_chooser_get_extra_widget(GtkFileChooser *
                                                    chooser);
extern gchar *gtk_file_chooser_get_filename(GtkFileChooser * chooser);
extern GSList *gtk_file_chooser_get_filenames(GtkFileChooser * chooser);
extern GtkFileFilter *gtk_file_chooser_get_filter(GtkFileChooser *
                                                  chooser);
extern gboolean gtk_file_chooser_get_local_only(GtkFileChooser * chooser);
extern char *gtk_file_chooser_get_preview_filename(GtkFileChooser *
                                                  chooser);
extern char *gtk_file_chooser_get_preview_uri(GtkFileChooser * chooser);
extern GtkWidget *gtk_file_chooser_get_preview_widget(GtkFileChooser *
                                                      chooser);
extern gboolean gtk_file_chooser_get_preview_widget_active(GtkFileChooser *
                                                           chooser);
extern gboolean gtk_file_chooser_get_select_multiple(GtkFileChooser *
                                                     chooser);
extern gboolean gtk_file_chooser_get_show_hidden(GtkFileChooser * chooser);
extern GType gtk_file_chooser_get_type(void);
extern gchar *gtk_file_chooser_get_uri(GtkFileChooser * chooser);
extern GSList *gtk_file_chooser_get_uris(GtkFileChooser * chooser);
extern gboolean gtk_file_chooser_get_use_preview_label(GtkFileChooser *
                                                       chooser);
extern GSList *gtk_file_chooser_list_filters(GtkFileChooser * chooser);
extern GSList *gtk_file_chooser_list_shortcut_folder_uris(GtkFileChooser *
                                                          chooser);
extern GSList *gtk_file_chooser_list_shortcut_folders(GtkFileChooser *
                                                       chooser);
extern void gtk_file_chooser_remove_filter(GtkFileChooser * chooser,
                                           GtkFileFilter * filter);
extern gboolean gtk_file_chooser_remove_shortcut_folder(GtkFileChooser *
                                                         chooser,
                                                         const char *folder,
                                                         GError * *error);
extern gboolean gtk_file_chooser_remove_shortcut_folder_uri(GtkFileChooser
                                                            * chooser,
                                                            const char
                                                            *uri,
                                                            GError *
                                                            *error);
extern void gtk_file_chooser_select_all(GtkFileChooser * chooser);
extern gboolean gtk_file_chooser_select_filename(GtkFileChooser * chooser,
                                                 const gchar * filename);
extern gboolean gtk_file_chooser_select_uri(GtkFileChooser * chooser,
                                             const char *uri);
extern void gtk_file_chooser_set_action(GtkFileChooser * chooser,
                                        GtkFileChooserAction action);
extern gboolean gtk_file_chooser_set_current_folder(GtkFileChooser *
                                                    chooser,
                                                    const gchar *
                                                    filename);

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extern gboolean gtk_file_chooser_set_current_folder_uri(GtkFileChooser *
                                                         chooser,
                                                         const gchar * uri);
extern void gtk_file_chooser_set_current_name(GtkFileChooser * chooser,
                                              const gchar * name);
extern void gtk_file_chooser_set_do_overwrite_confirmation(GtkFileChooser *
                                                         chooser,
                                                         gboolean
                                                         do_overwrite_confirmation);
extern void gtk_file_chooser_set_extra_widget(GtkFileChooser * chooser,
                                              GtkWidget * extra_widget);
extern gboolean gtk_file_chooser_set_filename(GtkFileChooser * chooser,
                                              const gchar * filename);
extern void gtk_file_chooser_set_filter(GtkFileChooser * chooser,
                                        GtkFileFilter * filter);
extern void gtk_file_chooser_set_local_only(GtkFileChooser * chooser,
                                           gboolean local_only);
extern void gtk_file_chooser_set_preview_widget(GtkFileChooser * chooser,
                                              GtkWidget *
                                              preview_widget);
extern void gtk_file_chooser_set_preview_widget_active(GtkFileChooser *
                                                         chooser,
                                                         gboolean active);
extern void gtk_file_chooser_set_select_multiple(GtkFileChooser * chooser,
                                                  gboolean select_multiple);
extern void gtk_file_chooser_set_show_hidden(GtkFileChooser * chooser,
                                              gboolean show_hidden);
extern gboolean gtk_file_chooser_set_uri(GtkFileChooser * chooser,
                                         const char *uri);
extern void gtk_file_chooser_set_use_preview_label(GtkFileChooser *
                                                  chooser,
                                                  gboolean use_label);
extern void gtk_file_chooser_unselect_all(GtkFileChooser * chooser);
extern void gtk_file_chooser_unselect_filename(GtkFileChooser * chooser,
                                              const char *filename);
extern void gtk_file_chooser_unselect_uri(GtkFileChooser * chooser,
                                          const char *uri);
extern GType gtk_file_chooser_widget_get_type(void);
extern GtkWidget *gtk_file_chooser_widget_new(GtkFileChooserAction action);
extern GtkWidget
    *gtk_file_chooser_widget_new_with_backend(GtkFileChooserAction action,
                                              const gchar * backend);
extern void gtk_file_filter_add_custom(GtkFileFilter * filter,
                                       GtkFileFilterFlags needed,
                                       GtkFileFilterFunc func,
                                       gpointer data,
                                       GDestroyNotify notify);
extern void gtk_file_filter_add_mime_type(GtkFileFilter * filter,
                                           const gchar * mime_type);
extern void gtk_file_filter_add_pattern(GtkFileFilter * filter,
                                        const gchar * pattern);
extern void gtk_file_filter_add_pixbuf_formats(GtkFileFilter * filter);
extern gboolean gtk_file_filter_filter(GtkFileFilter * filter,
                                       const GtkFileFilterInfo *
                                       filter_info);
extern GType gtk_file_filter_flags_get_type(void);
extern const gchar *gtk_file_filter_get_name(GtkFileFilter * filter);
extern GtkFileFilterFlags gtk_file_filter_get_needed(GtkFileFilter *
                                                     filter);
extern GType gtk_file_filter_get_type(void);
extern GtkFileFilter *gtk_file_filter_new(void);
extern void gtk_file_filter_set_name(GtkFileFilter * filter,

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                                const gchar * name);
extern void gtk_file_selection_complete(GtkFileSelection * filesel,
                                const gchar * pattern);
extern const gchar *gtk_file_selection_get_filename(GtkFileSelection *
                                filesel);
extern gboolean gtk_file_selection_get_select_multiple(GtkFileSelection *
                                filesel);
extern gchar **gtk_file_selection_get_selections(GtkFileSelection *
                                filesel);
extern GType gtk_file_selection_get_type(void);
extern void gtk_file_selection_hide_fileop_buttons(GtkFileSelection *
                                filesel);
extern GtkWidget *gtk_file_selection_new(const gchar * title);
extern void gtk_file_selection_set_filename(GtkFileSelection * filesel,
                                const gchar * filename);
extern void gtk_file_selection_set_select_multiple(GtkFileSelection *
                                filesel,
                                gboolean
                                select_multiple);
extern void gtk_file_selection_show_fileop_buttons(GtkFileSelection *
                                filesel);
extern gboolean gtk_fixed_get_has_window(GtkFixed * fixed);
extern GType gtk_fixed_get_type(void);
extern void gtk_fixed_move(GtkFixed * fixed, GtkWidget * widget, gint x,
                                gint y);
extern GtkWidget *gtk_fixed_new(void);
extern void gtk_fixed_put(GtkFixed * fixed, GtkWidget * widget, gint x,
                                gint y);
extern void gtk_fixed_set_has_window(GtkFixed * fixed,
                                gboolean has_window);
extern const gchar *gtk_font_button_get_font_name(GtkFontButton *
                                font_button);
extern gboolean gtk_font_button_get_show_size(GtkFontButton * font_button);
extern gboolean gtk_font_button_get_show_style(GtkFontButton *
                                font_button);
extern const gchar *gtk_font_button_get_title(GtkFontButton * font_button);
extern GType gtk_font_button_get_type(void);
extern gboolean gtk_font_button_get_use_font(GtkFontButton * font_button);
extern gboolean gtk_font_button_get_use_size(GtkFontButton * font_button);
extern GtkWidget *gtk_font_button_new(void);
extern GtkWidget *gtk_font_button_new_with_font(const gchar * fontname);
extern gboolean gtk_font_button_set_font_name(GtkFontButton * font_button,
                                const gchar * fontname);
extern void gtk_font_button_set_show_size(GtkFontButton * font_button,
                                gboolean show_size);
extern void gtk_font_button_set_show_style(GtkFontButton * font_button,
                                gboolean show_style);
extern void gtk_font_button_set_title(GtkFontButton * font_button,
                                const gchar * title);
extern void gtk_font_button_set_use_font(GtkFontButton * font_button,
                                gboolean use_font);
extern void gtk_font_button_set_use_size(GtkFontButton * font_button,
                                gboolean use_size);
extern gchar
    *gtk_font_selection_dialog_get_font_name(GtkFontSelectionDialog * fsd);
extern const gchar
    *gtk_font_selection_dialog_get_preview_text(GtkFontSelectionDialog *
                                fsd);
extern GType gtk_font_selection_dialog_get_type(void);
extern GtkWidget *gtk_font_selection_dialog_new(const gchar * title);
extern gboolean
    gtk_font_selection_dialog_set_font_name(GtkFontSelectionDialog * fsd,

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                                const gchar * fontname);
extern void
gtk_font_selection_dialog_set_preview_text(GtkFontSelectionDialog * fsd,
                                           const gchar * text);
extern gchar *gtk_font_selection_get_font_name(GtkFontSelection * fontsel);
extern const gchar *gtk_font_selection_get_preview_text(GtkFontSelection *
                                                         fontsel);

extern GType gtk_font_selection_get_type(void);
extern GtkWidget *gtk_font_selection_new(void);
extern gboolean gtk_font_selection_set_font_name(GtkFontSelection *
                                                  fontsel,
                                                  const gchar * fontname);
extern void gtk_font_selection_set_preview_text(GtkFontSelection * fontsel,
                                                 const gchar * text);
extern const gchar *gtk_frame_get_label(GtkFrame * frame);
extern void gtk_frame_get_label_align(GtkFrame * frame, gfloat * xalign,
                                       gfloat * yalign);
extern GtkWidget *gtk_frame_get_label_widget(GtkFrame * frame);
extern GtkShadowType gtk_frame_get_shadow_type(GtkFrame * frame);
extern GType gtk_frame_get_type(void);
extern GtkWidget *gtk_frame_new(const gchar * label);
extern void gtk_frame_set_label(GtkFrame * frame, const gchar * label);
extern void gtk_frame_set_label_align(GtkFrame * frame, gfloat xalign,
                                       gfloat yalign);
extern void gtk_frame_set_label_widget(GtkFrame * frame,
                                       GtkWidget * label_widget);
extern void gtk_frame_set_shadow_type(GtkFrame * frame,
                                       GtkShadowType type);
extern GType gtk_gamma_curve_get_type(void);
extern GtkWidget *gtk_gamma_curve_new(void);
extern GdkGC *gtk_gc_get(gint depth, GdkColormap * colormap,
                        GdkGCValues * values,
                        GdkGCValuesMask values_mask);
extern void gtk_gc_release(GdkGC * gc);
extern GdkEvent *gtk_get_current_event(void);
extern gboolean gtk_get_current_event_state(GdkModifierType * state);
extern guint32 gtk_get_current_event_time(void);
extern PangoLanguage *gtk_get_default_language(void);
extern GtkWidget *gtk_get_event_widget(GdkEvent * event);
extern GOptionGroup *gtk_get_option_group(gboolean open_default_display);
extern void gtk_grab_add(GtkWidget * widget);
extern GtkWidget *gtk_grab_get_current(void);
extern void gtk_grab_remove(GtkWidget * widget);
extern GtkPositionType gtk_handle_box_get_handle_position(GtkHandleBox *
                                                           handle_box);
extern GtkShadowType gtk_handle_box_get_shadow_type(GtkHandleBox *
                                                     handle_box);
extern GtkPositionType gtk_handle_box_get_snap_edge(GtkHandleBox *
                                                     handle_box);

extern GType gtk_handle_box_get_type(void);
extern GtkWidget *gtk_handle_box_new(void);
extern void gtk_handle_box_set_handle_position(GtkHandleBox * handle_box,
                                               GtkPositionType position);
extern void gtk_handle_box_set_shadow_type(GtkHandleBox * handle_box,
                                           GtkShadowType type);
extern void gtk_handle_box_set_snap_edge(GtkHandleBox * handle_box,
                                          GtkPositionType edge);

extern GType gtk_hbox_get_type(void);
extern GtkWidget *gtk_hbox_new(gboolean homogeneous, gint spacing);
extern GType gtk_hbutton_box_get_type(void);
extern GtkWidget *gtk_hbutton_box_new(void);
extern GType gtk_hpaned_get_type(void);

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extern GtkWidget *gtk_hpaned_new(void);
extern GType gtk_hruler_get_type(void);
extern GtkWidget *gtk_hruler_new(void);
extern GType gtk_hscale_get_type(void);
extern GtkWidget *gtk_hscale_new(GtkAdjustment * adjustment);
extern GtkWidget *gtk_hscale_new_with_range(gdouble min, gdouble max,
                                           gdouble step);

extern GType gtk_hscrollbar_get_type(void);
extern GtkWidget *gtk_hscrollbar_new(GtkAdjustment * adjustment);
extern GType gtk_hseparator_get_type(void);
extern GtkWidget *gtk_hseparator_new(void);
extern void gtk_icon_factory_add(GtkIconFactory * factory,
                                const gchar * stock_id,
                                GtkIconSet * icon_set);
extern void gtk_icon_factory_add_default(GtkIconFactory * factory);
extern GType gtk_icon_factory_get_type(void);
extern GtkIconSet *gtk_icon_factory_lookup(GtkIconFactory * factory,
                                           const gchar * stock_id);
extern GtkIconSet *gtk_icon_factory_lookup_default(const gchar * stock_id);
extern GtkIconFactory *gtk_icon_factory_new(void);
extern void gtk_icon_factory_remove_default(GtkIconFactory * factory);
extern GtkIconInfo *gtk_icon_info_copy(GtkIconInfo * icon_info);
extern void gtk_icon_info_free(GtkIconInfo * icon_info);
extern gboolean gtk_icon_info_get_attach_points(GtkIconInfo * icon_info,
                                                GdkPoint * *points,
                                                gint * n_points);
extern gint gtk_icon_info_get_base_size(GtkIconInfo * icon_info);
extern GdkPixbuf *gtk_icon_info_get_builtin_pixbuf(GtkIconInfo *
                                                    icon_info);
extern const gchar *gtk_icon_info_get_display_name(GtkIconInfo *
                                                    icon_info);
extern gboolean gtk_icon_info_get_embedded_rect(GtkIconInfo * icon_info,
                                                GdkRectangle * rectangle);
extern const gchar *gtk_icon_info_get_filename(GtkIconInfo * icon_info);
extern GType gtk_icon_info_get_type(void);
extern GdkPixbuf *gtk_icon_info_load_icon(GtkIconInfo * icon_info,
                                           GError * *error);
extern void gtk_icon_info_set_raw_coordinates(GtkIconInfo * icon_info,
                                              gboolean raw_coordinates);
extern GType gtk_icon_lookup_flags_get_type(void);
extern void gtk_icon_set_add_source(GtkIconSet * icon_set,
                                    const GtkIconSource * source);
extern GtkIconSet *gtk_icon_set_copy(GtkIconSet * icon_set);
extern void gtk_icon_set_get_sizes(GtkIconSet * icon_set,
                                   GtkIconSize * *sizes, gint * n_sizes);
extern GType gtk_icon_set_get_type(void);
extern GtkIconSet *gtk_icon_set_new(void);
extern GtkIconSet *gtk_icon_set_new_from_pixbuf(GdkPixbuf * pixbuf);
extern GtkIconSet *gtk_icon_set_ref(GtkIconSet * icon_set);
extern GdkPixbuf *gtk_icon_set_render_icon(GtkIconSet * icon_set,
                                           GtkStyle * style,
                                           GtkTextDirection direction,
                                           GtkStateType state,
                                           GtkIconSize size,
                                           GtkWidget * widget,
                                           const char *detail);
extern void gtk_icon_set_unref(GtkIconSet * icon_set);
extern GtkIconSize gtk_icon_size_from_name(const gchar * name);
extern const gchar *gtk_icon_size_get_name(GtkIconSize size);
extern GType gtk_icon_size_get_type(void);
extern gboolean gtk_icon_size_lookup(GtkIconSize size, gint * width,
                                     gint * height);

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extern gboolean gtk_icon_size_lookup_for_settings(GtkSettings * settings,
                                                  GtkIconSize size,
                                                  gint * width,
                                                  gint * height);
extern GtkIconSize gtk_icon_size_register(const gchar * name, gint width,
                                          gint height);
extern void gtk_icon_size_register_alias(const gchar * alias,
                                         GtkIconSize target);
extern GtkIconSource *gtk_icon_source_copy(const GtkIconSource * source);
extern void gtk_icon_source_free(GtkIconSource * source);
extern GtkTextDirection gtk_icon_source_get_direction(const GtkIconSource *
                                                       source);
extern gboolean gtk_icon_source_get_direction_wildcarded(const
                                                         GtkIconSource *
                                                         source);
extern const gchar *gtk_icon_source_get_filename(const GtkIconSource *
                                                  source);
extern const gchar *gtk_icon_source_get_icon_name(const GtkIconSource *
                                                  source);
extern GdkPixbuf *gtk_icon_source_get_pixbuf(const GtkIconSource * source);
extern GtkIconSize gtk_icon_source_get_size(const GtkIconSource * source);
extern gboolean gtk_icon_source_get_size_wildcarded(const GtkIconSource *
                                                    source);
extern GtkStateType gtk_icon_source_get_state(const GtkIconSource *
                                              source);
extern gboolean gtk_icon_source_get_state_wildcarded(const GtkIconSource *
                                                    source);

extern GType gtk_icon_source_get_type(void);
extern GtkIconSource *gtk_icon_source_new(void);
extern void gtk_icon_source_set_direction(GtkIconSource * source,
                                          GtkTextDirection direction);
extern void gtk_icon_source_set_direction_wildcarded(GtkIconSource *
                                                    source,
                                                    gboolean setting);
extern void gtk_icon_source_set_filename(GtkIconSource * source,
                                         const gchar * filename);
extern void gtk_icon_source_set_icon_name(GtkIconSource * source,
                                          const gchar * icon_name);
extern void gtk_icon_source_set_pixbuf(GtkIconSource * source,
                                       GdkPixbuf * pixbuf);
extern void gtk_icon_source_set_size(GtkIconSource * source,
                                     GtkIconSize size);
extern void gtk_icon_source_set_size_wildcarded(GtkIconSource * source,
                                                gboolean setting);
extern void gtk_icon_source_set_state(GtkIconSource * source,
                                      GtkStateType state);
extern void gtk_icon_source_set_state_wildcarded(GtkIconSource * source,
                                                gboolean setting);
extern void gtk_icon_theme_add_builtin_icon(const gchar * icon_name,
                                           gint size, GdkPixbuf * pixbuf);
extern void gtk_icon_theme_append_search_path(GtkIconTheme * icon_theme,
                                              const gchar * path);
extern GType gtk_icon_theme_error_get_type(void);
extern GQuark gtk_icon_theme_error_quark(void);
extern GtkIconTheme *gtk_icon_theme_get_default(void);
extern char *gtk_icon_theme_get_example_icon_name(GtkIconTheme *
                                                  icon_theme);
extern GtkIconTheme *gtk_icon_theme_get_for_screen(GdkScreen * screen);
extern gint *gtk_icon_theme_get_icon_sizes(GtkIconTheme * icon_theme,
                                           const char *icon_name);
extern void gtk_icon_theme_get_search_path(GtkIconTheme * icon_theme,
                                           gchar * **path,

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                                gint * n_elements);
extern GType gtk_icon_theme_get_type(void);
extern gboolean gtk_icon_theme_has_icon(GtkIconTheme * icon_theme,
                                const char *icon_name);
extern GList *gtk_icon_theme_list_icons(GtkIconTheme * icon_theme,
                                const char *context);
extern GdkPixbuf *gtk_icon_theme_load_icon(GtkIconTheme * icon_theme,
                                const gchar * icon_name,
                                gint size,
                                GtkIconLookupFlags flags,
                                GError * *error);
extern GtkIconInfo *gtk_icon_theme_lookup_icon(GtkIconTheme * icon_theme,
                                const gchar * icon_name,
                                gint size,
                                GtkIconLookupFlags flags);
extern GtkIconTheme *gtk_icon_theme_new(void);
extern void gtk_icon_theme_prepend_search_path(GtkIconTheme * icon_theme,
                                const gchar * path);
extern gboolean gtk_icon_theme_rescan_if_needed(GtkIconTheme * icon_theme);
extern void gtk_icon_theme_set_custom_theme(GtkIconTheme * icon_theme,
                                const gchar * theme_name);
extern void gtk_icon_theme_set_screen(GtkIconTheme * icon_theme,
                                GdkScreen * screen);
extern void gtk_icon_theme_set_search_path(GtkIconTheme * icon_theme,
                                const gchar * *path,
                                gint n_elements);
extern GdkPixmap *gtk_icon_view_create_drag_icon(GtkIconView * icon_view,
                                GtkTreePath * path);
extern void gtk_icon_view_enable_model_drag_dest(GtkIconView * icon_view,
                                const GtkTargetEntry *
                                targets, gint n_targets,
                                GcdDragAction actions);
extern void gtk_icon_view_enable_model_drag_source(GtkIconView * icon_view,
                                GdkModifierType
                                start_button_mask,
                                const GtkTargetEntry *
                                targets, gint n_targets,
                                GcdDragAction actions);
extern gint gtk_icon_view_get_column_spacing(GtkIconView * icon_view);
extern gint gtk_icon_view_get_columns(GtkIconView * icon_view);
extern gboolean gtk_icon_view_get_cursor(GtkIconView * icon_view,
                                GtkTreePath * *path,
                                GtkCellRenderer * *cell);
extern gboolean gtk_icon_view_get_dest_item_at_pos(GtkIconView * icon_view,
                                gint drag_x,
                                gint drag_y,
                                GtkTreePath * *path,
                                GtkIconViewDropPosition
                                * pos);
extern void gtk_icon_view_get_drag_dest_item(GtkIconView * icon_view,
                                GtkTreePath * *path,
                                GtkIconViewDropPosition *
                                pos);
extern gboolean gtk_icon_view_get_item_at_pos(GtkIconView * icon_view,
                                gint x, gint y,
                                GtkTreePath * *path,
                                GtkCellRenderer * *cell);
extern gint gtk_icon_view_get_item_width(GtkIconView * icon_view);
extern gint gtk_icon_view_get_margin(GtkIconView * icon_view);
extern gint gtk_icon_view_get_markup_column(GtkIconView * icon_view);
extern GtkTreeModel *gtk_icon_view_get_model(GtkIconView * icon_view);
extern GtkOrientation gtk_icon_view_get_orientation(GtkIconView *

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                                icon_view);
extern GtkTreePath *gtk_icon_view_get_path_at_pos(GtkIconView * icon_view,
                                                gint x, gint y);
extern gint gtk_icon_view_get_pixbuf_column(GtkIconView * icon_view);
extern gboolean gtk_icon_view_get_reorderable(GtkIconView * icon_view);
extern gint gtk_icon_view_get_row_spacing(GtkIconView * icon_view);
extern GList *gtk_icon_view_get_selected_items(GtkIconView * icon_view);
extern GtkSelectionMode gtk_icon_view_get_selection_mode(GtkIconView *
                                                icon_view);
extern gint gtk_icon_view_get_spacing(GtkIconView * icon_view);
extern gint gtk_icon_view_get_text_column(GtkIconView * icon_view);
extern GType gtk_icon_view_get_type(void);
extern gboolean gtk_icon_view_get_visible_range(GtkIconView * icon_view,
                                                GtkTreePath * *start_path,
                                                GtkTreePath * *end_path);
extern void gtk_icon_view_item_activated(GtkIconView * icon_view,
                                         GtkTreePath * path);
extern GtkWidget *gtk_icon_view_new(void);
extern GtkWidget *gtk_icon_view_new_with_model(GtkTreeModel * model);
extern gboolean gtk_icon_view_path_is_selected(GtkIconView * icon_view,
                                              GtkTreePath * path);
extern void gtk_icon_view_scroll_to_path(GtkIconView * icon_view,
                                         GtkTreePath * path,
                                         gboolean use_align,
                                         gfloat row_align,
                                         gfloat col_align);
extern void gtk_icon_view_select_all(GtkIconView * icon_view);
extern void gtk_icon_view_select_path(GtkIconView * icon_view,
                                      GtkTreePath * path);
extern void gtk_icon_view_selected_foreach(GtkIconView * icon_view,
                                           GtkIconViewForeachFunc func,
                                           gpointer data);
extern void gtk_icon_view_set_column_spacing(GtkIconView * icon_view,
                                             gint column_spacing);
extern void gtk_icon_view_set_columns(GtkIconView * icon_view,
                                       gint columns);
extern void gtk_icon_view_set_cursor(GtkIconView * icon_view,
                                     GtkTreePath * path,
                                     GtkCellRenderer * cell,
                                     gboolean start_editing);
extern void gtk_icon_view_set_drag_dest_item(GtkIconView * icon_view,
                                             GtkTreePath * path,
                                             GtkIconViewDropPosition pos);
extern void gtk_icon_view_set_item_width(GtkIconView * icon_view,
                                         gint item_width);
extern void gtk_icon_view_set_margin(GtkIconView * icon_view, gint margin);
extern void gtk_icon_view_set_markup_column(GtkIconView * icon_view,
                                             gint column);
extern void gtk_icon_view_set_model(GtkIconView * icon_view,
                                    GtkTreeModel * model);
extern void gtk_icon_view_set_orientation(GtkIconView * icon_view,
                                           GtkOrientation orientation);
extern void gtk_icon_view_set_pixbuf_column(GtkIconView * icon_view,
                                             gint column);
extern void gtk_icon_view_set_reorderable(GtkIconView * icon_view,
                                           gboolean reorderable);
extern void gtk_icon_view_set_row_spacing(GtkIconView * icon_view,
                                           gint row_spacing);
extern void gtk_icon_view_set_selection_mode(GtkIconView * icon_view,
                                              GtkSelectionMode mode);
extern void gtk_icon_view_set_spacing(GtkIconView * icon_view,
                                       gint spacing);

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extern void gtk_icon_view_set_text_column(GtkIconView * icon_view,
                                           gint column);
extern void gtk_icon_view_unselect_all(GtkIconView * icon_view);
extern void gtk_icon_view_unselect_path(GtkIconView * icon_view,
                                         GtkTreePath * path);
extern void gtk_icon_view_unset_model_drag_dest(GtkIconView * icon_view);
extern void gtk_icon_view_unset_model_drag_source(GtkIconView * icon_view);
extern GType gtk_identifier_get_type(void);
extern gboolean gtk_im_context_delete_surrounding(GtkIMContext * context,
                                                  gint offset,
                                                  gint n_chars);
extern gboolean gtk_im_context_filter_keypress(GtkIMContext * context,
                                              GdkEventKey * event);
extern void gtk_im_context_focus_in(GtkIMContext * context);
extern void gtk_im_context_focus_out(GtkIMContext * context);
extern void gtk_im_context_get_preedit_string(GtkIMContext * context,
                                              gchar * *str,
                                              PangoAttrList * *attrs,
                                              gint * cursor_pos);
extern gboolean gtk_im_context_get_surrounding(GtkIMContext * context,
                                              gchar * *text,
                                              gint * cursor_index);

extern GType gtk_im_context_get_type(void);
extern void gtk_im_context_reset(GtkIMContext * context);
extern void gtk_im_context_set_client_window(GtkIMContext * context,
                                             GdkWindow * window);
extern void gtk_im_context_set_cursor_location(GtkIMContext * context,
                                              const GdkRectangle * area);
extern void gtk_im_context_set_surrounding(GtkIMContext * context,
                                           const gchar * text, gint len,
                                           gint cursor_index);
extern void gtk_im_context_set_use_preedit(GtkIMContext * context,
                                           gboolean use_preedit);
extern void gtk_im_context_simple_add_table(GtkIMContextSimple *
                                           context_simple, guint16 * data,
                                           gint max_seq_len, gint n_seqs);

extern GType gtk_im_context_simple_get_type(void);
extern GtkIMContext *gtk_im_context_simple_new(void);
extern void gtk_im_multicontext_append_menuitems(GtkIMMulticontext *
                                                  context,
                                                  GtkMenuShell * menushell);

extern GType gtk_im_multicontext_get_type(void);
extern GtkIMContext *gtk_im_multicontext_new(void);
extern GType gtk_im_preedit_style_get_type(void);
extern GType gtk_im_status_style_get_type(void);
extern void gtk_image_clear(GtkImage * image);
extern GdkPixbufAnimation *gtk_image_get_animation(GtkImage * image);
extern void gtk_image_get_icon_name(GtkImage * image,
                                    const gchar * *icon_name,
                                    GtkIconSize * size);
extern void gtk_image_get_icon_set(GtkImage * image,
                                   GtkIconSet * *icon_set,
                                   GtkIconSize * size);
extern void gtk_image_get_image(GtkImage * image, GdkImage * *gdk_image,
                               GdkBitmap * *mask);
extern GdkPixbuf *gtk_image_get_pixbuf(GtkImage * image);
extern gint gtk_image_get_pixel_size(GtkImage * image);
extern void gtk_image_get_pixmap(GtkImage * image, GdkPixmap * *pixmap,
                                GdkBitmap * *mask);
extern void gtk_image_get_stock(GtkImage * image, gchar * *stock_id,
                               GtkIconSize * size);
extern GtkImageType gtk_image_get_storage_type(GtkImage * image);

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extern GType gtk_image_get_type(void);
extern GtkWidget *gtk_image_menu_item_get_image(GtkImageMenuItem *
                                              image_menu_item);
extern GType gtk_image_menu_item_get_type(void);
extern GtkWidget *gtk_image_menu_item_new(void);
extern GtkWidget *gtk_image_menu_item_new_from_stock(const gchar *
                                              stock_id,
                                              GtkAccelGroup *
                                              accel_group);
extern GtkWidget *gtk_image_menu_item_new_with_label(const gchar * label);
extern GtkWidget *gtk_image_menu_item_new_with_mnemonic(const gchar *
                                              label);
extern void gtk_image_menu_item_set_image(GtkImageMenuItem *
                                              image_menu_item,
                                              GtkWidget * image);
extern GtkWidget *gtk_image_new(void);
extern GtkWidget *gtk_image_new_from_animation(GdkPixbufAnimation *
                                              animation);
extern GtkWidget *gtk_image_new_from_file(const gchar * filename);
extern GtkWidget *gtk_image_new_from_icon_name(const gchar * icon_name,
                                              GtkIconSize size);
extern GtkWidget *gtk_image_new_from_icon_set(GtkIconSet * icon_set,
                                              GtkIconSize size);
extern GtkWidget *gtk_image_new_from_image(GdkImage * image,
                                              GdkBitmap * mask);
extern GtkWidget *gtk_image_new_from_pixbuf(GdkPixbuf * pixbuf);
extern GtkWidget *gtk_image_new_from_pixmap(GdkPixmap * pixmap,
                                              GdkBitmap * mask);
extern GtkWidget *gtk_image_new_from_stock(const gchar * stock_id,
                                              GtkIconSize size);
extern void gtk_image_set_from_animation(GtkImage * image,
                                              GdkPixbufAnimation * animation);
extern void gtk_image_set_from_file(GtkImage * image,
                                              const gchar * filename);
extern void gtk_image_set_from_icon_name(GtkImage * image,
                                              const gchar * icon_name,
                                              GtkIconSize size);
extern void gtk_image_set_from_icon_set(GtkImage * image,
                                              GtkIconSet * icon_set,
                                              GtkIconSize size);
extern void gtk_image_set_from_image(GtkImage * image,
                                              GdkImage * gdk_image,
                                              GdkBitmap * mask);
extern void gtk_image_set_from_pixbuf(GtkImage * image,
                                              GdkPixbuf * pixbuf);
extern void gtk_image_set_from_pixmap(GtkImage * image, GdkPixmap * pixmap,
                                              GdkBitmap * mask);
extern void gtk_image_set_from_stock(GtkImage * image,
                                              const gchar * stock_id,
                                              GtkIconSize size);
extern void gtk_image_set_pixel_size(GtkImage * image, gint pixel_size);
extern GType gtk_image_type_get_type(void);
extern void gtk_init(int *argc, char ***argv);
extern void gtk_init_add(GtkFunction function, gpointer data);
extern gboolean gtk_init_check(int *argc, char ***argv);
extern gboolean gtk_init_with_args(int *argc, char ***argv,
                                  char *parameter_string,
                                  GOptionEntry * entries,
                                  char *translation_domain,
                                  GError * *error);
extern GType gtk_input_dialog_get_type(void);
extern GtkWidget *gtk_input_dialog_new(void);

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extern const guint gtk_interface_age;
extern GdkScreen *gtk_invisible_get_screen(GtkInvisible * invisible);
extern GType gtk_invisible_get_type(void);
extern GtkWidget *gtk_invisible_new(void);
extern GtkWidget *gtk_invisible_new_for_screen(GdkScreen * screen);
extern void gtk_invisible_set_screen(GtkInvisible * invisible,
                                     GdkScreen * screen);

extern void gtk_item_deselect(GtkItem * item);
extern GType gtk_item_get_type(void);
extern void gtk_item_select(GtkItem * item);
extern void gtk_item_toggle(GtkItem * item);
extern GType gtk_justification_get_type(void);
extern guint gtk_key_snooper_install(GtkKeySnoopFunc snooper,
                                     gpointer func_data);
extern void gtk_key_snooper_remove(guint snooper_handler_id);
extern gdouble gtk_label_get_angle(GtkLabel * label);
extern PangoAttrList *gtk_label_get_attributes(GtkLabel * label);
extern PangoEllipsizeMode gtk_label_get_ellipsize(GtkLabel * label);
extern GtkJustification gtk_label_get_justify(GtkLabel * label);
extern const gchar *gtk_label_get_label(GtkLabel * label);
extern PangoLayout *gtk_label_get_layout(GtkLabel * label);
extern void gtk_label_get_layout_offsets(GtkLabel * label, gint * x,
                                     gint * y);
extern gboolean gtk_label_get_line_wrap(GtkLabel * label);
extern PangoWrapMode gtk_label_get_line_wrap_mode(GtkLabel * label);
extern gint gtk_label_get_max_width_chars(GtkLabel * label);
extern guint gtk_label_get_mnemonic_keyval(GtkLabel * label);
extern GtkWidget *gtk_label_get_mnemonic_widget(GtkLabel * label);
extern gboolean gtk_label_get_selectable(GtkLabel * label);
extern gboolean gtk_label_get_selection_bounds(GtkLabel * label,
                                              gint * start, gint * end);
extern gboolean gtk_label_get_single_line_mode(GtkLabel * label);
extern const gchar *gtk_label_get_text(GtkLabel * label);
extern GType gtk_label_get_type(void);
extern gboolean gtk_label_get_use_markup(GtkLabel * label);
extern gboolean gtk_label_get_use_underline(GtkLabel * label);
extern gint gtk_label_get_width_chars(GtkLabel * label);
extern GtkWidget *gtk_label_new(const gchar * str);
extern GtkWidget *gtk_label_new_with_mnemonic(const gchar * str);
extern void gtk_label_select_region(GtkLabel * label, gint start_offset,
                                   gint end_offset);
extern void gtk_label_set_angle(GtkLabel * label, gdouble angle);
extern void gtk_label_set_attributes(GtkLabel * label,
                                   PangoAttrList * attrs);
extern void gtk_label_set_ellipsize(GtkLabel * label,
                                   PangoEllipsizeMode mode);
extern void gtk_label_set_justify(GtkLabel * label,
                                   GtkJustification jtype);
extern void gtk_label_set_label(GtkLabel * label, const gchar * str);
extern void gtk_label_set_line_wrap(GtkLabel * label, gboolean wrap);
extern void gtk_label_set_line_wrap_mode(GtkLabel * label,
                                       PangoWrapMode wrap_mode);
extern void gtk_label_set_markup(GtkLabel * label, const gchar * str);
extern void gtk_label_set_markup_with_mnemonic(GtkLabel * label,
                                              const gchar * str);
extern void gtk_label_set_max_width_chars(GtkLabel * label, gint n_chars);
extern void gtk_label_set_mnemonic_widget(GtkLabel * label,
                                       GtkWidget * widget);
extern void gtk_label_set_pattern(GtkLabel * label, const gchar * pattern);
extern void gtk_label_set_selectable(GtkLabel * label, gboolean setting);
extern void gtk_label_set_single_line_mode(GtkLabel * label,
                                       gboolean single_line_mode);

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extern void gtk_label_set_text(GtkLabel * label, const gchar * str);
extern void gtk_label_set_text_with_mnemonic(GtkLabel * label,
                                             const gchar * str);
extern void gtk_label_set_use_markup(GtkLabel * label, gboolean setting);
extern void gtk_label_set_use_underline(GtkLabel * label,
                                         gboolean setting);
extern void gtk_label_set_width_chars(GtkLabel * label, gint n_chars);
extern GtkAdjustment *gtk_layout_get_hadjustment(GtkLayout * layout);
extern void gtk_layout_get_size(GtkLayout * layout, guint * width,
                                guint * height);
extern GType gtk_layout_get_type(void);
extern GtkAdjustment *gtk_layout_get_vadjustment(GtkLayout * layout);
extern void gtk_layout_move(GtkLayout * layout, GtkWidget * child_widget,
                             gint x, gint y);
extern GtkWidget *gtk_layout_new(GtkAdjustment * hadjustment,
                                 GtkAdjustment * vadjustment);
extern void gtk_layout_put(GtkLayout * layout, GtkWidget * child_widget,
                             gint x, gint y);
extern void gtk_layout_set_hadjustment(GtkLayout * layout,
                                       GtkAdjustment * adjustment);
extern void gtk_layout_set_size(GtkLayout * layout, guint width,
                                guint height);
extern void gtk_layout_set_vadjustment(GtkLayout * layout,
                                       GtkAdjustment * adjustment);
extern GType gtk_link_button_get_type(void);
extern const char *gtk_link_button_get_uri(GtkLinkButton * link_button);
extern GtkWidget *gtk_link_button_new(const char *uri);
extern GtkWidget *gtk_link_button_new_with_label(const char *uri,
                                                  const char *label);
extern void gtk_link_button_set_uri(GtkLinkButton * link_button,
                                    const char *uri);

extern GtkWidget *gtk_link_button_new_with_uri(const char *uri);
extern void gtk_link_button_set_uri_hook(GtkLinkButton * link_button,
                                         GtkLinkButtonUriFunc func,
                                         gpointer data,
                                         GDestroyNotify destroy);
extern void gtk_list_store_append(GtkListStore * list_store,
                                  GtkTreeIter * iter);
extern void gtk_list_store_clear(GtkListStore * list_store);
extern GType gtk_list_store_get_type(void);
extern void gtk_list_store_insert(GtkListStore * list_store,
                                  GtkTreeIter * iter, gint position);
extern void gtk_list_store_insert_after(GtkListStore * list_store,
                                       GtkTreeIter * iter,
                                       GtkTreeIter * sibling);
extern void gtk_list_store_insert_before(GtkListStore * list_store,
                                       GtkTreeIter * iter,
                                       GtkTreeIter * sibling);
extern void gtk_list_store_insert_with_values(GtkListStore * list_store,
                                              GtkTreeIter * iter,
                                              gint position, ...);
extern void gtk_list_store_insert_with_valuesv(GtkListStore * list_store,
                                              GtkTreeIter * iter,
                                              gint position,
                                              gint * columns,
                                              GValue * values,
                                              gint n_values);
extern gboolean gtk_list_store_iter_is_valid(GtkListStore * list_store,
                                             GtkTreeIter * iter);
extern void gtk_list_store_move_after(GtkListStore * store,
                                       GtkTreeIter * iter,
                                       GtkTreeIter * position);
extern void gtk_list_store_move_before(GtkListStore * store,
                                       GtkTreeIter * iter,

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                                GtkTreeIter * position);
extern GtkWidget *gtk_list_store_new(gint n_columns, ...);
extern GtkWidget *gtk_list_store_newv(gint n_columns, GType * types);
extern void gtk_list_store_prepend(GtkListStore * list_store,
                                GtkTreeIter * iter);
extern gboolean gtk_list_store_remove(GtkListStore * list_store,
                                GtkTreeIter * iter);
extern void gtk_list_store_reorder(GtkListStore * store, gint * new_order);
extern void gtk_list_store_set(GtkListStore * list_store,
                                GtkTreeIter * iter, ...);
extern void gtk_list_store_set_column_types(GtkListStore * list_store,
                                gint n_columns, GType * types);
extern void gtk_list_store_set_valist(GtkListStore * list_store,
                                GtkTreeIter * iter,
                                va_list var_args);
extern void gtk_list_store_set_value(GtkListStore * list_store,
                                GtkTreeIter * iter, gint column,
                                GValue * value);
extern void gtk_list_store_swap(GtkListStore * store, GtkTreeIter * a,
                                GtkTreeIter * b);
extern void gtk_main(void);
extern void gtk_main_do_event(GdkEvent * event);
extern gboolean gtk_main_iteration(void);
extern gboolean gtk_main_iteration_do(gboolean blocking);
extern guint gtk_main_level(void);
extern void gtk_main_quit(void);
extern const guint gtk_major_version;
extern GType gtk_match_type_get_type(void);
extern void gtk_menu_attach(GtkMenu * menu, GtkWidget * child,
                                guint left_attach, guint right_attach,
                                guint top_attach, guint bottom_attach);
extern void gtk_menu_attach_to_widget(GtkMenu * menu,
                                GtkWidget * attach_widget,
                                GtkMenuDetachFunc detach);
extern GtkPackDirection gtk_menu_bar_get_child_pack_direction(GtkMenuBar *
                                menubar);
extern GtkPackDirection gtk_menu_bar_get_pack_direction(GtkMenuBar *
                                menubar);
extern GType gtk_menu_bar_get_type(void);
extern GtkWidget *gtk_menu_bar_new(void);
extern void gtk_menu_bar_set_child_pack_direction(GtkMenuBar * menubar,
                                GtkPackDirection
                                child_pack_dir);
extern void gtk_menu_bar_set_pack_direction(GtkMenuBar * menubar,
                                GtkPackDirection pack_dir);
extern void gtk_menu_detach(GtkMenu * menu);
extern GType gtk_menu_direction_type_get_type(void);
extern GtkAccelGroup *gtk_menu_get_accel_group(GtkMenu * menu);
extern GtkWidget *gtk_menu_get_active(GtkMenu * menu);
extern GtkWidget *gtk_menu_get_attach_widget(GtkMenu * menu);
extern GList *gtk_menu_get_for_attach_widget(GtkWidget * widget);
extern gboolean gtk_menu_get_tearoff_state(GtkMenu * menu);
extern const gchar *gtk_menu_get_title(GtkMenu * menu);
extern GType gtk_menu_get_type(void);
extern void gtk_menu_item_activate(GtkMenuItem * menu_item);
extern void gtk_menu_item_deselect(GtkMenuItem * menu_item);
extern gboolean gtk_menu_item_get_right_justified(GtkMenuItem * menu_item);
extern GtkWidget *gtk_menu_item_get_submenu(GtkMenuItem * menu_item);
extern GType gtk_menu_item_get_type(void);
extern GtkWidget *gtk_menu_item_new(void);
extern GtkWidget *gtk_menu_item_new_with_label(const gchar * label);
extern GtkWidget *gtk_menu_item_new_with_mnemonic(const gchar * label);

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extern void gtk_menu_item_remove_submenu(GtkMenuItem * menu_item);
extern void gtk_menu_item_select(GtkMenuItem * menu_item);
extern void gtk_menu_item_set_accel_path(GtkMenuItem * menu_item,
                                         const gchar * accel_path);
extern void gtk_menu_item_set_right_justified(GtkMenuItem * menu_item,
                                              gboolean right_justified);
extern void gtk_menu_item_set_submenu(GtkMenuItem * menu_item,
                                      GtkWidget * submenu);
extern void gtk_menu_item_toggle_size_allocate(GtkMenuItem * menu_item,
                                              gint allocation);
extern void gtk_menu_item_toggle_size_request(GtkMenuItem * menu_item,
                                              gint * requisition);

extern GtkWidget *gtk_menu_new(void);
extern void gtk_menu_popdown(GtkMenu * menu);
extern void gtk_menu_popup(GtkMenu * menu, GtkWidget * parent_menu_shell,
                           GtkWidget * parent_menu_item,
                           GtkMenuPositionFunc func, gpointer data,
                           guint button, guint32 activate_time);
extern void gtk_menu_reorder_child(GtkMenu * menu, GtkWidget * child,
                                   gint position);
extern void gtk_menu_reposition(GtkMenu * menu);
extern void gtk_menu_set_accel_group(GtkMenu * menu,
                                     GtkAccelGroup * accel_group);
extern void gtk_menu_set_accel_path(GtkMenu * menu,
                                    const gchar * accel_path);
extern void gtk_menu_set_active(GtkMenu * menu, guint index_);
extern void gtk_menu_set_monitor(GtkMenu * menu, gint monitor_num);
extern void gtk_menu_set_screen(GtkMenu * menu, GdkScreen * screen);
extern void gtk_menu_set_tearoff_state(GtkMenu * menu, gboolean torn_off);
extern void gtk_menu_set_title(GtkMenu * menu, const gchar * title);
extern void gtk_menu_shell_activate_item(GtkMenuShell * menu_shell,
                                         GtkWidget * menu_item,
                                         gboolean force_deactivate);
extern void gtk_menu_shell_append(GtkMenuShell * menu_shell,
                                  GtkWidget * child);
extern void gtk_menu_shell_cancel(GtkMenuShell * menu_shell);
extern void gtk_menu_shell_deactivate(GtkMenuShell * menu_shell);
extern void gtk_menu_shell_deselect(GtkMenuShell * menu_shell);
extern gboolean gtk_menu_shell_get_take_focus(GtkMenuShell * menu_shell);
extern GType gtk_menu_shell_get_type(void);
extern void gtk_menu_shell_insert(GtkMenuShell * menu_shell,
                                  GtkWidget * child, gint position);
extern void gtk_menu_shell_prepend(GtkMenuShell * menu_shell,
                                   GtkWidget * child);
extern void gtk_menu_shell_select_first(GtkMenuShell * menu_shell,
                                        gboolean search_sensitive);
extern void gtk_menu_shell_select_item(GtkMenuShell * menu_shell,
                                       GtkWidget * menu_item);
extern void gtk_menu_shell_set_take_focus(GtkMenuShell * menu_shell,
                                           gboolean take_focus);
extern GtkWidget *gtk_menu_tool_button_get_menu(GtkMenuToolButton *
                                                button);
extern GType gtk_menu_tool_button_get_type(void);
extern GtkToolItem *gtk_menu_tool_button_new(GtkWidget * icon_widget,
                                              const gchar * label);
extern GtkToolItem *gtk_menu_tool_button_new_from_stock(const gchar *
                                                         stock_id);
extern void gtk_menu_tool_button_set_arrow_tooltip(GtkMenuToolButton *
                                                    button,
                                                    GtkTooltips * tooltips,
                                                    const gchar * tip_text,
                                                    const gchar *

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tip_private);
extern void gtk_menu_tool_button_set_menu(GtkMenuToolButton * button,
                                           GtkWidget * menu);
extern void gtk_message_dialog_format_secondary_markup(GtkMessageDialog *
                                                       message_dialog,
                                                       const gchar *
                                                       message_format,
                                                       ...);
extern void gtk_message_dialog_format_secondary_text(GtkMessageDialog *
                                                     message_dialog,
                                                     const gchar *
                                                     message_format, ...);
extern GType gtk_message_dialog_get_type(void);
extern GtkWidget *gtk_message_dialog_new(GtkWindow * parent,
                                         GtkDialogFlags flags,
                                         GtkMessageType type,
                                         GtkButtonsType buttons,
                                         const gchar * message_format,
                                         ...);
extern GtkWidget *gtk_message_dialog_new_with_markup(GtkWindow * parent,
                                                     GtkDialogFlags flags,
                                                     GtkMessageType type,
                                                     GtkButtonsType
                                                     buttons,
                                                     const gchar *
                                                     message_format, ...);
extern void gtk_message_dialog_set_image(GtkMessageDialog * dialog,
                                         GtkWidget * image);
extern void gtk_message_dialog_set_markup(GtkMessageDialog *
                                         message_dialog,
                                         const gchar * str);
extern GType gtk_message_type_get_type(void);
extern GType gtk_metric_type_get_type(void);
extern const guint gtk_micro_version;
extern const guint gtk_minor_version;
extern void gtk_misc_get_alignment(GtkMisc * misc, gfloat * xalign,
                                   gfloat * yalign);
extern void gtk_misc_get_padding(GtkMisc * misc, gint * xpad, gint * ypad);
extern GType gtk_misc_get_type(void);
extern void gtk_misc_set_alignment(GtkMisc * misc, gfloat xalign,
                                   gfloat yalign);
extern void gtk_misc_set_padding(GtkMisc * misc, gint xpad, gint ypad);
extern GType gtk_movement_step_get_type(void);
extern gint gtk_notebook_append_page(GtkNotebook * notebook,
                                     GtkWidget * child,
                                     GtkWidget * tab_label);
extern gint gtk_notebook_append_page_menu(GtkNotebook * notebook,
                                           GtkWidget * child,
                                           GtkWidget * tab_label,
                                           GtkWidget * menu_label);
extern gint gtk_notebook_get_current_page(GtkNotebook * notebook);
extern GtkWidget *gtk_notebook_get_menu_label(GtkNotebook * notebook,
                                              GtkWidget * child);
extern const gchar *gtk_notebook_get_menu_label_text(GtkNotebook *
                                                      notebook,
                                                      GtkWidget * child);
extern gint gtk_notebook_get_n_pages(GtkNotebook * notebook);
extern GtkWidget *gtk_notebook_get_nth_page(GtkNotebook * notebook,
                                             gint page_num);
extern gboolean gtk_notebook_get_scrollable(GtkNotebook * notebook);
extern gboolean gtk_notebook_get_show_border(GtkNotebook * notebook);
extern gboolean gtk_notebook_get_show_tabs(GtkNotebook * notebook);

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extern gboolean gtk_notebook_get_tab_detachable(GtkNotebook * notebook,
                                                GtkWidget * child);
extern GtkWidget *gtk_notebook_get_tab_label(GtkNotebook * notebook,
                                                GtkWidget * child);
extern const gchar *gtk_notebook_get_tab_label_text(GtkNotebook * notebook,
                                                    GtkWidget * child);
extern GtkPositionType gtk_notebook_get_tab_pos(GtkNotebook * notebook);
extern gboolean gtk_notebook_get_tab_reorderable(GtkNotebook * notebook,
                                                GtkWidget * child);

extern GType gtk_notebook_get_type(void);
extern gint gtk_notebook_insert_page(GtkNotebook * notebook,
                                    GtkWidget * child,
                                    GtkWidget * tab_label, gint position);
extern gint gtk_notebook_insert_page_menu(GtkNotebook * notebook,
                                         GtkWidget * child,
                                         GtkWidget * tab_label,
                                         GtkWidget * menu_label,
                                         gint position);

extern GtkWidget *gtk_notebook_new(void);
extern void gtk_notebook_next_page(GtkNotebook * notebook);
extern gint gtk_notebook_page_num(GtkNotebook * notebook,
                                  GtkWidget * child);
extern void gtk_notebook_popup_disable(GtkNotebook * notebook);
extern void gtk_notebook_popup_enable(GtkNotebook * notebook);
extern gint gtk_notebook_prepend_page(GtkNotebook * notebook,
                                     GtkWidget * child,
                                     GtkWidget * tab_label);
extern gint gtk_notebook_prepend_page_menu(GtkNotebook * notebook,
                                           GtkWidget * child,
                                           GtkWidget * tab_label,
                                           GtkWidget * menu_label);
extern void gtk_notebook_prev_page(GtkNotebook * notebook);
extern void gtk_notebook_query_tab_label_packing(GtkNotebook * notebook,
                                                  GtkWidget * child,
                                                  gboolean * expand,
                                                  gboolean * fill,
                                                  GtkPackType * pack_type);
extern void gtk_notebook_remove_page(GtkNotebook * notebook,
                                     gint page_num);
extern void gtk_notebook_reorder_child(GtkNotebook * notebook,
                                       GtkWidget * child, gint position);
extern void gtk_notebook_set_current_page(GtkNotebook * notebook,
                                          gint page_num);
extern void gtk_notebook_set_menu_label(GtkNotebook * notebook,
                                       GtkWidget * child,
                                       GtkWidget * menu_label);
extern void gtk_notebook_set_menu_label_text(GtkNotebook * notebook,
                                             GtkWidget * child,
                                             const gchar * menu_text);
extern void gtk_notebook_set_scrollable(GtkNotebook * notebook,
                                       gboolean scrollable);
extern void gtk_notebook_set_show_border(GtkNotebook * notebook,
                                       gboolean show_border);
extern void gtk_notebook_set_show_tabs(GtkNotebook * notebook,
                                       gboolean show_tabs);
extern void gtk_notebook_set_tab_detachable(GtkNotebook * notebook,
                                             GtkWidget * child,
                                             gboolean detachable);
extern void gtk_notebook_set_tab_label(GtkNotebook * notebook,
                                       GtkWidget * child,
                                       GtkWidget * tab_label);
extern void gtk_notebook_set_tab_label_packing(GtkNotebook * notebook,

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                                GtkWidget * child,
                                gboolean expand,
                                gboolean fill,
                                GtkPackType pack_type);
extern void gtk_notebook_set_tab_label_text(GtkNotebook * notebook,
                                GtkWidget * child,
                                const gchar * tab_text);
extern void gtk_notebook_set_tab_pos(GtkNotebook * notebook,
                                GtkPositionType pos);
extern void gtk_notebook_set_tab_reorderable(GtkNotebook * notebook,
                                GtkWidget * child,
                                gboolean reorderable);

extern void
gtk_notebook_set_window_creation_hook(GtkNotebookWindowCreationFunc func,
                                gpointer data,
                                GDestroyNotify destroy);

extern GType gtk_notebook_tab_get_type(void);
extern void gtk_object_destroy(GtkObject * object);
extern GType gtk_object_flags_get_type(void);
extern long unsigned int gtk_object_get_type(void);
extern void gtk_object_sink(GtkObject * object);
extern GType gtk_orientation_get_type(void);
extern GType gtk_pack_direction_get_type(void);
extern GType gtk_pack_type_get_type(void);
extern GType gtk_page_orientation_get_type(void);
extern GType gtk_page_set_get_type(void);
extern GtkPageSetup *gtk_page_setup_copy(GtkPageSetup * other);
extern gdouble gtk_page_setup_get_bottom_margin(GtkPageSetup * setup,
                                GtkUnit unit);
extern gdouble gtk_page_setup_get_left_margin(GtkPageSetup * setup,
                                GtkUnit unit);
extern GtkPageOrientation gtk_page_setup_get_orientation(GtkPageSetup *
                                setup);
extern gdouble gtk_page_setup_get_page_height(GtkPageSetup * setup,
                                GtkUnit unit);
extern gdouble gtk_page_setup_get_page_width(GtkPageSetup * setup,
                                GtkUnit unit);
extern gdouble gtk_page_setup_get_paper_height(GtkPageSetup * setup,
                                GtkUnit unit);
extern GtkPaperSize *gtk_page_setup_get_paper_size(GtkPageSetup * setup);
extern gdouble gtk_page_setup_get_paper_width(GtkPageSetup * setup,
                                GtkUnit unit);
extern gdouble gtk_page_setup_get_right_margin(GtkPageSetup * setup,
                                GtkUnit unit);
extern gdouble gtk_page_setup_get_top_margin(GtkPageSetup * setup,
                                GtkUnit unit);

extern GType gtk_page_setup_get_type(void);
extern GtkPageSetup *gtk_page_setup_new(void);
extern void gtk_page_setup_set_bottom_margin(GtkPageSetup * setup,
                                gdouble margin, GtkUnit unit);
extern void gtk_page_setup_set_left_margin(GtkPageSetup * setup,
                                gdouble margin, GtkUnit unit);
extern void gtk_page_setup_set_orientation(GtkPageSetup * setup,
                                GtkPageOrientation orientation);
extern void gtk_page_setup_set_paper_size(GtkPageSetup * setup,
                                GtkPaperSize * size);
extern void gtk_page_setup_set_paper_size_and_default_margins(GtkPageSetup
                                * setup,
                                GtkPaperSize
                                * size);
extern void gtk_page_setup_set_right_margin(GtkPageSetup * setup,
                                gdouble margin, GtkUnit unit);

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extern void gtk_page_setup_set_top_margin(GtkPageSetup * setup,
                                          gdouble margin, GtkUnit unit);
extern void gtk_paint_arrow(GtkStyle * style, GdkWindow * window,
                           GtkStateType state_type,
                           GtkShadowType shadow_type,
                           const GdkRectangle * area, GtkWidget * widget,
                           const gchar * detail, GtkArrowType arrow_type,
                           gboolean fill, gint x, gint y, gint width,
                           gint height);
extern void gtk_paint_box(GtkStyle * style, GdkWindow * window,
                         GtkStateType state_type,
                         GtkShadowType shadow_type,
                         const GdkRectangle * area, GtkWidget * widget,
                         const gchar * detail, gint x, gint y, gint width,
                         gint height);
extern void gtk_paint_box_gap(GtkStyle * style, GdkWindow * window,
                             GtkStateType state_type,
                             GtkShadowType shadow_type,
                             const GdkRectangle * area,
                             GtkWidget * widget, const gchar * detail,
                             gint x, gint y, gint width, gint height,
                             GtkPositionType gap_side, gint gap_x,
                             gint gap_width);
extern void gtk_paint_check(GtkStyle * style, GdkWindow * window,
                           GtkStateType state_type,
                           GtkShadowType shadow_type,
                           const GdkRectangle * area, GtkWidget * widget,
                           const gchar * detail, gint x, gint y,
                           gint width, gint height);
extern void gtk_paint_diamond(GtkStyle * style, GdkWindow * window,
                             GtkStateType state_type,
                             GtkShadowType shadow_type,
                             const GdkRectangle * area,
                             GtkWidget * widget, const gchar * detail,
                             gint x, gint y, gint width, gint height);
extern void gtk_paint_expander(GtkStyle * style, GdkWindow * window,
                              GtkStateType state_type,
                              const GdkRectangle * area,
                              GtkWidget * widget, const gchar * detail,
                              gint x, gint y,
                              GtkExpanderStyle expander_style);
extern void gtk_paint_extension(GtkStyle * style, GdkWindow * window,
                               GtkStateType state_type,
                               GtkShadowType shadow_type,
                               const GdkRectangle * area,
                               GtkWidget * widget, const gchar * detail,
                               gint x, gint y, gint width, gint height,
                               GtkPositionType gap_side);
extern void gtk_paint_flat_box(GtkStyle * style, GdkWindow * window,
                              GtkStateType state_type,
                              GtkShadowType shadow_type,
                              const GdkRectangle * area,
                              GtkWidget * widget, const gchar * detail,
                              gint x, gint y, gint width, gint height);
extern void gtk_paint_focus(GtkStyle * style, GdkWindow * window,
                           GtkStateType state_type,
                           const GdkRectangle * area, GtkWidget * widget,
                           const gchar * detail, gint x, gint y,
                           gint width, gint height);
extern void gtk_paint_handle(GtkStyle * style, GdkWindow * window,
                            GtkStateType state_type,
                            GtkShadowType shadow_type,

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        const GdkRectangle * area, GtkWidget * widget,
        const gchar * detail, gint x, gint y,
        gint width, gint height,
        GtkOrientation orientation);
extern void gtk_paint_hline(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type,
        const GdkRectangle * area, GtkWidget * widget,
        const gchar * detail, gint x1, gint x2,
        gint y);
extern void gtk_paint_layout(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type, gboolean use_text,
        const GdkRectangle * area, GtkWidget * widget,
        const gchar * detail, gint x, gint y,
        PangoLayout * layout);
extern void gtk_paint_option(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type,
        GtkShadowType shadow_type,
        const GdkRectangle * area, GtkWidget * widget,
        const gchar * detail, gint x, gint y,
        gint width, gint height);
extern void gtk_paint_polygon(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type,
        GtkShadowType shadow_type,
        const GdkRectangle * area,
        GtkWidget * widget, const gchar * detail,
        const GdkPoint * points, gint npoints,
        gboolean fill);
extern void gtk_paint_resize_grip(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type,
        const GdkRectangle * area,
        GtkWidget * widget, const gchar * detail,
        GdkWindowEdge edge, gint x, gint y,
        gint width, gint height);
extern void gtk_paint_shadow(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type,
        GtkShadowType shadow_type,
        const GdkRectangle * area, GtkWidget * widget,
        const gchar * detail, gint x, gint y,
        gint width, gint height);
extern void gtk_paint_shadow_gap(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type,
        GtkShadowType shadow_type,
        const GdkRectangle * area,
        GtkWidget * widget, const gchar * detail,
        gint x, gint y, gint width, gint height,
        GtkPositionType gap_side, gint gap_x,
        gint gap_width);
extern void gtk_paint_slider(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type,
        GtkShadowType shadow_type,
        const GdkRectangle * area, GtkWidget * widget,
        const gchar * detail, gint x, gint y,
        gint width, gint height,
        GtkOrientation orientation);
extern void gtk_paint_tab(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type,
        GtkShadowType shadow_type,
        const GdkRectangle * area, GtkWidget * widget,
        const gchar * detail, gint x, gint y, gint width,
        gint height);
extern void gtk_paint_vline(GtkStyle * style, GdkWindow * window,
        GtkStateType state_type,

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        const GdkRectangle * area, GtkWidget * widget,
        const gchar * detail, gint y1_, gint y2_,
        gint x);
extern void gtk_paned_add1(GtkPaned * paned, GtkWidget * child);
extern void gtk_paned_add2(GtkPaned * paned, GtkWidget * child);
extern GtkWidget *gtk_paned_get_child1(GtkPaned * paned);
extern GtkWidget *gtk_paned_get_child2(GtkPaned * paned);
extern gint gtk_paned_get_position(GtkPaned * paned);
extern GType gtk_paned_get_type(void);
extern void gtk_paned_pack1(GtkPaned * paned, GtkWidget * child,
        gboolean resize, gboolean shrink);
extern void gtk_paned_pack2(GtkPaned * paned, GtkWidget * child,
        gboolean resize, gboolean shrink);
extern void gtk_paned_set_position(GtkPaned * paned, gint position);
extern GtkPaperSize *gtk_paper_size_copy(GtkPaperSize * other);
extern void gtk_paper_size_free(GtkPaperSize * size);
extern const char *gtk_paper_size_get_default(void);
extern gdouble gtk_paper_size_get_default_bottom_margin(GtkPaperSize *
        size,
        GtkUnit unit);
extern gdouble gtk_paper_size_get_default_left_margin(GtkPaperSize * size,
        GtkUnit unit);
extern gdouble gtk_paper_size_get_default_right_margin(GtkPaperSize * size,
        GtkUnit unit);
extern gdouble gtk_paper_size_get_default_top_margin(GtkPaperSize * size,
        GtkUnit unit);
extern const char *gtk_paper_size_get_display_name(GtkPaperSize * size);
extern gdouble gtk_paper_size_get_height(GtkPaperSize * size,
        GtkUnit unit);
extern const char *gtk_paper_size_get_name(GtkPaperSize * size);
extern const char *gtk_paper_size_get_ppd_name(GtkPaperSize * size);
extern GType gtk_paper_size_get_type(void);
extern gdouble gtk_paper_size_get_width(GtkPaperSize * size, GtkUnit unit);
extern gboolean gtk_paper_size_is_custom(GtkPaperSize * size);
extern gboolean gtk_paper_size_is_equal(GtkPaperSize * size1,
        GtkPaperSize * size2);
extern GtkPaperSize *gtk_paper_size_new(const char *name);
extern GtkPaperSize *gtk_paper_size_new_custom(const char *name,
        const char *display_name,
        gdouble width,
        gdouble height,
        GtkUnit unit);
extern GtkPaperSize *gtk_paper_size_new_from_ppd(const char *ppd_name,
        const char
        *ppd_display_name,
        gdouble width,
        gdouble height);
extern void gtk_paper_size_set_size(GtkPaperSize * size, gdouble width,
        gdouble height, GtkUnit unit);
extern gboolean gtk_parse_args(int *argc, char ***argv);
extern GType gtk_path_priority_type_get_type(void);
extern GType gtk_path_type_get_type(void);
extern void gtk_plugin_construct(GtkPlug * plug, GdkNativeWindow socket_id);
extern void gtk_plugin_construct_for_display(GtkPlug * plug,
        GdkDisplay * display,
        GdkNativeWindow socket_id);
extern GdkNativeWindow gtk_plugin_get_id(GtkPlug * plug);
extern GType gtk_plugin_get_type(void);
extern GtkWidget *gtk_plugin_new(GdkNativeWindow socket_id);
extern GtkWidget *gtk_plugin_new_for_display(GdkDisplay * display,
        GdkNativeWindow socket_id);
extern GType gtk_policy_type_get_type(void);

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extern GType gtk_position_type_get_type(void);
extern PangoContext *gtk_print_context_create_pango_context(GtkPrintContext
                                                             * context);
extern PangoLayout *gtk_print_context_create_pango_layout(GtkPrintContext *
                                                           context);
extern cairo_t *gtk_print_context_get_cairo_context(GtkPrintContext *
                                                    context);
extern gdouble gtk_print_context_get_dpi_x(GtkPrintContext * context);
extern gdouble gtk_print_context_get_dpi_y(GtkPrintContext * context);
extern gdouble gtk_print_context_get_height(GtkPrintContext * context);
extern GtkPageSetup *gtk_print_context_get_page_setup(GtkPrintContext *
                                                       context);
extern PangoFontMap *gtk_print_context_get_pango_fontmap(GtkPrintContext *
                                                           context);
extern GType gtk_print_context_get_type(void);
extern gdouble gtk_print_context_get_width(GtkPrintContext * context);
extern void gtk_print_context_set_cairo_context(GtkPrintContext * context,
                                                cairo_t * cr, double dpi_x,
                                                double dpi_y);
extern GType gtk_print_duplex_get_type(void);
extern GType gtk_print_error_get_type(void);
extern GQuark gtk_print_error_quark(void);
extern GType gtk_print_operation_action_get_type(void);
extern void gtk_print_operation_cancel(GtkPrintOperation * op);
extern GtkPageSetup
    *gtk_print_operation_get_default_page_setup(GtkPrintOperation * op);
extern void gtk_print_operation_get_error(GtkPrintOperation * op,
                                           GError * *error);
extern GtkPrintSettings
    *gtk_print_operation_get_print_settings(GtkPrintOperation * op);
extern GtkPrintStatus gtk_print_operation_get_status(GtkPrintOperation *
                                                      op);
extern const char *gtk_print_operation_get_status_string(GtkPrintOperation
                                                          * op);
extern GType gtk_print_operation_get_type(void);
extern gboolean gtk_print_operation_is_finished(GtkPrintOperation * op);
extern GtkPrintOperation *gtk_print_operation_new(void);
extern GType gtk_print_operation_result_get_type(void);
extern GtkPrintOperationResult gtk_print_operation_run(GtkPrintOperation *
                                                        op,
                                                        GtkPrintOperationAction
                                                        action,
                                                        GtkWidget * parent,
                                                        GError * *error);
extern void gtk_print_operation_set_allow_async(GtkPrintOperation * op,
                                                 gboolean allow_async);
extern void gtk_print_operation_set_current_page(GtkPrintOperation * op,
                                                  gint current_page);
extern void gtk_print_operation_set_custom_tab_label(GtkPrintOperation *
                                                      op,
                                                      const char *label);
extern void gtk_print_operation_set_default_page_setup(GtkPrintOperation *
                                                        op,
                                                        GtkPageSetup *
                                                        default_page_setup);
extern void gtk_print_operation_set_export_filename(GtkPrintOperation * op,
                                                     const char *filename);
extern void gtk_print_operation_set_job_name(GtkPrintOperation * op,
                                              const char *job_name);
extern void gtk_print_operation_set_n_pages(GtkPrintOperation * op,
                                              gint n_pages);
extern void gtk_print_operation_set_print_settings(GtkPrintOperation * op,

```

```

                                GtkPrintSettings *
                                print_settings);
extern void gtk_print_operation_set_show_progress(GtkPrintOperation * op,
                                                gboolean show_progress);
extern void gtk_print_operation_set_track_print_status(GtkPrintOperation *
                                                op,
                                                gboolean
                                                track_status);
extern void gtk_print_operation_set_unit(GtkPrintOperation * op,
                                         GtkUnit unit);
extern void gtk_print_operation_set_use_full_page(GtkPrintOperation * op,
                                                  gboolean full_page);
extern GType gtk_print_pages_get_type(void);
extern GType gtk_print_quality_get_type(void);
extern GtkWidget *gtk_print_run_page_setup_dialog(GtkWindow * parent,
                                                  GtkWidget *
                                                  page_setup,
                                                  GtkPrintSettings *
                                                  settings);
extern void gtk_print_run_page_setup_dialog_async(GtkWindow * parent,
                                                  GtkWidget *
                                                  page_setup,
                                                  GtkPrintSettings *
                                                  settings,
                                                  GtkWidgetDoneFunc
                                                  done_cb, gpointer data);
extern GtkPrintSettings *gtk_print_settings_copy(GtkPrintSettings * other);
extern void gtk_print_settings_foreach(GtkPrintSettings * settings,
                                       GtkPrintSettingsFunc func,
                                       gpointer user_data);
extern const char *gtk_print_settings_get(GtkPrintSettings * settings,
                                           const char *key);
extern gboolean gtk_print_settings_get_bool(GtkPrintSettings * settings,
                                             const char *key);
extern gboolean gtk_print_settings_get_collate(GtkPrintSettings *
                                              settings);
extern const char *gtk_print_settings_get_default_source(GtkPrintSettings *
                                                         settings);
extern const char *gtk_print_settings_get_dither(GtkPrintSettings *
                                                  settings);
extern gdouble gtk_print_settings_get_double(GtkPrintSettings * settings,
                                              const char *key);
extern gdouble gtk_print_settings_get_double_with_default(GtkPrintSettings
                                                         * settings,
                                                         const char *key,
                                                         gdouble def);
extern GtkWidget gtk_print_settings_get_duplex(GtkPrintSettings *
                                              settings);
extern const char *gtk_print_settings_get_finishings(GtkPrintSettings *
                                                      settings);
extern gint gtk_print_settings_get_int(GtkPrintSettings * settings,
                                       const char *key);
extern gint gtk_print_settings_get_int_with_default(GtkPrintSettings *
                                                    settings,
                                                    const char *key,
                                                    gint def);
extern gdouble gtk_print_settings_get_length(GtkPrintSettings * settings,
                                              const char *key,
                                              GtkUnit unit);
extern const char *gtk_print_settings_get_media_type(GtkPrintSettings *
                                                      settings);
extern gint gtk_print_settings_get_n_copies(GtkPrintSettings * settings);

```

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```
extern gint gtk_print_settings_get_number_up(GtkPrintSettings * settings);
extern GtkPageOrientation
gtk_print_settings_get_orientation(GtkPrintSettings * settings);
extern const char *gtk_print_settings_get_output_bin(GtkPrintSettings *
                                                    settings);
extern GtkPageRange *gtk_print_settings_get_page_ranges(GtkPrintSettings *
                                                         settings,
                                                         gint * num_ranges);
extern GtkPageSet gtk_print_settings_get_page_set(GtkPrintSettings *
                                                    settings);
extern gdouble gtk_print_settings_get_paper_height(GtkPrintSettings *
                                                    settings, GtkUnit unit);
extern GtkPaperSize *gtk_print_settings_get_paper_size(GtkPrintSettings *
                                                         settings);
extern gdouble gtk_print_settings_get_paper_width(GtkPrintSettings *
                                                    settings, GtkUnit unit);
extern GtkPrintPages gtk_print_settings_get_print_pages(GtkPrintSettings *
                                                         settings);
extern const char *gtk_print_settings_get_printer(GtkPrintSettings *
                                                    settings);
extern GtkPrintQuality gtk_print_settings_get_quality(GtkPrintSettings *
                                                       settings);
extern gint gtk_print_settings_get_resolution(GtkPrintSettings * settings);
extern gboolean gtk_print_settings_get_reverse(GtkPrintSettings *
                                                settings);
extern gdouble gtk_print_settings_get_scale(GtkPrintSettings * settings);
extern GType gtk_print_settings_get_type(void);
extern gboolean gtk_print_settings_get_use_color(GtkPrintSettings *
                                                  settings);
extern gboolean gtk_print_settings_has_key(GtkPrintSettings * settings,
                                           const char *key);
extern GtkPrintSettings *gtk_print_settings_new(void);
extern void gtk_print_settings_set(GtkPrintSettings * settings,
                                   const char *key, const char *value);
extern void gtk_print_settings_set_bool(GtkPrintSettings * settings,
                                         const char *key, gboolean value);
extern void gtk_print_settings_set_collate(GtkPrintSettings * settings,
                                           gboolean collate);
extern void gtk_print_settings_set_default_source(GtkPrintSettings *
                                                  settings,
                                                  const char
                                                  *default_source);
extern void gtk_print_settings_set_dither(GtkPrintSettings * settings,
                                           const char *dither);
extern void gtk_print_settings_set_double(GtkPrintSettings * settings,
                                           const char *key, gdouble value);
extern void gtk_print_settings_set_duplex(GtkPrintSettings * settings,
                                           GtkPrintDuplex duplex);
extern void gtk_print_settings_set_finishings(GtkPrintSettings * settings,
                                              const char *finishings);
extern void gtk_print_settings_set_int(GtkPrintSettings * settings,
                                       const char *key, gint value);
extern void gtk_print_settings_set_length(GtkPrintSettings * settings,
                                           const char *key, gdouble value,
                                           GtkUnit unit);
extern void gtk_print_settings_set_media_type(GtkPrintSettings * settings,
                                              const char *media_type);
extern void gtk_print_settings_set_n_copies(GtkPrintSettings * settings,
                                             gint num_copies);
extern void gtk_print_settings_set_number_up(GtkPrintSettings * settings,
                                              gint number_up);
extern void gtk_print_settings_set_orientation(GtkPrintSettings * settings,
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                                GtkPageOrientation
                                orientation);
extern void gtk_print_settings_set_output_bin(GtkPrintSettings * settings,
                                const char *output_bin);
extern void gtk_print_settings_set_page_ranges(GtkPrintSettings * settings,
                                GtkPageRange * page_ranges,
                                gint num_ranges);
extern void gtk_print_settings_set_page_set(GtkPrintSettings * settings,
                                GtkPageSet page_set);
extern void gtk_print_settings_set_paper_height(GtkPrintSettings *
                                settings, gdouble height,
                                GtkUnit unit);
extern void gtk_print_settings_set_paper_size(GtkPrintSettings * settings,
                                GtkPaperSize * paper_size);
extern void gtk_print_settings_set_paper_width(GtkPrintSettings * settings,
                                gdouble width,
                                GtkUnit unit);
extern void gtk_print_settings_set_print_pages(GtkPrintSettings * settings,
                                GtkPrintPages pages);
extern void gtk_print_settings_set_printer(GtkPrintSettings * settings,
                                const char *printer);
extern void gtk_print_settings_set_quality(GtkPrintSettings * settings,
                                GtkPrintQuality quality);
extern void gtk_print_settings_set_resolution(GtkPrintSettings * settings,
                                gint resolution);
extern void gtk_print_settings_set_reverse(GtkPrintSettings * settings,
                                gboolean reverse);
extern void gtk_print_settings_set_scale(GtkPrintSettings * settings,
                                gdouble scale);
extern void gtk_print_settings_set_use_color(GtkPrintSettings * settings,
                                gboolean use_color);
extern void gtk_print_settings_unset(GtkPrintSettings * settings,
                                const char *key);
extern GType gtk_print_status_get_type(void);
extern PangoEllipsizeMode gtk_progress_bar_get_ellipsize(GtkProgressBar *
                                pbar);
extern gdouble gtk_progress_bar_get_fraction(GtkProgressBar * pbar);
extern GtkProgressBarOrientation
gtk_progress_bar_get_orientation(GtkProgressBar * pbar);
extern gdouble gtk_progress_bar_get_pulse_step(GtkProgressBar * pbar);
extern const gchar *gtk_progress_bar_get_text(GtkProgressBar * pbar);
extern GType gtk_progress_bar_get_type(void);
extern GtkWidget *gtk_progress_bar_new(void);
extern GType gtk_progress_bar_orientation_get_type(void);
extern void gtk_progress_bar_pulse(GtkProgressBar * pbar);
extern void gtk_progress_bar_set_ellipsize(GtkProgressBar * pbar,
                                PangoEllipsizeMode mode);
extern void gtk_progress_bar_set_fraction(GtkProgressBar * pbar,
                                gdouble fraction);
extern void gtk_progress_bar_set_orientation(GtkProgressBar * pbar,
                                GtkProgressBarOrientation
                                orientation);
extern void gtk_progress_bar_set_pulse_step(GtkProgressBar * pbar,
                                gdouble fraction);
extern void gtk_progress_bar_set_text(GtkProgressBar * pbar,
                                const gchar * text);
extern GType gtk_progress_bar_style_get_type(void);
extern void gtk_propagate_event(GtkWidget * widget, GdkEvent * event);
extern guint gtk_quit_add(guint main_level, GtkFunction function,
                                gpointer data);
extern void gtk_quit_add_destroy(guint main_level, GObject * object);
extern guint gtk_quit_add_full(guint main_level, GtkFunction function,

```

```

                                GtkCallbackMarshal marshal, gpointer data,
                                GtkDestroyNotify destroy);
extern void gtk_quit_remove(guint quit_handler_id);
extern void gtk_quit_remove_by_data(gpointer data);
extern gint gtk_radio_action_get_current_value(GtkRadioAction * action);
extern GSList *gtk_radio_action_get_group(GtkRadioAction * action);
extern GType gtk_radio_action_get_type(void);
extern GtkRadioAction *gtk_radio_action_new(const gchar * name,
                                           const gchar * label,
                                           const gchar * tooltip,
                                           const gchar * stock_id,
                                           gint value);
extern void gtk_radio_action_set_current_value(GtkRadioAction * action,
                                              gint current_value);
extern void gtk_radio_action_set_group(GtkRadioAction * action,
                                       GSList * group);
extern GSList *gtk_radio_button_get_group(GtkRadioButton * radio_button);
extern GType gtk_radio_button_get_type(void);
extern GtkWidget *gtk_radio_button_new(GSList * group);
extern GtkWidget *gtk_radio_button_new_from_widget(GtkRadioButton *
                                                  radio_group_member);
extern GtkWidget *gtk_radio_button_new_with_label(GSList * group,
                                                  const gchar * label);
extern GtkWidget
    *gtk_radio_button_new_with_label_from_widget(GtkRadioButton *
                                                  radio_group_member,
                                                  const gchar * label);
extern GtkWidget *gtk_radio_button_new_with_mnemonic(GSList * group,
                                                  const gchar * label);
extern GtkWidget
    *gtk_radio_button_new_with_mnemonic_from_widget(GtkRadioButton *
                                                  radio_group_member,
                                                  const gchar * label);
extern void gtk_radio_button_set_group(GtkRadioButton * radio_button,
                                       GSList * group);
extern GSList *gtk_radio_menu_item_get_group(GtkRadioMenuItem *
                                             radio_menu_item);
extern GType gtk_radio_menu_item_get_type(void);
extern GtkWidget *gtk_radio_menu_item_new(GSList * group);
extern GtkWidget *gtk_radio_menu_item_new_from_widget(GtkRadioMenuItem *
                                                      group);
extern GtkWidget *gtk_radio_menu_item_new_with_label(GSList * group,
                                                      const gchar * label);
extern GtkWidget
    *gtk_radio_menu_item_new_with_label_from_widget(GtkRadioMenuItem *
                                                    group,
                                                    const gchar * label);
extern GtkWidget *gtk_radio_menu_item_new_with_mnemonic(GSList * group,
                                                         const gchar *
                                                         label);
extern GtkWidget
    *gtk_radio_menu_item_new_with_mnemonic_from_widget(GtkRadioMenuItem *
                                                        group,
                                                        const gchar *
                                                        label);
extern void gtk_radio_menu_item_set_group(GtkRadioMenuItem *
                                          radio_menu_item, GSList * group);
extern GSList *gtk_radio_tool_button_get_group(GtkRadioToolButton *
                                              button);
extern GType gtk_radio_tool_button_get_type(void);
extern GtkToolItem *gtk_radio_tool_button_new(GSList * group);
extern GtkToolItem *gtk_radio_tool_button_new_from_stock(GSList * group,

```



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const gchar *
stock_id);

extern GtkWidget
*gtk_radio_tool_button_new_from_widget(GtkRadioToolButton * group);
extern GtkWidget
*gtk_radio_tool_button_new_with_stock_from_widget(GtkRadioToolButton *
group,
const gchar *
stock_id);

extern void gtk_radio_tool_button_set_group(GtkRadioToolButton * button,
GSLList * group);

extern GtkAdjustment *gtk_range_get_adjustment(GtkRange * range);
extern gboolean gtk_range_get_inverted(GtkRange * range);
extern GtkSensitivityType gtk_range_get_lower_stepper_sensitivity(GtkRange
* range);

extern GType gtk_range_get_type(void);
extern GtkUpdateType gtk_range_get_update_policy(GtkRange * range);
extern GtkSensitivityType gtk_range_get_upper_stepper_sensitivity(GtkRange
* range);

extern gdouble gtk_range_get_value(GtkRange * range);
extern void gtk_range_set_adjustment(GtkRange * range,
GtkAdjustment * adjustment);
extern void gtk_range_set_increments(GtkRange * range, gdouble step,
gdouble page);
extern void gtk_range_set_inverted(GtkRange * range, gboolean setting);
extern void gtk_range_set_lower_stepper_sensitivity(GtkRange * range,
GtkSensitivityType
sensitivity);
extern void gtk_range_set_range(GtkRange * range, gdouble min,
gdouble max);
extern void gtk_range_set_update_policy(GtkRange * range,
GtkUpdateType policy);
extern void gtk_range_set_upper_stepper_sensitivity(GtkRange * range,
GtkSensitivityType
sensitivity);
extern void gtk_range_set_value(GtkRange * range, gdouble value);
extern void gtk_rc_add_default_file(const gchar * filename);
extern gchar *gtk_rc_find_module_in_path(const gchar * module_file);
extern gchar *gtk_rc_find_pixmap_in_path(GtkSettings * settings,
GScanner * scanner,
const gchar * pixmap_file);

extern GType gtk_rc_flags_get_type(void);
extern gchar **gtk_rc_get_default_files(void);
extern gchar *gtk_rc_get_im_module_file(void);
extern gchar *gtk_rc_get_im_module_path(void);
extern gchar *gtk_rc_get_module_dir(void);
extern GtkStyle *gtk_rc_get_style(GtkWidget * widget);
extern GtkStyle *gtk_rc_get_style_by_paths(GtkSettings * settings,
const char *widget_path,
const char *class_path,
GType type);

extern gchar *gtk_rc_get_theme_dir(void);
extern void gtk_rc_parse(const gchar * filename);
extern guint gtk_rc_parse_color(GScanner * scanner, GdkColor * color);
extern guint gtk_rc_parse_priority(GScanner * scanner,
GtkPathPriorityType * priority);
extern guint gtk_rc_parse_state(GScanner * scanner, GtkStateType * state);
extern void gtk_rc_parse_string(const gchar * rc_string);
extern gboolean gtk_rc_property_parse_border(const GParamSpec * pspec,
const GString * gstring,
GValue * property_value);
extern gboolean gtk_rc_property_parse_color(const GParamSpec * pspec,

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                                const GString * gstring,
                                GValue * property_value);
extern gboolean gtk_rc_property_parse_enum(const GParamSpec * pspec,
                                const GString * gstring,
                                GValue * property_value);
extern gboolean gtk_rc_property_parse_flags(const GParamSpec * pspec,
                                const GString * gstring,
                                GValue * property_value);
extern gboolean gtk_rc_property_parse_requisition(const GParamSpec * pspec,
                                const GString * gstring,
                                GValue * property_value);

extern gboolean gtk_rc_reparse_all(void);
extern gboolean gtk_rc_reparse_all_for_settings(GtkSettings * settings,
                                gboolean force_load);

extern void gtk_rc_reset_styles(GtkSettings * settings);
extern GScanner *gtk_rc_scanner_new(void);
extern void gtk_rc_set_default_files(gchar * *filenames);
extern GtkRcStyle *gtk_rc_style_copy(GtkRcStyle * orig);
extern GType gtk_rc_style_get_type(void);
extern GtkRcStyle *gtk_rc_style_new(void);
extern void gtk_rc_style_ref(GtkRcStyle * rc_style);
extern void gtk_rc_style_unref(GtkRcStyle * rc_style);
extern GType gtk_rc_token_type_get_type(void);
extern void gtk_recent_chooser_add_filter(GtkRecentChooser * chooser,
                                GtkRecentFilter * filter);

extern GType gtk_recent_chooser_dialog_get_type(void);
extern GtkWidget *gtk_recent_chooser_dialog_new(const char *title,
                                GtkWidget * parent,
                                const char
                                *first_button_text, ...);
extern GtkWidget *gtk_recent_chooser_dialog_new_for_manager(const char
                                *title,
                                GtkWidget *
                                parent,
                                GtkRecentManager
                                * manager,
                                const char
                                *first_button_text,
                                ...);

extern GType gtk_recent_chooser_error_get_type(void);
extern GQuark gtk_recent_chooser_error_quark(void);
extern GtkRecentInfo *gtk_recent_chooser_get_current_item(GtkRecentChooser
                                * chooser);
extern gchar *gtk_recent_chooser_get_current_uri(GtkRecentChooser *
                                chooser);
extern GtkRecentFilter *gtk_recent_chooser_get_filter(GtkRecentChooser *
                                chooser);
extern GList *gtk_recent_chooser_get_items(GtkRecentChooser * chooser);
extern gint gtk_recent_chooser_get_limit(GtkRecentChooser * chooser);
extern gboolean gtk_recent_chooser_get_local_only(GtkRecentChooser *
                                chooser);
extern gboolean gtk_recent_chooser_get_select_multiple(GtkRecentChooser *
                                chooser);
extern gboolean gtk_recent_chooser_get_show_icons(GtkRecentChooser *
                                chooser);
extern gboolean gtk_recent_chooser_get_show_not_found(GtkRecentChooser *
                                chooser);
extern gboolean gtk_recent_chooser_get_show_private(GtkRecentChooser *
                                chooser);
extern gboolean gtk_recent_chooser_get_show_tips(GtkRecentChooser *
                                chooser);
extern GtkRecentSortType gtk_recent_chooser_get_sort_type(GtkRecentChooser

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                                * chooser);
extern GType gtk_recent_chooser_get_type(void);
extern gchar **gtk_recent_chooser_get_uris(GtkRecentChooser * chooser,
                                           gsize * length);
extern GSList *gtk_recent_chooser_list_filters(GtkRecentChooser * chooser);
extern gboolean
gtk_recent_chooser_menu_get_show_numbers(GtkRecentChooserMenu * menu);
extern GType gtk_recent_chooser_menu_get_type(void);
extern GtkWidget *gtk_recent_chooser_menu_new(void);
extern GtkWidget *gtk_recent_chooser_menu_new_for_manager(GtkRecentManager
                                                         * manager);
extern void gtk_recent_chooser_menu_set_show_numbers(GtkRecentChooserMenu *
                                                    menu,
                                                    gboolean
                                                    show_numbers);
extern void gtk_recent_chooser_remove_filter(GtkRecentChooser * chooser,
                                             GtkRecentFilter * filter);
extern void gtk_recent_chooser_select_all(GtkRecentChooser * chooser);
extern gboolean gtk_recent_chooser_select_uri(GtkRecentChooser * chooser,
                                              const char *uri,
                                              GError * *error);
extern gboolean gtk_recent_chooser_set_current_uri(GtkRecentChooser *
                                                  chooser,
                                                  const char *uri,
                                                  GError * *error);
extern void gtk_recent_chooser_set_filter(GtkRecentChooser * chooser,
                                           GtkRecentFilter * filter);
extern void gtk_recent_chooser_set_limit(GtkRecentChooser * chooser,
                                          gint limit);
extern void gtk_recent_chooser_set_local_only(GtkRecentChooser * chooser,
                                              gboolean local_only);
extern void gtk_recent_chooser_set_select_multiple(GtkRecentChooser *
                                                  chooser,
                                                  gboolean
                                                  select_multiple);
extern void gtk_recent_chooser_set_show_icons(GtkRecentChooser * chooser,
                                              gboolean show_icons);
extern void gtk_recent_chooser_set_show_not_found(GtkRecentChooser *
                                                  chooser,
                                                  gboolean show_not_found);
extern void gtk_recent_chooser_set_show_private(GtkRecentChooser * chooser,
                                                gboolean show_private);
extern void gtk_recent_chooser_set_show_tips(GtkRecentChooser * chooser,
                                              gboolean show_tips);
extern void gtk_recent_chooser_set_sort_func(GtkRecentChooser * chooser,
                                              GtkRecentSortFunc sort_func,
                                              gpointer sort_data,
                                              GDestroyNotify data_destroy);
extern void gtk_recent_chooser_set_sort_type(GtkRecentChooser * chooser,
                                              GtkRecentSortType sort_type);
extern void gtk_recent_chooser_unselect_all(GtkRecentChooser * chooser);
extern void gtk_recent_chooser_unselect_uri(GtkRecentChooser * chooser,
                                             const char *uri);
extern GType gtk_recent_chooser_widget_get_type(void);
extern GtkWidget *gtk_recent_chooser_widget_new(void);
extern GtkWidget
    *gtk_recent_chooser_widget_new_for_manager(GtkRecentManager * manager);
extern GType gtk_recent_filter_flags_get_type(void);
extern GType gtk_recent_manager_error_get_type(void);
extern GType gtk_recent_sort_type_get_type(void);
extern GType gtk_relief_style_get_type(void);
extern GtkRequisition *gtk_requisition_copy(const GtkRequisition *

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requisition);
extern void gtk_requisition_free(GtkRequisition * requisition);
extern GType gtk_requisition_get_type(void);
extern GType gtk_resize_mode_get_type(void);
extern GType gtk_response_type_get_type(void);
extern void gtk_ruler_draw_pos(GtkRuler * ruler);
extern void gtk_ruler_draw_ticks(GtkRuler * ruler);
extern GtkMetricType gtk_ruler_get_metric(GtkRuler * ruler);
extern void gtk_ruler_get_range(GtkRuler * ruler, gdouble * lower,
                                gdouble * upper, gdouble * position,
                                gdouble * max_size);
extern GType gtk_ruler_get_type(void);
extern void gtk_ruler_set_metric(GtkRuler * ruler, GtkMetricType metric);
extern void gtk_ruler_set_range(GtkRuler * ruler, gdouble lower,
                                gdouble upper, gdouble position,
                                gdouble max_size);
extern gint gtk_scale_get_digits(GtkScale * scale);
extern gboolean gtk_scale_get_draw_value(GtkScale * scale);
extern PangoLayout *gtk_scale_get_layout(GtkScale * scale);
extern void gtk_scale_get_layout_offsets(GtkScale * scale, gint * x,
                                          gint * y);
extern GType gtk_scale_get_type(void);
extern GtkPositionType gtk_scale_get_value_pos(GtkScale * scale);
extern void gtk_scale_set_digits(GtkScale * scale, gint digits);
extern void gtk_scale_set_draw_value(GtkScale * scale,
                                      gboolean draw_value);
extern void gtk_scale_set_value_pos(GtkScale * scale, GtkPositionType pos);
extern GType gtk_scroll_step_get_type(void);
extern GType gtk_scroll_type_get_type(void);
extern GType gtk_scrollbar_get_type(void);
extern void gtk_scrolled_window_add_with_viewport(GtkScrolledWindow *
                                                    scrolled_window,
                                                    GtkWidget * child);
extern GtkAdjustment *gtk_scrolled_window_get_hadjustment(GtkScrolledWindow *
                                                           scrolled_window);
extern GtkWidget *gtk_scrolled_window_get_hscrollbar(GtkScrolledWindow *
                                                       scrolled_window);
extern GtkCornerType gtk_scrolled_window_get_placement(GtkScrolledWindow *
                                                        scrolled_window);
extern void gtk_scrolled_window_get_policy(GtkScrolledWindow *
                                           scrolled_window,
                                           GtkPolicyType *
                                           hscrollbar_policy,
                                           GtkPolicyType *
                                           vscrollbar_policy);
extern GtkShadowType gtk_scrolled_window_get_shadow_type(GtkScrolledWindow *
                                                           scrolled_window);
extern GType gtk_scrolled_window_get_type(void);
extern GtkAdjustment *gtk_scrolled_window_get_vadjustment(GtkScrolledWindow *
                                                           scrolled_window);
extern GtkWidget *gtk_scrolled_window_get_vscrollbar(GtkScrolledWindow *
                                                       scrolled_window);
extern GtkWidget *gtk_scrolled_window_new(GtkAdjustment * hadjustment,
                                           GtkAdjustment * vadjustment);
extern void gtk_scrolled_window_set_hadjustment(GtkScrolledWindow *
                                                  scrolled_window,
                                                  GtkAdjustment *
                                                  hadjustment);
extern void gtk_scrolled_window_set_placement(GtkScrolledWindow *

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        scrolled_window,
        GtkCornerType
        window_placement);
extern void gtk_scrolled_window_set_policy(GtkScrolledWindow *
        scrolled_window,
        GtkPolicyType hscrollbar_policy,
        GtkPolicyType
        vscrollbar_policy);
extern void gtk_scrolled_window_set_shadow_type(GtkScrolledWindow *
        scrolled_window,
        GtkShadowType type);
extern void gtk_scrolled_window_set_vadjustment(GtkScrolledWindow *
        scrolled_window,
        GtkAdjustment *
        vadjustment);
extern void gtk_scrolled_window_unset_placement(GtkScrolledWindow *
        scrolled_window);
extern void gtk_selection_add_target(GtkWidget * widget, GdkAtom selection,
        GdkAtom target, guint info);
extern void gtk_selection_add_targets(GtkWidget * widget,
        GdkAtom selection,
        const GtkTargetEntry * targets,
        guint ntargets);
extern void gtk_selection_clear_targets(GtkWidget * widget,
        GdkAtom selection);
extern gboolean gtk_selection_convert(GtkWidget * widget,
        GdkAtom selection, GdkAtom target,
        guint32 time_);
extern GtkSelectionData *gtk_selection_data_copy(GtkSelectionData * data);
extern void gtk_selection_data_free(GtkSelectionData * data);
extern GdkPixbuf *gtk_selection_data_get_pixbuf(GtkSelectionData *
        selection_data);
extern gboolean gtk_selection_data_get_targets(GtkSelectionData *
        selection_data,
        GdkAtom * *targets,
        gint * n_atoms);
extern gchar *gtk_selection_data_get_text(GtkSelectionData *
        selection_data);
extern GType gtk_selection_data_get_type(void);
extern gchar **gtk_selection_data_get_uris(GtkSelectionData *
        selection_data);
extern void gtk_selection_data_set(GtkSelectionData * selection_data,
        GdkAtom type, gint format,
        const gchar * data, gint length);
extern gboolean gtk_selection_data_set_pixbuf(GtkSelectionData *
        selection_data,
        GdkPixbuf * pixbuf);
extern gboolean gtk_selection_data_set_text(GtkSelectionData *
        selection_data,
        const gchar * str, gint len);
extern gboolean gtk_selection_data_set_uris(GtkSelectionData *
        selection_data, gchar * *uris);
extern gboolean gtk_selection_data_targets_include_image(GtkSelectionData *
        selection_data,
        gboolean
        writable);
extern gboolean
gtk_selection_data_targets_include_rich_text(GtkSelectionData *
        selection_data,
        GtkTextBuffer * buffer);
extern gboolean gtk_selection_data_targets_include_text(GtkSelectionData *
        selection_data);

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extern gboolean gtk_selection_data_targets_include_uri(GtkSelectionData *
                                                    selection_data);

extern GType gtk_selection_mode_get_type(void);
extern gboolean gtk_selection_owner_set(GtkWidget * widget,
                                       GdkAtom selection, guint32 time_);
extern gboolean gtk_selection_owner_set_for_display(GdkDisplay * display,
                                                    GtkWidget * widget,
                                                    GdkAtom selection,
                                                    guint32 time_);

extern void gtk_selection_remove_all(GtkWidget * widget);
extern GType gtk_sensitivity_type_get_type(void);
extern GType gtk_separator_get_type(void);
extern GType gtk_separator_menu_item_get_type(void);
extern GtkWidget *gtk_separator_menu_item_new(void);
extern gboolean gtk_separator_tool_item_get_draw(GtkSeparatorToolItem *
                                                item);

extern GType gtk_separator_tool_item_get_type(void);
extern GtkToolItem *gtk_separator_tool_item_new(void);
extern void gtk_separator_tool_item_set_draw(GtkSeparatorToolItem * item,
                                             gboolean draw);

extern gchar *gtk_set_locale(void);
extern GtkSettings *gtk_settings_get_default(void);
extern GtkSettings *gtk_settings_get_for_screen(GdkScreen * screen);
extern GType gtk_settings_get_type(void);
extern void gtk_settings_install_property(GParamSpec * pspec);
extern void gtk_settings_install_property_parser(GParamSpec * pspec,
                                                  GtkRcPropertyParser
                                                  parser);

extern void gtk_settings_set_double_property(GtkSettings * settings,
                                             const gchar * name,
                                             gdouble v_double,
                                             const gchar * origin);
extern void gtk_settings_set_long_property(GtkSettings * settings,
                                           const gchar * name,
                                           glong v_long,
                                           const gchar * origin);
extern void gtk_settings_set_property_value(GtkSettings * settings,
                                             const gchar * name,
                                             const GtkSettingsValue *
                                             svalue);
extern void gtk_settings_set_string_property(GtkSettings * settings,
                                             const gchar * name,
                                             const gchar * v_string,
                                             const gchar * origin);

extern GType gtk_shadow_type_get_type(void);
extern void gtk_show_about_dialog(GtkWindow * parent,
                                  const gchar * first_property_name, ...);

extern GType gtk_side_type_get_type(void);
extern GType gtk_signal_run_type_get_type(void);
extern void gtk_size_group_add_widget(GtkSizeGroup * size_group,
                                       GtkWidget * widget);
extern gboolean gtk_size_group_get_ignore_hidden(GtkSizeGroup *
                                                  size_group);

extern GtkSizeGroupMode gtk_size_group_get_mode(GtkSizeGroup * size_group);
extern GType gtk_size_group_get_type(void);
extern GSList *gtk_size_group_get_widgets(GtkSizeGroup * size_group);
extern GType gtk_size_group_mode_get_type(void);
extern GtkSizeGroup *gtk_size_group_new(GtkSizeGroupMode mode);
extern void gtk_size_group_remove_widget(GtkSizeGroup * size_group,
                                          GtkWidget * widget);
extern void gtk_size_group_set_ignore_hidden(GtkSizeGroup * size_group,
                                             gboolean ignore_hidden);

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extern void gtk_size_group_set_mode(GtkSizeGroup * size_group,
                                   GtkSizeGroupMode mode);
extern void gtk_socket_add_id(GtkSocket * socket_,
                              GdkNativeWindow window_id);
extern GdkNativeWindow gtk_socket_get_id(GtkSocket * socket_);
extern GType gtk_socket_get_type(void);
extern GtkWidget *gtk_socket_new(void);
extern GType gtk_sort_type_get_type(void);
extern void gtk_spin_button_configure(GtkSpinButton * spin_button,
                                     GtkAdjustment * adjustment,
                                     gdouble climb_rate, guint digits);
extern GtkAdjustment *gtk_spin_button_get_adjustment(GtkSpinButton *
                                                    spin_button);
extern guint gtk_spin_button_get_digits(GtkSpinButton * spin_button);
extern void gtk_spin_button_get_increments(GtkSpinButton * spin_button,
                                           gdouble * step, gdouble * page);
extern gboolean gtk_spin_button_get_numeric(GtkSpinButton * spin_button);
extern void gtk_spin_button_get_range(GtkSpinButton * spin_button,
                                      gdouble * min, gdouble * max);
extern gboolean gtk_spin_button_get_snap_to_ticks(GtkSpinButton *
                                                  spin_button);

extern GType gtk_spin_button_get_type(void);
extern GtkSpinButtonUpdatePolicy
gtk_spin_button_get_update_policy(GtkSpinButton * spin_button);
extern gdouble gtk_spin_button_get_value(GtkSpinButton * spin_button);
extern gint gtk_spin_button_get_value_as_int(GtkSpinButton * spin_button);
extern gboolean gtk_spin_button_get_wrap(GtkSpinButton * spin_button);
extern GtkWidget *gtk_spin_button_new(GtkAdjustment * adjustment,
                                      gdouble climb_rate, guint digits);
extern GtkWidget *gtk_spin_button_new_with_range(gdouble min, gdouble max,
                                                  gdouble step);
extern void gtk_spin_button_set_adjustment(GtkSpinButton * spin_button,
                                           GtkAdjustment * adjustment);
extern void gtk_spin_button_set_digits(GtkSpinButton * spin_button,
                                       guint digits);
extern void gtk_spin_button_set_increments(GtkSpinButton * spin_button,
                                           gdouble step, gdouble page);
extern void gtk_spin_button_set_numeric(GtkSpinButton * spin_button,
                                       gboolean numeric);
extern void gtk_spin_button_set_range(GtkSpinButton * spin_button,
                                      gdouble min, gdouble max);
extern void gtk_spin_button_set_snap_to_ticks(GtkSpinButton * spin_button,
                                              gboolean snap_to_ticks);
extern void gtk_spin_button_set_update_policy(GtkSpinButton * spin_button,
                                              GtkSpinButtonUpdatePolicy
                                              policy);
extern void gtk_spin_button_set_value(GtkSpinButton * spin_button,
                                      gdouble value);
extern void gtk_spin_button_set_wrap(GtkSpinButton * spin_button,
                                      gboolean wrap);
extern void gtk_spin_button_spin(GtkSpinButton * spin_button,
                                 GtkSpinType direction, gdouble increment);
extern void gtk_spin_button_update(GtkSpinButton * spin_button);
extern GType gtk_spin_button_update_policy_get_type(void);
extern GType gtk_spin_type_get_type(void);
extern GType gtk_state_type_get_type(void);
extern guint gtk_statusbar_get_context_id(GtkStatusbar * statusbar,
                                          const gchar *
                                          context_description);
extern gboolean gtk_statusbar_get_has_resize_grip(GtkStatusbar *
                                                  statusbar);
extern GType gtk_statusbar_get_type(void);

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extern GtkWidget *gtk_statusbar_new(void);
extern void gtk_statusbar_pop(GtkStatusbar * statusbar, guint context_id);
extern guint gtk_statusbar_push(GtkStatusbar * statusbar, guint context_id,
                                const gchar * text);
extern void gtk_statusbar_remove(GtkStatusbar * statusbar,
                                guint context_id, guint message_id);
extern void gtk_statusbar_set_has_resize_grip(GtkStatusbar * statusbar,
                                              gboolean setting);
extern void gtk_stock_add(const GtkStockItem * items, guint n_items);
extern void gtk_stock_add_static(const GtkStockItem * items,
                                guint n_items);
extern GtkStockItem *gtk_stock_item_copy(const GtkStockItem * item);
extern void gtk_stock_item_free(GtkStockItem * item);
extern GSList *gtk_stock_list_ids(void);
extern gboolean gtk_stock_lookup(const gchar * stock_id,
                                GtkStockItem * item);
extern void gtk_stock_set_translate_func(const gchar * domain,
                                         GtkTranslateFunc func,
                                         gpointer data,
                                         GtkDestroyNotify notify);
extern void gtk_style_apply_default_background(GtkStyle * style,
                                              GdkWindow * window,
                                              gboolean set_bg,
                                              GtkStateType state_type,
                                              const GdkRectangle * area,
                                              gint x, gint y, gint width,
                                              gint height);

extern GtkStyle *gtk_style_attach(GtkStyle * style, GdkWindow * window);
extern GtkStyle *gtk_style_copy(GtkStyle * style);
extern void gtk_style_detach(GtkStyle * style);
extern GType gtk_style_get_type(void);
extern gboolean gtk_style_lookup_color(GtkStyle * style,
                                       const gchar * color_name,
                                       GdkColor * color);
extern GtkIconSet *gtk_style_lookup_icon_set(GtkStyle * style,
                                             const char *stock_id);

extern GtkStyle *gtk_style_new(void);
extern GdkPixbuf *gtk_style_render_icon(GtkStyle * style,
                                       const GtkIconSource * source,
                                       GtkTextDirection direction,
                                       GtkStateType state,
                                       GtkIconSize size,
                                       GtkWidget * widget,
                                       const gchar * detail);
extern void gtk_style_set_background(GtkStyle * style, GdkWindow * window,
                                    GtkStateType state_type);
extern GType gtk_submenu_direction_get_type(void);
extern GType gtk_submenu_placement_get_type(void);
extern void gtk_table_attach(GtkTable * table, GtkWidget * child,
                             guint left_attach, guint right_attach,
                             guint top_attach, guint bottom_attach,
                             GtkAttachOptions xoptions,
                             GtkAttachOptions yoptions, guint xpadding,
                             guint ypadding);
extern void gtk_table_attach_defaults(GtkTable * table, GtkWidget * widget,
                                     guint left_attach,
                                     guint right_attach, guint top_attach,
                                     guint bottom_attach);
extern guint gtk_table_get_col_spacing(GtkTable * table, guint column);
extern guint gtk_table_get_default_col_spacing(GtkTable * table);
extern guint gtk_table_get_default_row_spacing(GtkTable * table);
extern gboolean gtk_table_get_homogeneous(GtkTable * table);

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extern guint gtk_table_get_row_spacing(GtkTable * table, guint row);
extern GType gtk_table_get_type(void);
extern GtkWidget *gtk_table_new(guint rows, guint columns,
                                gboolean homogeneous);
extern void gtk_table_resize(GtkTable * table, guint rows, guint columns);
extern void gtk_table_set_col_spacing(GtkTable * table, guint column,
                                      guint spacing);
extern void gtk_table_set_col_spacings(GtkTable * table, guint spacing);
extern void gtk_table_set_homogeneous(GtkTable * table,
                                      gboolean homogeneous);
extern void gtk_table_set_row_spacing(GtkTable * table, guint row,
                                      guint spacing);
extern void gtk_table_set_row_spacings(GtkTable * table, guint spacing);
extern GType gtk_target_flags_get_type(void);
extern void gtk_target_list_add(GtkTargetList * list, GdkAtom target,
                                guint flags, guint info);
extern void gtk_target_list_add_image_targets(GtkTargetList * list,
                                              guint info,
                                              gboolean writable);
extern void gtk_target_list_add_rich_text_targets(GtkTargetList * list,
                                                  guint info,
                                                  gboolean deserializable,
                                                  GtkTextBuffer * buffer);
extern void gtk_target_list_add_table(GtkTargetList * list,
                                       const GtkTargetEntry * targets,
                                       guint ntargets);
extern void gtk_target_list_add_text_targets(GtkTargetList * list,
                                              guint info);
extern void gtk_target_list_add_uri_targets(GtkTargetList * list,
                                             guint info);
extern gboolean gtk_target_list_find(GtkTargetList * list, GdkAtom target,
                                    guint * info);
extern GType gtk_target_list_get_type(void);
extern GtkTargetList *gtk_target_list_new(const GtkTargetEntry * targets,
                                          guint ntargets);
extern void gtk_target_list_ref(GtkTargetList * list);
extern void gtk_target_list_remove(GtkTargetList * list, GdkAtom target);
extern void gtk_target_list_unref(GtkTargetList * list);
extern void gtk_target_table_free(GtkTargetEntry * targets,
                                  gint n_targets);
extern GtkTargetEntry *gtk_target_table_new_from_list(GtkTargetList * list,
                                                      gint * n_targets);
extern gboolean gtk_targets_include_image(GdkAtom * targets,
                                          gint n_targets,
                                          gboolean writable);
extern gboolean gtk_targets_include_rich_text(GdkAtom * targets,
                                              gint n_targets,
                                              GtkTextBuffer * buffer);
extern gboolean gtk_targets_include_text(GdkAtom * targets,
                                         gint n_targets);
extern gboolean gtk_targets_include_uri(GdkAtom * targets, gint n_targets);
extern GType gtk_tearoff_menu_item_get_type(void);
extern GtkWidget *gtk_tearoff_menu_item_new(void);
extern GtkTextAttributes *gtk_text_attributes_copy(GtkTextAttributes *
                                                    src);
extern void gtk_text_attributes_copy_values(GtkTextAttributes * src,
                                           GtkTextAttributes * dest);
extern GType gtk_text_attributes_get_type(void);
extern GtkTextAttributes *gtk_text_attributes_new(void);
extern GtkTextAttributes *gtk_text_attributes_ref(GtkTextAttributes *
                                                  values);
extern void gtk_text_attributes_unref(GtkTextAttributes * values);

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extern void gtk_text_buffer_add_selection_clipboard(GtkTextBuffer * buffer,
                                                    GtkClipboard *
                                                    clipboard);
extern void gtk_text_buffer_apply_tag(GtkTextBuffer * buffer,
                                       GtkTextTag * tag,
                                       const GtkTextIter * start,
                                       const GtkTextIter * end);
extern void gtk_text_buffer_apply_tag_by_name(GtkTextBuffer * buffer,
                                               const gchar * name,
                                               const GtkTextIter * start,
                                               const GtkTextIter * end);
extern gboolean gtk_text_buffer_backspace(GtkTextBuffer * buffer,
                                           GtkTextIter * iter,
                                           gboolean interactive,
                                           gboolean default_editable);
extern void gtk_text_buffer_begin_user_action(GtkTextBuffer * buffer);
extern void gtk_text_buffer_copy_clipboard(GtkTextBuffer * buffer,
                                           GtkClipboard * clipboard);
extern GtkTextChildAnchor
    *gtk_text_buffer_create_child_anchor(GtkTextBuffer * buffer,
                                         GtkTextIter * iter);
extern GtkTextMark *gtk_text_buffer_create_mark(GtkTextBuffer * buffer,
                                                 const gchar * mark_name,
                                                 const GtkTextIter * where,
                                                 gboolean left_gravity);
extern GtkTextTag *gtk_text_buffer_create_tag(GtkTextBuffer * buffer,
                                              const gchar * tag_name,
                                              const gchar *
                                              first_property_name, ...);
extern void gtk_text_buffer_cut_clipboard(GtkTextBuffer * buffer,
                                           GtkClipboard * clipboard,
                                           gboolean default_editable);
extern void gtk_text_buffer_delete(GtkTextBuffer * buffer,
                                    GtkTextIter * start, GtkTextIter * end);
extern gboolean gtk_text_buffer_delete_interactive(GtkTextBuffer * buffer,
                                                    GtkTextIter *
                                                    start_iter,
                                                    GtkTextIter * end_iter,
                                                    gboolean
                                                    default_editable);
extern void gtk_text_buffer_delete_mark(GtkTextBuffer * buffer,
                                         GtkTextMark * mark);
extern void gtk_text_buffer_delete_mark_by_name(GtkTextBuffer * buffer,
                                                 const gchar * name);
extern gboolean gtk_text_buffer_delete_selection(GtkTextBuffer * buffer,
                                                 gboolean interactive,
                                                 gboolean
                                                 default_editable);
extern void gtk_text_buffer_end_user_action(GtkTextBuffer * buffer);
extern void gtk_text_buffer_get_bounds(GtkTextBuffer * buffer,
                                       GtkTextIter * start,
                                       GtkTextIter * end);
extern gint gtk_text_buffer_get_char_count(GtkTextBuffer * buffer);
extern GtkTargetList *gtk_text_buffer_get_copy_target_list(GtkTextBuffer *
                                                            buffer);
extern void gtk_text_buffer_get_end_iter(GtkTextBuffer * buffer,
                                         GtkTextIter * iter);
extern gboolean gtk_text_buffer_get_has_selection(GtkTextBuffer * buffer);
extern GtkTextMark *gtk_text_buffer_get_insert(GtkTextBuffer * buffer);
extern void gtk_text_buffer_get_iter_at_child_anchor(GtkTextBuffer *
                                                    buffer,
                                                    GtkTextIter * iter,

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                                GtkTextChildAnchor *
                                anchor);
extern void gtk_text_buffer_get_iter_at_line(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                gint line_number);
extern void gtk_text_buffer_get_iter_at_line_index(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                gint line_number,
                                gint byte_index);
extern void gtk_text_buffer_get_iter_at_line_offset(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                gint line_number,
                                gint char_offset);
extern void gtk_text_buffer_get_iter_at_mark(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                GtkTextMark * mark);
extern void gtk_text_buffer_get_iter_at_offset(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                gint char_offset);
extern gint gtk_text_buffer_get_line_count(GtkTextBuffer * buffer);
extern GtkTextMark *gtk_text_buffer_get_mark(GtkTextBuffer * buffer,
                                const gchar * name);
extern gboolean gtk_text_buffer_get_modified(GtkTextBuffer * buffer);
extern GtkTargetList *gtk_text_buffer_get_paste_target_list(GtkTextBuffer *
                                buffer);
extern GtkTextMark *gtk_text_buffer_get_selection_bound(GtkTextBuffer *
                                buffer);
extern gboolean gtk_text_buffer_get_selection_bounds(GtkTextBuffer *
                                buffer,
                                GtkTextIter * start,
                                GtkTextIter * end);
extern gchar *gtk_text_buffer_get_slice(GtkTextBuffer * buffer,
                                const GtkTextIter * start,
                                const GtkTextIter * end,
                                gboolean include_hidden_chars);
extern void gtk_text_buffer_get_start_iter(GtkTextBuffer * buffer,
                                GtkTextIter * iter);
extern GtkTextTagTable *gtk_text_buffer_get_tag_table(GtkTextBuffer *
                                buffer);
extern gchar *gtk_text_buffer_get_text(GtkTextBuffer * buffer,
                                const GtkTextIter * start,
                                const GtkTextIter * end,
                                gboolean include_hidden_chars);
extern GType gtk_text_buffer_get_type(void);
extern void gtk_text_buffer_insert(GtkTextBuffer * buffer,
                                GtkTextIter * iter, const gchar * text,
                                gint len);
extern void gtk_text_buffer_insert_at_cursor(GtkTextBuffer * buffer,
                                const gchar * text, gint len);
extern void gtk_text_buffer_insert_child_anchor(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                GtkTextChildAnchor *
                                anchor);
extern gboolean gtk_text_buffer_insert_interactive(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                const gchar * text,
                                gint len,
                                gboolean
                                default_editable);
extern gboolean gtk_text_buffer_insert_interactive_at_cursor(GtkTextBuffer
                                * buffer,
                                const gchar *

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                                text,
                                gint len,
                                gboolean
                                default_editable);
extern void gtk_text_buffer_insert_pixbuf(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                GdkPixbuf * pixbuf);
extern void gtk_text_buffer_insert_range(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                const GtkTextIter * start,
                                const GtkTextIter * end);
extern gboolean gtk_text_buffer_insert_range_interactive(GtkTextBuffer *
                                buffer,
                                GtkTextIter *
                                iter,
                                const GtkTextIter
                                * start,
                                const GtkTextIter
                                * end,
                                gboolean
                                default_editable);
extern void gtk_text_buffer_insert_with_tags(GtkTextBuffer * buffer,
                                GtkTextIter * iter,
                                const gchar * text, gint len,
                                GtkTextTag * first_tag, ...);
extern void gtk_text_buffer_insert_with_tags_by_name(GtkTextBuffer *
                                buffer,
                                GtkTextIter * iter,
                                const gchar * text,
                                gint len,
                                const gchar *
                                first_tag_name, ...);
extern void gtk_text_buffer_move_mark(GtkTextBuffer * buffer,
                                GtkTextMark * mark,
                                const GtkTextIter * where);
extern void gtk_text_buffer_move_mark_by_name(GtkTextBuffer * buffer,
                                const gchar * name,
                                const GtkTextIter * where);
extern GtkTextBuffer *gtk_text_buffer_new(GtkTextTagTable * table);
extern void gtk_text_buffer_paste_clipboard(GtkTextBuffer * buffer,
                                GtkClipboard * clipboard,
                                GtkTextIter *
                                override_location,
                                gboolean default_editable);
extern void gtk_text_buffer_place_cursor(GtkTextBuffer * buffer,
                                const GtkTextIter * where);
extern void gtk_text_buffer_remove_all_tags(GtkTextBuffer * buffer,
                                const GtkTextIter * start,
                                const GtkTextIter * end);
extern void gtk_text_buffer_remove_selection_clipboard(GtkTextBuffer *
                                buffer,
                                GtkClipboard *
                                clipboard);
extern void gtk_text_buffer_remove_tag(GtkTextBuffer * buffer,
                                GtkTextTag * tag,
                                const GtkTextIter * start,
                                const GtkTextIter * end);
extern void gtk_text_buffer_remove_tag_by_name(GtkTextBuffer * buffer,
                                const gchar * name,
                                const GtkTextIter * start,
                                const GtkTextIter * end);
extern void gtk_text_buffer_select_range(GtkTextBuffer * buffer,

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                                const GtkTextIter * ins,
                                const GtkTextIter * bound);
extern void gtk_text_buffer_set_modified(GtkTextBuffer * buffer,
                                gboolean setting);
extern void gtk_text_buffer_set_text(GtkTextBuffer * buffer,
                                const gchar * text, gint len);
extern GType gtk_text_buffer_target_info_get_type(void);
extern gboolean gtk_text_child_anchor_get_deleted(GtkTextChildAnchor *
                                anchor);
extern GType gtk_text_child_anchor_get_type(void);
extern GList *gtk_text_child_anchor_get_widgets(GtkTextChildAnchor *
                                anchor);
extern GtkTextChildAnchor *gtk_text_child_anchor_new(void);
extern GType gtk_text_direction_get_type(void);
extern gboolean gtk_text_iter_backward_char(GtkTextIter * iter);
extern gboolean gtk_text_iter_backward_chars(GtkTextIter * iter,
                                gint count);
extern gboolean gtk_text_iter_backward_cursor_position(GtkTextIter * iter);
extern gboolean gtk_text_iter_backward_cursor_positions(GtkTextIter * iter,
                                gint count);
extern gboolean gtk_text_iter_backward_find_char(GtkTextIter * iter,
                                GtkTextCharPredicate pred,
                                gpointer user_data,
                                const GtkTextIter *
                                limit);
extern gboolean gtk_text_iter_backward_line(GtkTextIter * iter);
extern gboolean gtk_text_iter_backward_lines(GtkTextIter * iter,
                                gint count);
extern gboolean gtk_text_iter_backward_search(const GtkTextIter * iter,
                                const gchar * str,
                                GtkTextSearchFlags flags,
                                GtkTextIter * match_start,
                                GtkTextIter * match_end,
                                const GtkTextIter * limit);
extern gboolean gtk_text_iter_backward_sentence_start(GtkTextIter * iter);
extern gboolean gtk_text_iter_backward_sentence_starts(GtkTextIter * iter,
                                gint count);
extern gboolean gtk_text_iter_backward_to_tag_toggle(GtkTextIter * iter,
                                GtkTextTag * tag);
extern gboolean gtk_text_iter_backward_visible_cursor_position(GtkTextIter
                                * iter);
extern gboolean gtk_text_iter_backward_visible_cursor_positions(GtkTextIter
                                * iter,
                                gint
                                count);
extern gboolean gtk_text_iter_backward_visible_line(GtkTextIter * iter);
extern gboolean gtk_text_iter_backward_visible_lines(GtkTextIter * iter,
                                gint count);
extern gboolean gtk_text_iter_backward_visible_word_start(GtkTextIter *
                                iter);
extern gboolean gtk_text_iter_backward_visible_word_starts(GtkTextIter *
                                iter,
                                gint count);
extern gboolean gtk_text_iter_backward_word_start(GtkTextIter * iter);
extern gboolean gtk_text_iter_backward_word_starts(GtkTextIter * iter,
                                gint count);
extern gboolean gtk_text_iter_begins_tag(const GtkTextIter * iter,
                                GtkTextTag * tag);
extern gboolean gtk_text_iter_can_insert(const GtkTextIter * iter,
                                gboolean default_editability);
extern gint gtk_text_iter_compare(const GtkTextIter * lhs,
                                const GtkTextIter * rhs);

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extern GtkTextIter *gtk_text_iter_copy(const GtkTextIter * iter);
extern gboolean gtk_text_iter_editable(const GtkTextIter * iter,
                                       gboolean default_setting);
extern gboolean gtk_text_iter_ends_line(const GtkTextIter * iter);
extern gboolean gtk_text_iter_ends_sentence(const GtkTextIter * iter);
extern gboolean gtk_text_iter_ends_tag(const GtkTextIter * iter,
                                       GtkTextTag * tag);
extern gboolean gtk_text_iter_ends_word(const GtkTextIter * iter);
extern gboolean gtk_text_iter_equal(const GtkTextIter * lhs,
                                    const GtkTextIter * rhs);
extern gboolean gtk_text_iter_forward_char(GtkTextIter * iter);
extern gboolean gtk_text_iter_forward_chars(GtkTextIter * iter,
                                             gint count);
extern gboolean gtk_text_iter_forward_cursor_position(GtkTextIter * iter);
extern gboolean gtk_text_iter_forward_cursor_positions(GtkTextIter * iter,
                                                        gint count);
extern gboolean gtk_text_iter_forward_find_char(GtkTextIter * iter,
                                                GtkTextCharPredicate pred,
                                                gpointer user_data,
                                                const GtkTextIter * limit);
extern gboolean gtk_text_iter_forward_line(GtkTextIter * iter);
extern gboolean gtk_text_iter_forward_lines(GtkTextIter * iter,
                                             gint count);
extern gboolean gtk_text_iter_forward_search(const GtkTextIter * iter,
                                             const gchar * str,
                                             GtkTextSearchFlags flags,
                                             GtkTextIter * match_start,
                                             GtkTextIter * match_end,
                                             const GtkTextIter * limit);
extern gboolean gtk_text_iter_forward_sentence_end(GtkTextIter * iter);
extern gboolean gtk_text_iter_forward_sentence_ends(GtkTextIter * iter,
                                                     gint count);
extern void gtk_text_iter_forward_to_end(GtkTextIter * iter);
extern gboolean gtk_text_iter_forward_to_line_end(GtkTextIter * iter);
extern gboolean gtk_text_iter_forward_to_tag_toggle(GtkTextIter * iter,
                                                    GtkTextTag * tag);
extern gboolean gtk_text_iter_forward_visible_cursor_position(GtkTextIter *
                                                             iter);
extern gboolean gtk_text_iter_forward_visible_cursor_positions(GtkTextIter
                                                             * iter,
                                                             gint count);
extern gboolean gtk_text_iter_forward_visible_line(GtkTextIter * iter);
extern gboolean gtk_text_iter_forward_visible_lines(GtkTextIter * iter,
                                                     gint count);
extern gboolean gtk_text_iter_forward_visible_word_end(GtkTextIter * iter);
extern gboolean gtk_text_iter_forward_visible_word_ends(GtkTextIter * iter,
                                                         gint count);
extern gboolean gtk_text_iter_forward_word_end(GtkTextIter * iter);
extern gboolean gtk_text_iter_forward_word_ends(GtkTextIter * iter,
                                                 gint count);
extern void gtk_text_iter_free(GtkTextIter * iter);
extern gboolean gtk_text_iter_get_attributes(const GtkTextIter * iter,
                                             GtkTextAttributes * values);
extern GtkTextBuffer *gtk_text_iter_get_buffer(const GtkTextIter * iter);
extern gint gtk_text_iter_get_bytes_in_line(const GtkTextIter * iter);
extern gunichar gtk_text_iter_get_char(const GtkTextIter * iter);
extern gint gtk_text_iter_get_chars_in_line(const GtkTextIter * iter);
extern GtkTextChildAnchor *gtk_text_iter_get_child_anchor(const GtkTextIter
                                                           * iter);
extern PangoLanguage *gtk_text_iter_get_language(const GtkTextIter * iter);
extern gint gtk_text_iter_get_line(const GtkTextIter * iter);
extern gint gtk_text_iter_get_line_index(const GtkTextIter * iter);

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extern gint gtk_text_iter_get_line_offset(const GtkTextIter * iter);
extern GSList *gtk_text_iter_get_marks(const GtkTextIter * iter);
extern gint gtk_text_iter_get_offset(const GtkTextIter * iter);
extern GdkPixbuf *gtk_text_iter_get_pixbuf(const GtkTextIter * iter);
extern gchar *gtk_text_iter_get_slice(const GtkTextIter * start,
                                     const GtkTextIter * end);
extern GSList *gtk_text_iter_get_tags(const GtkTextIter * iter);
extern gchar *gtk_text_iter_get_text(const GtkTextIter * start,
                                     const GtkTextIter * end);
extern GSList *gtk_text_iter_get_toggled_tags(const GtkTextIter * iter,
                                              gboolean toggled_on);
extern GType gtk_text_iter_get_type(void);
extern gint gtk_text_iter_get_visible_line_index(const GtkTextIter * iter);
extern gint gtk_text_iter_get_visible_line_offset(const GtkTextIter *
                                                  iter);
extern gchar *gtk_text_iter_get_visible_slice(const GtkTextIter * start,
                                              const GtkTextIter * end);
extern gchar *gtk_text_iter_get_visible_text(const GtkTextIter * start,
                                              const GtkTextIter * end);
extern gboolean gtk_text_iter_has_tag(const GtkTextIter * iter,
                                     GtkTextTag * tag);
extern gboolean gtk_text_iter_in_range(const GtkTextIter * iter,
                                       const GtkTextIter * start,
                                       const GtkTextIter * end);
extern gboolean gtk_text_iter_inside_sentence(const GtkTextIter * iter);
extern gboolean gtk_text_iter_inside_word(const GtkTextIter * iter);
extern gboolean gtk_text_iter_is_cursor_position(const GtkTextIter * iter);
extern gboolean gtk_text_iter_is_end(const GtkTextIter * iter);
extern gboolean gtk_text_iter_is_start(const GtkTextIter * iter);
extern void gtk_text_iter_order(GtkTextIter * first, GtkTextIter * second);
extern void gtk_text_iter_set_line(GtkTextIter * iter, gint line_number);
extern void gtk_text_iter_set_line_index(GtkTextIter * iter,
                                         gint byte_on_line);
extern void gtk_text_iter_set_line_offset(GtkTextIter * iter,
                                         gint char_on_line);
extern void gtk_text_iter_set_offset(GtkTextIter * iter, gint char_offset);
extern void gtk_text_iter_set_visible_line_index(GtkTextIter * iter,
                                                  gint byte_on_line);
extern void gtk_text_iter_set_visible_line_offset(GtkTextIter * iter,
                                                  gint char_on_line);
extern gboolean gtk_text_iter_starts_line(const GtkTextIter * iter);
extern gboolean gtk_text_iter_starts_sentence(const GtkTextIter * iter);
extern gboolean gtk_text_iter_starts_word(const GtkTextIter * iter);
extern gboolean gtk_text_iter_toggles_tag(const GtkTextIter * iter,
                                          GtkTextTag * tag);
extern GtkTextBuffer *gtk_text_mark_get_buffer(GtkTextMark *);
extern gboolean gtk_text_mark_get_deleted(GtkTextMark *);
extern gboolean gtk_text_mark_get_left_gravity(GtkTextMark *);
extern const char *gtk_text_mark_get_name(GtkTextMark *);
extern GType gtk_text_mark_get_type(void);
extern gboolean gtk_text_mark_get_visible(GtkTextMark *);
extern void gtk_text_mark_set_visible(GtkTextMark *, gboolean);
extern GType gtk_text_search_flags_get_type(void);
extern gboolean gtk_text_tag_event(GtkTextTag * tag,
                                   GObject * event_object,
                                   GdkEvent * event,
                                   const GtkTextIter * iter);
extern gint gtk_text_tag_get_priority(GtkTextTag * tag);
extern GType gtk_text_tag_get_type(void);
extern GtkTextTag *gtk_text_tag_new(const gchar * name);
extern void gtk_text_tag_set_priority(GtkTextTag * tag, gint priority);
extern void gtk_text_tag_table_add(GtkTextTagTable * table,

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        GtkTextTag * tag);
extern void gtk_text_tag_table_foreach(GtkTextTagTable * table,
        GtkTextTagTableForeach func,
        gpointer data);
extern gint gtk_text_tag_table_get_size(GtkTextTagTable * table);
extern GType gtk_text_tag_table_get_type(void);
extern GtkTextTag *gtk_text_tag_table_lookup(GtkTextTagTable * table,
        const gchar * name);
extern GtkTextTagTable *gtk_text_tag_table_new(void);
extern void gtk_text_tag_table_remove(GtkTextTagTable * table,
        GtkTextTag * tag);
extern void gtk_text_view_add_child_at_anchor(GtkTextView * text_view,
        GtkWidget * child,
        GtkTextChildAnchor * anchor);
extern void gtk_text_view_add_child_in_window(GtkTextView * text_view,
        GtkWidget * child,
        GtkTextWindowType
        which_window, gint xpos,
        gint ypos);
extern gboolean gtk_text_view_backward_display_line(GtkTextView *
        text_view,
        GtkTextIter * iter);
extern gboolean gtk_text_view_backward_display_line_start(GtkTextView *
        text_view,
        GtkTextIter *
        iter);
extern void gtk_text_view_buffer_to_window_coords(GtkTextView * text_view,
        GtkTextWindowType win,
        gint buffer_x,
        gint buffer_y,
        gint * window_x,
        gint * window_y);
extern gboolean gtk_text_view_forward_display_line(GtkTextView * text_view,
        GtkTextIter * iter);
extern gboolean gtk_text_view_forward_display_line_end(GtkTextView *
        text_view,
        GtkTextIter * iter);
extern gboolean gtk_text_view_get_accepts_tab(GtkTextView * text_view);
extern gint gtk_text_view_get_border_window_size(GtkTextView * text_view,
        GtkTextWindowType type);
extern GtkTextBuffer *gtk_text_view_get_buffer(GtkTextView * text_view);
extern gboolean gtk_text_view_get_cursor_visible(GtkTextView * text_view);
extern GtkTextAttributes *gtk_text_view_get_default_attributes(GtkTextView
        *
        text_view);
extern gboolean gtk_text_view_get_editable(GtkTextView * text_view);
extern gint gtk_text_view_get_indent(GtkTextView * text_view);
extern void gtk_text_view_get_iter_at_location(GtkTextView * text_view,
        GtkTextIter * iter, gint x,
        gint y);
extern void gtk_text_view_get_iter_at_position(GtkTextView * text_view,
        GtkTextIter * iter,
        gint * trailing, gint x,
        gint y);
extern void gtk_text_view_get_iter_location(GtkTextView * text_view,
        const GtkTextIter * iter,
        GdkRectangle * location);
extern GtkJustification gtk_text_view_get_justification(GtkTextView *
        text_view);
extern gint gtk_text_view_get_left_margin(GtkTextView * text_view);
extern void gtk_text_view_get_line_at_y(GtkTextView * text_view,
        GtkTextIter * target_iter, gint y,

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        gint * line_top);
extern void gtk_text_view_get_line_yrange(GtkTextView * text_view,
        const GtkTextIter * iter,
        gint * y, gint * height);
extern gboolean gtk_text_view_get_overwrite(GtkTextView * text_view);
extern gint gtk_text_view_get_pixels_above_lines(GtkTextView * text_view);
extern gint gtk_text_view_get_pixels_below_lines(GtkTextView * text_view);
extern gint gtk_text_view_get_pixels_inside_wrap(GtkTextView * text_view);
extern gint gtk_text_view_get_right_margin(GtkTextView * text_view);
extern PangoTabArray *gtk_text_view_get_tabs(GtkTextView * text_view);
extern GType gtk_text_view_get_type(void);
extern void gtk_text_view_get_visible_rect(GtkTextView * text_view,
        GdkRectangle * visible_rect);
extern GdkWindow *gtk_text_view_get_window(GtkTextView * text_view,
        GtkTextWindowType win);
extern GtkTextWindowType gtk_text_view_get_window_type(GtkTextView *
        text_view,
        GdkWindow * window);
extern GtkWrapMode gtk_text_view_get_wrap_mode(GtkTextView * text_view);
extern void gtk_text_view_move_child(GtkTextView * text_view,
        GtkWidget * child, gint xpos,
        gint ypos);
extern gboolean gtk_text_view_move_mark_onscreen(GtkTextView * text_view,
        GtkTextMark * mark);
extern gboolean gtk_text_view_move_visually(GtkTextView * text_view,
        GtkTextIter * iter,
        gint count);

extern GtkWidget *gtk_text_view_new(void);
extern GtkWidget *gtk_text_view_new_with_buffer(GtkTextBuffer * buffer);
extern gboolean gtk_text_view_place_cursor_onscreen(GtkTextView *
        text_view);
extern void gtk_text_view_scroll_mark_onscreen(GtkTextView * text_view,
        GtkTextMark * mark);
extern gboolean gtk_text_view_scroll_to_iter(GtkTextView * text_view,
        GtkTextIter * iter,
        gdouble within_margin,
        gboolean use_align,
        gdouble xalign,
        gdouble yalign);
extern void gtk_text_view_scroll_to_mark(GtkTextView * text_view,
        GtkTextMark * mark,
        gdouble within_margin,
        gboolean use_align,
        gdouble xalign, gdouble yalign);
extern void gtk_text_view_set_accepts_tab(GtkTextView * text_view,
        gboolean accepts_tab);
extern void gtk_text_view_set_border_window_size(GtkTextView * text_view,
        GtkTextWindowType type,
        gint size);
extern void gtk_text_view_set_buffer(GtkTextView * text_view,
        GtkTextBuffer * buffer);
extern void gtk_text_view_set_cursor_visible(GtkTextView * text_view,
        gboolean setting);
extern void gtk_text_view_set_editable(GtkTextView * text_view,
        gboolean setting);
extern void gtk_text_view_set_indent(GtkTextView * text_view, gint indent);
extern void gtk_text_view_set_justification(GtkTextView * text_view,
        GtkJustification
        justification);
extern void gtk_text_view_set_left_margin(GtkTextView * text_view,
        gint left_margin);
extern void gtk_text_view_set_overwrite(GtkTextView * text_view,

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                                gboolean overwrite);
extern void gtk_text_view_set_pixels_above_lines(GtkTextView * text_view,
                                                gint pixels_above_lines);
extern void gtk_text_view_set_pixels_below_lines(GtkTextView * text_view,
                                                gint pixels_below_lines);
extern void gtk_text_view_set_pixels_inside_wrap(GtkTextView * text_view,
                                                gint pixels_inside_wrap);
extern void gtk_text_view_set_right_margin(GtkTextView * text_view,
                                           gint right_margin);
extern void gtk_text_view_set_tabs(GtkTextView * text_view,
                                   PangoTabArray * tabs);
extern void gtk_text_view_set_wrap_mode(GtkTextView * text_view,
                                         GtkWrapMode wrap_mode);
extern gboolean gtk_text_view_starts_display_line(GtkTextView * text_view,
                                                  const GtkTextIter *
                                                  iter);
extern void gtk_text_view_window_to_buffer_coords(GtkTextView * text_view,
                                                  GtkTextWindowType win,
                                                  gint window_x,
                                                  gint window_y,
                                                  gint * buffer_x,
                                                  gint * buffer_y);

extern GType gtk_text_window_type_get_type(void);
extern gboolean gtk_toggle_action_get_active(GtkToggleAction * action);
extern gboolean gtk_toggle_action_get_draw_as_radio(GtkToggleAction *
                                                  action);

extern GType gtk_toggle_action_get_type(void);
extern GtkToggleAction *gtk_toggle_action_new(const gchar * name,
                                              const gchar * label,
                                              const gchar * tooltip,
                                              const gchar * stock_id);
extern void gtk_toggle_action_set_active(GtkToggleAction * action,
                                         gboolean is_active);
extern void gtk_toggle_action_set_draw_as_radio(GtkToggleAction * action,
                                                gboolean draw_as_radio);
extern void gtk_toggle_action_toggled(GtkToggleAction * action);
extern gboolean gtk_toggle_button_get_active(GtkToggleButton *
                                           toggle_button);
extern gboolean gtk_toggle_button_get_inconsistent(GtkToggleButton *
                                                  toggle_button);
extern gboolean gtk_toggle_button_get_mode(GtkToggleButton *
                                           toggle_button);

extern GType gtk_toggle_button_get_type(void);
extern GtkWidget *gtk_toggle_button_new(void);
extern GtkWidget *gtk_toggle_button_new_with_label(const gchar * label);
extern GtkWidget *gtk_toggle_button_new_with_mnemonic(const gchar * label);
extern void gtk_toggle_button_set_active(GtkToggleButton * toggle_button,
                                         gboolean is_active);
extern void gtk_toggle_button_set_inconsistent(GtkToggleButton *
                                              toggle_button,
                                              gboolean setting);
extern void gtk_toggle_button_set_mode(GtkToggleButton * toggle_button,
                                       gboolean draw_indicator);
extern void gtk_toggle_button_toggled(GtkToggleButton * toggle_button);
extern gboolean gtk_toggle_tool_button_get_active(GtkToggleToolButton *
                                                  button);

extern GType gtk_toggle_tool_button_get_type(void);
extern GtkToolItem *gtk_toggle_tool_button_new(void);
extern GtkToolItem *gtk_toggle_tool_button_new_from_stock(const gchar *
                                                         stock_id);
extern void gtk_toggle_tool_button_set_active(GtkToggleToolButton * button,
                                              gboolean is_active);

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extern const gchar *gtk_tool_button_get_icon_name(GtkToolButton * button);
extern GtkWidget *gtk_tool_button_get_icon_widget(GtkToolButton * button);
extern const gchar *gtk_tool_button_get_label(GtkToolButton * button);
extern GtkWidget *gtk_tool_button_get_label_widget(GtkToolButton * button);
extern const gchar *gtk_tool_button_get_stock_id(GtkToolButton * button);
extern GType gtk_tool_button_get_type(void);
extern gboolean gtk_tool_button_get_use_underline(GtkToolButton * button);
extern GtkToolItem *gtk_tool_button_new(GtkWidget * icon_widget,
                                         const gchar * label);
extern GtkToolItem *gtk_tool_button_new_from_stock(const gchar * stock_id);
extern void gtk_tool_button_set_icon_name(GtkToolButton * button,
                                         const gchar * icon_name);
extern void gtk_tool_button_set_icon_widget(GtkToolButton * button,
                                           GtkWidget * icon_widget);
extern void gtk_tool_button_set_label(GtkToolButton * button,
                                      const gchar * label);
extern void gtk_tool_button_set_label_widget(GtkToolButton * button,
                                             GtkWidget * label_widget);
extern void gtk_tool_button_set_stock_id(GtkToolButton * button,
                                         const gchar * stock_id);
extern void gtk_tool_button_set_use_underline(GtkToolButton * button,
                                              gboolean use_underline);
extern gboolean gtk_tool_item_get_expand(GtkToolItem * tool_item);
extern gboolean gtk_tool_item_get_homogeneous(GtkToolItem * tool_item);
extern GtkIconSize gtk_tool_item_get_icon_size(GtkToolItem * tool_item);
extern gboolean gtk_tool_item_get_is_important(GtkToolItem * tool_item);
extern GtkOrientation gtk_tool_item_get_orientation(GtkToolItem *
                                                    tool_item);
extern GtkWidget *gtk_tool_item_get_proxy_menu_item(GtkToolItem *
                                                    tool_item,
                                                    const gchar *
                                                    menu_item_id);
extern GtkReliefStyle gtk_tool_item_get_relief_style(GtkToolItem *
                                                    tool_item);
extern GtkToolbarStyle gtk_tool_item_get_toolbar_style(GtkToolItem *
                                                       tool_item);
extern GType gtk_tool_item_get_type(void);
extern gboolean gtk_tool_item_get_use_drag_window(GtkToolItem * tool_item);
extern gboolean gtk_tool_item_get_visible_horizontal(GtkToolItem *
                                                    tool_item);
extern gboolean gtk_tool_item_get_visible_vertical(GtkToolItem *
                                                    tool_item);
extern GtkToolItem *gtk_tool_item_new(void);
extern void gtk_tool_item_rebuild_menu(GtkToolItem * tool_item);
extern GtkWidget *gtk_tool_item_retrieve_proxy_menu_item(GtkToolItem *
                                                         tool_item);
extern void gtk_tool_item_set_expand(GtkToolItem * tool_item,
                                     gboolean expand);
extern void gtk_tool_item_set_homogeneous(GtkToolItem * tool_item,
                                          gboolean homogeneous);
extern void gtk_tool_item_set_is_important(GtkToolItem * tool_item,
                                           gboolean is_important);
extern void gtk_tool_item_set_proxy_menu_item(GtkToolItem * tool_item,
                                              const gchar * menu_item_id,
                                              GtkWidget * menu_item);
extern void gtk_tool_item_set_tooltip(GtkToolItem * tool_item,
                                      GtkTooltips * tooltips,
                                      const gchar * tip_text,
                                      const gchar * tip_private);
extern void gtk_tool_item_set_use_drag_window(GtkToolItem * tool_item,
                                              gboolean use_drag_window);
extern void gtk_tool_item_set_visible_horizontal(GtkToolItem * tool_item,

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                                gboolean
                                visible_horizontal);
extern void gtk_tool_item_set_visible_vertical(GtkToolItem * tool_item,
                                              gboolean visible_vertical);
extern GType gtk_toolbar_child_type_get_type(void);
extern gint gtk_toolbar_get_drop_index(GtkToolbar * toolbar, gint x,
                                       gint y);
extern GtkIconSize gtk_toolbar_get_icon_size(GtkToolbar * toolbar);
extern gint gtk_toolbar_get_item_index(GtkToolbar * toolbar,
                                       GtkToolItem * item);
extern gint gtk_toolbar_get_n_items(GtkToolbar * toolbar);
extern GtkToolItem *gtk_toolbar_get_nth_item(GtkToolbar * toolbar, gint n);
extern GtkOrientation gtk_toolbar_get_orientation(GtkToolbar * toolbar);
extern GtkReliefStyle gtk_toolbar_get_relief_style(GtkToolbar * toolbar);
extern gboolean gtk_toolbar_get_show_arrow(GtkToolbar * toolbar);
extern GtkToolbarStyle gtk_toolbar_get_style(GtkToolbar * toolbar);
extern gboolean gtk_toolbar_get_tooltips(GtkToolbar * toolbar);
extern GType gtk_toolbar_get_type(void);
extern void gtk_toolbar_insert(GtkToolbar * toolbar, GtkToolItem * item,
                              gint pos);
extern GtkWidget *gtk_toolbar_new(void);
extern void gtk_toolbar_set_drop_highlight_item(GtkToolbar * toolbar,
                                              GtkToolItem * tool_item,
                                              gint index_);
extern void gtk_toolbar_set_icon_size(GtkToolbar * toolbar,
                                       GtkIconSize icon_size);
extern void gtk_toolbar_set_orientation(GtkToolbar * toolbar,
                                       GtkOrientation orientation);
extern void gtk_toolbar_set_show_arrow(GtkToolbar * toolbar,
                                       gboolean show_arrow);
extern void gtk_toolbar_set_style(GtkToolbar * toolbar,
                                  GtkToolbarStyle style);
extern void gtk_toolbar_set_tooltips(GtkToolbar * toolbar,
                                      gboolean enable);
extern GType gtk_toolbar_space_style_get_type(void);
extern GType gtk_toolbar_style_get_type(void);
extern void gtk_toolbar_unset_style(GtkToolbar * toolbar);
extern GtkTooltipsData *gtk_tooltips_data_get(GtkWidget * widget);
extern void gtk_tooltips_disable(GtkTooltips * tooltips);
extern void gtk_tooltips_enable(GtkTooltips * tooltips);
extern void gtk_tooltips_force_window(GtkTooltips * tooltips);
extern gboolean gtk_tooltips_get_info_from_tip_window(GtkWindow *
                                                    tip_window,
                                                    GtkTooltips *
                                                    *tooltips,
                                                    GtkWidget *
                                                    *current_widget);

extern GType gtk_tooltips_get_type(void);
extern GtkTooltips *gtk_tooltips_new(void);
extern void gtk_tooltips_set_tip(GtkTooltips * tooltips,
                                 GtkWidget * widget,
                                 const gchar * tip_text,
                                 const gchar * tip_private);
extern gboolean gtk_tree_drag_dest_drag_data_received(GtkTreeDragDest *
                                                    drag_dest,
                                                    GtkTreePath * dest,
                                                    GtkSelectionData *
                                                    selection_data);

extern GType gtk_tree_drag_dest_get_type(void);
extern gboolean gtk_tree_drag_dest_row_drop_possible(GtkTreeDragDest *
                                                    drag_dest,
                                                    GtkTreePath *

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dest_path,
GtkSelectionData *
selection_data);
extern gboolean gtk_tree_drag_source_drag_data_delete(GtkTreeDragSource *
drag_source,
GtkTreePath * path);
extern gboolean gtk_tree_drag_source_drag_data_get(GtkTreeDragSource *
drag_source,
GtkTreePath * path,
GtkSelectionData *
selection_data);
extern GType gtk_tree_drag_source_get_type(void);
extern gboolean gtk_tree_drag_source_row_draggable(GtkTreeDragSource *
drag_source,
GtkTreePath * path);
extern gboolean gtk_tree_get_row_drag_data(GtkSelectionData *
selection_data,
GtkTreeModel * *tree_model,
GtkTreePath * *path);
extern GtkTreeIter *gtk_tree_iter_copy(GtkTreeIter * iter);
extern void gtk_tree_iter_free(GtkTreeIter * iter);
extern GType gtk_tree_iter_get_type(void);
extern void gtk_tree_model_filter_clear_cache(GtkTreeModelFilter * filter);
extern void
gtk_tree_model_filter_convert_child_iter_to_iter(GtkTreeModelFilter *
filter,
GtkTreeIter * filter_iter,
GtkTreeIter * child_iter);
extern GtkTreePath
*gtk_tree_model_filter_convert_child_path_to_path(GtkTreeModelFilter *
filter,
GtkTreePath *
child_path);
extern void
gtk_tree_model_filter_convert_iter_to_child_iter(GtkTreeModelFilter *
filter,
GtkTreeIter * child_iter,
GtkTreeIter *
filter_iter);
extern GtkTreePath
*gtk_tree_model_filter_convert_path_to_child_path(GtkTreeModelFilter *
filter,
GtkTreePath *
filter_path);
extern GtkTreeModel *gtk_tree_model_filter_get_model(GtkTreeModelFilter *
filter);
extern GType gtk_tree_model_filter_get_type(void);
extern GtkTreeModel *gtk_tree_model_filter_new(GtkTreeModel * child_model,
GtkTreePath * root);
extern void gtk_tree_model_filter_refilter(GtkTreeModelFilter * filter);
extern void gtk_tree_model_filter_set_modify_func(GtkTreeModelFilter *
filter, gint n_columns,
GType * types,
GtkTreeModelFilterModifyFunc
func, gpointer data,
GtkDestroyNotify
destroy);
extern void gtk_tree_model_filter_set_visible_column(GtkTreeModelFilter *
filter, gint column);
extern void gtk_tree_model_filter_set_visible_func(GtkTreeModelFilter *
filter,
GtkTreeModelFilterVisibleFunc

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                                func, gpointer data,
                                GtkDestroyNotify
                                destroy);

extern GType gtk_tree_model_flags_get_type(void);
extern void gtk_tree_model_foreach(GtkTreeModel * model,
                                GtkTreeModelForeachFunc func,
                                gpointer user_data);
extern void gtk_tree_model_get(GtkTreeModel * tree_model,
                                GtkTreeIter * iter, ...);
extern GType gtk_tree_model_get_column_type(GtkTreeModel * tree_model,
                                gint index_);
extern GtkTreeModelFlags gtk_tree_model_get_flags(GtkTreeModel *
                                tree_model);
extern gboolean gtk_tree_model_get_iter(GtkTreeModel * tree_model,
                                GtkTreeIter * iter,
                                GtkTreePath * path);
extern gboolean gtk_tree_model_get_iter_first(GtkTreeModel * tree_model,
                                GtkTreeIter * iter);
extern gboolean gtk_tree_model_get_iter_from_string(GtkTreeModel *
                                tree_model,
                                GtkTreeIter * iter,
                                const gchar *
                                path_string);
extern gint gtk_tree_model_get_n_columns(GtkTreeModel * tree_model);
extern GtkTreePath *gtk_tree_model_get_path(GtkTreeModel * tree_model,
                                GtkTreeIter * iter);
extern gchar *gtk_tree_model_get_string_from_iter(GtkTreeModel *
                                tree_model,
                                GtkTreeIter * iter);

extern GType gtk_tree_model_get_type(void);
extern void gtk_tree_model_get_valist(GtkTreeModel * tree_model,
                                GtkTreeIter * iter,
                                va_list var_args);
extern void gtk_tree_model_get_value(GtkTreeModel * tree_model,
                                GtkTreeIter * iter, gint column,
                                GValue * value);
extern gboolean gtk_tree_model_iter_children(GtkTreeModel * tree_model,
                                GtkTreeIter * iter,
                                GtkTreeIter * parent);
extern gboolean gtk_tree_model_iter_has_child(GtkTreeModel * tree_model,
                                GtkTreeIter * iter);
extern gint gtk_tree_model_iter_n_children(GtkTreeModel * tree_model,
                                GtkTreeIter * iter);
extern gboolean gtk_tree_model_iter_next(GtkTreeModel * tree_model,
                                GtkTreeIter * iter);
extern gboolean gtk_tree_model_iter_nth_child(GtkTreeModel * tree_model,
                                GtkTreeIter * iter,
                                GtkTreeIter * parent,
                                gint n);
extern gboolean gtk_tree_model_iter_parent(GtkTreeModel * tree_model,
                                GtkTreeIter * iter,
                                GtkTreeIter * child);
extern void gtk_tree_model_ref_node(GtkTreeModel * tree_model,
                                GtkTreeIter * iter);
extern void gtk_tree_model_row_changed(GtkTreeModel * tree_model,
                                GtkTreePath * path,
                                GtkTreeIter * iter);
extern void gtk_tree_model_row_deleted(GtkTreeModel * tree_model,
                                GtkTreePath * path);
extern void gtk_tree_model_row_has_child_toggled(GtkTreeModel * tree_model,
                                GtkTreePath * path,
                                GtkTreeIter * iter);

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extern void gtk_tree_model_row_inserted(GtkTreeModel * tree_model,
                                       GtkTreePath * path,
                                       GtkTreeIter * iter);
extern void gtk_tree_model_rows_reordered(GtkTreeModel * tree_model,
                                       GtkTreePath * path,
                                       GtkTreeIter * iter,
                                       gint * new_order);
extern void gtk_tree_model_sort_clear_cache(GtkTreeModelSort *
                                       tree_model_sort);
extern void gtk_tree_model_sort_convert_child_iter_to_iter(GtkTreeModelSort
                                       *
                                       tree_model_sort,
                                       GtkTreeIter *
                                       sort_iter,
                                       GtkTreeIter *
                                       child_iter);
extern GtkTreePath
    *gtk_tree_model_sort_convert_child_path_to_path(GtkTreeModelSort *
                                       tree_model_sort,
                                       GtkTreePath *
                                       child_path);
extern void gtk_tree_model_sort_convert_iter_to_child_iter(GtkTreeModelSort
                                       *
                                       tree_model_sort,
                                       GtkTreeIter *
                                       child_iter,
                                       GtkTreeIter *
                                       sorted_iter);
extern GtkTreePath
    *gtk_tree_model_sort_convert_path_to_child_path(GtkTreeModelSort *
                                       tree_model_sort,
                                       GtkTreePath *
                                       sorted_path);
extern GtkTreeModel *gtk_tree_model_sort_get_model(GtkTreeModelSort *
                                       tree_model);
extern GType gtk_tree_model_sort_get_type(void);
extern gboolean gtk_tree_model_sort_iter_is_valid(GtkTreeModelSort *
                                       tree_model_sort,
                                       GtkTreeIter * iter);
extern GtkTreeModel *gtk_tree_model_sort_new_with_model(GtkTreeModel *
                                       child_model);
extern void gtk_tree_model_sort_reset_default_sort_func(GtkTreeModelSort *
                                       tree_model_sort);
extern void gtk_tree_model_unref_node(GtkTreeModel * tree_model,
                                       GtkTreeIter * iter);
extern void gtk_tree_path_append_index(GtkTreePath * path, gint index_);
extern gint gtk_tree_path_compare(const GtkTreePath * a,
                                const GtkTreePath * b);
extern GtkTreePath *gtk_tree_path_copy(const GtkTreePath * path);
extern void gtk_tree_path_down(GtkTreePath * path);
extern void gtk_tree_path_free(GtkTreePath * path);
extern gint gtk_tree_path_get_depth(GtkTreePath * path);
extern gint *gtk_tree_path_get_indices(GtkTreePath * path);
extern GType gtk_tree_path_get_type(void);
extern gboolean gtk_tree_path_is_ancestor(GtkTreePath * path,
                                       GtkTreePath * descendant);
extern gboolean gtk_tree_path_is_descendant(GtkTreePath * path,
                                       GtkTreePath * ancestor);
extern GtkTreePath *gtk_tree_path_new(void);
extern GtkTreePath *gtk_tree_path_new_first(void);
extern GtkTreePath *gtk_tree_path_new_from_indices(gint first_index, ...);
extern GtkTreePath *gtk_tree_path_new_from_string(const gchar * path);

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extern void gtk_tree_path_next(GtkTreePath * path);
extern void gtk_tree_path_prepend_index(GtkTreePath * path, gint index_);
extern gboolean gtk_tree_path_prev(GtkTreePath * path);
extern gchar *gtk_tree_path_to_string(GtkTreePath * path);
extern gboolean gtk_tree_path_up(GtkTreePath * path);
extern GtkTreeRowReference *gtk_tree_row_reference_copy(GtkTreeRowReference
                                                         * reference);

extern void gtk_tree_row_reference_deleted(GObject * proxy,
                                           GtkTreePath * path);
extern void gtk_tree_row_reference_free(GtkTreeRowReference * reference);
extern GtkTreeModel *gtk_tree_row_reference_get_model(GtkTreeRowReference *
                                                         reference);
extern GtkTreePath *gtk_tree_row_reference_get_path(GtkTreeRowReference *
                                                         reference);

extern GType gtk_tree_row_reference_get_type(void);
extern void gtk_tree_row_reference_inserted(GObject * proxy,
                                           GtkTreePath * path);
extern GtkTreeRowReference *gtk_tree_row_reference_new(GtkTreeModel *
                                                         model,
                                                         GtkTreePath * path);
extern GtkTreeRowReference *gtk_tree_row_reference_new_proxy(GObject *
                                                             proxy,
                                                             GtkTreeModel *
                                                             model,
                                                             GtkTreePath *
                                                             path);

extern void gtk_tree_row_reference_reordered(GObject * proxy,
                                           GtkTreePath * path,
                                           GtkTreeIter * iter,
                                           gint * new_order);
extern gboolean gtk_tree_row_reference_valid(GtkTreeRowReference *
                                              reference);
extern gint gtk_tree_selection_count_selected_rows(GtkTreeSelection *
                                                    selection);
extern GtkSelectionMode gtk_tree_selection_get_mode(GtkTreeSelection *
                                                    selection);
extern gboolean gtk_tree_selection_get_selected(GtkTreeSelection *
                                                selection,
                                                GtkTreeModel * *model,
                                                GtkTreeIter * iter);
extern GList *gtk_tree_selection_get_selected_rows(GtkTreeSelection *
                                                    selection,
                                                    GtkTreeModel * *model);
extern GtkTreeView *gtk_tree_selection_get_tree_view(GtkTreeSelection *
                                                      selection);
extern GType gtk_tree_selection_get_type(void);
extern gpointer gtk_tree_selection_get_user_data(GtkTreeSelection *
                                                  selection);
extern gboolean gtk_tree_selection_iter_is_selected(GtkTreeSelection *
                                                    selection,
                                                    GtkTreeIter * iter);
extern gboolean gtk_tree_selection_path_is_selected(GtkTreeSelection *
                                                    selection,
                                                    GtkTreePath * path);
extern void gtk_tree_selection_select_all(GtkTreeSelection * selection);
extern void gtk_tree_selection_select_iter(GtkTreeSelection * selection,
                                           GtkTreeIter * iter);
extern void gtk_tree_selection_select_path(GtkTreeSelection * selection,
                                           GtkTreePath * path);
extern void gtk_tree_selection_select_range(GtkTreeSelection * selection,
                                           GtkTreePath * start_path,
                                           GtkTreePath * end_path);

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extern void gtk_tree_selection_selected_foreach(GtkTreeSelection *
                                                selection,
                                                GtkTreeSelectionForeachFunc
                                                func, gpointer data);
extern void gtk_tree_selection_set_mode(GtkTreeSelection * selection,
                                       GtkSelectionMode type);
extern void gtk_tree_selection_set_select_function(GtkTreeSelection *
                                                  selection,
                                                  GtkTreeSelectionFunc
                                                  func, gpointer data,
                                                  GtkDestroyNotify
                                                  destroy);
extern void gtk_tree_selection_unselect_all(GtkTreeSelection * selection);
extern void gtk_tree_selection_unselect_iter(GtkTreeSelection * selection,
                                             GtkTreeIter * iter);
extern void gtk_tree_selection_unselect_path(GtkTreeSelection * selection,
                                             GtkTreePath * path);
extern void gtk_tree_selection_unselect_range(GtkTreeSelection * selection,
                                             GtkTreePath * start_path,
                                             GtkTreePath * end_path);
extern gboolean gtk_tree_set_row_drag_data(GtkSelectionData *
                                           selection_data,
                                           GtkTreeModel * tree_model,
                                           GtkTreePath * path);
extern gboolean gtk_tree_sortable_get_sort_column_id(GtkTreeSortable *
                                                    sortable,
                                                    gint * sort_column_id,
                                                    GtkSortType * order);
extern GType gtk_tree_sortable_get_type(void);
extern gboolean gtk_tree_sortable_has_default_sort_func(GtkTreeSortable *
                                                         sortable);
extern void gtk_tree_sortable_set_default_sort_func(GtkTreeSortable *
                                                    sortable,
                                                    GtkTreeIterCompareFunc
                                                    sort_func,
                                                    gpointer user_data,
                                                    GtkDestroyNotify
                                                    destroy);
extern void gtk_tree_sortable_set_sort_column_id(GtkTreeSortable *
                                                  sortable,
                                                  gint sort_column_id,
                                                  GtkSortType order);
extern void gtk_tree_sortable_set_sort_func(GtkTreeSortable * sortable,
                                             gint sort_column_id,
                                             GtkTreeIterCompareFunc
                                             sort_func, gpointer user_data,
                                             GtkDestroyNotify destroy);
extern void gtk_tree_sortable_sort_column_changed(GtkTreeSortable *
                                                  sortable);
extern void gtk_tree_store_append(GtkTreeStore * tree_store,
                                  GtkTreeIter * iter,
                                  GtkTreeIter * parent);
extern void gtk_tree_store_clear(GtkTreeStore * tree_store);
extern GType gtk_tree_store_get_type(void);
extern void gtk_tree_store_insert(GtkTreeStore * tree_store,
                                  GtkTreeIter * iter, GtkTreeIter * parent,
                                  gint position);
extern void gtk_tree_store_insert_after(GtkTreeStore * tree_store,
                                         GtkTreeIter * iter,
                                         GtkTreeIter * parent,
                                         GtkTreeIter * sibling);
extern void gtk_tree_store_insert_before(GtkTreeStore * tree_store,

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        GtkTreeIter * iter,
        GtkTreeIter * parent,
        GtkTreeIter * sibling);
extern void gtk_tree_store_insert_with_values(GtkTreeStore * tree_store,
        GtkTreeIter * iter,
        GtkTreeIter * parent,
        gint position, ...);
extern void gtk_tree_store_insert_with_valuesv(GtkTreeStore * tree_store,
        GtkTreeIter * iter,
        GtkTreeIter * parent,
        gint position,
        gint * columns,
        GValue * values,
        gint n_values);
extern gboolean gtk_tree_store_is_ancestor(GtkTreeStore * tree_store,
        GtkTreeIter * iter,
        GtkTreeIter * descendant);
extern gint gtk_tree_store_iter_depth(GtkTreeStore * tree_store,
        GtkTreeIter * iter);
extern gboolean gtk_tree_store_iter_is_valid(GtkTreeStore * tree_store,
        GtkTreeIter * iter);
extern void gtk_tree_store_move_after(GtkTreeStore * tree_store,
        GtkTreeIter * iter,
        GtkTreeIter * position);
extern void gtk_tree_store_move_before(GtkTreeStore * tree_store,
        GtkTreeIter * iter,
        GtkTreeIter * position);
extern GtkTreeStore *gtk_tree_store_new(gint n_columns, ...);
extern GtkTreeStore *gtk_tree_store_newv(gint n_columns, GType * types);
extern void gtk_tree_store_prepend(GtkTreeStore * tree_store,
        GtkTreeIter * iter,
        GtkTreeIter * parent);
extern gboolean gtk_tree_store_remove(GtkTreeStore * tree_store,
        GtkTreeIter * iter);
extern void gtk_tree_store_reorder(GtkTreeStore * tree_store,
        GtkTreeIter * parent, gint * new_order);
extern void gtk_tree_store_set(GtkTreeStore * tree_store,
        GtkTreeIter * iter, ...);
extern void gtk_tree_store_set_column_types(GtkTreeStore * tree_store,
        gint n_columns, GType * types);
extern void gtk_tree_store_set_valist(GtkTreeStore * tree_store,
        GtkTreeIter * iter,
        va_list var_args);
extern void gtk_tree_store_set_value(GtkTreeStore * tree_store,
        GtkTreeIter * iter, gint column,
        GValue * value);
extern void gtk_tree_store_swap(GtkTreeStore * tree_store, GtkTreeIter * a,
        GtkTreeIter * b);
extern gint gtk_tree_view_append_column(GtkTreeView * tree_view,
        GtkTreeViewColumn * column);
extern void gtk_tree_view_collapse_all(GtkTreeView * tree_view);
extern gboolean gtk_tree_view_collapse_row(GtkTreeView * tree_view,
        GtkTreePath * path);
extern void gtk_tree_view_column_add_attribute(GtkTreeViewColumn *
        tree_column,
        GtkCellRenderer *
        cell_renderer,
        const gchar * attribute,
        gint column);
extern gboolean gtk_tree_view_column_cell_get_position(GtkTreeViewColumn *
        tree_column,
        GtkCellRenderer *

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cell_renderer,
gint * start_pos,
gint * width);
extern void gtk_tree_view_column_cell_get_size(GtkTreeViewColumn *
tree_column,
const GdkRectangle *
cell_area, gint * x_offset,
gint * y_offset,
gint * width,
gint * height);
extern gboolean gtk_tree_view_column_cell_is_visible(GtkTreeViewColumn *
tree_column);
extern void gtk_tree_view_column_cell_set_cell_data(GtkTreeViewColumn *
tree_column,
GtkTreeModel *
tree_model,
GtkTreeIter * iter,
gboolean is_expander,
gboolean is_expanded);
extern void gtk_tree_view_column_clear(GtkTreeViewColumn * tree_column);
extern void gtk_tree_view_column_clear_attributes(GtkTreeViewColumn *
tree_column,
GtkCellRenderer *
cell_renderer);
extern void gtk_tree_view_column_clicked(GtkTreeViewColumn * tree_column);
extern void gtk_tree_view_column_focus_cell(GtkTreeViewColumn *
tree_column,
GtkCellRenderer * cell);
extern gfloat gtk_tree_view_column_get_alignment(GtkTreeViewColumn *
tree_column);
extern GList *gtk_tree_view_column_get_cell_renderers(GtkTreeViewColumn *
tree_column);
extern gboolean gtk_tree_view_column_get_clickable(GtkTreeViewColumn *
tree_column);
extern gboolean gtk_tree_view_column_get_expand(GtkTreeViewColumn *
tree_column);
extern gint gtk_tree_view_column_get_fixed_width(GtkTreeViewColumn *
tree_column);
extern gint gtk_tree_view_column_get_max_width(GtkTreeViewColumn *
tree_column);
extern gint gtk_tree_view_column_get_min_width(GtkTreeViewColumn *
tree_column);
extern gboolean gtk_tree_view_column_get_reorderable(GtkTreeViewColumn *
tree_column);
extern gboolean gtk_tree_view_column_get_resizable(GtkTreeViewColumn *
tree_column);
extern GtkTreeViewColumnSizing
gtk_tree_view_column_get_sizing(GtkTreeViewColumn * tree_column);
extern gint gtk_tree_view_column_get_sort_column_id(GtkTreeViewColumn *
tree_column);
extern gboolean gtk_tree_view_column_get_sort_indicator(GtkTreeViewColumn *
tree_column);
extern GtkSortType gtk_tree_view_column_get_sort_order(GtkTreeViewColumn *
tree_column);
extern gint gtk_tree_view_column_get_spacing(GtkTreeViewColumn *
tree_column);
extern const gchar *gtk_tree_view_column_get_title(GtkTreeViewColumn *
tree_column);
extern GType gtk_tree_view_column_get_type(void);
extern gboolean gtk_tree_view_column_get_visible(GtkTreeViewColumn *
tree_column);
extern GtkWidget *gtk_tree_view_column_get_widget(GtkTreeViewColumn *

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                                tree_column);
extern gint gtk_tree_view_column_get_width(GtkTreeViewColumn *
                                tree_column);
extern GtkTreeViewColumn *gtk_tree_view_column_new(void);
extern GtkTreeViewColumn *gtk_tree_view_column_new_with_attributes(const
                                gchar *
                                title,
                                GtkCellRenderer
                                * cell,
                                ...);
extern void gtk_tree_view_column_pack_end(GtkTreeViewColumn * tree_column,
                                GtkCellRenderer * cell,
                                gboolean expand);
extern void gtk_tree_view_column_pack_start(GtkTreeViewColumn *
                                tree_column,
                                GtkCellRenderer * cell,
                                gboolean expand);
extern void gtk_tree_view_column_queue_resize(GtkTreeViewColumn *
                                tree_column);
extern void gtk_tree_view_column_set_alignment(GtkTreeViewColumn *
                                tree_column, gfloat xalign);
extern void gtk_tree_view_column_set_attributes(GtkTreeViewColumn *
                                tree_column,
                                GtkCellRenderer *
                                cell_renderer, ...);
extern void gtk_tree_view_column_set_cell_data_func(GtkTreeViewColumn *
                                tree_column,
                                GtkCellRenderer *
                                cell_renderer,
                                GtkTreeCellDataFunc
                                func,
                                gpointer func_data,
                                GtkDestroyNotify
                                destroy);
extern void gtk_tree_view_column_set_clickable(GtkTreeViewColumn *
                                tree_column,
                                gboolean clickable);
extern void gtk_tree_view_column_set_expand(GtkTreeViewColumn *
                                tree_column, gboolean expand);
extern void gtk_tree_view_column_set_fixed_width(GtkTreeViewColumn *
                                tree_column,
                                gint fixed_width);
extern void gtk_tree_view_column_set_max_width(GtkTreeViewColumn *
                                tree_column,
                                gint max_width);
extern void gtk_tree_view_column_set_min_width(GtkTreeViewColumn *
                                tree_column,
                                gint min_width);
extern void gtk_tree_view_column_set_reorderable(GtkTreeViewColumn *
                                tree_column,
                                gboolean reorderable);
extern void gtk_tree_view_column_set_resizable(GtkTreeViewColumn *
                                tree_column,
                                gboolean resizable);
extern void gtk_tree_view_column_set_sizing(GtkTreeViewColumn *
                                tree_column,
                                GtkTreeViewColumnSizing type);
extern void gtk_tree_view_column_set_sort_column_id(GtkTreeViewColumn *
                                tree_column,
                                gint sort_column_id);
extern void gtk_tree_view_column_set_sort_indicator(GtkTreeViewColumn *
                                tree_column,

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                                gboolean setting);
extern void gtk_tree_view_column_set_sort_order(GtkTreeViewColumn *
                                                tree_column,
                                                GtkSortType order);
extern void gtk_tree_view_column_set_spacing(GtkTreeViewColumn *
                                              tree_column, gint spacing);
extern void gtk_tree_view_column_set_title(GtkTreeViewColumn * tree_column,
                                           const gchar * title);
extern void gtk_tree_view_column_set_visible(GtkTreeViewColumn *
                                              tree_column,
                                              gboolean visible);
extern void gtk_tree_view_column_set_widget(GtkTreeViewColumn *
                                              tree_column,
                                              GtkWidget * widget);
extern GType gtk_tree_view_column_sizing_get_type(void);
extern void gtk_tree_view_columns_autosize(GtkTreeView * tree_view);
extern GdkPixmap *gtk_tree_view_create_row_drag_icon(GtkTreeView *
                                                      tree_view,
                                                      GtkTreePath * path);
extern GType gtk_tree_view_drop_position_get_type(void);
extern void gtk_tree_view_enable_model_drag_dest(GtkTreeView * tree_view,
                                                  const GtkTargetEntry *
                                                  targets, gint n_targets,
                                                  GdkDragAction actions);
extern void gtk_tree_view_enable_model_drag_source(GtkTreeView * tree_view,
                                                  GdkModifierType
                                                  start_button_mask,
                                                  const GtkTargetEntry *
                                                  targets, gint n_targets,
                                                  GdkDragAction actions);
extern void gtk_tree_view_expand_all(GtkTreeView * tree_view);
extern gboolean gtk_tree_view_expand_row(GtkTreeView * tree_view,
                                          GtkTreePath * path,
                                          gboolean open_all);
extern void gtk_tree_view_expand_to_path(GtkTreeView * tree_view,
                                          GtkTreePath * path);
extern void gtk_tree_view_get_background_area(GtkTreeView * tree_view,
                                              GtkTreePath * path,
                                              GtkTreeViewColumn * column,
                                              GdkRectangle * rect);
extern GdkWindow *gtk_tree_view_get_bin_window(GtkTreeView * tree_view);
extern void gtk_tree_view_get_cell_area(GtkTreeView * tree_view,
                                         GtkTreePath * path,
                                         GtkTreeViewColumn * column,
                                         GdkRectangle * rect);
extern GtkTreeViewColumn *gtk_tree_view_get_column(GtkTreeView * tree_view,
                                                    gint n);
extern GList *gtk_tree_view_get_columns(GtkTreeView * tree_view);
extern void gtk_tree_view_get_cursor(GtkTreeView * tree_view,
                                     GtkTreePath * *path,
                                     GtkTreeViewColumn * *focus_column);
extern gboolean gtk_tree_view_get_dest_row_at_pos(GtkTreeView * tree_view,
                                                  gint drag_x, gint drag_y,
                                                  GtkTreePath * *path,
                                                  GtkTreeViewDropPosition *
                                                  pos);
extern void gtk_tree_view_get_drag_dest_row(GtkTreeView * tree_view,
                                             GtkTreePath * *path,
                                             GtkTreeViewDropPosition * pos);
extern gboolean gtk_tree_view_get_enable_search(GtkTreeView * tree_view);
extern gboolean gtk_tree_view_get_enable_tree_lines(GtkTreeView *
                                                    tree_view);

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extern GtkTreeViewColumn *gtk_tree_view_get_expander_column(GtkTreeView *
                                                             tree_view);
extern gboolean gtk_tree_view_get_fixed_height_mode(GtkTreeView *
                                                    tree_view);
extern GtkTreeViewGridLines gtk_tree_view_get_grid_lines(GtkTreeView *
                                                         tree_view);
extern GtkAdjustment *gtk_tree_view_get_hadjustment(GtkTreeView *
                                                    tree_view);
extern gboolean gtk_tree_view_get_headers_clickable(GtkTreeView *
                                                    tree_view);
extern gboolean gtk_tree_view_get_headers_visible(GtkTreeView * tree_view);
extern gboolean gtk_tree_view_get_hover_expand(GtkTreeView * tree_view);
extern gboolean gtk_tree_view_get_hover_selection(GtkTreeView * tree_view);
extern GtkTreeModel *gtk_tree_view_get_model(GtkTreeView * tree_view);
extern gboolean gtk_tree_view_get_path_at_pos(GtkTreeView * tree_view,
                                              gint x, gint y,
                                              GtkTreePath * *path,
                                              GtkTreeViewColumn * *column,
                                              gint * cell_x,
                                              gint * cell_y);
extern gboolean gtk_tree_view_get_reorderable(GtkTreeView * tree_view);
extern GtkTreeViewRowSeparatorFunc
gtk_tree_view_get_row_separator_func(GtkTreeView * tree_view);
extern gboolean gtk_tree_view_get_rubber_banding(GtkTreeView * tree_view);
extern gboolean gtk_tree_view_get_rules_hint(GtkTreeView * tree_view);
extern gint gtk_tree_view_get_search_column(GtkTreeView * tree_view);
extern GtkEntry *gtk_tree_view_get_search_entry(GtkTreeView * tree_view);
extern GtkTreeViewSearchEqualFunc
gtk_tree_view_get_search_equal_func(GtkTreeView * tree_view);
extern GtkTreeViewSearchPositionFunc
gtk_tree_view_get_search_position_func(GtkTreeView * tree_view);
extern GtkTreeSelection *gtk_tree_view_get_selection(GtkTreeView *
                                                    tree_view);

extern GType gtk_tree_view_get_type(void);
extern GtkAdjustment *gtk_tree_view_get_vadjustment(GtkTreeView *
                                                    tree_view);
extern gboolean gtk_tree_view_get_visible_range(GtkTreeView * tree_view,
                                                GtkTreePath * *start_path,
                                                GtkTreePath * *end_path);
extern void gtk_tree_view_get_visible_rect(GtkTreeView * tree_view,
                                           GdkRectangle * visible_rect);
extern GType gtk_tree_view_grid_lines_get_type(void);
extern gint gtk_tree_view_insert_column(GtkTreeView * tree_view,
                                       GtkTreeViewColumn * column,
                                       gint position);
extern gint gtk_tree_view_insert_column_with_attributes(GtkTreeView *
                                                       tree_view,
                                                       gint position,
                                                       const gchar *
                                                       title,
                                                       GtkCellRenderer *
                                                       cell, ...);
extern gint gtk_tree_view_insert_column_with_data_func(GtkTreeView *
                                                       tree_view,
                                                       gint position,
                                                       const gchar * title,
                                                       GtkCellRenderer *
                                                       cell,
                                                       GtkTreeCellDataFunc
                                                       func, gpointer data,
                                                       GDestroyNotify
                                                       dnotify);

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extern void gtk_tree_view_map_expanded_rows(GtkTreeView * tree_view,
                                             GtkTreeViewMappingFunc func,
                                             gpointer data);
extern GType gtk_tree_view_mode_get_type(void);
extern void gtk_tree_view_move_column_after(GtkTreeView * tree_view,
                                             GtkTreeViewColumn * column,
                                             GtkTreeViewColumn *
                                             base_column);

extern GtkWidget *gtk_tree_view_new(void);
extern GtkWidget *gtk_tree_view_new_with_model(GtkTreeModel * model);
extern gint gtk_tree_view_remove_column(GtkTreeView * tree_view,
                                         GtkTreeViewColumn * column);
extern void gtk_tree_view_row_activated(GtkTreeView * tree_view,
                                         GtkTreePath * path,
                                         GtkTreeViewColumn * column);
extern gboolean gtk_tree_view_row_expanded(GtkTreeView * tree_view,
                                           GtkTreePath * path);
extern void gtk_tree_view_scroll_to_cell(GtkTreeView * tree_view,
                                         GtkTreePath * path,
                                         GtkTreeViewColumn * column,
                                         gboolean use_align,
                                         gfloat row_align,
                                         gfloat col_align);
extern void gtk_tree_view_scroll_to_point(GtkTreeView * tree_view,
                                           gint tree_x, gint tree_y);
extern void gtk_tree_view_set_column_drag_function(GtkTreeView * tree_view,
                                                    GtkTreeViewColumnDropFunc
                                                    func,
                                                    gpointer user_data,
                                                    GtkDestroyNotify
                                                    destroy);
extern void gtk_tree_view_set_cursor(GtkTreeView * tree_view,
                                     GtkTreePath * path,
                                     GtkTreeViewColumn * focus_column,
                                     gboolean start_editing);
extern void gtk_tree_view_set_cursor_on_cell(GtkTreeView * tree_view,
                                              GtkTreePath * path,
                                              GtkTreeViewColumn *
                                              focus_column,
                                              GtkCellRenderer * focus_cell,
                                              gboolean start_editing);
extern void gtk_tree_view_set_destroy_count_func(GtkTreeView * tree_view,
                                                  GtkTreeDestroyCountFunc
                                                  func, gpointer data,
                                                  GtkDestroyNotify destroy);
extern void gtk_tree_view_set_drag_dest_row(GtkTreeView * tree_view,
                                              GtkTreePath * path,
                                              GtkTreeViewDropPosition pos);
extern void gtk_tree_view_set_enable_search(GtkTreeView * tree_view,
                                             gboolean enable_search);
extern void gtk_tree_view_set_enable_tree_lines(GtkTreeView * tree_view,
                                                  gboolean enabled);
extern void gtk_tree_view_set_expander_column(GtkTreeView * tree_view,
                                              GtkTreeViewColumn * column);
extern void gtk_tree_view_set_fixed_height_mode(GtkTreeView * tree_view,
                                                  gboolean enable);
extern void gtk_tree_view_set_grid_lines(GtkTreeView * tree_view,
                                          GtkTreeViewGridLines grid_lines);
extern void gtk_tree_view_set_hadjustment(GtkTreeView * tree_view,
                                           GtkAdjustment * adjustment);
extern void gtk_tree_view_set_headers_clickable(GtkTreeView * tree_view,
                                                  gboolean setting);

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extern void gtk_tree_view_set_headers_visible(GtkTreeView * tree_view,
                                              gboolean headers_visible);
extern void gtk_tree_view_set_hover_expand(GtkTreeView * tree_view,
                                           gboolean expand);
extern void gtk_tree_view_set_hover_selection(GtkTreeView * tree_view,
                                              gboolean hover);
extern void gtk_tree_view_set_model(GtkTreeView * tree_view,
                                    GtkTreeModel * model);
extern void gtk_tree_view_set_reorderable(GtkTreeView * tree_view,
                                           gboolean reorderable);
extern void gtk_tree_view_set_row_separator_func(GtkTreeView * tree_view,
                                                  GtkTreeViewRowSeparatorFunc
                                                  func, gpointer data,
                                                  GtkDestroyNotify destroy);
extern void gtk_tree_view_set_rubber_banding(GtkTreeView * tree_view,
                                              gboolean enable);
extern void gtk_tree_view_set_rules_hint(GtkTreeView * tree_view,
                                          gboolean setting);
extern void gtk_tree_view_set_search_column(GtkTreeView * tree_view,
                                             gint column);
extern void gtk_tree_view_set_search_entry(GtkTreeView * tree_view,
                                            GtkEntry * entry);
extern void gtk_tree_view_set_search_equal_func(GtkTreeView * tree_view,
                                                 GtkTreeViewSearchEqualFunc
                                                 search_equal_func,
                                                 gpointer search_user_data,
                                                 GtkDestroyNotify
                                                 search_destroy);
extern void gtk_tree_view_set_search_position_func(GtkTreeView * tree_view,
                                                    GtkTreeViewSearchPositionFunc
                                                    func, gpointer data,
                                                    GDestroyNotify destroy);
extern void gtk_tree_view_set_vadjustment(GtkTreeView * tree_view,
                                           GtkAdjustment * adjustment);
extern void gtk_tree_view_tree_to_widget_coords(GtkTreeView * tree_view,
                                                 gint tx, gint ty,
                                                 gint * wx, gint * wy);
extern void gtk_tree_view_unset_rows_drag_dest(GtkTreeView * tree_view);
extern void gtk_tree_view_unset_rows_drag_source(GtkTreeView * tree_view);
extern void gtk_tree_view_widget_to_tree_coords(GtkTreeView * tree_view,
                                                 gint wx, gint wy,
                                                 gint * tx, gint * ty);

extern gboolean gtk_true(void);
extern gpointer gtk_type_class(GtkType type);
extern void gtk_ui_manager_add_ui(GtkUIManager * self, guint merge_id,
                                  const gchar * path, const gchar * name,
                                  const gchar * action,
                                  GtkUIManagerItemType type, gboolean top);
extern guint gtk_ui_manager_add_ui_from_file(GtkUIManager * self,
                                              const gchar * filename,
                                              GError * *error);
extern guint gtk_ui_manager_add_ui_from_string(GtkUIManager * self,
                                              const gchar * buffer,
                                              gssize length,
                                              GError * *error);
extern void gtk_ui_manager_ensure_update(GtkUIManager * self);
extern GtkAccelGroup *gtk_ui_manager_get_accel_group(GtkUIManager * self);
extern GtkAction *gtk_ui_manager_get_action(GtkUIManager * self,
                                             const gchar * path);
extern GList *gtk_ui_manager_get_action_groups(GtkUIManager * self);
extern gboolean gtk_ui_manager_get_add_tearoffs(GtkUIManager * self);
extern GSList *gtk_ui_manager_get_toplevels(GtkUIManager * self,

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                                GtkUIManagerItemType types);
extern GType gtk_ui_manager_get_type(void);
extern gchar *gtk_ui_manager_get_ui(GtkUIManager * self);
extern GtkWidget *gtk_ui_manager_get_widget(GtkUIManager * self,
                                const gchar * path);
extern void gtk_ui_manager_insert_action_group(GtkUIManager * self,
                                GtkActionGroup *
                                action_group, gint pos);
extern GType gtk_ui_manager_item_type_get_type(void);
extern GtkUIManager *gtk_ui_manager_new(void);
extern guint gtk_ui_manager_new_merge_id(GtkUIManager * self);
extern void gtk_ui_manager_remove_action_group(GtkUIManager * self,
                                GtkActionGroup *
                                action_group);
extern void gtk_ui_manager_remove_ui(GtkUIManager * self, guint merge_id);
extern void gtk_ui_manager_set_add_tearoffs(GtkUIManager * self,
                                gboolean add_tearoffs);

extern GType gtk_unit_get_type(void);
extern GType gtk_update_type_get_type(void);
extern GType gtk_vbox_get_type(void);
extern GtkWidget *gtk_vbox_new(gboolean homogeneous, gint spacing);
extern GType gtk_vbutton_box_get_type(void);
extern GtkWidget *gtk_vbutton_box_new(void);
extern GtkAdjustment *gtk_viewport_get_hadjustment(GtkViewport * viewport);
extern GtkShadowType gtk_viewport_get_shadow_type(GtkViewport * viewport);
extern GType gtk_viewport_get_type(void);
extern GtkAdjustment *gtk_viewport_get_vadjustment(GtkViewport * viewport);
extern GtkWidget *gtk_viewport_new(GtkAdjustment * hadjustment,
                                GtkAdjustment * vadjustment);
extern void gtk_viewport_set_hadjustment(GtkViewport * viewport,
                                GtkAdjustment * adjustment);
extern void gtk_viewport_set_shadow_type(GtkViewport * viewport,
                                GtkShadowType type);
extern void gtk_viewport_set_vadjustment(GtkViewport * viewport,
                                GtkAdjustment * adjustment);

extern GType gtk_visibility_get_type(void);
extern GType gtk_vpaned_get_type(void);
extern GtkWidget *gtk_vpaned_new(void);
extern GType gtk_vruler_get_type(void);
extern GtkWidget *gtk_vruler_new(void);
extern GType gtk_vscale_get_type(void);
extern GtkWidget *gtk_vscale_new(GtkAdjustment * adjustment);
extern GtkWidget *gtk_vscale_new_with_range(gdouble min, gdouble max,
                                gdouble step);

extern GType gtk_vscrollbar_get_type(void);
extern GtkWidget *gtk_vscrollbar_new(GtkAdjustment * adjustment);
extern GType gtk_vseparator_get_type(void);
extern GtkWidget *gtk_vseparator_new(void);
extern gboolean gtk_widget_activate(GtkWidget * widget);
extern void gtk_widget_add_accelerator(GtkWidget * widget,
                                const gchar * accel_signal,
                                GtkAccelGroup * accel_group,
                                guint accel_key,
                                GdkModifierType accel_mods,
                                GtkAccelFlags accel_flags);
extern void gtk_widget_add_events(GtkWidget * widget, gint events);
extern void gtk_widget_add_mnemonic_label(GtkWidget * widget,
                                GtkWidget * label);
extern gboolean gtk_widget_can_activate_accel(GtkWidget * widget,
                                guint signal_id);
extern gboolean gtk_widget_child_focus(GtkWidget * widget,
                                GtkDirectionType direction);

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extern void gtk_widget_child_notify(GtkWidget * widget,
                                   const gchar * child_property);
extern GParamSpec *gtk_widget_class_find_style_property(GtkWidgetClass *
                                                         klass,
                                                         const gchar *
                                                         property_name);
extern void gtk_widget_class_install_style_property(GtkWidgetClass * klass,
                                                    GParamSpec * pspec);
extern void gtk_widget_class_install_style_property_parser(GtkWidgetClass *
                                                           klass,
                                                           GParamSpec *
                                                           pspec,
                                                           GtkRcPropertyParser
                                                           parser);
extern GParamSpec **gtk_widget_class_list_style_properties(GtkWidgetClass *
                                                           klass,
                                                           guint *
                                                           n_properties);
extern void gtk_widget_class_path(GtkWidget * widget, guint * path_length,
                                  gchar * *path, gchar * *path_reversed);
extern PangoContext *gtk_widget_create_pango_context(GtkWidget * widget);
extern PangoLayout *gtk_widget_create_pango_layout(GtkWidget * widget,
                                                    const gchar * text);

extern void gtk_widget_destroy(GtkWidget * widget);
extern void gtk_widget_destroyed(GtkWidget * widget,
                                 GtkWidget * *widget_pointer);
extern void gtk_widget_ensure_style(GtkWidget * widget);
extern gboolean gtk_widget_event(GtkWidget * widget, GdkEvent * event);
extern GType gtk_widget_flags_get_type(void);
extern void gtk_widget_freeze_child_notify(GtkWidget * widget);
extern AtkObject *gtk_widget_get_accessible(GtkWidget * widget);
extern GtkAction *gtk_widget_get_action(GtkWidget * widget);
extern GtkWidget *gtk_widget_get_ancestor(GtkWidget * widget,
                                           GType widget_type);
extern void gtk_widget_get_child_requisition(GtkWidget * widget,
                                              GtkRequisition * requisition);
extern gboolean gtk_widget_get_child_visible(GtkWidget * widget);
extern GtkClipboard *gtk_widget_get_clipboard(GtkWidget * widget,
                                              GdkAtom selection);
extern GdkColormap *gtk_widget_get_colormap(GtkWidget * widget);
extern gchar *gtk_widget_get_composite_name(GtkWidget * widget);
extern GdkColormap *gtk_widget_get_default_colormap(void);
extern GtkTextDirection gtk_widget_get_default_direction(void);
extern GtkStyle *gtk_widget_get_default_style(void);
extern GdkVisual *gtk_widget_get_default_visual(void);
extern GtkTextDirection gtk_widget_get_direction(GtkWidget * widget);
extern GdkDisplay *gtk_widget_get_display(GtkWidget * widget);
extern gint gtk_widget_get_events(GtkWidget * widget);
extern GdkExtensionMode gtk_widget_get_extension_events(GtkWidget *
                                                         widget);
extern GtkRcStyle *gtk_widget_get_modifier_style(GtkWidget * widget);
extern const gchar *gtk_widget_get_name(GtkWidget * widget);
extern gboolean gtk_widget_get_no_show_all(GtkWidget * widget);
extern PangoContext *gtk_widget_get_pango_context(GtkWidget * widget);
extern GtkWidget *gtk_widget_get_parent(GtkWidget * widget);
extern GdkWindow *gtk_widget_get_parent_window(GtkWidget * widget);
extern void gtk_widget_get_pointer(GtkWidget * widget, gint * x, gint * y);
extern GdkWindow *gtk_widget_get_root_window(GtkWidget * widget);
extern GdkScreen *gtk_widget_get_screen(GtkWidget * widget);
extern GtkSettings *gtk_widget_get_settings(GtkWidget * widget);
extern void gtk_widget_get_size_request(GtkWidget * widget, gint * width,
                                        gint * height);

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extern GtkWidget *gtk_widget_get_style(GtkWidget * widget);
extern GtkWidget *gtk_widget_get_toplevel(GtkWidget * widget);
extern GType gtk_widget_get_type(void);
extern GdkVisual *gtk_widget_get_visual(GtkWidget * widget);
extern void gtk_widget_grab_default(GtkWidget * widget);
extern void gtk_widget_grab_focus(GtkWidget * widget);
extern gboolean gtk_widget_has_screen(GtkWidget * widget);
extern GType gtk_widget_help_type_get_type(void);
extern void gtk_widget_hide(GtkWidget * widget);
extern void gtk_widget_hide_all(GtkWidget * widget);
extern gboolean gtk_widget_hide_on_delete(GtkWidget * widget);
extern void gtk_widget_input_shape_combine_mask(GtkWidget * widget,
                                                GdkBitmap * shape_mask,
                                                gint offset_x,
                                                gint offset_y);
extern gboolean gtk_widget_intersect(GtkWidget * widget,
                                     const GdkRectangle * area,
                                     GdkRectangle * intersection);
extern gboolean gtk_widget_is_ancestor(GtkWidget * widget,
                                       GtkWidget * ancestor);
extern gboolean gtk_widget_is_composited(GtkWidget * widget);
extern gboolean gtk_widget_is_focus(GtkWidget * widget);
extern GList *gtk_widget_list_accel_closures(GtkWidget * widget);
extern GList *gtk_widget_list_mnemonic_labels(GtkWidget * widget);
extern void gtk_widget_map(GtkWidget * widget);
extern gboolean gtk_widget_mnemonic_activate(GtkWidget * widget,
                                             gboolean group_cycling);
extern void gtk_widget_modify_base(GtkWidget * widget, GtkStateType state,
                                   const GdkColor * color);
extern void gtk_widget_modify_bg(GtkWidget * widget, GtkStateType state,
                                 const GdkColor * color);
extern void gtk_widget_modify_fg(GtkWidget * widget, GtkStateType state,
                                 const GdkColor * color);
extern void gtk_widget_modify_font(GtkWidget * widget,
                                   PangoFontDescription * font_desc);
extern void gtk_widget_modify_style(GtkWidget * widget,
                                    GtkRcStyle * style);
extern void gtk_widget_modify_text(GtkWidget * widget, GtkStateType state,
                                   const GdkColor * color);
extern GtkWidget *gtk_widget_new(GType type,
                                  const gchar * first_property_name, ...);
extern void gtk_widget_path(GtkWidget * widget, guint * path_length,
                            gchar * *path, gchar * *path_reversed);
extern void gtk_widget_pop_colormap(void);
extern void gtk_widget_pop_composite_child(void);
extern void gtk_widget_push_colormap(GdkColormap * cmap);
extern void gtk_widget_push_composite_child(void);
extern void gtk_widget_queue_draw(GtkWidget * widget);
extern void gtk_widget_queue_draw_area(GtkWidget * widget, gint x, gint y,
                                       gint width, gint height);
extern void gtk_widget_queue_resize(GtkWidget * widget);
extern void gtk_widget_queue_resize_no_redraw(GtkWidget * widget);
extern void gtk_widget_realize(GtkWidget * widget);
extern GtkWidget *gtk_widget_ref(GtkWidget * widget);
extern GdkRegion *gtk_widget_region_intersect(GtkWidget * widget,
                                              const GdkRegion * region);
extern gboolean gtk_widget_remove_accelerator(GtkWidget * widget,
                                              GtkAccelGroup * accel_group,
                                              guint accel_key,
                                              GdkModifierType accel_mods);
extern void gtk_widget_remove_mnemonic_label(GtkWidget * widget,
                                              GtkWidget * label);

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extern GdkPixbuf *gtk_widget_render_icon(GtkWidget * widget,
                                         const gchar * stock_id,
                                         GtkIconSize size,
                                         const gchar * detail);
extern void gtk_widget_reparent(GtkWidget * widget,
                                GtkWidget * new_parent);
extern void gtk_widget_reset_rc_styles(GtkWidget * widget);
extern void gtk_widget_reset_shapes(GtkWidget * widget);
extern gint gtk_widget_send_expose(GtkWidget * widget, GdkEvent * event);
extern void gtk_widget_set_accel_path(GtkWidget * widget,
                                     const gchar * accel_path,
                                     GtkAccelGroup * accel_group);
extern void gtk_widget_set_app_paintable(GtkWidget * widget,
                                         gboolean app_paintable);
extern void gtk_widget_set_child_visible(GtkWidget * widget,
                                         gboolean is_visible);
extern void gtk_widget_set_colormap(GtkWidget * widget,
                                    GdkColormap * colormap);
extern void gtk_widget_set_composite_name(GtkWidget * widget,
                                           const gchar * name);
extern void gtk_widget_set_default_colormap(GdkColormap * colormap);
extern void gtk_widget_set_default_direction(GtkTextDirection dir);
extern void gtk_widget_set_direction(GtkWidget * widget,
                                     GtkTextDirection dir);
extern void gtk_widget_set_double_buffered(GtkWidget * widget,
                                           gboolean double_buffered);
extern void gtk_widget_set_events(GtkWidget * widget, gint events);
extern void gtk_widget_set_extension_events(GtkWidget * widget,
                                           GdkExtensionMode mode);
extern void gtk_widget_set_name(GtkWidget * widget, const gchar * name);
extern void gtk_widget_set_no_show_all(GtkWidget * widget,
                                       gboolean no_show_all);
extern void gtk_widget_set_parent(GtkWidget * widget, GtkWidget * parent);
extern void gtk_widget_set_parent_window(GtkWidget * widget,
                                         GdkWindow * parent_window);
extern void gtk_widget_set_redraw_on_allocate(GtkWidget * widget,
                                             gboolean redraw_on_allocate);
extern gboolean gtk_widget_set_scroll_adjustments(GtkWidget * widget,
                                                  GtkAdjustment *
                                                  hadjustment,
                                                  GtkAdjustment *
                                                  vadjustment);
extern void gtk_widget_set_sensitive(GtkWidget * widget,
                                    gboolean sensitive);
extern void gtk_widget_set_size_request(GtkWidget * widget, gint width,
                                       gint height);
extern void gtk_widget_set_state(GtkWidget * widget, GtkStateType state);
extern void gtk_widget_set_style(GtkWidget * widget, GtkStyle * style);
extern void gtk_widget_shape_combine_mask(GtkWidget * widget,
                                          GdkBitmap * shape_mask,
                                          gint offset_x, gint offset_y);
extern void gtk_widget_show(GtkWidget * widget);
extern void gtk_widget_show_all(GtkWidget * widget);
extern void gtk_widget_show_now(GtkWidget * widget);
extern void gtk_widget_size_allocate(GtkWidget * widget,
                                    GtkAllocation * allocation);
extern void gtk_widget_size_request(GtkWidget * widget,
                                   GtkRequisition * requisition);
extern void gtk_widget_style_get(GtkWidget * widget,
                                 const gchar * first_property_name, ...);
extern void gtk_widget_style_get_property(GtkWidget * widget,
                                         const gchar * property_name,

```

```

        GValue * value);
extern void gtk_widget_style_get_valist(GtkWidget * widget,
        const gchar * first_property_name,
        va_list var_args);
extern void gtk_widget_thaw_child_notify(GtkWidget * widget);
extern gboolean gtk_widget_translate_coordinates(GtkWidget * src_widget,
        GtkWidget * dest_widget,
        gint src_x, gint src_y,
        gint * dest_x,
        gint * dest_y);

extern void gtk_widget_unmap(GtkWidget * widget);
extern void gtk_widget_unparent(GtkWidget * widget);
extern void gtk_widget_unrealize(GtkWidget * widget);
extern void gtk_widget_unref(GtkWidget * widget);
extern gboolean gtk_window_activate_default(GtkWindow * window);
extern gboolean gtk_window_activate_focus(GtkWindow * window);
extern gboolean gtk_window_activate_key(GtkWindow * window,
        GdkEventKey * event);
extern void gtk_window_add_accel_group(GtkWindow * window,
        GtkAccelGroup * accel_group);
extern void gtk_window_add_mnemonic(GtkWindow * window, guint keyval,
        GtkWidget * target);
extern void gtk_window_begin_move_drag(GtkWindow * window, gint button,
        gint root_x, gint root_y,
        guint32 timestamp);
extern void gtk_window_begin_resize_drag(GtkWindow * window,
        GdkWindowEdge edge, gint button,
        gint root_x, gint root_y,
        guint32 timestamp);

extern void gtk_window_deiconify(GtkWindow * window);
extern void gtk_window_fullscreen(GtkWindow * window);
extern gboolean gtk_window_get_accept_focus(GtkWindow * window);
extern gboolean gtk_window_get_decorated(GtkWindow * window);
extern GList *gtk_window_get_default_icon_list(void);
extern void gtk_window_get_default_size(GtkWindow * window, gint * width,
        gint * height);

extern gboolean gtk_window_get_deletable(GtkWindow * window);
extern gboolean gtk_window_get_destroy_with_parent(GtkWindow * window);
extern GtkWidget *gtk_window_get_focus(GtkWindow * window);
extern gboolean gtk_window_get_focus_on_map(GtkWindow * window);
extern void gtk_window_get_frame_dimensions(GtkWindow * window,
        gint * left, gint * top,
        gint * right, gint * bottom);

extern GdkGravity gtk_window_get_gravity(GtkWindow * window);
extern GtkWindowGroup *gtk_window_get_group(GtkWindow * window);
extern gboolean gtk_window_get_has_frame(GtkWindow * window);
extern GdkPixbuf *gtk_window_get_icon(GtkWindow * window);
extern GList *gtk_window_get_icon_list(GtkWindow * window);
extern const gchar *gtk_window_get_icon_name(GtkWindow * window);
extern GdkModifierType gtk_window_get_mnemonic_modifier(GtkWindow *
        window);

extern gboolean gtk_window_get_modal(GtkWindow * window);
extern void gtk_window_get_position(GtkWindow * window, gint * root_x,
        gint * root_y);

extern gboolean gtk_window_get_resizable(GtkWindow * window);
extern const gchar *gtk_window_get_role(GtkWindow * window);
extern GdkScreen *gtk_window_get_screen(GtkWindow * window);
extern void gtk_window_get_size(GtkWindow * window, gint * width,
        gint * height);
extern gboolean gtk_window_get_skip_pager_hint(GtkWindow * window);
extern gboolean gtk_window_get_skip_taskbar_hint(GtkWindow * window);
extern const gchar *gtk_window_get_title(GtkWindow * window);

```

```

extern GtkWidget *gtk_window_get_transient_for(GtkWindow * window);
extern GType gtk_window_get_type(void);
extern GdkWindowTypeHint gtk_window_get_type_hint(GtkWindow * window);
extern gboolean gtk_window_get_urgency_hint(GtkWindow * window);
extern void gtk_window_group_add_window(GtkWindowGroup * window_group,
                                         GtkWidget * window);
extern GType gtk_window_group_get_type(void);
extern GtkWindowGroup *gtk_window_group_new(void);
extern void gtk_window_group_remove_window(GtkWindowGroup * window_group,
                                           GtkWidget * window);
extern gboolean gtk_window_has_toplevel_focus(GtkWindow * window);
extern void gtk_window_iconify(GtkWindow * window);
extern gboolean gtk_window_is_active(GtkWindow * window);
extern GList *gtk_window_list_toplevels(void);
extern void gtk_window_maximize(GtkWindow * window);
extern gboolean gtk_window_mnemonic_activate(GtkWindow * window,
                                             guint keyval,
                                             GdkModifierType modifier);
extern void gtk_window_move(GtkWindow * window, gint x, gint y);
extern GtkWidget *gtk_window_new(GtkWindowType type);
extern gboolean gtk_window_parse_geometry(GtkWindow * window,
                                          const gchar * geometry);
extern GType gtk_window_position_get_type(void);
extern void gtk_window_present(GtkWindow * window);
extern void gtk_window_present_with_time(GtkWindow * window,
                                          guint32 timestamp);
extern gboolean gtk_window_propagate_key_event(GtkWindow * window,
                                                GdkEventKey * event);
extern void gtk_window_remove_accel_group(GtkWindow * window,
                                           GtkAccelGroup * accel_group);
extern void gtk_window_remove_mnemonic(GtkWindow * window, guint keyval,
                                       GtkWidget * target);
extern void gtk_window_reshow_with_initial_size(GtkWindow * window);
extern void gtk_window_resize(GtkWindow * window, gint width, gint height);
extern void gtk_window_set_accept_focus(GtkWindow * window,
                                         gboolean setting);
extern void gtk_window_set_auto_startup_notification(gboolean setting);
extern void gtk_window_set_decorated(GtkWindow * window, gboolean setting);
extern void gtk_window_set_default(GtkWindow * window,
                                    GtkWidget * default_widget);
extern void gtk_window_set_default_icon(GdkPixbuf * icon);
extern gboolean gtk_window_set_default_icon_from_file(const gchar *
                                                       filename,
                                                       GError * *err);
extern void gtk_window_set_default_icon_list(GList * list);
extern void gtk_window_set_default_icon_name(const gchar * name);
extern void gtk_window_set_default_size(GtkWindow * window, gint width,
                                         gint height);
extern void gtk_window_set_deletable(GtkWindow * window, gboolean setting);
extern void gtk_window_set_destroy_with_parent(GtkWindow * window,
                                                gboolean setting);
extern void gtk_window_set_focus(GtkWindow * window, GtkWidget * focus);
extern void gtk_window_set_focus_on_map(GtkWindow * window,
                                         gboolean setting);
extern void gtk_window_set_frame_dimensions(GtkWindow * window, gint left,
                                             gint top, gint right,
                                             gint bottom);
extern void gtk_window_set_geometry_hints(GtkWindow * window,
                                           GtkWidget * geometry_widget,
                                           GdkGeometry * geometry,
                                           GdkWindowHints geom_mask);
extern void gtk_window_set_gravity(GtkWindow * window, GdkGravity gravity);

```

```

extern void gtk_window_set_has_frame(GtkWindow * window, gboolean setting);
extern void gtk_window_set_icon(GtkWindow * window, GdkPixbuf * icon);
extern gboolean gtk_window_set_icon_from_file(GtkWindow * window,
                                              const gchar * filename,
                                              GError * *err);
extern void gtk_window_set_icon_list(GtkWindow * window, GList * list);
extern void gtk_window_set_icon_name(GtkWindow * window,
                                     const gchar * name);
extern void gtk_window_set_keep_above(GtkWindow * window,
                                     gboolean setting);
extern void gtk_window_set_keep_below(GtkWindow * window,
                                     gboolean setting);
extern void gtk_window_set_mnemonic_modifier(GtkWindow * window,
                                              GdkModifierType modifier);
extern void gtk_window_set_modal(GtkWindow * window, gboolean modal);
extern void gtk_window_set_position(GtkWindow * window,
                                    GtkWidgetPosition position);
extern void gtk_window_set_resizable(GtkWindow * window,
                                    gboolean resizable);
extern void gtk_window_set_role(GtkWindow * window, const gchar * role);
extern void gtk_window_set_screen(GtkWindow * window, GdkScreen * screen);
extern void gtk_window_set_skip_pager_hint(GtkWindow * window,
                                           gboolean setting);
extern void gtk_window_set_skip_taskbar_hint(GtkWindow * window,
                                           gboolean setting);
extern void gtk_window_set_title(GtkWindow * window, const gchar * title);
extern void gtk_window_set_transient_for(GtkWindow * window,
                                         GtkWidget * parent);
extern void gtk_window_set_type_hint(GtkWindow * window,
                                     GdkWindowTypeHint hint);
extern void gtk_window_set_urgency_hint(GtkWindow * window,
                                       gboolean setting);
extern void gtk_window_set_wmclass(GtkWindow * window,
                                   const gchar * wmclass_name,
                                   const gchar * wmclass_class);
extern void gtk_window_stick(GtkWindow * window);
extern GType gtk_window_type_get_type(void);
extern void gtk_window_unfullscreen(GtkWindow * window);
extern void gtk_window_unmaximize(GtkWindow * window);
extern void gtk_window_unstick(GtkWindow * window);
extern GType gtk_wrap_mode_get_type(void);

```

16.28.2. gtk-2.0/gtk/gtkenums.h

```

typedef enum {
    GTK_STATE_NORMAL = 0,
    GTK_STATE_ACTIVE = 1,
    GTK_STATE_PRELIGHT = 2,
    GTK_STATE_SELECTED = 3,
    GTK_STATE_INSENSITIVE = 4
} GtkStateType;
typedef enum {
    GTK_SORT_ASCENDING = 0,
    GTK_SORT_DESCENDING = 1
} GtkSortType;
typedef enum {
    GTK_UPDATE_CONTINUOUS = 0,
    GTK_UPDATE_DISCONTINUOUS = 1,
    GTK_UPDATE_DELAYED = 2
} GtkUpdateType;
typedef enum {

```

```

    GTK_ORIENTATION_HORIZONTAL = 0,
    GTK_ORIENTATION_VERTICAL = 1
} GtkOrientation;
typedef enum {
    GTK_BUTTONBOX_DEFAULT_STYLE = 0,
    GTK_BUTTONBOX_SPREAD = 1,
    GTK_BUTTONBOX_EDGE = 2,
    GTK_BUTTONBOX_START = 3,
    GTK_BUTTONBOX_END = 4
} GtkButtonBoxStyle;
typedef enum {
    GTK_JUSTIFY_LEFT = 0,
    GTK_JUSTIFY_RIGHT = 1,
    GTK_JUSTIFY_CENTER = 2,
    GTK_JUSTIFY_FILL = 3
} GtkJustification;
typedef enum {
    GTK_TEXT_DIR_NONE = 0,
    GTK_TEXT_DIR_LTR = 1,
    GTK_TEXT_DIR_RTL = 2
} GtkTextDirection;
typedef enum {
    GTK_WRAP_NONE = 0,
    GTK_WRAP_CHAR = 1,
    GTK_WRAP_WORD = 2,
    GTK_WRAP_WORD_CHAR = 3
} GtkWrapMode;
typedef enum {
    GTK_CURVE_TYPE_LINEAR = 0,
    GTK_CURVE_TYPE_SPLINE = 1,
    GTK_CURVE_TYPE_FREE = 2
} GtkCurveType;
typedef enum {
    GTK_PACK_START = 0,
    GTK_PACK_END = 1
} GtkPackType;
typedef enum {
    GTK_ARROW_UP = 0,
    GTK_ARROW_DOWN = 1,
    GTK_ARROW_LEFT = 2,
    GTK_ARROW_RIGHT = 3
} GtkArrowType;
typedef enum {
    GTK_SHADOW_NONE = 0,
    GTK_SHADOW_IN = 1,
    GTK_SHADOW_OUT = 2,
    GTK_SHADOW_ETCHED_IN = 3,
    GTK_SHADOW_ETCHED_OUT = 4
} GtkShadowType;
typedef enum {
    GTK_DIR_TAB_FORWARD = 0,
    GTK_DIR_TAB_BACKWARD = 1,
    GTK_DIR_UP = 2,
    GTK_DIR_DOWN = 3,
    GTK_DIR_LEFT = 4,
    GTK_DIR_RIGHT = 5
} GtkDirectionType;
typedef enum {
    GTK_ICON_SIZE_INVALID = 0,
    GTK_ICON_SIZE_MENU = 1,
    GTK_ICON_SIZE_SMALL_TOOLBAR = 2,
    GTK_ICON_SIZE_LARGE_TOOLBAR = 3,

```



```

    GTK_ICON_SIZE_BUTTON = 4,
    GTK_ICON_SIZE_DND = 5,
    GTK_ICON_SIZE_DIALOG = 6
} GtkIconSize;
typedef enum {
    GTK_SELECTION_NONE = 0,
    GTK_SELECTION_SINGLE = 1,
    GTK_SELECTION_BROWSE = 2,
    GTK_SELECTION_MULTIPLE = 3,
    GTK_SELECTION_EXTENDED = 3
} GtkSelectionMode;
typedef enum {
    GTK_CORNER_TOP_LEFT = 0,
    GTK_CORNER_BOTTOM_LEFT = 1,
    GTK_CORNER_TOP_RIGHT = 2,
    GTK_CORNER_BOTTOM_RIGHT = 3
} GtkCornerType;
typedef enum {
    GTK_POS_LEFT = 0,
    GTK_POS_RIGHT = 1,
    GTK_POS_TOP = 2,
    GTK_POS_BOTTOM = 3
} GtkPositionType;
typedef enum {
    GTK_TOOLBAR_ICONS = 0,
    GTK_TOOLBAR_TEXT = 1,
    GTK_TOOLBAR_BOTH = 2,
    GTK_TOOLBAR_BOTH_HORIZ = 3
} GtkToolbarStyle;
typedef enum {
    GTK_RELIEF_NORMAL = 0,
    GTK_RELIEF_HALF = 1,
    GTK_RELIEF_NONE = 2
} GtkReliefStyle;
typedef enum {
    GTK_PIXELS = 0,
    GTK_INCHES = 1,
    GTK_CENTIMETERS = 2
} GtkMetricType;
typedef enum {
    GTK_EXPAND = 1,
    GTK_SHRINK = 2,
    GTK_FILL = 4
} GtkAttachOptions;
typedef enum {
    GTK_MESSAGE_INFO = 0,
    GTK_MESSAGE_WARNING = 1,
    GTK_MESSAGE_QUESTION = 2,
    GTK_MESSAGE_ERROR = 3
} GtkMessageType;
typedef enum {
    GTK_POLICY_ALWAYS = 0,
    GTK_POLICY_AUTOMATIC = 1,
    GTK_POLICY_NEVER = 2
} GtkPolicyType;
typedef enum {
    GTK_RESIZE_PARENT = 0,
    GTK_RESIZE_QUEUE = 1,
    GTK_RESIZE_IMMEDIATE = 2
} GtkResizeMode;
typedef enum {
    GTK_WINDOW_TOPLEVEL = 0,

```

```

    GTK_WINDOW_POPUP = 1
} GtkWidgetType;
typedef enum {
    GTK_WIN_POS_NONE = 0,
    GTK_WIN_POS_CENTER = 1,
    GTK_WIN_POS_MOUSE = 2,
    GTK_WIN_POS_CENTER_ALWAYS = 3,
    GTK_WIN_POS_CENTER_ON_PARENT = 4
} GtkWidgetPosition;
typedef enum {
    GTK_EXPANDER_COLLAPSED = 0,
    GTK_EXPANDER_SEMI_COLLAPSED = 1,
    GTK_EXPANDER_SEMI_EXPANDED = 2,
    GTK_EXPANDER_EXPANDED = 3
} GtkExpanderStyle;
typedef enum {
    GTK_PATH_PRIO_LOWEST = 0,
    GTK_PATH_PRIO_GTK = 4,
    GTK_PATH_PRIO_APPLICATION = 8,
    GTK_PATH_PRIO_THEME = 10,
    GTK_PATH_PRIO_RC = 12,
    GTK_PATH_PRIO_HIGHEST = 15
} GtkPathPriorityType;
typedef enum {
    GTK_PATH_WIDGET = 0,
    GTK_PATH_WIDGET_CLASS = 1,
    GTK_PATH_CLASS = 2
} GtkPathType;
typedef enum {
    GTK_SCROLL_NONE = 0,
    GTK_SCROLL_JUMP = 1,
    GTK_SCROLL_STEP_BACKWARD = 2,
    GTK_SCROLL_STEP_FORWARD = 3,
    GTK_SCROLL_PAGE_BACKWARD = 4,
    GTK_SCROLL_PAGE_FORWARD = 5,
    GTK_SCROLL_STEP_UP = 6,
    GTK_SCROLL_STEP_DOWN = 7,
    GTK_SCROLL_PAGE_UP = 8,
    GTK_SCROLL_PAGE_DOWN = 9,
    GTK_SCROLL_STEP_LEFT = 10,
    GTK_SCROLL_STEP_RIGHT = 11,
    GTK_SCROLL_PAGE_LEFT = 12,
    GTK_SCROLL_PAGE_RIGHT = 13,
    GTK_SCROLL_START = 14,
    GTK_SCROLL_END = 15
} GtkScrollType;
typedef enum {
    GTK_MOVEMENT_LOGICAL_POSITIONS = 0,
    GTK_MOVEMENT_VISUAL_POSITIONS = 1,
    GTK_MOVEMENT_WORDS = 2,
    GTK_MOVEMENT_DISPLAY_LINES = 3,
    GTK_MOVEMENT_DISPLAY_LINE_ENDS = 4,
    GTK_MOVEMENT_PARAGRAPHS = 5,
    GTK_MOVEMENT_PARAGRAPH_ENDS = 6,
    GTK_MOVEMENT_PAGES = 7,
    GTK_MOVEMENT_BUFFER_ENDS = 8,
    GTK_MOVEMENT_HORIZONTAL_PAGES = 9
} GtkMovementStep;
typedef enum {
    GTK_MENU_DIR_PARENT = 0,
    GTK_MENU_DIR_CHILD = 1,
    GTK_MENU_DIR_NEXT = 2,

```

```

    GTK_MENU_DIR_PREV = 3
} GtkMenuDirectionType;
typedef enum {
    GTK_SCROLL_STEPS = 0,
    GTK_SCROLL_PAGES = 1,
    GTK_SCROLL_ENDS = 2,
    GTK_SCROLL_HORIZONTAL_STEPS = 3,
    GTK_SCROLL_HORIZONTAL_PAGES = 4,
    GTK_SCROLL_HORIZONTAL_ENDS = 5
} GtkScrollStep;
typedef enum {
    GTK_DELETE_CHARS = 0,
    GTK_DELETE_WORD_ENDS = 1,
    GTK_DELETE_WORDS = 2,
    GTK_DELETE_DISPLAY_LINES = 3,
    GTK_DELETE_DISPLAY_LINE_ENDS = 4,
    GTK_DELETE_PARAGRAPH_ENDS = 5,
    GTK_DELETE_PARAGRAPHS = 6,
    GTK_DELETE_WHITESPACE = 7
} GtkDeleteType;
typedef enum {
    GTK_VISIBILITY_NONE = 0,
    GTK_VISIBILITY_PARTIAL = 1,
    GTK_VISIBILITY_FULL = 2
} GtkVisibility;
typedef enum {
    GTK_IM_PREEDIT_NOTHING,
    GTK_IM_PREEDIT_CALLBACK,
    GTK_IM_PREEDIT_NONE
} GtkIMPreeditStyle;
typedef enum {
    GTK_ANCHOR_CENTER,
    GTK_ANCHOR_NORTH,
    GTK_ANCHOR_NORTH_WEST,
    GTK_ANCHOR_NORTH_EAST,
    GTK_ANCHOR_SOUTH,
    GTK_ANCHOR_SOUTH_WEST,
    GTK_ANCHOR_SOUTH_EAST,
    GTK_ANCHOR_WEST,
    GTK_ANCHOR_EAST,
    GTK_ANCHOR_N = GTK_ANCHOR_NORTH,
    GTK_ANCHOR_NW = GTK_ANCHOR_NORTH_WEST,
    GTK_ANCHOR_NE = GTK_ANCHOR_NORTH_EAST,
    GTK_ANCHOR_S = GTK_ANCHOR_SOUTH,
    GTK_ANCHOR_SW = GTK_ANCHOR_SOUTH_WEST,
    GTK_ANCHOR_SE = GTK_ANCHOR_SOUTH_EAST,
    GTK_ANCHOR_W = GTK_ANCHOR_WEST,
    GTK_ANCHOR_E = GTK_ANCHOR_EAST
} GtkAnchorType;
typedef enum {
    GTK_IM_STATUS_NOTHING,
    GTK_IM_STATUS_CALLBACK,
    GTK_IM_STATUS_NONE
} GtkIMStatusStyle;
typedef enum {
    GTK_PACK_DIRECTION_LTR,
    GTK_PACK_DIRECTION_RTL,
    GTK_PACK_DIRECTION_TTB,
    GTK_PACK_DIRECTION_BTT
} GtkPackDirection;
typedef enum {
    GTK_PAGE_ORIENTATION_PORTRAIT,

```

```

    GTK_PAGE_ORIENTATION_LANDSCAPE,
    GTK_PAGE_ORIENTATION_REVERSE_PORTRAIT,
    GTK_PAGE_ORIENTATION_REVERSE_LANDSCAPE
} GtkPageOrientation;
typedef enum {
    GTK_PRINT_QUALITY_LOW,
    GTK_PRINT_QUALITY_NORMAL,
    GTK_PRINT_QUALITY_HIGH,
    GTK_PRINT_QUALITY_DRAFT
} GtkPrintQuality;
typedef enum {
    GTK_PRINT_DUPLEX_SIMPLEX,
    GTK_PRINT_DUPLEX_HORIZONTAL,
    GTK_PRINT_DUPLEX_VERTICAL
} GtkPrintDuplex;
typedef enum {
    GTK_PRINT_PAGES_ALL,
    GTK_PRINT_PAGES_CURRENT,
    GTK_PRINT_PAGES_RANGES,
    GTK_PRINT_PAGES_SELECTION
} GtkPrintPages;
typedef enum {
    GTK_PAGE_SET_ALL,
    GTK_PAGE_SET_EVEN,
    GTK_PAGE_SET_ODD
} GtkPageSet;
typedef enum {
    GTK_NUMBER_UP_LAYOUT_LEFT_TO_RIGHT_TOP_TO_BOTTOM,
    GTK_NUMBER_UP_LAYOUT_LEFT_TO_RIGHT_BOTTOM_TO_TOP,
    GTK_NUMBER_UP_LAYOUT_RIGHT_TO_LEFT_TOP_TO_BOTTOM,
    GTK_NUMBER_UP_LAYOUT_RIGHT_TO_LEFT_BOTTOM_TO_TOP,
    GTK_NUMBER_UP_LAYOUT_TOP_TO_BOTTOM_LEFT_TO_RIGHT,
    GTK_NUMBER_UP_LAYOUT_TOP_TO_BOTTOM_RIGHT_TO_LEFT,
    GTK_NUMBER_UP_LAYOUT_BOTTOM_TO_TOP_LEFT_TO_RIGHT,
    GTK_NUMBER_UP_LAYOUT_BOTTOM_TO_TOP_RIGHT_TO_LEFT
} GtkNumberUpLayout;
typedef enum {
    GTK_UNIT_PIXEL,
    GTK_UNIT_POINTS,
    GTK_UNIT_INCH,
    GTK_UNIT_MM
} GtkUnit;
typedef enum {
    GTK_SENSITIVITY_AUTO,
    GTK_SENSITIVITY_ON,
    GTK_SENSITIVITY_OFF
} GtkSensitivityType;
typedef enum {
    GTK_TREE_VIEW_GRID_LINES_NONE,
    GTK_TREE_VIEW_GRID_LINES_HORIZONTAL,
    GTK_TREE_VIEW_GRID_LINES_VERTICAL,
    GTK_TREE_VIEW_GRID_LINES_BOTH
} GtkTreeViewGridLines;

```

16.28.3. gtk-2.0/gtk/gtkprintoperationpreview.h

```

#define __GTK_PRINT_OPERATION_PREVIEW_H__
#define GTK_TYPE_PRINT_OPERATION_PREVIEW (gtk_print_operation_preview_get_type ())
#define GTK_PRINT_OPERATION_PREVIEW(obj) (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_PRINT_OPERATION_PREVIEW, GtkPrintOperationPreview))
#define GTK_IS_PRINT_OPERATION_PREVIEW(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_PRINT_OPERATION_PREVIEW))
#define GTK_PRINT_OPERATION_PREVIEW_GET_IFACE(obj) (G_TYPE_INSTANCE_GET_INTERFACE ((obj), GTK_TYPE_PRINT_OPERATION_PREVIEW, GtkPrintOperationPreviewIface))

```

```

typedef struct _GtkPrintOperationPreview GtkPrintOperationPreview;
typedef struct _GtkPrintOperationPreviewIface {
    GTypeInterface g_iface;
    void (*ready) (void);
    void (*got_page_size) (void);
    void (*render_page) (void);
    gboolean(*is_selected) (void);
    void (*end_preview) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
    void (*_gtk_reserved6) (void);
    void (*_gtk_reserved7) (void);
} GtkPrintOperationPreviewIface;
extern void
gtk_print_operation_preview_end_preview(GtkPrintOperationPreview *
                                         preview);
extern GType gtk_print_operation_preview_get_type(void);
extern gboolean
gtk_print_operation_preview_is_selected(GtkPrintOperationPreview * preview,
                                         gint page_nr);
extern void
gtk_print_operation_preview_render_page(GtkPrintOperationPreview * preview,
                                         gint page_nr);

```

16.28.4. gtk-2.0/gtk/gtkrecentfilter.h

```

#define __GTK_RECENT_FILTER_H__
#define GTK_TYPE_RECENT_FILTER (gtk_recent_filter_get_type ())
#define GTK_RECENT_FILTER(obj) (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RECENT_FILTER, GtkRecentFilter))
#define GTK_IS_RECENT_FILTER(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RECENT_FILTER))

typedef struct _GtkRecentFilter GtkRecentFilter;
typedef struct _GtkRecentFilterInfo {
    GtkRecentFilterFlags contains;
    const char *uri;
    const char *display_name;
    const char *mime_type;
    const char **applications;
    const char **groups;
    gint age;
} GtkRecentFilterInfo;
typedef enum {
    GTK_RECENT_FILTER_URI,
    GTK_RECENT_FILTER_DISPLAY_NAME,
    GTK_RECENT_FILTER_MIME_TYPE,
    GTK_RECENT_FILTER_APPLICATION,
    GTK_RECENT_FILTER_GROUP,
    GTK_RECENT_FILTER_AGE
} GtkRecentFilterFlags;
typedef gboolean(*GtkRecentFilterFunc) (const GtkRecentFilterInfo *,
                                         gpointer);
extern void gtk_recent_filter_add_age(GtkRecentFilter * filter, gint days);
extern void gtk_recent_filter_add_application(GtkRecentFilter * filter,
                                              const char *application);
extern void gtk_recent_filter_add_custom(GtkRecentFilter * filter,
                                         GtkRecentFilterFlags needed,
                                         GtkRecentFilterFunc func,

```

```

        gpointer data,
        GDestroyNotify data_destroy);
extern void gtk_recent_filter_add_group(GtkRecentFilter * filter,
        const char *group);
extern void gtk_recent_filter_add_mime_type(GtkRecentFilter * filter,
        const char *mime_type);
extern void gtk_recent_filter_add_pattern(GtkRecentFilter * filter,
        const char *pattern);
extern void gtk_recent_filter_add_pixbuf_formats(GtkRecentFilter * filter);
extern gboolean gtk_recent_filter_filter(GtkRecentFilter * filter,
        const GtkRecentFilterInfo *
        filter_info);
extern const char *gtk_recent_filter_get_name(GtkRecentFilter * filter);
extern GtkRecentFilterFlags gtk_recent_filter_get_needed(GtkRecentFilter *
        filter);
extern GType gtk_recent_filter_get_type(void);
extern GtkRecentFilter *gtk_recent_filter_new(void);
extern void gtk_recent_filter_set_name(GtkRecentFilter * filter,
        const char *name);

```

16.28.5. gtk-2.0/gtk/gtkrecentmanager.h

```

#define __GTK_RECENT_MANAGER_H__
#define GTK_TYPE_RECENT_INFO      (gtk_recent_info_get_type ())
#define GTK_RECENT_MANAGER_ERROR      (gtk_recent_manager_error_quark ())
#define GTK_TYPE_RECENT_MANAGER      (gtk_recent_manager_get_type ())
#define GTK_RECENT_MANAGER_CLASS(klass) (G_TYPE_CHECK_CLASS_CAST ((klass), GTK_TYPE_RECENT_MANAGER, GtkRecentManagerClass))
#define GTK_IS_RECENT_MANAGER_CLASS(klass) (G_TYPE_CHECK_CLASS_TYPE ((klass), GTK_TYPE_RECENT_MANAGER))
#define GTK_RECENT_MANAGER(obj) (G_TYPE_CHECK_INSTANCE_CAST ((obj), GTK_TYPE_RECENT_MANAGER, GtkRecentManager))
#define GTK_IS_RECENT_MANAGER(obj) (G_TYPE_CHECK_INSTANCE_TYPE ((obj), GTK_TYPE_RECENT_MANAGER))
#define GTK_RECENT_MANAGER_GET_CLASS(obj) (G_TYPE_INSTANCE_GET_CLASS ((obj), GTK_TYPE_RECENT_MANAGER, GtkRecentManagerClass))

typedef struct _GtkRecentInfo GtkRecentInfo;
typedef struct _GtkRecentData {
    gchar *display_name;
    gchar *description;
    gchar *mime_type;
    gchar *app_name;
    gchar *app_exec;
    gchar **groups;
    gboolean is_private;
} GtkRecentData;
typedef struct _GtkRecentManager {
    GObject parent_instance;
    GtkRecentManagerPrivate *priv;
} GtkRecentManager;
typedef struct _GtkRecentManagerClass {
    GObjectClass parent_class;
    void (*changed) (void);
    void (*_gtk_recent1) (void);
    void (*_gtk_recent2) (void);
    void (*_gtk_recent3) (void);
    void (*_gtk_recent4) (void);
} GtkRecentManagerClass;
typedef struct _GtkRecentManagerPrivate GtkRecentManagerPrivate;
typedef enum {
    GTK_RECENT_MANAGER_ERROR_NOT_FOUND,
    GTK_RECENT_MANAGER_ERROR_INVALID_URI,
    GTK_RECENT_MANAGER_ERROR_INVALID_ENCODING,
    GTK_RECENT_MANAGER_ERROR_NOT_REGISTERED,
    GTK_RECENT_MANAGER_ERROR_READ,

```

```

    GTK_RECENT_MANAGER_ERROR_WRITE,
    GTK_RECENT_MANAGER_ERROR_UNKNOWN
} GtkRecentManagerError;
extern gboolean gtk_recent_info_exists(GtkRecentInfo * info);
extern time_t gtk_recent_info_get_added(GtkRecentInfo * info);
extern gint gtk_recent_info_get_age(GtkRecentInfo * info);
extern gboolean gtk_recent_info_get_application_info(GtkRecentInfo * info,
                                                    const char *app_name,
                                                    const char **app_exec,
                                                    guint * count,
                                                    time_t * time_);
extern gchar **gtk_recent_info_get_applications(GtkRecentInfo * info,
                                                gsize * length);
extern const char *gtk_recent_info_get_description(GtkRecentInfo * info);
extern const char *gtk_recent_info_get_display_name(GtkRecentInfo * info);
extern gchar **gtk_recent_info_get_groups(GtkRecentInfo * info,
                                           gsize * length);
extern GdkPixbuf *gtk_recent_info_get_icon(GtkRecentInfo * info,
                                           gint size);
extern const char *gtk_recent_info_get_mime_type(GtkRecentInfo * info);
extern time_t gtk_recent_info_get_modified(GtkRecentInfo * info);
extern gboolean gtk_recent_info_get_private_hint(GtkRecentInfo * info);
extern gchar *gtk_recent_info_get_short_name(GtkRecentInfo * info);
extern GType gtk_recent_info_get_type(void);
extern const char *gtk_recent_info_get_uri(GtkRecentInfo * info);
extern gchar *gtk_recent_info_get_uri_display(GtkRecentInfo * info);
extern time_t gtk_recent_info_get_visited(GtkRecentInfo * info);
extern gboolean gtk_recent_info_has_application(GtkRecentInfo * info,
                                                const char *app_name);
extern gboolean gtk_recent_info_has_group(GtkRecentInfo * info,
                                           const char *group_name);
extern gboolean gtk_recent_info_is_local(GtkRecentInfo * info);
extern gchar *gtk_recent_info_last_application(GtkRecentInfo * info);
extern gboolean gtk_recent_info_match(GtkRecentInfo * info_a,
                                      GtkRecentInfo * info_b);
extern GtkRecentInfo *gtk_recent_info_ref(GtkRecentInfo * info);
extern void gtk_recent_info_unref(GtkRecentInfo * info);
extern gboolean gtk_recent_manager_add_full(GtkRecentManager * manager,
                                           const char *uri,
                                           const GtkRecentData *
                                           recent_data);
extern gboolean gtk_recent_manager_add_item(GtkRecentManager * manager,
                                           const char *uri);
extern GQuark gtk_recent_manager_error_quark(void);
extern GtkRecentManager *gtk_recent_manager_get_default(void);
extern GList *gtk_recent_manager_get_items(GtkRecentManager * manager);
extern gint gtk_recent_manager_get_limit(GtkRecentManager * manager);
extern GType gtk_recent_manager_get_type(void);
extern gboolean gtk_recent_manager_has_item(GtkRecentManager * manager,
                                           const char *uri);
extern GtkRecentInfo *gtk_recent_manager_lookup_item(GtkRecentManager *
                                                    manager,
                                                    const char *uri,
                                                    GError * *error);
extern gboolean gtk_recent_manager_move_item(GtkRecentManager * manager,
                                           const char *uri,
                                           const char *new_uri,
                                           GError * *error);
extern GtkRecentManager *gtk_recent_manager_new(void);
extern gint gtk_recent_manager_purge_items(GtkRecentManager * manager,
                                           GError * *error);
extern gboolean gtk_recent_manager_remove_item(GtkRecentManager * manager,

```

```

                                const char *uri,
                                GError * *error);
extern void gtk_recent_manager_set_limit(GtkRecentManager * manager,
                                        gint limit);

```

16.28.6. gtk-2.0/gtk/gtkstatusicon.h

```

#define __GTK_STATUS_ICON_H__
#define GTK_TYPE_STATUS_ICON      (gtk_status_icon_get_type ())
#define GTK_STATUS_ICON_CLASS(k) (G_TYPE_CHECK_CLASS_CAST ((k), GTK_TYPE_STATUS_ICON, GtkStatusIconClass))
#define GTK_IS_STATUS_ICON_CLASS(k) (G_TYPE_CHECK_CLASS_TYPE ((k), GTK_TYPE_STATUS_ICON))
#define GTK_STATUS_ICON(o)       (G_TYPE_CHECK_INSTANCE_CAST ((o), GTK_TYPE_STATUS_ICON, GtkStatusIcon))
#define GTK_IS_STATUS_ICON(o)    (G_TYPE_CHECK_INSTANCE_TYPE ((o), GTK_TYPE_STATUS_ICON))
#define GTK_STATUS_ICON_GET_CLASS(o) (G_TYPE_INSTANCE_GET_CLASS ((o), GTK_TYPE_STATUS_ICON, GtkStatusIconClass))

typedef struct _GtkStatusIcon {
    GObject parent_instance;
    GtkStatusIconPrivate *priv;
} GtkStatusIcon;

typedef struct _GtkStatusIconClass {
    GObjectClass parent_class;
    void (*activate) (void);
    void (*popup_menu) (void);
    gboolean(*size_changed) (void);
    void *__gtk_reserved1;
    void *__gtk_reserved2;
    void *__gtk_reserved3;
    void *__gtk_reserved4;
    void *__gtk_reserved5;
    void *__gtk_reserved6;
} GtkStatusIconClass;

typedef struct _GtkStatusIconPrivate GtkStatusIconPrivate;

extern gboolean gtk_status_icon_get_blinking(GtkStatusIcon * status_icon);
extern gboolean gtk_status_icon_get_geometry(GtkStatusIcon * status_icon,
                                             GdkScreen * *screen,
                                             GdkRectangle * area,
                                             GtkOrientation * orientation);
extern const char *gtk_status_icon_get_icon_name(GtkStatusIcon *
                                                  status_icon);
extern GdkPixbuf *gtk_status_icon_get_pixbuf(GtkStatusIcon * status_icon);
extern gint gtk_status_icon_get_size(GtkStatusIcon * status_icon);
extern const char *gtk_status_icon_get_stock(GtkStatusIcon * status_icon);
extern GtkImageType gtk_status_icon_get_storage_type(GtkStatusIcon *
                                                      status_icon);

extern GType gtk_status_icon_get_type(void);
extern gboolean gtk_status_icon_get_visible(GtkStatusIcon * status_icon);
extern gboolean gtk_status_icon_is_embedded(GtkStatusIcon * status_icon);
extern GtkStatusIcon *gtk_status_icon_new(void);
extern GtkStatusIcon *gtk_status_icon_new_from_file(const char *filename);
extern GtkStatusIcon *gtk_status_icon_new_from_icon_name(const char
                                                         *icon_name);
extern GtkStatusIcon *gtk_status_icon_new_from_pixbuf(GdkPixbuf * pixbuf);
extern GtkStatusIcon *gtk_status_icon_new_from_stock(const char *stock_id);
extern void gtk_status_icon_position_menu(GtkMenu * menu, gint * x,
                                           gint * y, gboolean * push_in,
                                           gpointer user_data);
extern void gtk_status_icon_set_blinking(GtkStatusIcon * status_icon,
                                          gboolean blinking);
extern void gtk_status_icon_set_from_file(GtkStatusIcon * status_icon,
                                           const char *filename);
extern void gtk_status_icon_set_from_icon_name(GtkStatusIcon * status_icon,

```



```

                                const char *icon_name);
extern void gtk_status_icon_set_from_pixbuf(GtkStatusIcon * status_icon,
                                GdkPixbuf * pixbuf);
extern void gtk_status_icon_set_from_stock(GtkStatusIcon * status_icon,
                                const char *stock_id);
extern void gtk_status_icon_set_tooltip(GtkStatusIcon * status_icon,
                                const gchar * tooltip_text);
extern void gtk_status_icon_set_visible(GtkStatusIcon * status_icon,
                                gboolean visible);

```

16.28.7. gtk-2.0/gtk/gtktextbufferrichtext.h

```

#define __GTK_TEXT_BUFFER_RICH_TEXT_H__

typedef guint8 *(*GtkTextBufferSerializeFunc) (GtkTextBuffer *,
                                                GtkTextBuffer *,
                                                const struct _GtkTextIter *,
                                                const struct _GtkTextIter *,
                                                gsize *, gpointer);
typedef gboolean(*GtkTextBufferDeserializeFunc) (GtkTextBuffer *,
                                                GtkTextBuffer *,
                                                GtkTextIter *,
                                                const unsigned char *,
                                                gsize, gboolean, gpointer,
                                                GError * *);
extern gboolean gtk_text_buffer_deserialize(GtkTextBuffer *
                                                register_buffer,
                                                GtkTextBuffer * content_buffer,
                                                struct _GdkAtom *format,
                                                GtkTextIter * iter,
                                                const unsigned char *data,
                                                gsize length, GError * *error);

extern gboolean
gtk_text_buffer_deserialize_get_can_create_tags(GtkTextBuffer * buffer,
                                                GdkAtom format);
extern void gtk_text_buffer_deserialize_set_can_create_tags(GtkTextBuffer *
                                                            buffer,
                                                            GdkAtom format,
                                                            gboolean
                                                            can_create_tags);

extern struct _GdkAtom
**gtk_text_buffer_get_deserialize_formats(GtkTextBuffer * buffer,
                                           gint * n_formats);
extern struct _GdkAtom
**gtk_text_buffer_get_serialize_formats(GtkTextBuffer * buffer,
                                         gint * n_formats);
extern GdkAtom gtk_text_buffer_register_deserialize_format(GtkTextBuffer *
                                                            buffer,
                                                            const char
                                                            *mime_type,
                                                            GtkTextBufferDeserializeFunc
                                                            function,
                                                            gpointer
                                                            user_data,
                                                            GDestroyNotify
                                                            user_data_destroy);
extern GdkAtom gtk_text_buffer_register_deserialize_tagset(GtkTextBuffer *
                                                            buffer,
                                                            const char
                                                            *tagset_name);
extern GdkAtom gtk_text_buffer_register_serialize_format(GtkTextBuffer *

```

```

buffer,
const char
*mime_type,
GtkTextBufferSerializeFunc
function,
gpointer
user_data,
GDestroyNotify
user_data_destroy);
extern GdkAtom gtk_text_buffer_register_serialize_tagset(GtkTextBuffer *
buffer,
const char
*tagset_name);
extern guint8 *gtk_text_buffer_serialize(GtkTextBuffer * register_buffer,
GtkTextBuffer * content_buffer,
struct _GdkAtom *format,
const struct _GtkTextIter *start,
const struct _GtkTextIter *end,
gsize * length);
extern void gtk_text_buffer_unregister_deserialize_format(GtkTextBuffer *
buffer,
GdkAtom format);
extern void gtk_text_buffer_unregister_serialize_format(GtkTextBuffer *
buffer,
GdkAtom format);

```

16.28.8. gtk-unix-print-2.0/gtk/gtkpagesetupunixdialog.h

```

typedef struct _GtkPageSetupUnixDialog {
    GtkDialog parent_instance;
    GtkPageSetupUnixDialogPrivate *priv;
} GtkPageSetupUnixDialog;
typedef struct _GtkPageSetupUnixDialogClass {
    GtkDialogClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
    void (*_gtk_reserved6) (void);
    void (*_gtk_reserved7) (void);
} GtkPageSetupUnixDialogClass;
typedef struct GtkPageSetupUnixDialogPrivate GtkPageSetupUnixDialogPrivate;
extern GtkPageSetup
    *gtk_page_setup_unix_dialog_get_page_setup(GtkPageSetupUnixDialog *
        dialog);
extern GtkPrintSettings
    *gtk_page_setup_unix_dialog_get_print_settings(GtkPageSetupUnixDialog *
        dialog);
extern GType gtk_page_setup_unix_dialog_get_type(void);
extern GtkWidget *gtk_page_setup_unix_dialog_new(const char *title,
        GtkWindow * parent);
extern void
    gtk_page_setup_unix_dialog_set_page_setup(GtkPageSetupUnixDialog * dialog,
        GtkPageSetup * page_setup);
extern void
    gtk_page_setup_unix_dialog_set_print_settings(GtkPageSetupUnixDialog *
        dialog,
        GtkPrintSettings *
        print_settings);

```

16.28.9. gtk-unix-print-2.0/gtk/gtkprinter.h

```

typedef enum {
    GTK_PRINT_CAPABILITY_PAGE_SET,
    GTK_PRINT_CAPABILITY_COPIES,
    GTK_PRINT_CAPABILITY_COLLATE,
    GTK_PRINT_CAPABILITY_REVERSE,
    GTK_PRINT_CAPABILITY_SCALE,
    GTK_PRINT_CAPABILITY_GENERATE_PDF,
    GTK_PRINT_CAPABILITY_GENERATE_PS,
    GTK_PRINT_CAPABILITY_PREVIEW,
    GTK_PRINT_CAPABILITY_NUMBER_UP,
    GTK_PRINT_CAPABILITY_NUMBER_UP_LAYOUT
} GtkPrintCapabilities;
typedef struct _GtkPrinter {
    GObject parent_instance;
    GtkPrinterPrivate *priv;
} GtkPrinter;
typedef struct _GtkPrinterClass {
    GObjectClass parent_class;
    void (*details_acquired) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
    void (*_gtk_reserved6) (void);
    void (*_gtk_reserved7) (void);
} GtkPrinterClass;
typedef struct _GtkPrinterPrivate GtkPrinterPrivate;
typedef struct _GtkPrintBackend GtkPrintBackend;
typedef gboolean(*GtkPrinterFunc) (GtkPrinter *, gpointer);
extern void gtk_enumerate_printers(GtkPrinterFunc func, gpointer data,
                                   GDestroyNotify destroy, gboolean wait);

extern GType gtk_print_capabilities_get_type(void);
extern gboolean gtk_printer_accepts_pdf(GtkPrinter * printer);
extern gboolean gtk_printer_accepts_ps(GtkPrinter * printer);
extern gint gtk_printer_compare(GtkPrinter * a, GtkPrinter * b);
extern GtkPrintBackend *gtk_printer_get_backend(GtkPrinter * printer);
extern const char *gtk_printer_get_description(GtkPrinter * printer);
extern const char *gtk_printer_get_icon_name(GtkPrinter * printer);
extern gint gtk_printer_get_job_count(GtkPrinter * printer);
extern const char *gtk_printer_get_location(GtkPrinter * printer);
extern const char *gtk_printer_get_name(GtkPrinter * printer);
extern const char *gtk_printer_get_state_message(GtkPrinter * printer);
extern GType gtk_printer_get_type(void);
extern gboolean gtk_printer_is_active(GtkPrinter * printer);
extern gboolean gtk_printer_is_default(GtkPrinter * printer);
extern gboolean gtk_printer_is_virtual(GtkPrinter * printer);
extern GtkPrinter *gtk_printer_new(const char *name,
                                   GtkPrintBackend * backend,
                                   gboolean virtual_);

```

16.28.10. gtk-unix-print-2.0/gtk/gtkprintjob.h

```

typedef struct _GtkPrintJob {
    GObject parent_instance;
    GtkPrintJobPrivate *priv;
}

```

```

    GtkPrintPages print_pages;
    GtkPageRange *page_ranges;
    gint num_page_ranges;
    GtkPageSet page_set;
    gint num_copies;
    gdouble scale;
    unsigned int rotate_to_orientation:1;
    unsigned int collate:1;
    unsigned int reverse:1;
    guint number_up;
    GtkNumberUpLayout number_up_layout;
} GtkPrintJob;
typedef struct _GtkPrintJobClass {
    GObjectClass parent_class;
    void (*status_changed) (void);
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
    void (*_gtk_reserved6) (void);
    void (*_gtk_reserved7) (void);
} GtkPrintJobClass;
typedef struct _GtkPrintJobPrivate GtkPrintJobPrivate;
typedef void (*GtkPrintJobCompleteFunc) (GtkPrintJob *, gpointer,
                                           GError *);

extern GtkPrinter *gtk_print_job_get_printer(GtkPrintJob * job);
extern GtkPrintSettings *gtk_print_job_get_settings(GtkPrintJob * job);
extern GtkPrintStatus gtk_print_job_get_status(GtkPrintJob * job);
extern cairo_surface_t *gtk_print_job_get_surface(GtkPrintJob * job,
                                                  GError * *error);

extern const char *gtk_print_job_get_title(GtkPrintJob * job);
extern gboolean gtk_print_job_get_track_print_status(GtkPrintJob * job);
extern GType gtk_print_job_get_type(void);
extern GtkPrintJob *gtk_print_job_new(const char *title,
                                       GtkPrinter * printer,
                                       GtkPrintSettings * settings,
                                       GtkPageSetup * page_setup);

extern void gtk_print_job_send(GtkPrintJob * job,
                               GtkPrintJobCompleteFunc callback,
                               gpointer user_data, GDestroyNotify dnotify);
extern gboolean gtk_print_job_set_source_file(GtkPrintJob * job,
                                              const char *filename,
                                              GError * *error);
extern void gtk_print_job_set_track_print_status(GtkPrintJob * job,
                                                  gboolean track_status);

```

16.28.11. gtk-unix-print-2.0/gtk/gtkprintunixdialog.h

```

typedef struct _GtkPrintUnixDialog {
    GtkDialog parent_instance;
    GtkPrintUnixDialogPrivate *priv;
} GtkPrintUnixDialog;
typedef struct _GtkPrintUnixDialogClass {
    GtkDialogClass parent_class;
    void (*_gtk_reserved1) (void);
    void (*_gtk_reserved2) (void);
    void (*_gtk_reserved3) (void);
    void (*_gtk_reserved4) (void);
    void (*_gtk_reserved5) (void);
    void (*_gtk_reserved6) (void);
}

```

```

    void (*_gtk_reserved7) (void);
} GtkPrintUnixDialogClass;
typedef struct GtkPrintUnixDialogPrivate GtkPrintUnixDialogPrivate;
extern void gtk_print_unix_dialog_add_custom_tab(GtkPrintUnixDialog *
                                                dialog, GtkWidget * child,
                                                GtkWidget * tab_label);
extern gint gtk_print_unix_dialog_get_current_page(GtkPrintUnixDialog *
                                                  dialog);
extern GtkWidget *
    gtk_print_unix_dialog_get_page_setup(GtkPrintUnixDialog * dialog);
extern GtkWidget *
    gtk_print_unix_dialog_get_selected_printer(GtkPrintUnixDialog *
                                              dialog);
extern GtkWidget *
    gtk_print_unix_dialog_get_settings(GtkPrintUnixDialog * dialog);
extern GType
    gtk_print_unix_dialog_get_type(void);
extern GtkWidget *
    gtk_print_unix_dialog_new(const char *title,
                              GtkWidget * parent);
extern void
    gtk_print_unix_dialog_set_current_page(GtkPrintUnixDialog *
                                           dialog,
                                           gint current_page);
extern void
    gtk_print_unix_dialog_set_manual_capabilities(GtkPrintUnixDialog * dialog,
                                                  GtkPrintCapabilities
                                                  capabilities);
extern void
    gtk_print_unix_dialog_set_page_setup(GtkPrintUnixDialog *
                                         dialog,
                                         GtkWidget *
                                         page_setup);
extern void
    gtk_print_unix_dialog_set_settings(GtkPrintUnixDialog * dialog,
                                       GtkWidget *
                                       settings);

```

16.28.12. gtk-unix-print-2.0/gtk/gtkunixprint.h

```

#define __GTK_UNIX_PRINT_H_INSIDE__
#define __GTK_UNIX_PRINT_H__

```

16.29. Interface Definitions for libgtk-x11-2.0

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[gtk_button_set_image](#) -- set button image widget

[gtk_toolbar_get_tooltips](#) -- retrieve whether tooltips are enabled

[gtk_toolbar_set_tooltips](#) -- set whether a toolbar's tooltips are active

The interfaces defined on the following pages are included in libgtk-x11-2.0 and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 16.27](#) shall behave as described in the referenced base document.

gtk_button_get_image

Name

gtk_button_get_image -- get button image widget

Synopsis

```
#include <gtk/gtk.h>
GtkWidget *gtk_button_get_image(GtkButton *button);
```

Description

The `gtk_button_get_image()` gets the widget that is currently set as the image of *button*. This may have been explicitly set by `gtk_button_set_image()` or constructed by `gtk_button_new_from_stock()`.

Return Value

The `gtk_button_get_image()` function returns a `GtkWidget` pointer referring to the image. If there is no associated image, `NULL` is returned.

Errors

No errors are defined.

gtk_button_set_image

Name

gtk_button_set_image -- set button image widget

Synopsis

```
#include <gtk/gtk.h>
void gtk_button_set_image(GtkButton *button, GtkWidget *widget);
```

Description

The `gtk_button_set_image()` function sets the image of *button* to the widget given by *widget*. Whether the image is displayed or not depends on the setting of the `gtk-button-images` property. It is not necessary to call `gtk_widget_show()` on the image.

Errors

No errors are defined.

gtk_toolbar_get_tooltips

Name

gtk_toolbar_get_tooltips -- retrieve whether tooltips are enabled

Synopsis

```
#include <gtk/gtk.h>
gboolean gtk_toolbar_get_tooltips(GtkToolbar * toolbar);
```

Description

gtk_toolbar_get_tooltips() shall retrieve whether the tooltips of *toolbar* are enabled.

This interface has been deprecated since version 2.14 of the GTK+ specification.

Return Value

gtk_toolbar_get_tooltips() shall return TRUE if the tooltips of *toolbar* are enabled, and FALSE if they are not.

See Also

gtk_toolbar_set_tooltips()

gtk_toolbar_set_tooltips

Name

gtk_toolbar_set_tooltips -- set whether a toolbar's tooltips are active

Synopsis

```
#include <gtk/gtk.h>

void gtk_toolbar_set_tooltips(GtkToolbar * toolbar, gboolean enable);
```

Description

gtk_toolbar_set_tooltips() shall set whether the tooltips of *toolbar* are active. If the value of the parameter *enable* is TRUE, then the tooltips shall be made active; otherwise, they shall be made inactive.

This call may have no effect. The interface has been deprecated since version 2.14 of the GTK+ specification.

See Also

gtk_toolbar_get_tooltips()

XII. Qt Libraries

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[_ZN24QGraphicsSceneWheelEvent8setDeltaEi](#) -- set the distance that the wheel is rotated

[_ZN24QGraphicsSceneWheelEventC1EN6QEvent4TypeE](#)

[_ZN24QGraphicsSceneWheelEventC2EN6QEvent4TypeE](#) -- QGraphicsSceneWheelEvent constructor

[_ZN27QGraphicsSceneDragDropEvent10setButtonsE6QFlagsIN2Qt11MouseButtonEE](#) -- set the mouse buttons that were pressed when the event was created

[_ZN27QGraphicsSceneDragDropEvent11setMimeDataEPK9QMimeData](#) -- set the MIME data for the event

[_ZN27QGraphicsSceneDragDropEvent11setScenePosERK7QPointF](#) -- set the event mouse position relative to the scene

[_ZN27QGraphicsSceneDragDropEvent12setModifiersE6QFlagsIN2Qt16KeyboardModifierEE](#) -- set the keyboard modifiers that were active when the event was created

[_ZN27QGraphicsSceneDragDropEvent12setScreenPosERK6QPoint](#) -- set the event mouse position relative to the screen

[_ZN27QGraphicsSceneDragDropEvent17setProposedActionEN2Qt10DropActionE](#) -- set the proposed action for the event

[_ZN27QGraphicsSceneDragDropEvent18setPossibleActionsE6QFlagsIN2Qt10DropActionEE](#) -- set the possible drop actions that the drag can result in

[_ZN27QGraphicsSceneDragDropEvent6setPosERK7QPointF](#) -- set the event mouse position relative to the widget that generated the event

[_ZN27QGraphicsSceneDragDropEvent9setSourceEP7QWidget](#) -- set the source widget for the event

[_ZN27QGraphicsSceneDragDropEventC1EN6QEvent4TypeE](#)

[_ZN27QGraphicsSceneDragDropEventC2EN6QEvent4TypeE](#) -- QGraphicsSceneDragDropEvent constructor

[_ZN2Qt12codecForHtmlERK10QByteArray](#) -- detect encoding of the provided snippet of html

[_ZN30QGraphicsSceneContextMenuEvent11setScenePosERK7QPointF](#) -- set the event mouse position relative to the scene

[_ZN30QGraphicsSceneContextMenuEvent12setModifiersE6QFlagsIN2Qt16KeyboardModifierEE](#) -- set the keyboard modifiers that were active when the event was created

[_ZN30QGraphicsSceneContextMenuEvent12setScreenPosERK6QPoint](#) -- set the event mouse position relative to the scene

[_ZN30QGraphicsSceneContextMenuEvent6setPosERK7QPointF](#) -- set the event mouse position relative to the widget that generated the event

[_ZN30QGraphicsSceneContextMenuEvent9setReasonENS_6ReasonE](#) -- set the reason for the context menu event

[_ZN30QGraphicsSceneContextMenuEventC1EN6QEvent4TypeE](#)

[_ZN30QGraphicsSceneContextMenuEventC2EN6QEvent4TypeE](#) -- QGraphicsSceneContextMenuEvent constructor

[_ZN5QFont7cleanupEv](#) -- cleanup the font system

[_ZN6QColor10invalidateEv](#) -- mark the color as invalid

[_ZN7QLayout11widgetEventEP6QEvent](#) -- perform child widget layout when the parent widget is resized

[_ZN7QPixmap19x11SetDefaultScreenEi](#) -- sets the default screen of the QPixmap object

[_ZN7QWidget11createWinIdEv](#) -- ensure that the widget is known to the windowing system

[_ZN7QWidget19overrideWindowStateE6QFlagsIN2Qt11WindowStateEE](#) -- set the window state on child widgets

[_ZN8QMenuBar15setCornerWidgetEP7QWidgetN2Qt6CornerE](#) -- set the position of the widget

[_ZN9QListView13doItemsLayoutEv](#) -- layout items

ZN9QListView14resizeContentsEii -- resize the internal contents of the view

ZNK11QProxyModel13setProxyModelERK11QModelIndex -- change the model pointer to point to the proxy model

ZNK11QProxyModel14connectToModelEPK18QAbstractItemModel -- connect to all the signals emitted by the model

ZNK11QProxyModel14setSourceModelERK11QModelIndex -- INSERT PURPOSE HERE

ZNK11QProxyModel19disconnectFromModelEPK18QAbstractItemModel -- disconnect from all signals emitted by the model

ZNK12QPaintEngine10systemClipEv -- get the system clip

ZNK12QPaintEngine10systemRectEv -- retrieve the rect for drawing within the backing store

ZNK12QPaintEngine16coordinateOffsetEv -- get the offset from the painters origo to the engines origo

ZNK13QGraphicsItem17supportsExtensionENS_9ExtensionE -- check if the item supports the extension

ZNK13QGraphicsItem9extensionERK8QVariant -- auxiliary virtual function

ZNK13QInputContext11focusWidgetEv -- get the widget that has an input focus for this input context

ZNK13QItemDelegate10decorationERK20QStyleOptionViewItemRK8QVariant -- get the pixmap used to decorate the root of the item view

ZNK13QItemDelegate8selectedERK7QPixmapRK8QPaletteb -- get the selected version of the given pixmap using the given palette

ZNK13QTextDocument7frameAtEi -- get the frame that contains the given cursor position

ZNK14QTextTableCell12lastPositionEv -- get the last position in the cell's document

ZNK14QTextTableCell13firstPositionEv -- get the first position in the cell's document

ZNK17QGraphicsLineItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension

ZNK17QGraphicsLineItem9extensionERK8QVariant -- get the item's extension

ZNK17QGraphicsPathItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension

ZNK17QGraphicsPathItem9extensionERK8QVariant -- get the item's extension

ZNK17QGraphicsRectItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension

ZNK17QGraphicsRectItem9extensionERK8QVariant -- get the item's extension

ZNK17QGraphicsTextItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension

ZNK17QGraphicsTextItem9extensionERK8QVariant -- get the item's extension

ZNK19QGraphicsPixmapItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension

ZNK19QGraphicsPixmapItem9extensionERK8QVariant -- get the item's extension

ZNK20QGraphicsEllipseItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension

ZNK20QGraphicsEllipseItem9extensionERK8QVariant -- get the item's extension

ZNK20QGraphicsPolygonItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension

ZNK20QGraphicsPolygonItem9extensionERK8QVariant -- get the item's extension

ZNK23QGraphicsSimpleTextItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension

ZNK23QGraphicsSimpleTextItem9extensionERK8QVariant -- get the item's extension

ZNK6QImage7devTypeEv -- get identifier designating that the object is a QImage

ZNK7QLayout13totalSizeHintEv -- get the preferred size for the layout

- ZNK7QLayout16totalMaximumSizeEv -- get the maximum size of the layout
- ZNK7QLayout16totalMinimumSizeEv -- get the minimum size of the layout
- ZNK7QLayout19totalHeightForWidthEi -- get the preferred height for the layout
- ZNK7QPixmap7devTypeEv -- get identifier designating that the object is a QPixmap
- ZNK7QWidget7devTypeEv -- get identifier designating that the object is a QWidget
- ZNK8QMenuBar12cornerWidgetEN2Qt6CornerE -- get the widget in the left of the first or the right of the last menu
- ZNK8QMenuBar14actionGeometryEP7QAction -- get geometry of an action
- ZNK8QMenuBar8actionAtERK6QPoint -- get the item at the given point
- ZNK8QPainter3mapEiiPiS0 -- apply the painter's transformation on the given point
- ZNK8QPicture7devTypeEv -- get identifier designating that the object is a QPicture
- ZNK8QPrinter7devTypeEv -- get identifier designating that the object is a QPrinter
- ZNK8QToolBar14actionGeometryEP7QAction -- get geometry of the toolbar item associated with the given action
- ZNK9QFontInfo8overlineEv -- get the overline value of the matched window system font
- ZNK9QFontInfo9strikeOutEv -- get the underline value of the matched window system font
- ZNK9QFontInfo9underlineEv -- get the underline value of the matched window system font
- 17.8. Interfaces for libQtXml
 - 17.8.1. Qt4 XML
- 17.9. Data Definitions for libQtXml
 - 17.9.1. QtXml/qdom.h
 - 17.9.2. QtXml/qxml.h
- 17.10. Interfaces for libQtOpenGL
 - 17.10.1. Qt4 OpenGL
- 17.11. Data Definitions for libQtOpenGL
 - 17.11.1. QtOpenGL/qgl.h
 - 17.11.2. QtOpenGL/qglcolormap.h
 - 17.11.3. QtOpenGL/qglpixelbuffer.h
- 17.12. Interface Definitions for libQtOpenGL
 - ZN10QGLContext8setValidEb -- set validity of the GL rendering context
- 17.13. Interfaces for libQtSql
 - 17.13.1. Qt4 SQL
- 17.14. Data Definitions for libQtSql
 - 17.14.1. QtSql/qsqldb.h
 - 17.14.2. QtSql/qsqldbdatabase.h
 - 17.14.3. QtSql/qsqldbdriver.h
 - 17.14.4. QtSql/qsqldbdriverplugin.h
 - 17.14.5. QtSql/qsqldberror.h
 - 17.14.6. QtSql/qsqldbfield.h
 - 17.14.7. QtSql/qsqldbindex.h
 - 17.14.8. QtSql/qsqldbquery.h
 - 17.14.9. QtSql/qsqldbquerymodel.h
 - 17.14.10. QtSql/qsqldbrecord.h
 - 17.14.11. QtSql/qsqldbrelationaltablemodel.h
 - 17.14.12. QtSql/qsqldbresult.h
 - 17.14.13. QtSql/qsqldbtablemodel.h
- 17.15. Interface Definitions for libQtSql
 - ZN10QSqlResult9execBatchEb -- executes a prepared query in batch mode
 - ZNK9QSqlField6typeIDEv -- get the type identifier for the field
- 17.16. Interfaces for libQtSvg
 - 17.16.1. Qt4 Svg

- 17.17. Data Definitions for libQtSvg
 - 17.17.1. QtSvg/qsvgrenderer.h
 - 17.17.2. QtSvg/qsvgwidget.h
 - 17.18. Interfaces for libQtNetwork
 - 17.18.1. Qt4 Network
 - 17.19. Data Definitions for libQtNetwork
 - 17.19.1. QtNetwork/qabstractsocket.h
 - 17.19.2. QtNetwork/qftp.h
 - 17.19.3. QtNetwork/qhostaddress.h
 - 17.19.4. QtNetwork/qhostinfo.h
 - 17.19.5. QtNetwork/qhttp.h
 - 17.19.6. QtNetwork/qnetworkproxy.h
 - 17.19.7. QtNetwork/qtcpserver.h
 - 17.19.8. QtNetwork/qtcpsocket.h
 - 17.19.9. QtNetwork/qudpsocket.h
 - 17.19.10. QtNetwork/qurlinfo.h
 - 17.20. Interface Definitions for libQtNetwork
 - _ZN11QHttpHeader5parseERK7QString -- parse the HTTP header string
 - _ZN11QHttpHeader9parseLineERK7QStringi -- parse the HTTP header line
-

Chapter 17. Libraries

17.1. Introduction

An conforming implementation shall support the following Qt libraries which provide interfaces for creating rich user applications, either graphical or console.

QtCore	A general-purpose application development library, not specific to graphical user interfaces. QtCore provides a main loop, threading classes, tool classes, template container classes, IO classes, and so on.
QtGui	The GUI part of Qt, provides a paint engine, text rendering engine, widgets, printing, PDF generation, accessibility classes, and so on.
QtXml	The XML support for Qt, provides fast XML parsing and DOM classes to traverse the XML tree.
QtOpenGL	The OpenGL integration for Qt, provides OpenGL rendering and embedding.
QtSql	The database part of Qt, provides access to databases and models that connect databases into the model/view framework of QtGui.
QtSvg	Renders Svg files into any context, for displaying on the screen, printing or embedding in PDF.
QtNetwork	Provides network server and client classes, TCP/IP, UDP, Http, Ftp, Url parsing support, and so on.

There are three main parts to the definition of each of these libraries.

The "Interfaces" section defines the required library name and version, and the required public symbols (interfaces and global data), as well as symbol versions, if any.

The "Interface Definitions" section provides complete or partial definitions of certain interfaces where either this specification is the source specification, or where there are variations from the source specification. If an interface definition requires one or more header files, one of those headers shall include the function prototype for the interface.

For source definitions of interfaces which include a reference to a header file, the contents of such header files form a part of the specification. The "Data Definitions" section provides the binary-level details for the header files from the source specifications, such as values for macros and enumerated types, as well as structure layouts, sizes and padding, etc. These data definitions, although presented in the form of header files for convenience, should not be taken a representing complete header files, as they are a supplement to the source specifications. Application developers should follow the guidelines of the source specifications when determining which header files need to be included to completely resolve all references.

Note: While the Data Definitions supplement the source specifications, this specification itself does not require conforming implementations to supply any header files.

17.2. Interfaces for libQtCore

Table 17-1 defines the library name and shared object name for the libQtCore library

Table 17-1. libQtCore Definition

Library:	libQtCore
SONAME:	libQtCore.so.4

The behavior of the interfaces in this library is specified by the following specifications:

[CXXABI-1.86] [Itanium™ C++ ABI](#)

[LSB] [This Specification](#)

[QtCore] [QtCore 4.2.0](#)

[QtXml] [QtXml 4.2.0](#)

17.2.1. Qt4 Core Functions

17.2.1.1. Class data for QDynamicPropertyChangeEvent

The virtual table for the QDynamicPropertyChangeEvent class is described by [Table 17-2](#)

Table 17-2. Primary vtable for QDynamicPropertyChangeEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDynamicPropertyChangeEvent
vfunc[0]:	QDynamicPropertyChangeEvent::~~QDynamicPropertyChangeEvent()
vfunc[1]:	QDynamicPropertyChangeEvent::~~QDynamicPropertyChangeEvent()

17.2.1.2. Class data for QTimeLine

The virtual table for the QTimeLine class is described by [Table 17-3](#)

Table 17-3. Primary vtable for QTimeLine

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTimeLine
vfunc[0]:	QTimeLine::metaObject() const
vfunc[1]:	QTimeLine::qt_metacast(char const*)
vfunc[2]:	QTimeLine::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTimeLine::~~QTimeLine()
vfunc[4]:	QTimeLine::~~QTimeLine()
vfunc[5]:	QObject::event(QEvent*)

vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QTimeLine::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QTimeLine::valueForTime(int) const

17.2.1.3. Interfaces for Qt4 Core Functions

An LSB conforming implementation shall provide the generic functions for Qt4 Core Functions specified in [Table 17-4](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-4. libQtCore - Qt4 Core Functions Function Interfaces

_Z11qt_assert_xPKcS0_S0_i [QtCore]	_Z12qInstallPathBinsv [QtCore]
_Z12qSharedBuildv [QtCore]	_Z13qErrnoWarningiPKcz [QtCore]
_Z13qErrnoWarningiPKcz [QtCore]	_Z14qSystemWarningiPKcz [QtCore]
_Z15qAddPostRoutinePFvvE [QtCore]	_Z15qt_errorMsgPKc [QtCore]
_Z16qInstallPathBinsv [QtCore]	_Z16qInstallPathDocsv [QtCore]
_Z16qInstallPathDocsv [QtCore]	_Z16qt_check_pointerPKci [QtCore]
_Z16qt_check_pointerPKci [QtCore]	_Z17qt_messagePKc [QtCore]
_Z18qInstallMsgHandlerPFv9QtMsgTypePKcE [QtCore]	_Z18qRemovePathBinsv [QtCore]
_Z19qInstallPathHeadersv [QtCore]	_Z19qInstallPathSysconfv [QtCore]
_Z19qInstallPathSysconfv [QtCore]	_Z20qt_qFindChildren_helperPK7QObjectRK7QStringPK7QRegExpRK11QMetaObjectP5QListIPvE [QtCore]
_Z21qRegisterResourceDataiPKhS0_S0_ [QtCore]	_Z22qRegisterResourceDataiPKhS0_S0_ [QtCore]
_Z23qt_qFindChildren_helperPK7QObjectRK7QStringPK7QRegExpRK11QMetaObjectP5QListIPvE [QtCore]	_Z24qRegisterResourceDataiPKhS0_S0_ [QtCore]
_Z32qt_register_signal_spy_callbacksRK21QSignalSpyCallbackSet [QtCore]	_Z37qRegisterResourceDataiPKhS0_S0_ [QtCore]
_Z5qFreePv [LSB]	_Z5qHashRK7QString [QtCore]
_Z5qHashRK7QString [QtCore]	_Z5qrandv [LSB]
_Z6qDebugPKcz [QtCore]	_Z6qFatalPKc [QtCore]
_Z6qrandj [QtXml]	_Z7qgetenvPKc [QtCore]
Z7qstrcmpPKcS0 [QtCore]	_Z7qstrcpyPKcS0_ [QtCore]

_Z7qstrdupPKc [QtCore]	_Z8qAppNar
_Z8qVersionv [QtCore]	_Z8qWarning
Z8qstricmpPKcS0 [QtCore]	_Z8qstrncpyl
_Z9qChecksumPKcj [QtCore]	_Z9qCritical
_Z9qstrnicmpPKcS0_j [QtCore]	_Z9qt_assert
_Zls6QDebug6QFlagsIN9QIODevice12OpenModeFlagEE [QtCore]	_Zls6QDebu
_Zls6QDebugRK11QModelIndex [QtCore]	_ZlsR11QDa
_ZrsR11QDataStreamRN8QVariant4TypeE [QtCore]	

An LSB conforming implementation shall provide the generic data interfaces for Qt4 Core Functions specified in [Table 17-5](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-5. libQtCore - Qt4 Core Functions Data Interfaces

_ZN10QByteArray11shared_nullE [QtCore]	_ZN10QEventLoop16staticMetaObjectE [QtCore]
_ZN11QTranslator16staticMetaObjectE [QtCore]	_ZN11QVectorData11shared_nullE [QtCore]
_ZN13QPluginLoader16staticMetaObjectE [QtCore]	_ZN13QSignalMapper16staticMetaObjectE [QtCore]
_ZN14QTemporaryFile16staticMetaObjectE [QtCore]	_ZN15QLinkedListData11shared_nullE [QtCore]
_ZN15QSocketNotifier16staticMetaObjectE [QtCore]	_ZN16QCoreApplication16staticMetaObjectE [QtCore]
_ZN16QCoreApplication4selfE [QtCore]	_ZN16QTextCodecPlugin16staticMetaObjectE [QtCore]
_ZN18QAbstractItemModel16staticMetaObjectE [QtCore]	_ZN18QAbstractListModel16staticMetaObjectE [QtCore]
_ZN18QFileSystemWatcher16staticMetaObjectE [QtXml]	_ZN19QAbstractTableModel16staticMetaObjectE [QtCore]
_ZN21QObjectCleanupHandler16staticMetaObjectE [QtCore]	_ZN24QAbstractEventDispatcher16staticMetaObjectE [QtCore]
_ZN5QFile16staticMetaObjectE [QtCore]	_ZN6QTimer16staticMetaObjectE [QtCore]
_ZN7QBuffer16staticMetaObjectE [QtCore]	_ZN7QObject16staticMetaObjectE [QtCore]
_ZN7QObject18staticQtMetaObjectE [QtCore]	_ZN7QString11shared_nullE [QtCore]
_ZN7QString16codecForCStringsE [QtCore]	_ZN7QString4nullE [QtCore]
_ZN7QThread16staticMetaObjectE [QtCore]	_ZN8QLibrary16staticMetaObjectE [QtCore]
_ZN8QMapData11shared_nullE [QtCore]	_ZN8QProcess16staticMetaObjectE [QtCore]
_ZN8QVariant7handlerE [QtCore]	_ZN9QHashData11shared_nullE [QtCore]

<u>_ZN9QIODevice16staticMetaObjectE [QtCore]</u>	<u>_ZN9QListData11shared_nullE [QtCore]</u>
<u>_ZN9QMimeTypeData16staticMetaObjectE [QtCore]</u>	<u>_ZN9QSettings16staticMetaObjectE [QtCore]</u>
<u>_ZN9QTimeLine16staticMetaObjectE [QtXml]</u>	<u>_ZTI10QEventLoop [CXXABI-1.86]</u>
<u>_ZTI10QTextCodec [CXXABI-1.86]</u>	<u>_ZTI11QChildEvent [CXXABI-1.86]</u>
<u>_ZTI11QDataStream [CXXABI-1.86]</u>	<u>_ZTI11QTextStream [CXXABI-1.86]</u>
<u>_ZTI11QTimerEvent [CXXABI-1.86]</u>	<u>_ZTI11QTranslator [CXXABI-1.86]</u>
<u>_ZTI12QCustomEvent [CXXABI-1.86]</u>	<u>_ZTI13QFSFileEngine [CXXABI-1.86]</u>
<u>_ZTI13QFontLaoCodec [CXXABI-1.86]</u>	<u>_ZTI13QPluginLoader [CXXABI-1.86]</u>
<u>_ZTI13QSignalMapper [CXXABI-1.86]</u>	<u>_ZTI13QSystemLocale [CXXABI-1.86]</u>
<u>_ZTI14QFactoryLoader [CXXABI-1.86]</u>	<u>_ZTI14QMetaCallEvent [CXXABI-1.86]</u>
<u>_ZTI14QObjectPrivate [CXXABI-1.86]</u>	<u>_ZTI14QTemporaryFile [CXXABI-1.86]</u>
<u>_ZTI15QDateTimeParser [CXXABI-1.86]</u>	<u>_ZTI15QObjectUserData [CXXABI-1.86]</u>
<u>_ZTI15QSocketNotifier [CXXABI-1.86]</u>	<u>_ZTI16QCoreApplication [CXXABI-1.86]</u>
<u>_ZTI16QIODevicePrivate [CXXABI-1.86]</u>	<u>_ZTI16QTextCodecPlugin [CXXABI-1.86]</u>
<u>_ZTI17QFactoryInterface [CXXABI-1.86]</u>	<u>_ZTI18QAbstractItemModel [CXXABI-1.86]</u>
<u>_ZTI18QAbstractListModel [CXXABI-1.86]</u>	<u>_ZTI18QFileSystemWatcher [CXXABI-1.86]</u>
<u>_ZTI19QAbstractFileEngine [CXXABI-1.86]</u>	<u>_ZTI19QAbstractTableModel [CXXABI-1.86]</u>
<u>_ZTI20QEventDispatcherUNIX [CXXABI-1.86]</u>	<u>_ZTI21QObjectCleanupHandler [CXXABI-1.86]</u>
<u>_ZTI23QCoreApplicationPrivate [CXXABI-1.86]</u>	<u>_ZTI24QAbstractEventDispatcher [CXXABI-1.86]</u>
<u>_ZTI26QAbstractFileEngineHandler [CXXABI-1.86]</u>	<u>_ZTI26QTextCodecFactoryInterface [CXXABI-1.86]</u>
<u>_ZTI27QDynamicPropertyChangeEvent [CXXABI-1.86]</u>	<u>_ZTI27QEventDispatcherUNIXPrivate [CXXABI-1.86]</u>
<u>_ZTI5QFile [CXXABI-1.86]</u>	<u>_ZTI6QEvent [CXXABI-1.86]</u>
<u>_ZTI6QTimer [CXXABI-1.86]</u>	<u>_ZTI7QBuffer [CXXABI-1.86]</u>
<u>_ZTI7QObject [CXXABI-1.86]</u>	<u>_ZTI7QThread [CXXABI-1.86]</u>
<u>_ZTI8QLibrary [CXXABI-1.86]</u>	<u>_ZTI8QProcess [CXXABI-1.86]</u>
<u>_ZTI9QIODevice [CXXABI-1.86]</u>	<u>_ZTI9QMimeTypeData [CXXABI-1.86]</u>
<u>_ZTI9QSettings [CXXABI-1.86]</u>	<u>_ZTI9QTimeLine [CXXABI-1.86]</u>
<u>_ZTV10QEventLoop [CXXABI-1.86]</u>	<u>_ZTV10QTextCodec [CXXABI-1.86]</u>
<u>_ZTV11QChildEvent [CXXABI-1.86]</u>	<u>_ZTV11QDataStream [CXXABI-1.86]</u>
<u>_ZTV11QTextStream [CXXABI-1.86]</u>	<u>_ZTV11QTimerEvent [CXXABI-1.86]</u>
<u>_ZTV11QTranslator [CXXABI-1.86]</u>	<u>_ZTV12QCustomEvent [CXXABI-1.86]</u>

_ZTV13QFSFileEngine [CXXABI-1.86]	_ZTV13QFontLaoCodec [CXXABI-1.86]
_ZTV13QPluginLoader [CXXABI-1.86]	_ZTV13QSignalMapper [CXXABI-1.86]
_ZTV13QSystemLocale [CXXABI-1.86]	_ZTV14QFactoryLoader [CXXABI-1.86]
_ZTV14QMetaCallEvent [CXXABI-1.86]	_ZTV14QObjectPrivate [CXXABI-1.86]
_ZTV14QTemporaryFile [CXXABI-1.86]	_ZTV15QDateTimeParser [CXXABI-1.86]
_ZTV15QObjectUserData [CXXABI-1.86]	_ZTV15QSocketNotifier [CXXABI-1.86]
_ZTV16QCoreApplication [CXXABI-1.86]	_ZTV16QIODevicePrivate [CXXABI-1.86]
_ZTV16QTextCodecPlugin [CXXABI-1.86]	_ZTV17QFactoryInterface [CXXABI-1.86]
_ZTV18QAbstractItemModel [CXXABI-1.86]	_ZTV18QAbstractListModel [CXXABI-1.86]
_ZTV18QFileSystemWatcher [CXXABI-1.86]	_ZTV19QAbstractFileEngine [CXXABI-1.86]
_ZTV19QAbstractTableModel [CXXABI-1.86]	_ZTV20QEventDispatcherUNIX [CXXABI-1.86]
_ZTV21QObjectCleanupHandler [CXXABI-1.86]	_ZTV23QCoreApplicationPrivate [CXXABI-1.86]
_ZTV24QAbstractEventDispatcher [CXXABI-1.86]	_ZTV26QAbstractFileEngineHandler [CXXABI-1.86]
_ZTV26QTextCodecFactoryInterface [CXXABI-1.86]	_ZTV27QDynamicPropertyChangeEvent [CXXABI-1.86]
_ZTV27QEventDispatcherUNIXPrivate [CXXABI-1.86]	_ZTV5QFile [CXXABI-1.86]
_ZTV6QEvent [CXXABI-1.86]	_ZTV6QTimer [CXXABI-1.86]
_ZTV7QBuffer [CXXABI-1.86]	_ZTV7QObject [CXXABI-1.86]
_ZTV7QThread [CXXABI-1.86]	_ZTV8QLibrary [CXXABI-1.86]
_ZTV8QProcess [CXXABI-1.86]	_ZTV9QIODevice [CXXABI-1.86]
_ZTV9QMimeData [CXXABI-1.86]	_ZTV9QSettings [CXXABI-1.86]
_ZTV9QTimeLine [CXXABI-1.86]	

17.2.2. Qt4 Models

17.2.2.1. Class data for QAbstractItemModel

The virtual table for the QAbstractItemModel class is described by [Table 17-6](#)

Table 17-6. Primary vtable for QAbstractItemModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractItemModel

vfunc[0]:	QAbstractItemModel::metaObject() const
vfunc[1]:	QAbstractItemModel::qt_metacast(char const*)
vfunc[2]:	QAbstractItemModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractItemModel::~QAbstractItemModel()
vfunc[4]:	QAbstractItemModel::~~QAbstractItemModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	QAbstractItemModel::hasChildren(QModelIndex const&) const
vfunc[17]:	__cxa_pure_virtual
vfunc[18]:	QAbstractItemModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QAbstractItemModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QAbstractItemModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QAbstractItemModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QAbstractItemModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QAbstractItemModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QAbstractItemModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QAbstractItemModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QAbstractItemModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QAbstractItemModel::fetchMore(QModelIndex const&)

vfunc[32]:	QAbstractItemModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QAbstractItemModel::flags(QModelIndex const&) const
vfunc[34]:	QAbstractItemModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QAbstractItemModel::submit()
vfunc[39]:	QAbstractItemModel::revert()

The Run Time Type Information for the QAbstractItemModel class is described by [Table 17-7](#)

Table 17-7. typeinfo for QAbstractItemModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractItemModel
basetype:	typeinfo for QObject

17.2.2.2. Class data for QAbstractTableModel

The virtual table for the QAbstractTableModel class is described by [Table 17-8](#)

Table 17-8. Primary vtable for QAbstractTableModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractTableModel
vfunc[0]:	QAbstractTableModel::metaObject() const
vfunc[1]:	QAbstractTableModel::qt_metacast(char const*)
vfunc[2]:	QAbstractTableModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractTableModel::~~QAbstractTableModel()
vfunc[4]:	QAbstractTableModel::~~QAbstractTableModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)

vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QAbstractTableModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QAbstractTableModel::parent(QModelIndex const&) const
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	QAbstractTableModel::hasChildren(QModelIndex const&) const
vfunc[17]:	__cxa_pure_virtual
vfunc[18]:	QAbstractItemModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QAbstractItemModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QAbstractItemModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QAbstractItemModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QAbstractTableModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QAbstractItemModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QAbstractItemModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QAbstractItemModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QAbstractItemModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QAbstractItemModel::fetchMore(QModelIndex const&)
vfunc[32]:	QAbstractItemModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QAbstractItemModel::flags(QModelIndex const&) const
vfunc[34]:	QAbstractItemModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QAbstractItemModel::submit()
vfunc[39]:	QAbstractItemModel::revert()

The Run Time Type Information for the QAbstractTableModel class is described by [Table 17-9](#)

Table 17-9. typeinfo for QAbstractTableModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractTableModel
basetype:	typeinfo for QAbstractItemModel

17.2.2.3. Class data for QAbstractListModel

The virtual table for the QAbstractListModel class is described by [Table 17-10](#)

Table 17-10. Primary vtable for QAbstractListModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractListModel
vfunc[0]:	QAbstractListModel::metaObject() const
vfunc[1]:	QAbstractListModel::qt_metacast(char const*)
vfunc[2]:	QAbstractListModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractListModel::~~QAbstractListModel()
vfunc[4]:	QAbstractListModel::~~QAbstractListModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QAbstractListModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QAbstractListModel::parent(QModelIndex const&) const
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	QAbstractListModel::columnCount(QModelIndex const&) const
vfunc[16]:	QAbstractListModel::hasChildren(QModelIndex const&) const
vfunc[17]:	__cxa_pure_virtual
vfunc[18]:	QAbstractItemModel::setData(QModelIndex const&, QVariant const&, int)

vfunc[19]:	QAbstractItemModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QAbstractItemModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QAbstractItemModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QAbstractListModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QAbstractItemModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QAbstractItemModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QAbstractItemModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QAbstractItemModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QAbstractItemModel::fetchMore(QModelIndex const&)
vfunc[32]:	QAbstractItemModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QAbstractItemModel::flags(QModelIndex const&) const
vfunc[34]:	QAbstractItemModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QAbstractItemModel::submit()
vfunc[39]:	QAbstractItemModel::revert()

The Run Time Type Information for the QAbstractListModel class is described by [Table 17-11](#)

Table 17-11. typeinfo for QAbstractListModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractListModel
basetype:	typeinfo for QAbstractItemModel

17.2.2.4. Interfaces for Qt4 Models

An LSB conforming implementation shall provide the generic functions for Qt4 Models specified in [Table 17-12](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-12. libQtCore - Qt4 Models Function Interfaces

_ZN18QAbstractItemModel10decodeDataEiiRK11QModelIndexR11QDataStream [QtCore]	_ZN18QAbstractItemModel10decodeDataEiiRK11QModelIndexR11QDataStream [QtCore]
_ZN18QAbstractItemModel10removeRowsEiiRK11QModelIndex [QtCore]	_ZN18QAbstractItemModel10removeRowsEiiRK11QModelIndex [QtCore]
_ZN18QAbstractItemModel11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN18QAbstractItemModel11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]
_ZN18QAbstractItemModel11setItemDataERK11QModelIndexRK4QMapLi8QVariantE [QtCore]	_ZN18QAbstractItemModel11setItemDataERK11QModelIndexRK4QMapLi8QVariantE [QtCore]
_ZN18QAbstractItemModel13endInsertRowsEv [QtCore]	_ZN18QAbstractItemModel13endInsertRowsEv [QtCore]
_ZN18QAbstractItemModel13insertColumnsEiiRK11QModelIndex [QtCore]	_ZN18QAbstractItemModel13insertColumnsEiiRK11QModelIndex [QtCore]
_ZN18QAbstractItemModel13removeColumnsEiiRK11QModelIndex [QtCore]	_ZN18QAbstractItemModel13removeColumnsEiiRK11QModelIndex [QtCore]
_ZN18QAbstractItemModel15beginInsertRowsERK11QModelIndexii [QtCore]	_ZN18QAbstractItemModel15beginInsertRowsERK11QModelIndexii [QtCore]
_ZN18QAbstractItemModel16endInsertColumnsEv [QtCore]	_ZN18QAbstractItemModel16endInsertColumnsEv [QtCore]
_ZN18QAbstractItemModel17headerDataChangedEN2Qt11OrientationEii [QtCore]	_ZN18QAbstractItemModel17headerDataChangedEN2Qt11OrientationEii [QtCore]
_ZN18QAbstractItemModel18beginRemoveColumnsERK11QModelIndexii [QtCore]	_ZN18QAbstractItemModel18beginRemoveColumnsERK11QModelIndexii [QtCore]
_ZN18QAbstractItemModel22layoutAboutToBeChangedEv [QtXml]	_ZN18QAbstractItemModel22layoutAboutToBeChangedEv [QtXml]
ZN18QAbstractItemModel25changePersistentIndexListERK5QListI11QModelIndexES4 [QtCore]	_ZN18QAbstractItemModel25changePersistentIndexListERK5QListI11QModelIndexES4_ [QtCore]
_ZN18QAbstractItemModel5resetEv [QtCore]	_ZN18QAbstractItemModel5resetEv [QtCore]
_ZN18QAbstractItemModel6submitEv [QtCore]	_ZN18QAbstractItemModel6submitEv [QtCore]
_ZN18QAbstractItemModel9fetchMoreERK11QModelIndex [QtCore]	_ZN18QAbstractItemModel9fetchMoreERK11QModelIndex [QtCore]
_ZN18QAbstractItemModelC2EP7QObject [QtCore]	_ZN18QAbstractItemModelC2EP7QObject [QtCore]
_ZN18QAbstractItemModelD1Ev [QtCore]	_ZN18QAbstractItemModelD1Ev [QtCore]
_ZN18QAbstractListModel11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN18QAbstractListModel11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]
_ZN18QAbstractListModel12dropMimeTypeDataEPK9QMimeTypeDataN2Qt10DropActionEiiRK11QModelIndex [QtCore]	_ZN18QAbstractListModel12dropMimeTypeDataEPK9QMimeTypeDataN2Qt10DropActionEiiRK11QModelIndex [QtCore]
_ZN18QAbstractListModelC2EP7QObject [QtCore]	_ZN18QAbstractListModelC2EP7QObject [QtCore]
_ZN18QAbstractListModelD1Ev [QtCore]	_ZN18QAbstractListModelD1Ev [QtCore]
_ZN19QAbstractTableModel11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN19QAbstractTableModel11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]
_ZN19QAbstractTableModel12dropMimeTypeDataEPK9QMimeTypeDataN2Qt10DropActionEiiRK11QModelIndex [QtCore]	_ZN19QAbstractTableModel12dropMimeTypeDataEPK9QMimeTypeDataN2Qt10DropActionEiiRK11QModelIndex [QtCore]
_ZN19QAbstractTableModelC2EP7QObject [QtCore]	_ZN19QAbstractTableModelC2EP7QObject [QtCore]
_ZN19QAbstractTableModelD1Ev [QtCore]	_ZN19QAbstractTableModelD1Ev [QtCore]
_ZN21QPersistentModelIndexC1ERK11QModelIndex [QtCore]	_ZN21QPersistentModelIndexC1ERK11QModelIndex [QtCore]
_ZN21QPersistentModelIndexC1Ev [QtCore]	_ZN21QPersistentModelIndexC1Ev [QtCore]
ZN21QPersistentModelIndexC2ERKS [QtCore]	_ZN21QPersistentModelIndexC2ERKS_ [QtCore]

_ZN21QPersistentModelIndexD1Ev [QtCore]	_ZN21Q
_ZN21QPersistentModelIndexaSERK11QModelIndex [QtCore]	_ZN21Q
_ZNK18QAbstractItemModel10encodeDataERK5QListI11QModelIndexER11QDataStream [QtCore]	_ZNK1
_ZNK18QAbstractItemModel10metaObjectEv [QtCore]	_ZNK1
_ZNK18QAbstractItemModel12canFetchMoreERK11QModelIndex [QtCore]	_ZNK1
_ZNK18QAbstractItemModel20supportedDragActionsEv [QtXml]	_ZNK1
_ZNK18QAbstractItemModel4spanERK11QModelIndex [QtCore]	_ZNK1
_ZNK18QAbstractItemModel5flagsERK11QModelIndex [QtCore]	_ZNK1 [QtCore]
_ZNK18QAbstractItemModel8hasIndexEiiRK11QModelIndex [QtCore]	_ZNK1
_ZNK18QAbstractItemModel8mimeDataERK5QListI11QModelIndexE [QtCore]	_ZNK1
_ZNK18QAbstractListModel10metaObjectEv [QtCore]	_ZNK1
_ZNK18QAbstractListModel11hasChildrenERK11QModelIndex [QtCore]	_ZNK1
_ZNK18QAbstractListModel6parentERK11QModelIndex [QtCore]	_ZNK1
_ZNK19QAbstractTableModel11hasChildrenERK11QModelIndex [QtCore]	_ZNK1
_ZNK19QAbstractTableModel6parentERK11QModelIndex [QtCore]	_ZNK2
_ZNK21QPersistentModelIndex15internalPointerEv [LSB]	_ZNK2
_ZNK21QPersistentModelIndex4dataEi [QtCore]	_ZNK2
_ZNK21QPersistentModelIndex5flagsEv [QtXml]	_ZNK2
_ZNK21QPersistentModelIndex6columnEv [QtCore]	_ZNK2
_ZNK21QPersistentModelIndex7isValidEv [QtCore]	_ZNK2
_ZNK21QPersistentModelIndexcvRK11QModelIndexEv [QtCore]	_ZNK2
ZNK21QPersistentModelIndexeqERKS [QtCore]	_ZNK2
_ZNK21QPersistentModelIndexneERK11QModelIndex [QtCore]	_Zls6Q

17.2.3. Qt4 Internationalization

17.2.3.1. Class data for QTextCodec

The virtual table for the QTextCodec class is described by [Table 17-13](#)

Table 17-13. Primary vtable for QTextCodec

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QTextCodec
vfunc[0]:	__cxa_pure_virtual
vfunc[1]:	QTextCodec::aliases() const
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	QTextCodec::~~QTextCodec()
vfunc[6]:	QTextCodec::~~QTextCodec()

The Run Time Type Information for the QTextCodec class is described by [Table 17-14](#)

Table 17-14. typeinfo for QTextCodec

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QTextCodec

17.2.3.2. Class data for QTextCodecFactoryInterface

The virtual table for the QTextCodecFactoryInterface class is described by [Table 17-15](#)

Table 17-15. Primary vtable for QTextCodecFactoryInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextCodecFactoryInterface
vfunc[0]:	NULL or QTextCodecFactoryInterface::~~QTextCodecFactoryInterface()
vfunc[1]:	NULL or QTextCodecFactoryInterface::~~QTextCodecFactoryInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QTextCodecFactoryInterface class is described by [Table 17-16](#)

Table 17-16. typeinfo for QTextCodecFactoryInterface

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextCodecFactoryInterface
basetype:	typeinfo for QFactoryInterface

17.2.3.3. Class data for QTranslator

The virtual table for the QTranslator class is described by [Table 17-17](#)

Table 17-17. Primary vtable for QTranslator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTranslator
vfunc[0]:	QTranslator::metaObject() const
vfunc[1]:	QTranslator::qt_metacast(char const*)
vfunc[2]:	QTranslator::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTranslator::~~QTranslator()
vfunc[4]:	QTranslator::~~QTranslator()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QTranslator::translate(char const*, char const*, char const*) const
vfunc[13]:	QTranslator::isEmpty() const

The Run Time Type Information for the QTranslator class is described by [Table 17-18](#)

Table 17-18. typeinfo for QTranslator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTranslator
basetype:	typeinfo for QObject

17.2.3.4. Class data for QSystemLocale

The virtual table for the QSystemLocale class is described by [Table 17-19](#)

Table 17-19. Primary vtable for QSystemLocale

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSystemLocale
vfunc[0]:	QSystemLocale::~~QSystemLocale()
vfunc[1]:	QSystemLocale::~~QSystemLocale()
vfunc[2]:	QSystemLocale::query(QSystemLocale::QueryType, QVariant) const
vfunc[3]:	QSystemLocale::fallbackLocale() const

17.2.3.5. Interfaces for Qt4 Internationalization

An LSB conforming implementation shall provide the generic functions for Qt4 Internationalization specified in [Table 17-20](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-20. libQtCore - Qt4 Internationalization Function Interfaces

_ZN10QTextCodec11codecForMibEi [QtCore]	_ZN10QTextCodec12codecForHtmlERK10QByteArray [QtCore]
_ZN10QTextCodec12codecForNameERK10QByteArray [QtCore]	_ZN10QTextCodec13availableMibsEv [QtCore]
_ZN10QTextCodec14codecForLocaleEv [QtCore]	_ZN10QTextCodec15availableCodecsEv [QtCore]
ZN10QTextCodec17setCodecForLocaleEPS [QtCore]	_ZN10QTextCodec6localeEv [QtCore]
_ZN10QTextCodecC1Ev [QtCore]	_ZN10QTextCodecC2Ev [QtCore]
_ZN10QTextCodecD0Ev [QtCore]	_ZN10QTextCodecD1Ev [QtCore]
_ZN10QTextCodecD2Ev [QtCore]	_ZN11QTranslator11qt_metacallEN11QMetaObject4CallE [QtCore]
_ZN11QTranslator11qt_metacastEPKc [QtCore]	_ZN11QTranslator4loadEPKHi [QtCore]
_ZN11QTranslator4loadERK7QStringS2_S2_S2_ [QtCore]	_ZN11QTranslatorC1EP7QObject [QtCore]
_ZN11QTranslatorC1EP7QObjectPKc [QtCore]	_ZN11QTranslatorC2EP7QObject [QtCore]
_ZN11QTranslatorC2EP7QObjectPKc [QtCore]	_ZN11QTranslatorD0Ev [QtCore]
_ZN11QTranslatorD1Ev [QtCore]	_ZN11QTranslatorD2Ev [QtCore]
_ZN12QTextDecoder9toUnicodeEPKci [QtCore]	_ZN12QTextDecoder9toUnicodeERK10QByteArray [QtCore]
_ZN12QTextDecoderD1Ev [QtCore]	_ZN12QTextDecoderD2Ev [QtCore]
_ZN12QTextEncoder11fromUnicodeEPK5QChari [QtCore]	_ZN12QTextEncoder11fromUnicodeERK7QString [QtCore]
_ZN12QTextEncoder11fromUnicodeERK7QStringRi [QtCore]	_ZN12QTextEncoderD1Ev [QtCore]
_ZN12QTextEncoderD2Ev [QtCore]	_ZN13QSystemLocaleC1Ev [QtXml]

_ZN13QSystemLocaleC2Ev [QtXml]	_ZN13QSystemLocaleD0Ev [QtXml]
_ZN13QSystemLocaleD1Ev [QtXml]	_ZN13QSystemLocaleD2Ev [QtXml]
ZN7QLocale10setDefaultERKS [QtCore]	_ZN7QLocale15countryToStringENS_7CountryE [QtCore]
_ZN7QLocale16languageToStringENS_8LanguageE [QtCore]	_ZN7QLocale16setNumberOptionsE6QFlagsINS_12Num [QtXml]
_ZN7QLocale6systemEv [QtCore]	_ZN7QLocaleC1ENS_8LanguageENS_7CountryE [QtCore]
_ZN7QLocaleC1ERK7QString [QtCore]	_ZN7QLocaleC1ERKS_ [QtCore]
_ZN7QLocaleC1Ev [QtCore]	_ZN7QLocaleC2ENS_8LanguageENS_7CountryE [QtCore]
_ZN7QLocaleC2ERK7QString [QtCore]	_ZN7QLocaleC2ERKS_ [QtCore]
_ZN7QLocaleC2Ev [QtCore]	_ZN7QLocaleaSERKS_ [QtCore]
_ZNK10QTextCodec11fromUnicodeERK7QString [QtCore]	_ZNK10QTextCodec11fromUnicodeERK7QStringRi [QtCore]
_ZNK10QTextCodec11makeDecoderEv [QtCore]	_ZNK10QTextCodec11makeEncoderEv [QtCore]
_ZNK10QTextCodec7aliasesEv [QtCore]	_ZNK10QTextCodec9canEncodeE5QChar [QtCore]
_ZNK10QTextCodec9canEncodeERK7QString [QtCore]	_ZNK10QTextCodec9toUnicodeEPKc [QtCore]
_ZNK10QTextCodec9toUnicodeERK10QByteArray [QtCore]	_ZNK10QTextCodec9toUnicodeERK10QByteArrayi [QtCore]
_ZNK11QTranslator10metaObjectEv [QtCore]	_ZNK11QTranslator7isEmptyEv [QtCore]
_ZNK11QTranslator9translateEPKcS1_S1_ [QtCore]	_ZNK11QTranslator9translateEPKcS1_S1_i [QtXml]
_ZNK13QSystemLocale14fallbackLocaleEv [QtXml]	_ZNK13QSystemLocale5queryENS_9QueryTypeE8QVar [QtCore]
_ZNK7QLocale10dateFormatENS_10FormatTypeE [QtCore]	_ZNK7QLocale10timeFormatENS_10FormatTypeE [QtCore]
_ZNK7QLocale10toLongLongERK7QStringPbi [QtCore]	_ZNK7QLocale11exponentialEv [QtCore]
_ZNK7QLocale11toULongLongERK7QStringPbi [QtCore]	_ZNK7QLocale12decimalPointEv [QtCore]
_ZNK7QLocale12negativeSignEv [QtCore]	_ZNK7QLocale13numberOptionsEv [QtXml]
_ZNK7QLocale14groupSeparatorEv [QtCore]	_ZNK7QLocale4nameEv [QtCore]
_ZNK7QLocale5toIntERK7QStringPbi [QtCore]	_ZNK7QLocale6toUIntERK7QStringPbi [QtCore]
_ZNK7QLocale7countryEv [QtCore]	_ZNK7QLocale7dayNameEiNS_10FormatTypeE [QtXml]
_ZNK7QLocale7percentEv [QtCore]	_ZNK7QLocale7toFloatERK7QStringPb [QtCore]
_ZNK7QLocale7toShortERK7QStringPbi [QtCore]	_ZNK7QLocale8languageEv [QtCore]
_ZNK7QLocale8toDoubleERK7QStringPb [QtCore]	_ZNK7QLocale8toStringERK5QDateNS_10FormatTypeE [QtCore]
_ZNK7QLocale8toStringERK5QDateRK7QString [QtCore]	_ZNK7QLocale8toStringERK5QTimeNS_10FormatTypeE [QtCore]

_ZNK7QLocale8toStringERK5QTimeRK7QString [QtCore]	_ZNK7QLocale8toStringEdci [QtCore]
_ZNK7QLocale8toStringEx [QtCore]	_ZNK7QLocale8toStringEy [QtCore]
_ZNK7QLocale8toUShortERK7QStringPbi [QtCore]	_ZNK7QLocale9monthNameEiNS_10FormatTypeE [QtX]
_ZNK7QLocale9zeroDigitEv [QtCore]	_ZlsR11QDataStreamRK7QLocale [QtCore]
_ZrsR11QDataStreamR7QLocale [QtCore]	

17.2.4. Qt4 Containers

17.2.4.1. Class data for QMimeData

The virtual table for the QMimeData class is described by [Table 17-21](#)

Table 17-21. Primary vtable for QMimeData

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMimeData
vfunc[0]:	QMimeData::metaObject() const
vfunc[1]:	QMimeData::qt_metacast(char const*)
vfunc[2]:	QMimeData::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QMimeData::~QMimeData()
vfunc[4]:	QMimeData::~QMimeData()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QMimeData::hasFormat(QString const&) const
vfunc[13]:	QMimeData::formats() const
vfunc[14]:	QMimeData::retrieveData(QString const&, QVariant::Type) const

The Run Time Type Information for the QMimeData class is described by [Table 17-22](#)

Table 17-22. typeinfo for QMimeData

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMimeData
basetype:	typeinfo for QObject

17.2.4.2. Interfaces for Qt4 Containers

An LSB conforming implementation shall provide the generic functions for Qt4 Containers specified in [Table 17-23](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-23. libQtCore - Qt4 Containers Function Interfaces

_ZN11QVectorData4growEiiib [QtCore]	_ZN11QVectorData6mallocEiiiPS_ [QtCore]
_ZN8QMapData10createDataEv [QtCore]	_ZN8QMapData11node_createEPPNS_4NodeE [QtCore]
_ZN8QMapData11node_deleteEPPNS_4NodeEiS1_ [QtCore]	_ZN8QMapData16continueFreeDataEi [QtCore]
_ZN9QHashData12allocateNodeEv [LSB]	_ZN9QHashData12previousNodeEPNS_4NodeE [QtCore]
_ZN9QHashData13detach_helperEPFvPNS_4NodeEPvEi [QtCore]	_ZN9QHashData14destroyAndFreeEv [QtCore]
_ZN9QHashData6rehashEi [QtCore]	_ZN9QHashData8freeNodeEPv [LSB]
_ZN9QHashData8nextNodeEPNS_4NodeE [QtCore]	_ZN9QListData4moveEii [QtCore]
_ZN9QListData5eraseEPPv [QtCore]	_ZN9QListData6appendERKS_ [QtCore]
_ZN9QListData6appendEv [QtCore]	_ZN9QListData6detachEv [QtCore]
_ZN9QListData6insertEi [QtCore]	_ZN9QListData6removeEi [QtCore]
_ZN9QListData6removeEii [QtCore]	_ZN9QListData7prependEv [QtCore]
_ZN9QListData7reallocEi [QtCore]	_ZN9QMimeData11qt_metacallEN11QMetaObjectE [QtCore]
_ZN9QMimeData11qt_metacastEPKc [QtCore]	_ZN9QMimeData12setColorDataERK8QVariant [QtCore]
_ZN9QMimeData12setImageDataERK8QVariant [QtCore]	_ZN9QMimeData5clearEv [QtCore]
_ZN9QMimeData7setDataERK7QStringRK10QByteArray [QtCore]	_ZN9QMimeData7setHtmlERK7QString [QtCore]
_ZN9QMimeData7setTextERK7QString [QtCore]	_ZN9QMimeData7setUrlsERK5QListI4QUrlE [QtCore]
_ZN9QMimeDataC1Ev [QtCore]	_ZN9QMimeDataC2Ev [QtCore]
_ZN9QMimeDataD0Ev [QtCore]	_ZN9QMimeDataD1Ev [QtCore]
_ZN9QMimeDataD2Ev [QtCore]	_ZNK9QMimeData10metaObjectEv [QtCore]
_ZNK9QMimeData12retrieveDataERK7QStringN8QVariant4TypeE [QtCore]	_ZNK9QMimeData4dataERK7QString [QtCore]
_ZNK9QMimeData4htmlEv [QtCore]	_ZNK9QMimeData4textEv [QtCore]
_ZNK9QMimeData4urlsEv [QtCore]	_ZNK9QMimeData7formatsEv [QtCore]

_ZNK9QMimeData7hasHtmlEv [QtCore]	_ZNK9QMimeData7hasTextEv [QtCore]
_ZNK9QMimeData7hasUrlsEv [QtCore]	_ZNK9QMimeData8hasColorEv [QtCore]
_ZNK9QMimeData8hasImageEv [QtCore]	_ZNK9QMimeData9colorDataEv [QtCore]
_ZNK9QMimeData9hasFormatERK7QString [QtCore]	_ZNK9QMimeData9imageDataEv [QtCore]

17.2.5. Qt4 Events

17.2.5.1. Class data for QEventLoop

The virtual table for the QEventLoop class is described by [Table 17-24](#)

Table 17-24. Primary vtable for QEventLoop

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QEventLoop
vfunc[0]:	QEventLoop::metaObject() const
vfunc[1]:	QEventLoop::qt_metacast(char const*)
vfunc[2]:	QEventLoop::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QEventLoop::~~QEventLoop()
vfunc[4]:	QEventLoop::~~QEventLoop()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QEventLoop class is described by [Table 17-25](#)

Table 17-25. typeinfo for QEventLoop

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QEventLoop
basetype:	typeinfo for QObject

17.2.5.2. Class data for QEvent

The virtual table for the QEvent class is described by [Table 17-26](#)

Table 17-26. Primary vtable for QEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QEvent
vfunc[0]:	QEvent::~~QEvent()
vfunc[1]:	QEvent::~~QEvent()

The Run Time Type Information for the QEvent class is described by [Table 17-27](#)

Table 17-27. typeinfo for QEvent

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QEvent

17.2.5.3. Class data for QTimerEvent

The virtual table for the QTimerEvent class is described by [Table 17-28](#)

Table 17-28. Primary vtable for QTimerEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTimerEvent
vfunc[0]:	QTimerEvent::~~QTimerEvent()
vfunc[1]:	QTimerEvent::~~QTimerEvent()

The Run Time Type Information for the QTimerEvent class is described by [Table 17-29](#)

Table 17-29. typeinfo for QTimerEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTimerEvent
basetype:	typeinfo for QEvent

17.2.5.4. Class data for QChildEvent

The virtual table for the QChildEvent class is described by [Table 17-30](#)

Table 17-30. Primary vtable for QChildEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QChildEvent
vfunc[0]:	QChildEvent::~~QChildEvent()
vfunc[1]:	QChildEvent::~~QChildEvent()

The Run Time Type Information for the QChildEvent class is described by [Table 17-31](#)

Table 17-31. typeinfo for QChildEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QChildEvent
basetype:	typeinfo for QEvent

17.2.5.5. Class data for QCustomEvent

The virtual table for the QCustomEvent class is described by [Table 17-32](#)

Table 17-32. Primary vtable for QCustomEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCustomEvent
vfunc[0]:	QCustomEvent::~~QCustomEvent()
vfunc[1]:	QCustomEvent::~~QCustomEvent()

The Run Time Type Information for the QCustomEvent class is described by [Table 17-33](#)

Table 17-33. typeinfo for QCustomEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCustomEvent
basetype:	typeinfo for QEvent

17.2.5.6. Class data for QAbstractEventDispatcher

The virtual table for the QAbstractEventDispatcher class is described by [Table 17-34](#)

Table 17-34. Primary vtable for QAbstractEventDispatcher

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractEventDispatcher
vfunc[0]:	QAbstractEventDispatcher::metaObject() const
vfunc[1]:	QAbstractEventDispatcher::qt_metacast(char const*)
vfunc[2]:	QAbstractEventDispatcher::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractEventDispatcher::~~QAbstractEventDispatcher()
vfunc[4]:	QAbstractEventDispatcher::~~QAbstractEventDispatcher()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	__cxa_pure_virtual
vfunc[17]:	__cxa_pure_virtual
vfunc[18]:	__cxa_pure_virtual
vfunc[19]:	__cxa_pure_virtual
vfunc[20]:	__cxa_pure_virtual
vfunc[21]:	__cxa_pure_virtual
vfunc[22]:	__cxa_pure_virtual
vfunc[23]:	QAbstractEventDispatcher::startingUp()
vfunc[24]:	QAbstractEventDispatcher::closingDown()

The Run Time Type Information for the QAbstractEventDispatcher class is described by [Table 17-35](#)

Table 17-35. typeinfo for QAbstractEventDispatcher

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractEventDispatcher
basetype:	typeinfo for QObject

17.2.5.7. Interfaces for Qt4 Events

An LSB conforming implementation shall provide the generic functions for Qt4 Events specified in [Table 17-36](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-36. libQtCore - Qt4 Events Function Interfaces

_ZN10QEventLoop11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN10QEventLoop11qt_metacastEPKc [QtCore]
_ZN10QEventLoop13processEventsE6QFlagsINS_17ProcessEventsFlagEE [QtCore]	_ZN10QEventLoop13processEventsE6QFlagsINS_17ProcessEventsFlagEE [QtCore]
_ZN10QEventLoop4execE6QFlagsINS_17ProcessEventsFlagEE [QtCore]	_ZN10QEventLoop4exitEi [QtCore]
_ZN10QEventLoop4quitEv [QtCore]	_ZN10QEventLoop6wakeUpEv [QtCore]
_ZN10QEventLoopC1EP7QObject [QtCore]	_ZN10QEventLoopC2EP7QObject [QtCore]
_ZN10QEventLoopD0Ev [QtCore]	_ZN10QEventLoopD1Ev [QtCore]
_ZN10QEventLoopD2Ev [QtCore]	_ZN11QChildEventC1EN6QEvent4TypeEP7QObject [QtCore]
_ZN11QChildEventC2EN6QEvent4TypeEP7QObject [QtCore]	_ZN11QChildEventD0Ev [QtCore]
_ZN11QChildEventD1Ev [QtCore]	_ZN11QChildEventD2Ev [QtCore]
_ZN11QTimerEventC1Ei [QtCore]	_ZN11QTimerEventC2Ei [QtCore]
_ZN11QTimerEventD0Ev [QtCore]	_ZN11QTimerEventD1Ev [QtCore]
_ZN11QTimerEventD2Ev [QtCore]	_ZN12QCustomEventC1EiPv [QtCore]
_ZN12QCustomEventC2EiPv [QtCore]	_ZN12QCustomEventD0Ev [QtCore]
_ZN12QCustomEventD1Ev [QtCore]	_ZN12QCustomEventD2Ev [QtCore]
_ZN24QAbstractEventDispatcher10startingUpEv [QtCore]	_ZN24QAbstractEventDispatcher11closeEv [QtCore]
_ZN24QAbstractEventDispatcher11filterEventEPv [QtCore]	_ZN24QAbstractEventDispatcher11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]
_ZN24QAbstractEventDispatcher11qt_metacastEPKc [QtCore]	_ZN24QAbstractEventDispatcher12abortEv [QtCore]
_ZN24QAbstractEventDispatcher13registerTimerEiP7QObject [QtCore]	_ZN24QAbstractEventDispatcher14setEnabledEv [QtCore]
_ZN24QAbstractEventDispatcher5awakeEv [QtCore]	_ZN24QAbstractEventDispatcher8installTimerEiP7QObject [QtCore]
_ZN24QAbstractEventDispatcherC1EP7QObject [QtCore]	_ZN24QAbstractEventDispatcherC2EP7QObject [QtCore]
_ZN24QAbstractEventDispatcherD0Ev [QtCore]	_ZN24QAbstractEventDispatcherD1Ev [QtCore]

_ZN24QAbstractEventDispatcherD2Ev [QtCore]	_ZN27QDynamicPropertyChangeEvent
_ZN27QDynamicPropertyChangeEventC2ERK10QByteArray [QtXml]	_ZN27QDynamicPropertyChangeEvent
_ZN27QDynamicPropertyChangeEventD1Ev [QtXml]	_ZN27QDynamicPropertyChangeEvent
_ZN6QEventC1ENS_4TypeE [QtCore]	_ZN6QEventC2ENS_4TypeE [QtCore]
_ZN6QEventD0Ev [QtCore]	_ZN6QEventD1Ev [QtCore]
_ZN6QEventD2Ev [QtCore]	_ZNK10QEventLoop10metaObjectEv [
_ZNK10QEventLoop9isRunningEv [QtCore]	_ZNK24QAbstractEventDispatcher10m

17.2.6. Qt4 Arrays

17.2.6.1. Interfaces for Qt4 Arrays

An LSB conforming implementation shall provide the generic functions for Qt4 Arrays specified in [Table 17-37](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-37. libQtCore - Qt4 Arrays Function Interfaces

_Z11qUncompressPKhi [QtCore]	_Z9qCompressPKhii [QtCore]
ZN10QByteArray10fromBase64ERKS [QtCore]	_ZN10QByteArray11fromRawDataEPKci [QtCore]
_ZN10QByteArray4chopEi [QtCore]	_ZN10QByteArray4fillEci [QtCore]
_ZN10QByteArray5clearEv [QtCore]	_ZN10QByteArray6appendEPKc [QtCore]
ZN10QByteArray6appendERKS [QtCore]	_ZN10QByteArray6appendEc [QtCore]
_ZN10QByteArray6expandEi [QtCore]	_ZN10QByteArray6insertEiPKc [QtCore]
ZN10QByteArray6insertEiRKS [QtCore]	_ZN10QByteArray6insertEic [QtCore]
_ZN10QByteArray6numberEdci [QtCore]	_ZN10QByteArray6numberEii [QtCore]
_ZN10QByteArray6numberEji [QtCore]	_ZN10QByteArray6numberExi [QtCore]
_ZN10QByteArray6numberEyi [QtCore]	_ZN10QByteArray6removeEii [QtCore]
_ZN10QByteArray6resizeEi [QtCore]	_ZN10QByteArray6setNumEdci [QtCore]
_ZN10QByteArray6setNumExi [QtCore]	_ZN10QByteArray6setNumEyi [QtCore]
_ZN10QByteArray7prependEPKc [QtCore]	_ZN10QByteArray7prependERKS_ [QtCore]
_ZN10QByteArray7prependEc [QtCore]	_ZN10QByteArray7reallocEi [QtCore]
_ZN10QByteArray7replaceERKS_S1_ [QtCore]	_ZN10QByteArray7replaceEcRKS_ [QtCore]
_ZN10QByteArray7replaceEcc [QtCore]	_ZN10QByteArray7replaceEiiRKS_ [QtCore]
_ZN10QByteArray8truncateEi [QtCore]	_ZN10QByteArrayC1EPKc [QtCore]
_ZN10QByteArrayC1EPKci [QtCore]	_ZN10QByteArrayC1Eic [QtCore]

<u>_ZN10QByteArrayC2EPKc [QtCore]</u>	<u>_ZN10QByteArrayC2EPKci [QtCore]</u>
<u>_ZN10QByteArrayC2Eic [QtCore]</u>	<u>_ZN10QByteArrayaSEPKc [QtCore]</u>
<u>_ZN10QByteArrayaSERKS_ [QtCore]</u>	<u>_ZN17QByteArrayMatcher10setPatternERK10QByteArray [QtCore]</u>
<u>_ZN17QByteArrayMatcherC1ERK10QByteArray [QtCore]</u>	<u>_ZN17QByteArrayMatcherC1ERKS_ [QtCore]</u>
<u>_ZN17QByteArrayMatcherC1Ev [QtCore]</u>	<u>_ZN17QByteArrayMatcherC2ERK10QByteArray [QtCore]</u>
<u>_ZN17QByteArrayMatcherC2ERKS_ [QtCore]</u>	<u>_ZN17QByteArrayMatcherC2Ev [QtCore]</u>
<u>_ZN17QByteArrayMatcherD1Ev [QtCore]</u>	<u>_ZN17QByteArrayMatcherD2Ev [QtCore]</u>
<u>_ZN17QByteArrayMatcheraSERKS_ [QtCore]</u>	<u>_ZN9QBitArray4fillEbii [QtCore]</u>
<u>_ZN9QBitArray6resizeEi [QtCore]</u>	<u>_ZN9QBitArrayC1Eib [QtCore]</u>
<u>_ZN9QBitArrayC2Eib [QtCore]</u>	<u>_ZN9QBitArrayaNERKS_ [QtCore]</u>
<u>_ZN9QBitArrayeOERKS_ [QtCore]</u>	<u>_ZN9QBitArrayoRERKS_ [QtCore]</u>
<u>_ZNK10QByteArray10simplifiedEv [QtCore]</u>	<u>_ZNK10QByteArray10startsWithEPKc [QtCore]</u>
<u>_ZNK10QByteArray10startsWithERKS_ [QtCore]</u>	<u>_ZNK10QByteArray10startsWithEc [QtCore]</u>
<u>_ZNK10QByteArray10toLongLongEPbi [QtCore]</u>	<u>_ZNK10QByteArray11lastIndexOfERKS_i [QtCore]</u>
<u>_ZNK10QByteArray11lastIndexOfEci [QtCore]</u>	<u>_ZNK10QByteArray11toULongLongEPbi [QtCore]</u>
<u>_ZNK10QByteArray13leftJustifiedEicb [QtCore]</u>	<u>_ZNK10QByteArray14rightJustifiedEicb [QtCore]</u>
<u>_ZNK10QByteArray3midEii [QtCore]</u>	<u>_ZNK10QByteArray4leftEi [QtCore]</u>
<u>_ZNK10QByteArray5countEPKc [QtCore]</u>	<u>_ZNK10QByteArray5countERKS_ [QtCore]</u>
<u>_ZNK10QByteArray5countEc [QtCore]</u>	<u>_ZNK10QByteArray5rightEi [QtCore]</u>
<u>_ZNK10QByteArray5splitEc [QtCore]</u>	<u>_ZNK10QByteArray5toIntEPbi [QtCore]</u>
<u>_ZNK10QByteArray6isNullEv [QtCore]</u>	<u>_ZNK10QByteArray6toLongEPbi [QtCore]</u>
<u>_ZNK10QByteArray6toUIntEPbi [QtCore]</u>	<u>_ZNK10QByteArray7indexOfERKS_i [QtCore]</u>
<u>_ZNK10QByteArray7indexOfEci [QtCore]</u>	<u>_ZNK10QByteArray7toFloatEPb [QtCore]</u>
<u>_ZNK10QByteArray7toLowerEv [QtCore]</u>	<u>_ZNK10QByteArray7toShortEPbi [QtCore]</u>
<u>_ZNK10QByteArray7toULongEPbi [QtCore]</u>	<u>_ZNK10QByteArray7toUpperEv [QtCore]</u>
<u>_ZNK10QByteArray7trimmedEv [QtCore]</u>	<u>_ZNK10QByteArray8endsWithEPKc [QtCore]</u>
<u>_ZNK10QByteArray8endsWithERKS_ [QtCore]</u>	<u>_ZNK10QByteArray8endsWithEc [QtCore]</u>
<u>_ZNK10QByteArray8toBase64Ev [QtCore]</u>	<u>_ZNK10QByteArray8toDoubleEPb [QtCore]</u>
<u>_ZNK10QByteArray8toUShortEPbi [QtCore]</u>	<u>_ZNK17QByteArrayMatcher7indexInERK10QByteArrayi [QtCore]</u>

_ZNK9QBitArray5countEb [QtCore]	_ZNK9QBitArraycoEv [QtCore]
ZanRK9QBitArrayS1 [QtCore]	_ZeoRK9QBitArrayS1_ [QtCore]
_ZlsR11QDataStreamRK10QByteArray [QtCore]	_ZlsR11QDataStreamRK9QBitArray [QtCore]
ZorRK9QBitArrayS1 [QtCore]	_ZrsR11QDataStreamR10QByteArray [QtCore]
_ZrsR11QDataStreamR9QBitArray [QtCore]	

17.2.7. Qt4 Plugins

17.2.7.1. Class data for QTextCodecPlugin

The virtual table for the QTextCodecPlugin class is described by [Table 17-38](#)

Table 17-38. Primary vtable for QTextCodecPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextCodecPlugin
vfunc[0]:	QTextCodecPlugin::metaObject() const
vfunc[1]:	QTextCodecPlugin::qt_metacast(char const*)
vfunc[2]:	QTextCodecPlugin::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTextCodecPlugin::~~QTextCodecPlugin()
vfunc[4]:	QTextCodecPlugin::~~QTextCodecPlugin()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	__cxa_pure_virtual
vfunc[17]:	QTextCodecPlugin::keys() const

vfunc[18]:	QTextCodecPlugin::create(QString const&)

The Run Time Type Information for the QTextCodecPlugin class is described by [Table 17-39](#)

Table 17-39. typeinfo for QTextCodecPlugin

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QTextCodecPlugin	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QTextCodecFactoryInterface	2050

17.2.7.2. Class data for QPluginLoader

The virtual table for the QPluginLoader class is described by [Table 17-40](#)

Table 17-40. Primary vtable for QPluginLoader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPluginLoader
vfunc[0]:	QPluginLoader::metaObject() const
vfunc[1]:	QPluginLoader::qt_metacast(char const*)
vfunc[2]:	QPluginLoader::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QPluginLoader::~QPluginLoader()
vfunc[4]:	QPluginLoader::~QPluginLoader()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QPluginLoader class is described by [Table 17-41](#)

Table 17-41. typeinfo for QPluginLoader

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPluginLoader
basetype:	typeinfo for QObject

17.2.7.3. Class data for QLibrary

The virtual table for the QLibrary class is described by [Table 17-42](#)

Table 17-42. Primary vtable for QLibrary

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLibrary
vfunc[0]:	QLibrary::metaObject() const
vfunc[1]:	QLibrary::qt_metacast(char const*)
vfunc[2]:	QLibrary::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QLibrary::~~QLibrary()
vfunc[4]:	QLibrary::~QLibrary()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QLibrary class is described by [Table 17-43](#)

Table 17-43. typeinfo for QLibrary

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QLibrary
basetype:	typeinfo for QObject

17.2.7.4. Interfaces for Qt4 Plugins

An LSB conforming implementation shall provide the generic functions for Qt4 Plugins specified in [Table 17-44](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-44. libQtCore - Qt4 Plugins Function Interfaces

_ZN13QPluginLoader11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN13QPluginLoader11qt_metacastEPKc [QtCore]
_ZN13QPluginLoader11setFileNameERK7QString [QtCore]	_ZN13QPluginLoader15staticInstancesEv [QtCore]
_ZN13QPluginLoader4loadEv [QtCore]	_ZN13QPluginLoader6unloadEv [QtCore]
_ZN13QPluginLoader8instanceEv [QtCore]	_ZN13QPluginLoaderC1EP7QObject [QtCore]
_ZN13QPluginLoaderC1ERK7QStringP7QObject [QtCore]	_ZN13QPluginLoaderC2EP7QObject [QtCore]
_ZN13QPluginLoaderC2ERK7QStringP7QObject [QtCore]	_ZN13QPluginLoaderD0Ev [QtCore]
_ZN13QPluginLoaderD1Ev [QtCore]	_ZN13QPluginLoaderD2Ev [QtCore]
_ZN16QTextCodecPlugin11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN16QTextCodecPlugin11qt_metacastEPKc [QtCore]
_ZN16QTextCodecPlugin6createERK7QString [QtCore]	_ZN16QTextCodecPluginC1EP7QObject [QtCore]
_ZN16QTextCodecPluginC2EP7QObject [QtCore]	_ZN16QTextCodecPluginD0Ev [QtCore]
_ZN16QTextCodecPluginD1Ev [QtCore]	_ZN16QTextCodecPluginD2Ev [QtCore]
_ZN8QLibrary11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN8QLibrary11qt_metacastEPKc [QtCore]
_ZN8QLibrary11setFileNameERK7QString [QtCore]	_ZN8QLibrary12setLoadHintsE6QFlagsINS [QtXml]
_ZN8QLibrary21setFileNameAndVersionERK7QStringi [QtCore]	_ZN8QLibrary4loadEv [QtCore]
_ZN8QLibrary6unloadEv [QtCore]	_ZN8QLibrary7resolveEPKc [QtCore]
_ZN8QLibrary7resolveERK7QStringPKc [QtCore]	_ZN8QLibrary7resolveERK7QStringiPKc [QtCore]
_ZN8QLibrary9isLibraryERK7QString [QtCore]	_ZN8QLibraryC1EP7QObject [QtCore]
_ZN8QLibraryC1ERK7QStringP7QObject [QtCore]	_ZN8QLibraryC1ERK7QStringiP7QObject [QtCore]
_ZN8QLibraryC2EP7QObject [QtCore]	_ZN8QLibraryC2ERK7QStringP7QObject [QtCore]
_ZN8QLibraryC2ERK7QStringiP7QObject [QtCore]	_ZN8QLibraryD0Ev [QtCore]
_ZN8QLibraryD1Ev [QtCore]	_ZN8QLibraryD2Ev [QtCore]
_ZNK13QPluginLoader10metaObjectEv [QtCore]	_ZNK13QPluginLoader11errorStringEv [QtCore]
_ZNK13QPluginLoader8fileNameEv [QtCore]	_ZNK13QPluginLoader8isLoadingEv [QtCore]
_ZNK16QTextCodecPlugin10metaObjectEv [QtCore]	_ZNK16QTextCodecPlugin4keysEv [QtCore]
_ZNK8QLibrary10metaObjectEv [QtCore]	_ZNK8QLibrary11errorStringEv [QtXml]
_ZNK8QLibrary8fileNameEv [QtCore]	_ZNK8QLibrary8isLoadingEv [QtCore]

17.2.8. Qt4 Date and Time

17.2.8.1. Class data for QTimer

The virtual table for the QTimer class is described by [Table 17-45](#)

Table 17-45. Primary vtable for QTimer

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTimer
vfunc[0]:	QTimer::metaObject() const
vfunc[1]:	QTimer::qt_metacast(char const*)
vfunc[2]:	QTimer::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTimer::~~QTimer()
vfunc[4]:	QTimer::~~QTimer()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QTimer::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QTimer class is described by [Table 17-46](#)

Table 17-46. typeinfo for QTimer

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTimer
basetype:	typeinfo for QObject

17.2.8.2. Interfaces for Qt4 Date and Time

An LSB conforming implementation shall provide the generic functions for Qt4 Date and Time specified in [Table 17-47](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-47. libQtCore - Qt4 Date and Time Function Interfaces

_ZN11QBasicTimer4stopEv [QtCore]	_ZN11QBasicTimer5startEiP7QObject [QtCore]
_ZN5QDate10fromStringERK7QStringN2Qt10DateFormatE [QtCore]	_ZN5QDate10fromStringERK7QStringS2_ [QtCore]
_ZN5QDate10isLeapYearEi [QtCore]	_ZN5QDate11currentDateEv [QtCore]
_ZN5QDate11longDayNameEi [QtCore]	_ZN5QDate12shortDayNameEi [QtCore]
_ZN5QDate13longMonthNameEi [QtCore]	_ZN5QDate14shortMonthNameEi [QtCore]
_ZN5QDate17gregorianToJulianEiii [QtCore]	_ZN5QDate17julianToGregorianEjRiS0_S0_ [QtCore]
_ZN5QDate6setYMDEiii [QtCore]	_ZN5QDate7isValidEiii [QtCore]
_ZN5QDate7setDateEiii [QtXml]	_ZN5QDateC1Eiii [QtCore]
_ZN5QDateC2Eiii [QtCore]	_ZN5QTime10fromStringERK7QStringN2Qt10DateFormatE [QtCore]
ZN5QTime10fromStringERK7QStringS2 [QtCore]	_ZN5QTime11currentTimeEv [QtCore]
_ZN5QTime5startEv [QtCore]	_ZN5QTime6setHMSSEiiii [QtCore]
_ZN5QTime7isValidEiiii [QtCore]	_ZN5QTime7restartEv [QtCore]
_ZN5QTimeC1Eiiii [QtCore]	_ZN5QTimeC2Eiiii [QtCore]
_ZN6QTimer10singleShotEiP7QObjectPKc [QtCore]	_ZN6QTimer10timerEventEP11QTimerEvent [QtCore]
_ZN6QTimer11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN6QTimer11qt_metacastEPKc [QtCore]
_ZN6QTimer11setIntervalEi [QtCore]	_ZN6QTimer4stopEv [QtCore]
_ZN6QTimer5startEi [QtCore]	_ZN6QTimer5startEib [QtCore]
_ZN6QTimer5startEv [QtCore]	_ZN6QTimer7timeoutEv [QtCore]
_ZN6QTimerC1EP7QObject [QtCore]	_ZN6QTimerC1EP7QObjectPKc [QtCore]
_ZN6QTimerC2EP7QObject [QtCore]	_ZN6QTimerC2EP7QObjectPKc [QtCore]
_ZN6QTimerD0Ev [QtCore]	_ZN6QTimerD1Ev [QtCore]
_ZN6QTimerD2Ev [QtCore]	_ZN9QDateTime10fromStringERK7QStringN2Qt10DateFormatE [QtCore]
ZN9QDateTime10fromStringERK7QStringS2 [QtCore]	_ZN9QDateTime10fromTime_tEj [QtXml]
_ZN9QDateTime11setTimeSpecEN2Qt8TimeSpecE [QtCore]	_ZN9QDateTime15currentDateTimeEv [QtCore]
_ZN9QDateTime7setDateERK5QDate [QtCore]	_ZN9QDateTime7setTimeERK5QTime [QtCore]
_ZN9QDateTime9setTime_tEj [QtCore]	_ZN9QDateTimeC1ERK5QDate [QtCore]
_ZN9QDateTimeC1ERK5QDateRK5QTimeN2Qt8TimeSpecE [QtCore]	_ZN9QDateTimeC1ERKS_ [QtCore]
_ZN9QDateTimeC1Ev [QtCore]	_ZN9QDateTimeC2ERK5QDate [QtCore]

_ZN9QDateC2ERK5QTimeN2Qt8TimeSpecE [QtCore]	_ZN9QDateC2ERKS_ [QtCore]
_ZN9QDateC2Ev [QtCore]	_ZN9QDateD1Ev [QtCore]
_ZN9QDateD2Ev [QtCore]	_ZN9QDateaSERKS_ [QtCore]
_ZN9QTimeLine10timerEventEP11QTimerEvent [QtXml]	_ZN9QTimeLine11qt_metacallEN11QMetaObject4 [QtXml]
_ZN9QTimeLine11qt_metacastEPKc [QtXml]	_ZN9QTimeLine11setDurationEi [QtXml]
_ZN9QTimeLine11setEndFrameEi [QtXml]	_ZN9QTimeLine12frameChangedEi [QtXml]
_ZN9QTimeLine12setDirectionENS_9DirectionE [QtXml]	_ZN9QTimeLine12setLoopCountEi [QtXml]
_ZN9QTimeLine12stateChangedENS_5StateE [QtXml]	_ZN9QTimeLine12valueChangedEd [QtXml]
_ZN9QTimeLine13setCurveShapeENS_10CurveShapeE [QtXml]	_ZN9QTimeLine13setFrameRangeEii [QtXml]
_ZN9QTimeLine13setStartFrameEi [QtXml]	_ZN9QTimeLine14setCurrentTimeEi [QtXml]
_ZN9QTimeLine15toggleDirectionEv [QtXml]	_ZN9QTimeLine17setUpdateIntervalEi [QtXml]
_ZN9QTimeLine4stopEv [QtXml]	_ZN9QTimeLine5startEv [QtXml]
_ZN9QTimeLine8finishedEv [QtXml]	_ZN9QTimeLine9setPausedEb [QtXml]
_ZN9QTimeLineC1EiP7QObject [QtXml]	_ZN9QTimeLineC2EiP7QObject [QtXml]
_ZN9QTimeLineD0Ev [QtXml]	_ZN9QTimeLineD1Ev [QtXml]
_ZN9QTimeLineD2Ev [QtXml]	_ZNK5QDate10daysInYearEv [QtCore]
_ZNK5QDate10weekNumberEPi [QtCore]	_ZNK5QDate11daysInMonthEv [QtCore]
_ZNK5QDate3dayEv [QtCore]	_ZNK5QDate4yearEv [QtCore]
_ZNK5QDate5monthEv [QtCore]	_ZNK5QDate6daysToERKS_ [QtCore]
_ZNK5QDate7addDaysEi [QtCore]	_ZNK5QDate7isValidEv [QtCore]
_ZNK5QDate8addYearsEi [QtCore]	_ZNK5QDate8toStringEN2Qt10DateFormatE [QtCore]
_ZNK5QDate8toStringERK7QString [QtCore]	_ZNK5QDate9addMonthsEi [QtCore]
_ZNK5QDate9dayOfWeekEv [QtCore]	_ZNK5QDate9dayOfYearEv [QtCore]
_ZNK5QTime4hourEv [QtCore]	_ZNK5QTime4msecEv [QtCore]
_ZNK5QTime6minuteEv [QtCore]	_ZNK5QTime6secondEv [QtCore]
ZNK5QTime6secsToERKS [QtCore]	_ZNK5QTime7addSecsEi [QtCore]
_ZNK5QTime7elapsedEv [QtCore]	_ZNK5QTime7isValidEv [QtCore]
ZNK5QTime7msecsToERKS [QtCore]	_ZNK5QTime8addMsecsEi [QtCore]
_ZNK5QTime8toStringEN2Qt10DateFormatE [QtCore]	_ZNK5QTime8toStringERK7QString [QtCore]
_ZNK6QTimer10metaObjectEv [QtCore]	_ZNK9QDate10toTimeSpecEN2Qt8TimeSpecE [QtCore]
_ZNK9QDate4dateEv [QtCore]	_ZNK9QDate4timeEv [QtCore]

ZNK9QDateTime6daysToERKS [QtCore]	_ZNK9QDateTime6isNullEv [QtCore]
ZNK9QDateTime6secsToERKS [QtCore]	_ZNK9QDateTime7addDaysEi [QtCore]
_ZNK9QDateTime7addSecsEi [QtCore]	_ZNK9QDateTime7isValidEv [QtCore]
_ZNK9QDateTime8addMSecsEx [QtCore]	_ZNK9QDateTime8addYearsEi [QtCore]
_ZNK9QDateTime8timeSpecEv [QtCore]	_ZNK9QDateTime8toStringEN2Qt10DateFormatE [QtCore]
_ZNK9QDateTime8toStringERK7QString [QtCore]	_ZNK9QDateTime8toTime_tEv [QtCore]
_ZNK9QDateTime9addMonthsEi [QtCore]	_ZNK9QDateTimeeqERKS_ [QtCore]
ZNK9QDateTimeeltERKS [QtCore]	_ZNK9QTimeLine10curveShapeEv [QtXml]
_ZNK9QTimeLine10metaObjectEv [QtXml]	_ZNK9QTimeLine10startFrameEv [QtXml]
_ZNK9QTimeLine11currentTimeEv [QtXml]	_ZNK9QTimeLine12currentFrameEv [QtXml]
_ZNK9QTimeLine12currentValueEv [QtXml]	_ZNK9QTimeLine12frameForTimeEi [QtXml]
_ZNK9QTimeLine12valueForTimeEi [QtXml]	_ZNK9QTimeLine14updateIntervalEv [QtXml]
_ZNK9QTimeLine5stateEv [QtXml]	_ZNK9QTimeLine8durationEv [QtXml]
_ZNK9QTimeLine8endFrameEv [QtXml]	_ZNK9QTimeLine9directionEv [QtXml]
_ZNK9QTimeLine9loopCountEv [QtXml]	_Zls6QDebugRK5QDate [QtCore]
_Zls6QDebugRK5QTime [QtCore]	_Zls6QDebugRK9QDateTime [QtCore]
_ZlsR11QDataStreamRK5QDate [QtCore]	_ZlsR11QDataStreamRK5QTime [QtCore]
_ZlsR11QDataStreamRK9QDateTime [QtCore]	_ZrsR11QDataStreamR5QDate [QtCore]
_ZrsR11QDataStreamR5QTime [QtCore]	_ZrsR11QDataStreamR9QDateTime [QtCore]

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Date and Time specified in [Table 17-48](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-48. libQtCore - Qt4 Date and Time Deprecated Function Interfaces

_ZN5QDate17gregorianToJulianEiii [QtCore]	_ZN5QDate17julianToGregorianEjRiS0_S0_ [QtCore]
_ZN5QDate6setYMDEiii [QtCore]	

17.2.9. Qt4 Miscellaneous

17.2.9.1. Class data for QFactoryInterface

The virtual table for the QFactoryInterface class is described by [Table 17-49](#)

Table 17-49. Primary vtable for QFactoryInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFactoryInterface
vfunc[0]:	NULL or QFactoryInterface::~~QFactoryInterface()
vfunc[1]:	NULL or QFactoryInterface::~~QFactoryInterface()
vfunc[2]:	__cxa_pure_virtual

The Run Time Type Information for the QFactoryInterface class is described by [Table 17-50](#)

Table 17-50. typeinfo for QFactoryInterface

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QFactoryInterface

17.2.9.2. Interfaces for Qt4 Miscellaneous

An LSB conforming implementation shall provide the generic functions for Qt4 Miscellaneous specified in [Table 17-51](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-51. libQtCore - Qt4 Miscellaneous Function Interfaces

_ZN12QLibraryInfo16licensedProductsEv [QtCore]	_ZN12QLibraryInfo8buildKeyEv [QtCore]
_ZN12QLibraryInfo8licenseeEv [QtCore]	_ZN12QLibraryInfo8locationENS_
_ZN5QUuid10createUuidEv [QtCore]	_ZN5QUuidC1EPKc [QtCore]
_ZN5QUuidC1ERK7QString [QtCore]	_ZN5QUuidC2EPKc [QtCore]
_ZN5QUuidC2ERK7QString [QtCore]	_ZN7QRegExp10setMinimalEb [QtCore]
_ZN7QRegExp10setPatternERK7QString [QtCore]	_ZN7QRegExp11errorStringEv [QtCore]
_ZN7QRegExp13capturedTextsEv [QtCore]	_ZN7QRegExp16setPatternSyntaxE
_ZN7QRegExp18setCaseSensitivityEN2Qt15CaseSensitivityE [QtCore]	_ZN7QRegExp3capEi [QtCore]
_ZN7QRegExp3posEi [QtCore]	_ZN7QRegExp6escapeERK7QString
_ZN7QRegExpC1ERK7QStringN2Qt15CaseSensitivityENS_13PatternSyntaxE [QtCore]	_ZN7QRegExpC1ERKS_ [QtCore]
_ZN7QRegExpC1Ev [QtCore]	_ZN7QRegExpC2ERK7QStringN2Qt15CaseSensitivityENS_13PatternSyntaxE [QtCore]
ZN7QRegExpC2ERKS [QtCore]	_ZN7QRegExpC2Ev [QtCore]
_ZN7QRegExpD1Ev [QtCore]	_ZN7QRegExpD2Ev [QtCore]

ZN7QRegExpaSERKS [QtCore]	_ZNK5QUuid6isNullEv [QtCore]
_ZNK5QUuid7variantEv [QtCore]	_ZNK5QUuid7versionEv [QtCore]
_ZNK5QUuid8toStringEv [QtCore]	_ZNK5QUuidgtERKS_ [LSB]
ZNK5QUuidltERKS [LSB]	_ZNK7QRegExp10exactMatchERK
_ZNK7QRegExp11lastIndexInERK7QStringiNS_9CaretModeE [QtCore]	_ZNK7QRegExp11numCapturesEv
_ZNK7QRegExp13matchedLengthEv [QtCore]	_ZNK7QRegExp13patternSyntaxEv
_ZNK7QRegExp15caseSensitivityEv [QtCore]	_ZNK7QRegExp7indexInERK7QS
_ZNK7QRegExp7isEmptyEv [QtCore]	_ZNK7QRegExp7isValidEv [QtCore]
_ZNK7QRegExp7patternEv [QtCore]	_ZNK7QRegExp9isMinimalEv [QtCore]
ZNK7QRegExpeqERKS [QtCore]	_ZlsR11QDataStreamRK5QUuid [QtCore]
_ZlsR11QDataStreamRK7QRegExp [QtCore]	_ZrsR11QDataStreamR5QUuid [QtCore]
_ZrsR11QDataStreamR7QRegExp [QtCore]	

17.2.10. Qt4 Text

17.2.10.1. Interfaces for Qt4 Text

An LSB conforming implementation shall provide the generic functions for Qt4 Text specified in [Table 17-52](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-52. libQtCore - Qt4 Text Function Interfaces

_ZN14QStringMatcher10setPatternERK7QString [QtCore]	_ZN14QStringMatcher18setPatternERK7QString [QtCore]
_ZN14QStringMatcherC1ERK7QStringN2Qt15CaseSensitivityE [QtCore]	_ZN14QStringMatcherC1ERK7QStringN2Qt15CaseSensitivityE [QtCore]
_ZN14QStringMatcherC1Ev [QtCore]	_ZN14QStringMatcherC2ERKS_ [QtCore]
ZN14QStringMatcherC2ERKS [QtCore]	_ZN14QStringMatcherC2Ev [QtCore]
_ZN14QStringMatcherD1Ev [QtCore]	_ZN14QStringMatcherD2ERKS_ [QtCore]
ZN14QStringMatcheraSERKS [QtCore]	_ZN5QChar9fromAsciiEc [QtCore]
_ZN5QCharC1Ec [QtCore]	_ZN5QCharC1Eh [QtCore]
_ZN5QCharC2Ec [QtCore]	_ZN5QCharC2Eh [QtCore]
_ZN7QString10fromLatin1EPKci [QtCore]	_ZN7QString10setUnicode [QtCore]
_ZN7QString11fromRawDataEPK5QChari [QtCore]	_ZN7QString13fromLocal [QtCore]
_ZN7QString14fromWCharArrayEPKwi [QtXml]	_ZN7QString16fromAscii [QtCore]
_ZN7QString17fromLatin1_helperEPKci [QtCore]	_ZN7QString4chopEi [QtCore]
_ZN7QString4fillE5QChari [QtCore]	_ZN7QString4freeEPNS_4 [QtCore]

_ZN7QString6appendE5QChar [QtCore]	_ZN7QString6appendERK5QChar [QtCore]
ZN7QString6appendERKS [QtCore]	_ZN7QString6expandEi [QtCore]
_ZN7QString6insertEi5QChar [QtCore]	_ZN7QString6insertEiPK5QChar [QtCore]
_ZN7QString6insertEiRK13QLatin1String [QtCore]	_ZN7QString6numberE [QtCore]
_ZN7QString6numberEii [QtCore]	_ZN7QString6numberEji [QtCore]
_ZN7QString6numberEli [QtCore]	_ZN7QString6numberEmi [QtCore]
_ZN7QString6numberExi [QtCore]	_ZN7QString6numberEyi [QtCore]
_ZN7QString6removeE5QCharN2Qt15CaseSensitivityE [QtCore]	_ZN7QString6removeERK5QChar [QtCore]
_ZN7QString6removeEii [QtCore]	_ZN7QString6resizeEi [QtCore]
_ZN7QString6setNumEdci [QtCore]	_ZN7QString6setNumExi [QtCore]
_ZN7QString6setNumEyi [QtCore]	_ZN7QString7reallocEi [QtCore]
_ZN7QString7reallocEv [QtCore]	_ZN7QString7replaceE5QChar [QtCore]
_ZN7QString7replaceE5QCharS0_N2Qt15CaseSensitivityE [QtCore]	_ZN7QString7replaceERK5QChar [QtCore]
_ZN7QString7replaceERKS_S1_N2Qt15CaseSensitivityE [QtCore]	_ZN7QString7replaceEii5QChar [QtCore]
_ZN7QString7replaceEiiPK5QChari [QtCore]	_ZN7QString7replaceEiiRK5QChar [QtCore]
_ZN7QString7sprintfEPKcz [QtCore]	_ZN7QString8fromUcs4E [QtCore]
_ZN7QString8fromUtf8EPKci [QtCore]	_ZN7QString8truncateEi [QtCore]
_ZN7QString9fromAsciiEPKci [QtCore]	_ZN7QString9fromUtf16E [QtCore]
_ZN7QStringC1E5QChar [QtCore]	_ZN7QStringC1EPK5QChar [QtCore]
_ZN7QStringC1Ei5QChar [QtCore]	_ZN7QStringC2E5QChar [QtCore]
_ZN7QStringC2EPK5QChari [QtCore]	_ZN7QStringC2Ei5QChar [QtCore]
_ZN7QStringaSE5QChar [QtCore]	_ZN7QStringaSERKS_ [QtCore]
_ZNK14QStringMatcher7indexInERK7QStringi [QtCore]	_ZNK5QChar10digitValue [QtCore]
_ZNK5QChar11hasMirroredEv [QtCore]	_ZNK5QChar12mirroredC [QtCore]
_ZNK5QChar13decompositionEv [QtCore]	_ZNK5QChar14combining [QtCore]
_ZNK5QChar14unicodeVersionEv [QtCore]	_ZNK5QChar16decompositionEv [QtCore]
_ZNK5QChar16isLetterOrNumberEv [QtCore]	_ZNK5QChar6isMarkEv [QtCore]
_ZNK5QChar7isDigitEv [QtCore]	_ZNK5QChar7isPrintEv [QtCore]
_ZNK5QChar7isPunctEv [QtCore]	_ZNK5QChar7isSpaceEv [QtCore]
_ZNK5QChar7joiningEv [QtCore]	_ZNK5QChar7toAsciiEv [QtCore]
_ZNK5QChar7toLowerEv [QtCore]	_ZNK5QChar7toUpperEv [QtCore]
_ZNK5QChar8categoryEv [QtCore]	_ZNK5QChar8isLetterEv [QtCore]
_ZNK5QChar8isNumberEv [QtCore]	_ZNK5QChar8isSymbolEv [QtCore]

_ZNK5QChar9directionEv [QtCore]	_ZNK7QString10normalize
_ZNK7QString10normalizedENS_17NormalizationFormEN5QChar14UnicodeVersionE [QtCore]	_ZNK7QString10simplified
_ZNK7QString10startsWithERK13QLatin1StringN2Qt15CaseSensitivityE [QtCore]	_ZNK7QString10startsWith
_ZNK7QString10startsWithERKS_N2Qt15CaseSensitivityE [QtCore]	_ZNK7QString10toLongL
_ZNK7QString11lastIndexOfE5QChariN2Qt15CaseSensitivityE [QtCore]	_ZNK7QString11lastIndex
_ZNK7QString11lastIndexOfERKS_iN2Qt15CaseSensitivityE [QtCore]	_ZNK7QString11toLocal8
_ZNK7QString11toULongLongEPbi [QtCore]	_ZNK7QString12ascii_hel
_ZNK7QString12toWCharArrayEPw [QtXml]	_ZNK7QString13latin1_he
_ZNK7QString13leftJustifiedEi5QCharb [QtCore]	_ZNK7QString14rightJusti
ZNK7QString18localeAwareCompareERKS [QtCore]	_ZNK7QString3argE5QCh
_ZNK7QString3argERKS_iRK5QChar [QtCore]	_ZNK7QString3argEciRK
_ZNK7QString3argEdiciRK5QChar [QtCore]	_ZNK7QString3argExiiRK
_ZNK7QString3argEyiiRK5QChar [QtCore]	_ZNK7QString3midEii [Q
_ZNK7QString4leftEi [QtCore]	_ZNK7QString5countE5Q
_ZNK7QString5countERK7QRegExp [QtCore]	_ZNK7QString5countERK
_ZNK7QString5rightEi [QtCore]	_ZNK7QString5splitERK5 [QtCore]
_ZNK7QString5splitERK7QRegExpNS_13SplitBehaviorE [QtCore]	_ZNK7QString5splitERKS [QtCore]
_ZNK7QString5toIntEPbi [QtCore]	_ZNK7QString5utf16Ev [Q
_ZNK7QString6toLongEPbi [QtCore]	_ZNK7QString6toUIntEPb
_ZNK7QString6toUcs4Ev [QtXml]	_ZNK7QString6toUtf8Ev [
_ZNK7QString7compareERK13QLatin1StringN2Qt15CaseSensitivityE [QtXml]	_ZNK7QString7compareE
_ZNK7QString7compareERKS_N2Qt15CaseSensitivityE [QtXml]	_ZNK7QString7indexOfE5
_ZNK7QString7indexOfERK7QRegExpi [QtCore]	_ZNK7QString7indexOfE
_ZNK7QString7sectionERK7QRegExpii6QFlagsINS_11SectionFlagEE [QtCore]	_ZNK7QString7sectionE
_ZNK7QString7toAsciiEv [QtCore]	_ZNK7QString7toFloatEP
_ZNK7QString7toLowerEv [QtCore]	_ZNK7QString7toShortE
_ZNK7QString7toULongEPbi [QtCore]	_ZNK7QString7toUpperE
_ZNK7QString7trimmedEv [QtCore]	_ZNK7QString8endsWith [QtCore]
_ZNK7QString8endsWithERK5QCharN2Qt15CaseSensitivityE [QtCore]	_ZNK7QString8endsWith
ZNK7QString8multiArgEiPPKS [QtCore]	_ZNK7QString8toDoubleE

<code>_ZNK7QString8toLatin1Ev</code> [QtCore]	<code>_ZNK7QString8toUShortE</code>
<code>_ZNK7QStringeqERK13QLatin1String</code> [QtCore]	<code>_ZNK7QStringeqERKS_</code> [QtCore]
<code>_ZNK7QStringgtERK13QLatin1String</code> [QtCore]	<code>_ZNK7QStringltERK13QLatin1String</code> [QtCore]
<code>_ZNK7QStringltERKS_</code> [QtCore]	<code>_ZlsR11QDataStreamRK5QString</code> [QtCore]
<code>_ZlsR11QDataStreamRK7QString</code> [QtCore]	<code>_ZrsR11QDataStreamR5QString</code> [QtCore]
<code>_ZrsR11QDataStreamR7QString</code> [QtCore]	

17.2.11. Qt4 Input/Output

17.2.11.1. Class data for QIODevice

The virtual table for the QIODevice class is described by [Table 17-53](#)

Table 17-53. Primary vtable for QIODevice

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIODevice
vfunc[0]:	QIODevice::metaObject() const
vfunc[1]:	QIODevice::qt_metacast(char const*)
vfunc[2]:	QIODevice::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QIODevice::~~QIODevice()
vfunc[4]:	QIODevice::~~QIODevice()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QIODevice::isSequential() const
vfunc[13]:	QIODevice::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[14]:	QIODevice::close()
vfunc[15]:	QIODevice::pos() const
vfunc[16]:	QIODevice::size() const

vfunc[17]:	QIODevice::seek(long long)
vfunc[18]:	QIODevice::atEnd() const
vfunc[19]:	QIODevice::reset()
vfunc[20]:	QIODevice::bytesAvailable() const
vfunc[21]:	QIODevice::bytesToWrite() const
vfunc[22]:	QIODevice::canReadLine() const
vfunc[23]:	QIODevice::waitForReadyRead(int)
vfunc[24]:	QIODevice::waitForBytesWritten(int)
vfunc[25]:	__cxa_pure_virtual
vfunc[26]:	QIODevice::readLineData(char*, long long)
vfunc[27]:	__cxa_pure_virtual

The Run Time Type Information for the QIODevice class is described by [Table 17-54](#)

Table 17-54. typeinfo for QIODevice

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIODevice
basetype:	typeinfo for QObject

17.2.11.2. Class data for QDataStream

The virtual table for the QDataStream class is described by [Table 17-55](#)

Table 17-55. Primary vtable for QDataStream

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDataStream
vfunc[0]:	QDataStream::~~QDataStream()
vfunc[1]:	QDataStream::~~QDataStream()

The Run Time Type Information for the QDataStream class is described by [Table 17-56](#)

Table 17-56. typeinfo for QDataStream

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QDataStream

17.2.11.3. Class data for QTextStream

The virtual table for the QTextStream class is described by [Table 17-57](#)

Table 17-57. Primary vtable for QTextStream

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextStream
vfunc[0]:	QTextStream::~~QTextStream()
vfunc[1]:	QTextStream::~~QTextStream()

The Run Time Type Information for the QTextStream class is described by [Table 17-58](#)

Table 17-58. typeinfo for QTextStream

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QTextStream

17.2.11.4. Class data for QFile

The virtual table for the QFile class is described by [Table 17-59](#)

Table 17-59. Primary vtable for QFile

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFile
vfunc[0]:	QFile::metaObject() const
vfunc[1]:	QFile::qt_metacast(char const*)
vfunc[2]:	QFile::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QFile::~~QFile()
vfunc[4]:	QFile::~~QFile()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)

vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QFile::isSequential() const
vfunc[13]:	QFile::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[14]:	QFile::close()
vfunc[15]:	QFile::pos() const
vfunc[16]:	QFile::size() const
vfunc[17]:	QFile::seek(long long)
vfunc[18]:	QFile::atEnd() const
vfunc[19]:	QIODevice::reset()
vfunc[20]:	QIODevice::bytesAvailable() const
vfunc[21]:	QIODevice::bytesToWrite() const
vfunc[22]:	QIODevice::canReadLine() const
vfunc[23]:	QIODevice::waitForReadyRead(int)
vfunc[24]:	QIODevice::waitForBytesWritten(int)
vfunc[25]:	QFile::readData(char*, long long)
vfunc[26]:	QFile::readLineData(char*, long long)
vfunc[27]:	QFile::writeData(char const*, long long)
vfunc[28]:	QFile::fileEngine() const

The Run Time Type Information for the QFile class is described by [Table 17-60](#)

Table 17-60. typeinfo for QFile

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFile
basetype:	typeinfo for QIODevice

17.2.11.5. Class data for QTemporaryFile

The virtual table for the QTemporaryFile class is described by [Table 17-61](#)

Table 17-61. Primary vtable for QTemporaryFile

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QTemporaryFile
vfunc[0]:	QTemporaryFile::metaObject() const
vfunc[1]:	QTemporaryFile::qt_metacast(char const*)
vfunc[2]:	QTemporaryFile::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTemporaryFile::~~QTemporaryFile()
vfunc[4]:	QTemporaryFile::~~QTemporaryFile()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QFile::isSequential() const
vfunc[13]:	QTemporaryFile::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[14]:	QFile::close()
vfunc[15]:	QFile::pos() const
vfunc[16]:	QFile::size() const
vfunc[17]:	QFile::seek(long long)
vfunc[18]:	QFile::atEnd() const
vfunc[19]:	QIODevice::reset()
vfunc[20]:	QIODevice::bytesAvailable() const
vfunc[21]:	QIODevice::bytesToWrite() const
vfunc[22]:	QIODevice::canReadLine() const
vfunc[23]:	QIODevice::waitForReadyRead(int)
vfunc[24]:	QIODevice::waitForBytesWritten(int)
vfunc[25]:	QFile::readData(char*, long long)
vfunc[26]:	QFile::readLineData(char*, long long)
vfunc[27]:	QFile::writeData(char const*, long long)
vfunc[28]:	QTemporaryFile::fileEngine() const

The Run Time Type Information for the QTemporaryFile class is described by [Table 17-62](#)

Table 17-62. typeinfo for QTemporaryFile

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTemporaryFile
basetype:	typeinfo for QFile

17.2.11.6. Class data for QAbstractFileEngine

The virtual table for the QAbstractFileEngine class is described by [Table 17-63](#)

Table 17-63. Primary vtable for QAbstractFileEngine

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractFileEngine
vfunc[0]:	QAbstractFileEngine::~~QAbstractFileEngine()
vfunc[1]:	QAbstractFileEngine::~~QAbstractFileEngine()
vfunc[2]:	QAbstractFileEngine::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[3]:	QAbstractFileEngine::close()
vfunc[4]:	QAbstractFileEngine::flush()
vfunc[5]:	QAbstractFileEngine::size() const
vfunc[6]:	QAbstractFileEngine::pos() const
vfunc[7]:	QAbstractFileEngine::seek(long long)
vfunc[8]:	QAbstractFileEngine::isSequential() const
vfunc[9]:	QAbstractFileEngine::remove()
vfunc[10]:	QAbstractFileEngine::copy(QString const&)
vfunc[11]:	QAbstractFileEngine::rename(QString const&)
vfunc[12]:	QAbstractFileEngine::link(QString const&)
vfunc[13]:	QAbstractFileEngine::mkdir(QString const&, bool) const
vfunc[14]:	QAbstractFileEngine::rmdir(QString const&, bool) const
vfunc[15]:	QAbstractFileEngine::setSize(long long)
vfunc[16]:	QAbstractFileEngine::caseSensitive() const
vfunc[17]:	QAbstractFileEngine::isRelativePath() const
vfunc[18]:	QAbstractFileEngine::entryList(QFlags<QDir::Filter>, QStringList const&) const

vfunc[19]:	QAbstractFileEngine::fileFlags(QFlags<QAbstractFileEngine::FileFlag>) const
vfunc[20]:	QAbstractFileEngine::setPermissions(unsigned int)
vfunc[21]:	QAbstractFileEngine::fileName(QAbstractFileEngine::FileName) const
vfunc[22]:	QAbstractFileEngine::ownerId(QAbstractFileEngine::FileOwner) const
vfunc[23]:	QAbstractFileEngine::owner(QAbstractFileEngine::FileOwner) const
vfunc[24]:	QAbstractFileEngine::fileTime(QAbstractFileEngine::FileTime) const
vfunc[25]:	QAbstractFileEngine::setFileName(QString const&)
vfunc[26]:	QAbstractFileEngine::handle() const
vfunc[27]:	QAbstractFileEngine::beginEntryList(QFlags<QDir::Filter>, QStringList const&)
vfunc[28]:	QAbstractFileEngine::endEntryList()
vfunc[29]:	QAbstractFileEngine::read(char*, long long)
vfunc[30]:	QAbstractFileEngine::readLine(char*, long long)
vfunc[31]:	QAbstractFileEngine::write(char const*, long long)
vfunc[32]:	QAbstractFileEngine::extension(QAbstractFileEngine::Extension, QAbstractFileEngine::ExtensionOption const*, QAbstractFileEngine::ExtensionReturn*)
vfunc[33]:	QAbstractFileEngine::supportsExtension(QAbstractFileEngine::Extension) const

The Run Time Type Information for the QAbstractFileEngine class is described by [Table 17-64](#)

Table 17-64. typeinfo for QAbstractFileEngine

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QAbstractFileEngine

17.2.11.7. Class data for QAbstractFileEngineHandler

The virtual table for the QAbstractFileEngineHandler class is described by [Table 17-65](#)

Table 17-65. Primary vtable for QAbstractFileEngineHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractFileEngineHandler
vfunc[0]:	QAbstractFileEngineHandler::~~QAbstractFileEngineHandler()
vfunc[1]:	QAbstractFileEngineHandler::~~QAbstractFileEngineHandler()
vfunc[2]:	__cxa_pure_virtual

The Run Time Type Information for the QAbstractFileEngineHandler class is described by [Table 17-66](#)

Table 17-66. typeinfo for QAbstractFileEngineHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QAbstractFileEngineHandler

17.2.11.8. Class data for QFSFileEngine

The virtual table for the QFSFileEngine class is described by [Table 17-67](#)

Table 17-67. Primary vtable for QFSFileEngine

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFSFileEngine
vfunc[0]:	QFSFileEngine::~~QFSFileEngine()
vfunc[1]:	QFSFileEngine::~~QFSFileEngine()
vfunc[2]:	QFSFileEngine::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[3]:	QFSFileEngine::close()
vfunc[4]:	QFSFileEngine::flush()
vfunc[5]:	QFSFileEngine::size() const
vfunc[6]:	QFSFileEngine::pos() const
vfunc[7]:	QFSFileEngine::seek(long long)
vfunc[8]:	QFSFileEngine::isSequential() const
vfunc[9]:	QFSFileEngine::remove()
vfunc[10]:	QFSFileEngine::copy(QString const&)
vfunc[11]:	QFSFileEngine::rename(QString const&)
vfunc[12]:	QFSFileEngine::link(QString const&)
vfunc[13]:	QFSFileEngine::mkdir(QString const&, bool) const
vfunc[14]:	QFSFileEngine::rmdir(QString const&, bool) const
vfunc[15]:	QFSFileEngine::setSize(long long)
vfunc[16]:	QFSFileEngine::caseSensitive() const
vfunc[17]:	QFSFileEngine::isRelativePath() const
vfunc[18]:	QFSFileEngine::entryList(QFlags<QDir::Filter>, QStringList const&) const
vfunc[19]:	QFSFileEngine::fileFlags(QFlags<QAbstractFileEngine::FileFlag>) const

vfunc[20]:	QFSFileEngine::setPermissions(unsigned int)
vfunc[21]:	QFSFileEngine::fileName(QAbstractFileEngine::FileName) const
vfunc[22]:	QFSFileEngine::ownerId(QAbstractFileEngine::FileOwner) const
vfunc[23]:	QFSFileEngine::owner(QAbstractFileEngine::FileOwner) const
vfunc[24]:	QFSFileEngine::fileTime(QAbstractFileEngine::FileTime) const
vfunc[25]:	QFSFileEngine::setFileName(QString const&)
vfunc[26]:	QFSFileEngine::handle() const
vfunc[27]:	QFSFileEngine::beginEntryList(QFlags<QDir::Filter>, QStringList const&)
vfunc[28]:	QFSFileEngine::endEntryList()
vfunc[29]:	QFSFileEngine::read(char*, long long)
vfunc[30]:	QFSFileEngine::readLine(char*, long long)
vfunc[31]:	QFSFileEngine::write(char const*, long long)
vfunc[32]:	QFSFileEngine::extension(QAbstractFileEngine::Extension, QAbstractFileEngine::ExtensionOption const*, QAbstractFileEngine::ExtensionReturn*)
vfunc[33]:	QFSFileEngine::supportsExtension(QAbstractFileEngine::Extension) const

The Run Time Type Information for the QFSFileEngine class is described by [Table 17-68](#)

Table 17-68. typeinfo for QFSFileEngine

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFSFileEngine
basetype:	typeinfo for QAbstractFileEngine

17.2.11.9. Class data for QProcess

The virtual table for the QProcess class is described by [Table 17-69](#)

Table 17-69. Primary vtable for QProcess

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QProcess
vfunc[0]:	QProcess::metaObject() const
vfunc[1]:	QProcess::qt_metacast(char const*)
vfunc[2]:	QProcess::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QProcess::~~QProcess()

vfunc[4]:	QProcess::~~QProcess()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QProcess::isSequential() const
vfunc[13]:	QIODevice::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[14]:	QProcess::close()
vfunc[15]:	QIODevice::pos() const
vfunc[16]:	QIODevice::size() const
vfunc[17]:	QIODevice::seek(long long)
vfunc[18]:	QProcess::atEnd() const
vfunc[19]:	QIODevice::reset()
vfunc[20]:	QProcess::bytesAvailable() const
vfunc[21]:	QProcess::bytesToWrite() const
vfunc[22]:	QProcess::canReadLine() const
vfunc[23]:	QProcess::waitForReadyRead(int)
vfunc[24]:	QProcess::waitForBytesWritten(int)
vfunc[25]:	QProcess::readData(char*, long long)
vfunc[26]:	QIODevice::readLineData(char*, long long)
vfunc[27]:	QProcess::writeData(char const*, long long)
vfunc[28]:	QProcess::setupChildProcess()

The Run Time Type Information for the QProcess class is described by [Table 17-70](#)

Table 17-70. typeinfo for QProcess

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QProcess
basetype:	typeinfo for QIODevice

17.2.11.10. Class data for QBuffer

The virtual table for the QBuffer class is described by [Table 17-71](#)

Table 17-71. Primary vtable for QBuffer

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QBuffer
vfunc[0]:	QBuffer::metaObject() const
vfunc[1]:	QBuffer::qt_metacast(char const*)
vfunc[2]:	QBuffer::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QBuffer::~~QBuffer()
vfunc[4]:	QBuffer::~~QBuffer()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QIODevice::isSequential() const
vfunc[13]:	QBuffer::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[14]:	QBuffer::close()
vfunc[15]:	QBuffer::pos() const
vfunc[16]:	QBuffer::size() const
vfunc[17]:	QBuffer::seek(long long)
vfunc[18]:	QBuffer::atEnd() const
vfunc[19]:	QIODevice::reset()
vfunc[20]:	QIODevice::bytesAvailable() const
vfunc[21]:	QIODevice::bytesToWrite() const
vfunc[22]:	QBuffer::canReadLine() const
vfunc[23]:	QIODevice::waitForReadyRead(int)
vfunc[24]:	QIODevice::waitForBytesWritten(int)

vfunc[25]:	QBuffer::readData(char*, long long)
vfunc[26]:	QIODevice::readLineData(char*, long long)
vfunc[27]:	QBuffer::writeData(char const*, long long)

The Run Time Type Information for the QBuffer class is described by [Table 17-72](#)

Table 17-72. typeinfo for QBuffer

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QBuffer
basetype:	typeinfo for QIODevice

17.2.11.11. Class data for QSettings

The virtual table for the QSettings class is described by [Table 17-73](#)

Table 17-73. Primary vtable for QSettings

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSettings
vfunc[0]:	QSettings::metaObject() const
vfunc[1]:	QSettings::qt_metacast(char const*)
vfunc[2]:	QSettings::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSettings::~~QSettings()
vfunc[4]:	QSettings::~~QSettings()
vfunc[5]:	QSettings::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QSettings class is described by [Table 17-74](#)

Table 17-74. typeinfo for QSettings

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSettings
basetype:	typeinfo for QObject

17.2.11.12. Class data for QSignalMapper

The virtual table for the QSignalMapper class is described by [Table 17-75](#)

Table 17-75. Primary vtable for QSignalMapper

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSignalMapper
vfunc[0]:	QSignalMapper::metaObject() const
vfunc[1]:	QSignalMapper::qt_metacast(char const*)
vfunc[2]:	QSignalMapper::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSignalMapper::~QSignalMapper()
vfunc[4]:	QSignalMapper::~QSignalMapper()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QSignalMapper class is described by [Table 17-76](#)

Table 17-76. typeinfo for QSignalMapper

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSignalMapper
basetype:	typeinfo for QObject

17.2.11.13. Class data for QSocketNotifier

The virtual table for the QSocketNotifier class is described by [Table 17-77](#)

Table 17-77. Primary vtable for QSocketNotifier

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSocketNotifier
vfunc[0]:	QSocketNotifier::metaObject() const
vfunc[1]:	QSocketNotifier::qt_metacast(char const*)
vfunc[2]:	QSocketNotifier::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSocketNotifier::~~QSocketNotifier()
vfunc[4]:	QSocketNotifier::~~QSocketNotifier()
vfunc[5]:	QSocketNotifier::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QSocketNotifier class is described by [Table 17-78](#)

Table 17-78. typeinfo for QSocketNotifier

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSocketNotifier
basetype:	typeinfo for QObject

17.2.11.14. Class data for QFileSystemWatcher

The virtual table for the QFileSystemWatcher class is described by [Table 17-79](#)

Table 17-79. Primary vtable for QFileSystemWatcher

Base Offset	0
Virtual Base Offset	0

RTTI	typeid for QFileSystemWatcher
vfunc[0]:	QFileSystemWatcher::metaObject() const
vfunc[1]:	QFileSystemWatcher::qt_metacast(char const*)
vfunc[2]:	QFileSystemWatcher::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QFileSystemWatcher::~~QFileSystemWatcher()
vfunc[4]:	QFileSystemWatcher::~~QFileSystemWatcher()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

17.2.11.15. Interfaces for Qt4 Input/Output

An LSB conforming implementation shall provide the generic functions for Qt4 Input/Output specified in [Table 17-80](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-80. libQtCore - Qt4 Input/Output Function Interfaces

_Z10forcepointR11QTextStream [QtCore]	_Z10noshowbaseR11Q
_Z10scientificR11QTextStream [QtCore]	_Z11noforcesignR11Q
_Z12noforcepointR11QTextStream [QtCore]	_Z13lowercasebaseR1
_Z13uppercasebaseR11QTextStream [QtCore]	_Z15lowercasedigitsR1
_Z15uppercasedigitsR11QTextStream [QtCore]	_Z2wsR11QTextStream
_Z3binR11QTextStream [QtCore]	_Z3bomR11QTextStream
_Z3decR11QTextStream [QtCore]	_Z3hexR11QTextStream
_Z3octR11QTextStream [QtCore]	_Z4endlR11QTextStream
_Z4leftR11QTextStream [QtCore]	_Z5fixedR11QTextStream
_Z5flushR11QTextStream [QtCore]	_Z5resetR11QTextStream
_Z5rightR11QTextStream [QtCore]	_Z6centerR11QTextStream
_Z8showbaseR11QTextStream [QtCore]	_Z9forcesignR11QText
_ZN11QDataStream10writeBytesEPKcj [QtCore]	_ZN11QDataStream11
_ZN11QDataStream11resetStatusEv [QtCore]	_ZN11QDataStream11

_ZN11QDataStream11unsetDeviceEv [QtCore]	_ZN11QDataStream12
_ZN11QDataStream12writeRawDataEPKci [QtCore]	_ZN11QDataStream9re
_ZN11QDataStream9setDeviceEP9QIODevice [QtCore]	_ZN11QDataStream9s
_ZN11QDataStreamC1EP10QByteArray6QFlagsIN9QIODevice12OpenModeFlagEE [QtCore]	_ZN11QDataStreamC1
_ZN11QDataStreamC1EP9QIODevice [QtCore]	_ZN11QDataStreamC1
_ZN11QDataStreamC1Ev [QtCore]	_ZN11QDataStreamC2
_ZN11QDataStreamC2EP10QByteArrayi [QtCore]	_ZN11QDataStreamC2
_ZN11QDataStreamC2ERK10QByteArray [QtCore]	_ZN11QDataStreamC2
_ZN11QDataStreamD0Ev [QtCore]	_ZN11QDataStreamD1
_ZN11QDataStreamD2Ev [QtCore]	_ZN11QDataStreamlsE
_ZN11QDataStreamlsEa [QtCore]	_ZN11QDataStreamlsE
_ZN11QDataStreamlsEd [QtCore]	_ZN11QDataStreamlsE
_ZN11QDataStreamlsEi [QtCore]	_ZN11QDataStreamlsE
_ZN11QDataStreamlsEx [QtCore]	_ZN11QDataStreamrsE
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_ZN11QDataStreamrsERi [QtCore]	_ZN11QDataStreamrsE
_ZN11QDataStreamrsERx [QtCore]	_ZN11QTextStream10
_ZN11QTextStream11resetStatusEv [QtCore]	_ZN11QTextStream11
_ZN11QTextStream13setFieldWidthEi [QtCore]	_ZN11QTextStream14
_ZN11QTextStream14setNumberFlagsE6QFlagsINS_10NumberFlagEE [QtCore]	_ZN11QTextStream14
_ZN11QTextStream17setFieldAlignmentENS_14FieldAlignmentE [QtCore]	_ZN11QTextStream20
_ZN11QTextStream21setRealNumberNotationENS_18RealNumberNotationE [QtCore]	_ZN11QTextStream22
_ZN11QTextStream24setGenerateByteOrderMarkEb [QtCore]	_ZN11QTextStream4re
_ZN11QTextStream4seekEx [QtCore]	_ZN11QTextStream5fl
_ZN11QTextStream5resetEv [QtCore]	_ZN11QTextStream7re
_ZN11QTextStream8readLineEx [QtCore]	_ZN11QTextStream8s
_ZN11QTextStream8setCodecEPKc [QtCore]	_ZN11QTextStream9s
_ZN11QTextStream9setStatusENS_6StatusE [QtCore]	_ZN11QTextStream9s
_ZN11QTextStreamC1EP10QByteArray6QFlagsIN9QIODevice12OpenModeFlagEE [QtCore]	_ZN11QTextStreamC1
_ZN11QTextStreamC1EP8_IO_FILE6QFlagsIN9QIODevice12OpenModeFlagEE [QtCore]	_ZN11QTextStreamC1

<u>_ZN11QTextStreamC1ERK10QByteArray6QFlagsIN9QIODevice12OpenModeFlagEE [QtCore]</u>	<u>_ZN11QTextStreamC1</u>
<u>_ZN11QTextStreamC2EP10QByteArray6QFlagsIN9QIODevice12OpenModeFlagEE [QtCore]</u>	<u>_ZN11QTextStreamC2</u>
<u>_ZN11QTextStreamC2EP8_IO_FILE6QFlagsIN9QIODevice12OpenModeFlagEE [QtCore]</u>	<u>_ZN11QTextStreamC2</u>
<u>_ZN11QTextStreamC2ERK10QByteArray6QFlagsIN9QIODevice12OpenModeFlagEE [QtCore]</u>	<u>_ZN11QTextStreamC2</u>
<u>_ZN11QTextStreamD0Ev [QtCore]</u>	<u>_ZN11QTextStreamD</u>
<u>_ZN11QTextStreamD2Ev [QtCore]</u>	<u>_ZN11QTextStreamD</u>
<u>_ZN11QTextStreaml5EQChar [QtCore]</u>	<u>_ZN11QTextStreaml5E</u>
<u>_ZN11QTextStreaml5EPKv [QtCore]</u>	<u>_ZN11QTextStreaml5E</u>
<u>_ZN11QTextStreaml5ERK7QString [QtCore]</u>	<u>_ZN11QTextStreaml5E</u>
<u>_ZN11QTextStreaml5Ed [QtCore]</u>	<u>_ZN11QTextStreaml5E</u>
<u>_ZN11QTextStreaml5Ei [QtCore]</u>	<u>_ZN11QTextStreaml5E</u>
<u>_ZN11QTextStreaml5El [QtCore]</u>	<u>_ZN11QTextStreaml5E</u>
<u>_ZN11QTextStreaml5Es [QtCore]</u>	<u>_ZN11QTextStreaml5E</u>
<u>_ZN11QTextStreaml5Ex [QtCore]</u>	<u>_ZN11QTextStreaml5E</u>
<u>_ZN11QTextStreamr5EPc [QtCore]</u>	<u>_ZN11QTextStreamr5E</u>
<u>_ZN11QTextStreamr5ER5EQChar [QtCore]</u>	<u>_ZN11QTextStreamr5E</u>
<u>_ZN11QTextStreamr5ERc [QtCore]</u>	<u>_ZN11QTextStreamr5E</u>
<u>_ZN11QTextStreamr5ERf [QtCore]</u>	<u>_ZN11QTextStreamr5E</u>
<u>_ZN11QTextStreamr5ERj [QtCore]</u>	<u>_ZN11QTextStreamr5E</u>
<u>_ZN11QTextStreamr5ERm [QtCore]</u>	<u>_ZN11QTextStreamr5E</u>
<u>_ZN11QTextStreamr5ERt [QtCore]</u>	<u>_ZN11QTextStreamr5E</u>
<u>_ZN11QTextStreamr5ERy [QtCore]</u>	<u>_ZN13QFSFileEngine</u>
<u>_ZN13QFSFileEngine11setFileNameERK7QString [QtCore]</u>	<u>_ZN13QFSFileEngine</u>
<u>_ZN13QFSFileEngine14beginEntryListE6QFlagsIN4QDir6FilterEERK11QStringList [QtCore]</u>	<u>_ZN13QFSFileEngine</u>
<u>_ZN13QFSFileEngine14setPermissionsEj [QtCore]</u>	<u>_ZN13QFSFileEngine4</u>
<u>_ZN13QFSFileEngine4linkERK7QString [QtCore]</u>	<u>_ZN13QFSFileEngine4</u>
<u>_ZN13QFSFileEngine4openE6QFlagsIN9QIODevice12OpenModeFlagEEP8_IO_FILE [QtCore]</u>	<u>_ZN13QFSFileEngine4</u>
<u>_ZN13QFSFileEngine4readEPcx [QtCore]</u>	<u>_ZN13QFSFileEngine4</u>
<u>_ZN13QFSFileEngine5closeEv [QtCore]</u>	<u>_ZN13QFSFileEngine5</u>

_ZN13QFSFileEngine5writeEPKcx [QtCore]	_ZN13QFSFileEngine5writeEPKcx [QtCore]
_ZN13QFSFileEngine6removeEv [QtCore]	_ZN13QFSFileEngine6removeEv [QtCore]
_ZN13QFSFileEngine7setSizeEx [QtCore]	_ZN13QFSFileEngine7setSizeEx [QtCore]
_ZN13QFSFileEngine8readLineEPcx [QtCore]	_ZN13QFSFileEngine8readLineEPcx [QtCore]
_ZN13QFSFileEngine8tempPathEv [QtCore]	_ZN13QFSFileEngine8tempPathEv [QtCore]
_ZN13QFSFileEngineC1ERK7QString [QtCore]	_ZN13QFSFileEngineC1ERK7QString [QtCore]
_ZN13QFSFileEngineC2ERK7QString [QtCore]	_ZN13QFSFileEngineC2ERK7QString [QtCore]
_ZN13QFSFileEngineD0Ev [QtCore]	_ZN13QFSFileEngineD0Ev [QtCore]
_ZN13QFSFileEngineD2Ev [QtCore]	_ZN13QFSFileEngineD2Ev [QtCore]
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_ZN13QSignalMapperD2Ev [QtCore]	_ZN13QSignalMapperD2Ev [QtCore]
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_ZN14QTemporaryFileC1Ev [QtCore]	_ZN14QTemporaryFileC1Ev [QtCore]
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_ZN14QTemporaryFileC2Ev [QtCore]	_ZN14QTemporaryFileC2Ev [QtCore]
_ZN14QTemporaryFileD1Ev [QtCore]	_ZN14QTemporaryFileD1Ev [QtCore]
_ZN15QSocketNotifier10setEnabledEb [QtCore]	_ZN15QSocketNotifier10setEnabledEb [QtCore]
_ZN15QSocketNotifier11qt_metacastEPKc [QtCore]	_ZN15QSocketNotifier11qt_metacastEPKc [QtCore]
_ZN15QSocketNotifier9activatedEi [QtCore]	_ZN15QSocketNotifier9activatedEi [QtCore]
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_ZN19QAbstractFileEngine5writeEPKcx [QtCore]	_ZN19QAbstractFileEngine5writeEPKcx [QtCore]
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_ZN19QAbstractFileEngine7setSizeEx [QtCore]	_ZN19QAbstractFileEngine7setSizeEx [QtCore]
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_ZN4QDir14setNameFiltersERK11QStringList [QtCore]	_ZN4QDir14setNameFiltersERK11QStringList [QtCore]
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_ZN4QDir6renameERK7QString [QtCore]	_ZN4QDir6renameERK7QString [QtCore]

_ZN4QDir7setPathERK7QString [QtCore]	_ZN4QDir8homePathE
_ZN4QDir8rootPathEv [QtCore]	_ZN4QDir8tempPathE
_ZN4QDir9cleanPathERK7QString [QtCore]	_ZN4QDir9separatorE
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_ZN4QDirC1ERK7QStringS2_6QFlagsINS_8SortFlagEES3_INS_6FilterEE [QtCore]	_ZN4QDirC1ERKS_ [
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_ZN4QDirD2Ev [QtCore]	_ZN4QDiraSERK7QS
ZN4QDiraSERKS [QtCore]	_ZN4QUrl10toPunyco
_ZN4QUrl11fromEncodedERK10QByteArray [QtCore]	_ZN4QUrl11fromEnco
_ZN4QUrl11setFileNameERK7QString [QtCore]	_ZN4QUrl11setFragm
_ZN4QUrl11setPasswordERK7QString [QtCore]	_ZN4QUrl11setUserIn
_ZN4QUrl11setUserNameERK7QString [QtCore]	_ZN4QUrl12addQuery
_ZN4QUrl12fromPunycodeERK10QByteArray [QtCore]	_ZN4QUrl12idnWhite
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_ZN4QUrl19fromPercentEncodingERK10QByteArray [QtCore]	_ZN4QUrl19removeA
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_ZN4QUrl7setPortEi [QtCore]	_ZN4QUrl9setScheme
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_ZN5QFile10unsetErrorEv [QtCore]	_ZN5QFile11permissio

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_ZN5QFile11setFileNameERK7QString [QtCore]	_ZN5QFile12readLine
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_ZN5QFile6removeEv [QtCore]	_ZN5QFile6renameER
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_ZN8QProcess17systemEnvironmentEv [QtCore]	_ZN8QProcess18setRe
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_ZN8QProcessD2Ev [QtCore]	_ZN9QFileInfo10setCa
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_ZN9QIODevice11resetStatusEv [QtCore]	_ZN9QIODevice11set
_ZN9QIODevice12aboutToCloseEv [QtCore]	_ZN9QIODevice12byt
_ZN9QIODevice12readLineDataEPcx [QtCore]	_ZN9QIODevice14set
_ZN9QIODevice16waitForReadyReadEi [QtCore]	_ZN9QIODevice18set

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_ZN9QIODevice4readEPcx [QtCore]	_ZN9QIODevice4read
_ZN9QIODevice4seekEx [QtCore]	_ZN9QIODevice5close
_ZN9QIODevice5resetEv [QtCore]	_ZN9QIODevice5write
_ZN9QIODevice7readAllEv [QtCore]	_ZN9QIODevice8read
_ZN9QIODevice8readLineEx [QtCore]	_ZN9QIODevice9read
_ZN9QIODevice9ungetCharEc [QtCore]	_ZN9QIODeviceC1EP
_ZN9QIODeviceC1Ev [QtCore]	_ZN9QIODeviceC2EP
_ZN9QIODeviceC2Ev [QtCore]	_ZN9QIODeviceD0Ev
_ZN9QIODeviceD1Ev [QtCore]	_ZN9QIODeviceD2Ev
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_ZN9QSettings11qt_metacastEPKc [QtCore]	_ZN9QSettings13setAr
_ZN9QSettings14beginReadArrayERK7QString [QtCore]	_ZN9QSettings14regis [QtCore]
_ZN9QSettings14setUserIniPathERK7QString [QtCore]	_ZN9QSettings15begin
_ZN9QSettings16setSystemIniPathERK7QString [QtCore]	_ZN9QSettings19setFa
_ZN9QSettings4syncEv [QtCore]	_ZN9QSettings5clearE
_ZN9QSettings5eventEP6QEvent [QtCore]	_ZN9QSettings6remov
_ZN9QSettings7setPathENS_6FormatENS_5ScopeERK7QString [QtCore]	_ZN9QSettings8endAr
_ZN9QSettings8endGroupEv [QtCore]	_ZN9QSettings8setVal
_ZN9QSettingsC1ENS_5ScopeERK7QStringS3_P7QObject [QtCore]	_ZN9QSettingsC1ENS
_ZN9QSettingsC1EP7QObject [QtCore]	_ZN9QSettingsC1ERK
_ZN9QSettingsC1ERK7QStringS2_P7QObject [QtCore]	_ZN9QSettingsC2ENS
_ZN9QSettingsC2ENS_6FormatENS_5ScopeERK7QStringS4_P7QObject [QtCore]	_ZN9QSettingsC2EP7
_ZN9QSettingsC2ERK7QStringNS_6FormatEP7QObject [QtCore]	_ZN9QSettingsC2ERK
_ZN9QSettingsD0Ev [QtCore]	_ZN9QSettingsD1Ev [
_ZN9QSettingsD2Ev [QtCore]	_ZNK11QDataStream5

_ZNK11QDataStream6statusEv [QtCore]	_ZNK11QTextStream11integerBaseEv [QtCore]
_ZNK11QTextStream14fieldAlignmentEv [QtCore]	_ZNK11QTextStream18realNumberNotationEv [QtCore]
_ZNK11QTextStream21generateByteOrderMarkEv [QtCore]	_ZNK11QTextStream5atEndEv [QtCore]
_ZNK11QTextStream6deviceEv [QtCore]	_ZNK11QTextStream6stringEv [QtCore]
_ZNK13QFSFileEngine12isSequentialEv [QtCore]	_ZNK13QFSFileEngine14isRelativePathEv [QtCore]
_ZNK13QFSFileEngine3posEv [QtCore]	_ZNK13QFSFileEngine5mkdirERK7QStringb [QtCore]
_ZNK13QFSFileEngine5rmdirERK7QStringb [QtCore]	_ZNK13QFSFileEngine7ownerIdEN19QAbstractFileEngine9FileOwnerE [QtCore]
_ZNK13QFSFileEngine8fileTimeEN19QAbstractFileEngine8FileTimeE [QtCore]	_ZNK13QFSFileEngine9fileFlagsE6QFlagsIN19QAbstractFileEngine8FileFlagEE [QtCore]
_ZNK13QSignalMapper7mappingEP7QObject [QtCore]	_ZNK13QSignalMapper7mappingERK7QString [QtCore]
_ZNK14QTemporaryFile10autoRemoveEv [QtCore]	_ZNK14QTemporaryFile10metaObjectEv [QtCore]
_ZNK14QTemporaryFile8fileNameEv [QtCore]	_ZNK18QFileSystemWatcher10metaObjectEv [QtXml]
_ZNK18QFileSystemWatcher5filesEv [QtXml]	_ZNK19QAbstractFileEngine12isSequentialEv [QtCore]
_ZNK19QAbstractFileEngine14isRelativePathEv [QtCore]	_ZNK19QAbstractFileEngine3posEv [QtCore]
_ZNK19QAbstractFileEngine5errorEv [QtCore]	_ZNK19QAbstractFileEngine5ownerENS_9FileOwnerE [QtCore]
_ZNK19QAbstractFileEngine6handleEv [QtCore]	_ZNK19QAbstractFileEngine8fileNameENS_8FileNameE [QtCore]
_ZNK19QAbstractFileEngine9entryListE6QFlagsIN4QDir6FilterEERK11QStringList [QtCore]	_ZNK4QDir10isReadableEv [QtCore]
_ZNK4QDir10isRelativePathEv [QtCore]	

_Znk4QDir10nameFilterEv [QtCore]	_Znk4QDir11nameFil
_Znk4QDir12absolutePathEv [QtCore]	_Znk4QDir12matchA
_Znk4QDir13canonicalPathEv [QtCore]	_Znk4QDir13entryInf
_Znk4QDir13entryInfoListERK11QStringList6QFlagsINS_6FilterEES3_INS_8SortFlagEE [QtCore]	_Znk4QDir16absolute
_Znk4QDir16relativeFilePathERK7QString [QtCore]	_Znk4QDir4pathEv [Q
_Znk4QDir5countEv [QtCore]	_Znk4QDir5mkdirER
_Znk4QDir5rmdirERK7QString [QtCore]	_Znk4QDir6existsER
_Znk4QDir6existsEv [QtCore]	_Znk4QDir6filterEv [
_Znk4QDir6isRootEv [QtCore]	_Znk4QDir6mkpathE
_Znk4QDir6rmpathERK7QString [QtCore]	_Znk4QDir7dirName
_Znk4QDir7refreshEv [QtCore]	_Znk4QDir7sortingEv
_Znk4QDir8filePathERK7QString [QtCore]	_Znk4QDir9entryList
_Znk4QDir9entryListERK11QStringList6QFlagsINS_6FilterEES3_INS_8SortFlagEE [QtCore]	_Znk4QDirreqERKS_
_Znk4QDirxEi [QtCore]	_Znk4QUrl10isDetach
Znk4QUrl10isParentOfERKS [QtCore]	_Znk4QUrl10isRelati
_Znk4QUrl10queryItemsEv [QtCore]	_Znk4QUrl11errorStr
_Znk4QUrl11hasFragmentEv [QtXml]	_Znk4QUrl11toLocal
_Znk4QUrl12encodedQueryEv [QtCore]	_Znk4QUrl12hasQuer
_Znk4QUrl14queryItemValueERK7QString [QtCore]	_Znk4QUrl18allQuer
_Znk4QUrl18queryPairDelimiterEv [QtCore]	_Znk4QUrl19queryVa
_Znk4QUrl4hostEv [QtCore]	_Znk4QUrl4pathEv [Q
_Znk4QUrl4portEi [QtCore]	_Znk4QUrl4portEv [Q
_Znk4QUrl6schemeEv [QtCore]	_Znk4QUrl7dirPathE
_Znk4QUrl7isEmptyEv [QtCore]	_Znk4QUrl7isValidE
_Znk4QUrl8fileNameEv [QtCore]	_Znk4QUrl8fragment
_Znk4QUrl8hasQueryEv [QtXml]	_Znk4QUrl8password
Znk4QUrl8resolvedERKS [QtCore]	_Znk4QUrl8toStringE
_Znk4QUrl8userInfoEv [QtCore]	_Znk4QUrl8userNam
_Znk4QUrl9authorityEv [QtCore]	_Znk4QUrl9toEncode
Znk4QUrlEqERKS [QtCore]	_Znk4QUrlItERKS_ [
Znk4QUrlneERKS [QtCore]	_Znk5QFile10fileEng

_ZNK5QFile10metaObjectEv [QtCore]	_ZNK5QFile11permis
_ZNK5QFile12isSequentialEv [QtCore]	_ZNK5QFile3posEv [Q
_ZNK5QFile4sizeEv [QtCore]	_ZNK5QFile5atEndEv
_ZNK5QFile5errorEv [QtCore]	_ZNK5QFile6existsEv
_ZNK5QFile6handleEv [QtCore]	_ZNK5QFile8fileName
_ZNK5QFile8readLinkEv [QtCore]	_ZNK7QBuffer10meta
_ZNK7QBuffer11canReadLineEv [QtCore]	_ZNK7QBuffer3posEv
_ZNK7QBuffer4dataEv [QtCore]	_ZNK7QBuffer4sizeEv
_ZNK7QBuffer5atEndEv [QtCore]	_ZNK7QBuffer6buffer
_ZNK8QProcess10exitStatusEv [QtCore]	_ZNK8QProcess10met
_ZNK8QProcess11canReadLineEv [QtCore]	_ZNK8QProcess11env
_ZNK8QProcess11readChannelEv [QtCore]	_ZNK8QProcess12byte
_ZNK8QProcess12isSequentialEv [QtCore]	_ZNK8QProcess14byte
_ZNK8QProcess15readChannelModeEv [QtCore]	_ZNK8QProcess16wor
_ZNK8QProcess18processChannelModeEv [QtXml]	_ZNK8QProcess3pidE
_ZNK8QProcess5atEndEv [QtCore]	_ZNK8QProcess5error
_ZNK8QProcess5stateEv [QtCore]	_ZNK8QProcess8exitC
_ZNK9QFileInfo10isReadableEv [QtCore]	_ZNK9QFileInfo10isR
_ZNK9QFileInfo10isWritableEv [QtCore]	_ZNK9QFileInfo10per
_ZNK9QFileInfo11absoluteDirEv [QtCore]	_ZNK9QFileInfo11per
_ZNK9QFileInfo12absolutePathEv [QtCore]	_ZNK9QFileInfo12isE
_ZNK9QFileInfo12lastModifiedEv [QtCore]	_ZNK9QFileInfo13can
_ZNK9QFileInfo14completeSuffixEv [QtCore]	_ZNK9QFileInfo16abs
_ZNK9QFileInfo16completeBaseNameEv [QtCore]	_ZNK9QFileInfo17can
_ZNK9QFileInfo3dirEb [QtCore]	_ZNK9QFileInfo3dirE
_ZNK9QFileInfo4pathEv [QtCore]	_ZNK9QFileInfo4size
_ZNK9QFileInfo5groupEv [QtCore]	_ZNK9QFileInfo5isDi
_ZNK9QFileInfo5ownerEv [QtCore]	_ZNK9QFileInfo6exist
_ZNK9QFileInfo6isFileEv [QtCore]	_ZNK9QFileInfo6isRo
_ZNK9QFileInfo6suffixEv [QtCore]	_ZNK9QFileInfo7cach
_ZNK9QFileInfo7createdEv [QtCore]	_ZNK9QFileInfo7grou
_ZNK9QFileInfo7ownerIdEv [QtCore]	_ZNK9QFileInfo8base
_ZNK9QFileInfo8fileNameEv [QtCore]	_ZNK9QFileInfo8fileP

_Znk9QFileInfo8isHiddenEv [QtCore]	_Znk9QFileInfo8lastF
_Znk9QFileInfo8readLinkEv [QtCore]	_Znk9QFileInfo9isSy
Znk9QFileInfoeqERKS [QtCore]	_Znk9QIODevice10is
_Znk9QIODevice10isWritableEv [QtCore]	_Znk9QIODevice10m
_Znk9QIODevice11canReadLineEv [QtCore]	_Znk9QIODevice11e
_Znk9QIODevice12bytesToWriteEv [QtCore]	_Znk9QIODevice12is
_Znk9QIODevice14bytesAvailableEv [QtCore]	_Znk9QIODevice17is
_Znk9QIODevice3posEv [QtCore]	_Znk9QIODevice4siz
_Znk9QIODevice5atEndEv [QtCore]	_Znk9QIODevice6isC
_Znk9QIODevice6statusEv [QtCore]	_Znk9QIODevice8op
_Znk9QResource12isCompressedEv [QtXml]	_Znk9QResource16ab
_Znk9QResource4dataEv [QtXml]	_Znk9QResource4siz
_Znk9QResource5isDirEv [QtXml]	_Znk9QResource6loc
_Znk9QResource7isValidEv [QtXml]	_Znk9QResource8chi
_Znk9QResource8fileNameEv [QtXml]	_Znk9QSettings10isW
_Znk9QSettings10metaObjectEv [QtCore]	_Znk9QSettings11chi
_Znk9QSettings16fallbacksEnabledEv [QtCore]	_Znk9QSettings5grou
_Znk9QSettings5valueERK7QStringRK8QVariant [QtCore]	_Znk9QSettings6statu
_Znk9QSettings7allKeysEv [QtCore]	_Znk9QSettings8cont
_Znk9QSettings8fileNameEv [QtCore]	_Znk9QSettings9chil
_Zls6QDebugRK4QUrl [QtCore]	_ZlsR11QDataStreamF
_ZrsR11QDataStreamR4QUrl [QtCore]	

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Input/Output specified in [Table 17-81](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-81. libQtCore - Qt4 Input/Output Deprecated Function Interfaces

_ZN11QDataStream11unsetDeviceEv [QtCore]	_ZN4QDir17convertSeparatorsERK7QString [QtCore]
_ZN4QDiraSERK7QString [QtCore]	_ZN8QProcess18setReadChannelModeENS_18ProcessChannelM [QtCore]
_ZN8QProcess8finishedEi [QtCore]	_ZN9QSettings14setUserIniPathERK7QString [QtCore]
	_ZNK8QProcess15readChannelModeEv [QtCore]

_ZN9QSettings16setSystemIniPathERK7QString
[QtCore]

17.2.12. Qt4 Core Application

17.2.12.1. Class data for QCoreApplication

The virtual table for the QCoreApplication class is described by [Table 17-82](#)

Table 17-82. Primary vtable for QCoreApplication

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCoreApplication
vfunc[0]:	QCoreApplication::metaObject() const
vfunc[1]:	QCoreApplication::qt_metacast(char const*)
vfunc[2]:	QCoreApplication::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QCoreApplication::~~QCoreApplication()
vfunc[4]:	QCoreApplication::~~QCoreApplication()
vfunc[5]:	QCoreApplication::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QCoreApplication::notify(QObject*, QEvent*)
vfunc[13]:	QCoreApplication::compressEvent(QEvent*, QObject*, QPostEventList*)

The Run Time Type Information for the QCoreApplication class is described by [Table 17-83](#)

Table 17-83. typeinfo for QCoreApplication

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCoreApplication
basetype:	typeinfo for QObject

17.2.12.2. Interfaces for Qt4 Core Application

An LSB conforming implementation shall provide the generic functions for Qt4 Core Application specified in [Table 17-84](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-84. libQtCore - Qt4 Core Application Function Interfaces

_ZN16QCoreApplication10enter_loopEv [QtCore]	_ZN16QCoreApplication10enter_loopEv [QtCore]
_ZN16QCoreApplication10unixSignalEi [LSB]	_ZN16QCoreApplication10unixSignalEi [LSB]
_ZN16QCoreApplication11closingDownEv [QtCore]	_ZN16QCoreApplication11closingDownEv [QtCore]
_ZN16QCoreApplication11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN16QCoreApplication11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]
_ZN16QCoreApplication12libraryPathsEv [QtCore]	_ZN16QCoreApplication12libraryPathsEv [QtCore]
_ZN16QCoreApplication13compressEventEP6QEventP7QObjectP14QPostEventList [QtCore]	_ZN16QCoreApplication13compressEventEP6QEventP7QObjectP14QPostEventList [QtCore]
_ZN16QCoreApplication13processEventsE6QFlagsIN10QEventLoop17ProcessEventsFlagEEi [QtCore]	_ZN16QCoreApplication13processEventsE6QFlagsIN10QEventLoop17ProcessEventsFlagEEi [QtCore]
_ZN16QCoreApplication14addLibraryPathERK7QString [QtCore]	_ZN16QCoreApplication14addLibraryPathERK7QString [QtCore]
_ZN16QCoreApplication15applicationNameEv [QtCore]	_ZN16QCoreApplication15applicationNameEv [QtCore]
_ZN16QCoreApplication15watchUnixSignalEib [QtCore]	_ZN16QCoreApplication15watchUnixSignalEib [QtCore]
_ZN16QCoreApplication16organizationNameEv [QtCore]	_ZN16QCoreApplication16organizationNameEv [QtCore]
_ZN16QCoreApplication16sendPostedEventsEP7QObjecti [QtCore]	_ZN16QCoreApplication16sendPostedEventsEP7QObjecti [QtCore]
_ZN16QCoreApplication17removeLibraryPathERK7QString [QtCore]	_ZN16QCoreApplication17removeLibraryPathERK7QString [QtCore]
_ZN16QCoreApplication18organizationDomainEv [QtCore]	_ZN16QCoreApplication18organizationDomainEv [QtCore]
_ZN16QCoreApplication18setApplicationNameERK7QString [QtCore]	_ZN16QCoreApplication18setApplicationNameERK7QString [QtCore]
_ZN16QCoreApplication19setOrganizationNameERK7QString [QtCore]	_ZN16QCoreApplication19setOrganizationNameERK7QString [QtCore]
_ZN16QCoreApplication4argcEv [QtCore]	_ZN16QCoreApplication4argcEv [QtCore]
_ZN16QCoreApplication4execEv [QtCore]	_ZN16QCoreApplication4execEv [QtCore]
_ZN16QCoreApplication4quitEv [QtCore]	_ZN16QCoreApplication4quitEv [QtCore]
_ZN16QCoreApplication5flushEv [QtCore]	_ZN16QCoreApplication5flushEv [QtCore]
_ZN16QCoreApplication9argumentsEv [QtCore]	_ZN16QCoreApplication9argumentsEv [QtCore]
_ZN16QCoreApplication9loopLevelEv [QtCore]	_ZN16QCoreApplication9loopLevelEv [QtCore]
_ZN16QCoreApplication9translateEPKcS1_S1_NS_8EncodingE [QtCore]	_ZN16QCoreApplication9translateEPKcS1_S1_NS_8EncodingE [QtCore]
_ZN16QCoreApplicationC1ERiPPc [QtCore]	_ZN16QCoreApplicationC1ERiPPc [QtCore]
_ZN16QCoreApplicationD0Ev [QtCore]	_ZN16QCoreApplicationD0Ev [QtCore]
_ZN16QCoreApplicationD2Ev [QtCore]	_ZNK16QCoreApplicationD2Ev [QtCore]

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Core Application specified in [Table 17-85](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-85. libQtCore - Qt4 Core Application Deprecated Function Interfaces

<code>_ZN16QCoreApplication4argcEv</code> [QtCore]	<code>_ZN16QCoreApplication4argvEv</code> [QtCore]

17.2.13. Qt4 Object Model

17.2.13.1. Class data for QObject

The virtual table for the QObject class is described by [Table 17-86](#)

Table 17-86. Primary vtable for QObject

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QObject
vfunc[0]:	QObject::metaObject() const
vfunc[1]:	QObject::qt_metacast(char const*)
vfunc[2]:	QObject::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QObject::~~QObject()
vfunc[4]:	QObject::~~QObject()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QObject class is described by [Table 17-87](#)

Table 17-87. typeinfo for QObject

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QObject

17.2.13.2. Class data for QObjectUserData

The virtual table for the QObjectUserData class is described by [Table 17-88](#)

Table 17-88. Primary vtable for QObjectUserData

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QObjectUserData
vfunc[0]:	QObjectUserData::~~QObjectUserData()
vfunc[1]:	QObjectUserData::~~QObjectUserData()

The Run Time Type Information for the QObjectUserData class is described by [Table 17-89](#)

Table 17-89. typeinfo for QObjectUserData

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QObjectUserData

17.2.13.3. Class data for QObjectCleanupHandler

The virtual table for the QObjectCleanupHandler class is described by [Table 17-90](#)

Table 17-90. Primary vtable for QObjectCleanupHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QObjectCleanupHandler
vfunc[0]:	QObjectCleanupHandler::metaObject() const
vfunc[1]:	QObjectCleanupHandler::qt_metacast(char const*)
vfunc[2]:	QObjectCleanupHandler::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QObjectCleanupHandler::~~QObjectCleanupHandler()
vfunc[4]:	QObjectCleanupHandler::~~QObjectCleanupHandler()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)

vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QObjectCleanupHandler class is described by [Table 17-91](#)

Table 17-91. typeinfo for QObjectCleanupHandler

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QObjectCleanupHandler
basetype:	typeinfo for QObject

17.2.13.4. Interfaces for Qt4 Object Model

An LSB conforming implementation shall provide the generic functions for Qt4 Object Model specified in [Table 17-92](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-92. libQtCore - Qt4 Object Model Function Interfaces

_ZN11QMetaObject10disconnectEPK7QObjectiS2_i [QtCore]	_ZN11QMetaObject11cha
_ZN11QMetaObject11removeGuardEPP7QObject [QtCore]	_ZN11QMetaObject12inv [QtCore]
_ZN11QMetaObject14normalizedTypeEPKc [QtXml]	_ZN11QMetaObject16che
_ZN11QMetaObject18connectSlotsByNameEP7QObject [QtCore]	_ZN11QMetaObject19no
_ZN11QMetaObject7connectEPK7QObjectiS2_iiPi [LSB]	_ZN11QMetaObject8activ
_ZN11QMetaObject8activateEP7QObjectPKS_iiPPv [QtCore]	_ZN11QMetaObject8activ
_ZN11QMetaObject8activateEP7QObjectiPPv [QtCore]	_ZN11QMetaObject8add
_ZN13QMetaPropertyC1Ev [QtCore]	_ZN13QMetaPropertyC2
_ZN15QObjectUserDataD0Ev [QtCore]	_ZN15QObjectUserDataL
_ZN15QObjectUserDataD2Ev [QtCore]	_ZN21QObjectCleanupH
_ZN21QObjectCleanupHandler11qt_metacastEPKc [QtCore]	_ZN21QObjectCleanupH
_ZN21QObjectCleanupHandler5clearEv [QtCore]	_ZN21QObjectCleanupH
_ZN21QObjectCleanupHandlerC1Ev [QtCore]	_ZN21QObjectCleanupH
_ZN21QObjectCleanupHandlerD0Ev [QtCore]	_ZN21QObjectCleanupH
_ZN21QObjectCleanupHandlerD2Ev [QtCore]	_ZN7QObject10childEve

_ZN7QObject10disconnectEPKS_PKcS1_S3_ [QtCore]	_ZN7QObject10startTime
_ZN7QObject10timerEventEP11QTimerEvent [QtCore]	_ZN7QObject11customE
_ZN7QObject11deleteLaterEv [QtCore]	_ZN7QObject11eventFilt
_ZN7QObject11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]	_ZN7QObject11qt_metac
_ZN7QObject11setPropertyEPKcRK8QVariant [QtCore]	_ZN7QObject11setUserD
_ZN7QObject12blockSignalsEb [QtCore]	_ZN7QObject12moveToT
_ZN7QObject13connectNotifyEPKc [QtCore]	_ZN7QObject13setObject
_ZN7QObject14dumpObjectInfoEv [QtCore]	_ZN7QObject14dumpObj
_ZN7QObject16disconnectNotifyEPKc [QtCore]	_ZN7QObject16registerU
ZN7QObject17removeEventFilterEPS [QtCore]	_ZN7QObject18installEv
_ZN7QObject5eventEP6QEvent [QtCore]	_ZN7QObject7connectEP
ZN7QObject9destroyedEPS [QtCore]	_ZN7QObject9killTimerE
ZN7QObject9setParentEPS [QtCore]	_ZN7QObjectC1EPS_ [Q
_ZN7QObjectC1EPS_PKc [QtCore]	_ZN7QObjectC2EPS_ [Q
_ZN7QObjectC2EPS_PKc [QtCore]	_ZN7QObjectD0Ev [QtC
_ZN7QObjectD1Ev [QtCore]	_ZN7QObjectD2Ev [QtC
_ZN8QVariant10nameToTypeEPKc [QtCore]	_ZN8QVariant10typeToN
_ZN8QVariant12castOrDetachENS_4TypeE [QtCore]	_ZN8QVariant4dataEv [C
_ZN8QVariant4loadER11QDataStream [QtCore]	_ZN8QVariant5clearEv [Q
_ZN8QVariant6createEiPKv [QtCore]	_ZN8QVariant6detachEv
_ZN8QVariant7convertENS_4TypeE [QtCore]	_ZN8QVariantC1EN2Qt1
_ZN8QVariantC1ENS_4TypeE [QtCore]	_ZN8QVariantC1EPKc [Q
_ZN8QVariantC1ER11QDataStream [QtCore]	_ZN8QVariantC1ERK10Q
_ZN8QVariantC1ERK11QStringList [QtCore]	_ZN8QVariantC1ERK13Q
_ZN8QVariantC1ERK4QMapI7QStringS_E [QtCore]	_ZN8QVariantC1ERK4Q
_ZN8QVariantC1ERK5QChar [QtCore]	_ZN8QVariantC1ERK5Q
_ZN8QVariantC1ERK5QLine [QtCore]	_ZN8QVariantC1ERK5Q
_ZN8QVariantC1ERK5QRect [QtCore]	_ZN8QVariantC1ERK5Q
_ZN8QVariantC1ERK5QTime [QtCore]	_ZN8QVariantC1ERK6Q
_ZN8QVariantC1ERK6QPoint [QtCore]	_ZN8QVariantC1ERK6Q
_ZN8QVariantC1ERK6QSizeF [QtCore]	_ZN8QVariantC1ERK7Q
_ZN8QVariantC1ERK7QPointF [QtCore]	_ZN8QVariantC1ERK7Q
_ZN8QVariantC1ERK7QString [QtCore]	_ZN8QVariantC1ERK9Q

_ZN8QVariantC1ERK9QDateTime [QtCore]	_ZN8QVariantC1ERKS_
_ZN8QVariantC1Eb [QtCore]	_ZN8QVariantC1Ed [QtC
_ZN8QVariantC1Ei [QtCore]	_ZN8QVariantC1EiPKv [
_ZN8QVariantC1Ej [QtCore]	_ZN8QVariantC1Ex [QtC
_ZN8QVariantC1Ey [QtCore]	_ZN8QVariantC2EN2Qt1
_ZN8QVariantC2ENS_4TypeE [QtCore]	_ZN8QVariantC2EPKc [
_ZN8QVariantC2ER11QDataStream [QtCore]	_ZN8QVariantC2ERK10
_ZN8QVariantC2ERK11QStringList [QtCore]	_ZN8QVariantC2ERK13
_ZN8QVariantC2ERK4QMapI7QStringS_E [QtCore]	_ZN8QVariantC2ERK4Q
_ZN8QVariantC2ERK5QChar [QtCore]	_ZN8QVariantC2ERK5Q
_ZN8QVariantC2ERK5QLine [QtCore]	_ZN8QVariantC2ERK5Q
_ZN8QVariantC2ERK5QRect [QtCore]	_ZN8QVariantC2ERK5Q
_ZN8QVariantC2ERK5QTime [QtCore]	_ZN8QVariantC2ERK6Q
_ZN8QVariantC2ERK6QPoint [QtCore]	_ZN8QVariantC2ERK6Q
_ZN8QVariantC2ERK6QSizeF [QtCore]	_ZN8QVariantC2ERK7Q
_ZN8QVariantC2ERK7QPointF [QtCore]	_ZN8QVariantC2ERK7Q
_ZN8QVariantC2ERK7QString [QtCore]	_ZN8QVariantC2ERK9Q
_ZN8QVariantC2ERK9QDateTime [QtCore]	_ZN8QVariantC2ERKS_
_ZN8QVariantC2Eb [QtCore]	_ZN8QVariantC2Ed [QtC
_ZN8QVariantC2Ei [QtCore]	_ZN8QVariantC2EiPKv [
_ZN8QVariantC2Ej [QtCore]	_ZN8QVariantC2Ex [QtC
_ZN8QVariantC2Ey [QtCore]	_ZN8QVariantD1Ev [QtC
_ZN8QVariantD2Ev [QtCore]	_ZN8QVariantaSERKS_
_ZN9QMetaType12isRegisteredEi [QtCore]	_ZN9QMetaType12regist
_ZN9QMetaType23registerStreamOperatorsEPKcPFvR11QDataStreamPKvEPFvS3_PvE [QtCore]	_ZN9QMetaType4loadEF
_ZN9QMetaType4saveER11QDataStreamiPKv [QtCore]	_ZN9QMetaType4typeEF
_ZN9QMetaType7destroyEiPv [QtCore]	_ZN9QMetaType8typeName
_ZN9QMetaType9constructEiPKv [QtCore]	_ZNK11QMetaMethod10
_ZNK11QMetaMethod10methodTypeEv [QtCore]	_ZNK11QMetaMethod14
_ZNK11QMetaMethod14parameterTypesEv [QtCore]	_ZNK11QMetaMethod3ta
_ZNK11QMetaMethod6accessEv [QtCore]	_ZNK11QMetaMethod8ty
_ZNK11QMetaMethod9signatureEv [QtCore]	_ZNK11QMetaObject10e

_ZNK11QMetaObject11indexOfSlotEPKc [QtCore]	_ZNK11QMetaObject11n
_ZNK11QMetaObject12methodOffsetEv [QtCore]	_ZNK11QMetaObject12u
_ZNK11QMetaObject13indexOfMethodEPKc [QtCore]	_ZNK11QMetaObject13i
_ZNK11QMetaObject13propertyCountEv [QtCore]	_ZNK11QMetaObject14c
_ZNK11QMetaObject14propertyOffsetEv [QtCore]	_ZNK11QMetaObject15c
_ZNK11QMetaObject15enumeratorCountEv [QtCore]	_ZNK11QMetaObject15i
_ZNK11QMetaObject16enumeratorOffsetEv [QtCore]	_ZNK11QMetaObject16i
_ZNK11QMetaObject17indexOfEnumeratorEPKc [QtCore]	_ZNK11QMetaObject2trf
_ZNK11QMetaObject2trEPKcS1_i [QtXml]	_ZNK11QMetaObject4ca
_ZNK11QMetaObject6methodEi [QtCore]	_ZNK11QMetaObject6trf
_ZNK11QMetaObject6trUtf8EPKcS1_i [QtXml]	_ZNK11QMetaObject8pr
_ZNK11QMetaObject9classInfoEi [QtCore]	_ZNK13QMetaProperty1
_ZNK13QMetaProperty10isEditableEPK7QObject [QtCore]	_ZNK13QMetaProperty1
_ZNK13QMetaProperty10isFlagTypeEv [QtCore]	_ZNK13QMetaProperty1
_ZNK13QMetaProperty10isWritableEv [QtCore]	_ZNK13QMetaProperty1
_ZNK13QMetaProperty12isDesignableEPK7QObject [QtCore]	_ZNK13QMetaProperty1
_ZNK13QMetaProperty12isScriptableEPK7QObject [QtCore]	_ZNK13QMetaProperty4
_ZNK13QMetaProperty4readEPK7QObject [QtCore]	_ZNK13QMetaProperty4
_ZNK13QMetaProperty5resetEP7QObject [QtCore]	_ZNK13QMetaProperty5
_ZNK13QMetaProperty6isUserEPK7QObject [QtCore]	_ZNK13QMetaProperty8
_ZNK13QMetaProperty8typeNameEv [QtCore]	_ZNK13QMetaProperty8
_ZNK14QMetaClassInfo4nameEv [QtCore]	_ZNK14QMetaClassInfo3
_ZNK21QObjectCleanupHandler10metaObjectEv [QtCore]	_ZNK21QObjectCleanup
_ZNK7QObject10metaObjectEv [QtCore]	_ZNK7QObject10objectN
_ZNK7QObject20dynamicPropertyNamesEv [QtXml]	_ZNK7QObject5childEPI
_ZNK7QObject6senderEv [QtCore]	_ZNK7QObject6threadEv
_ZNK7QObject8propertyEPKc [QtCore]	_ZNK7QObject8userData
_ZNK7QObject9queryListEPKcS1_bb [LSB]	_ZNK7QObject9receivers
_ZNK8QVariant10canConvertENS_4TypeE [QtCore]	_ZNK8QVariant10toBitA
_ZNK8QVariant10toDateTimeEv [QtCore]	_ZNK8QVariant10toLong
_ZNK8QVariant11toByteArrayEv [QtCore]	_ZNK8QVariant11toULo
_ZNK8QVariant12toStringListEv [QtCore]	_ZNK8QVariant3cmpER
_ZNK8QVariant4saveER11QDataStream [QtCore]	_ZNK8QVariant4typeEv

_ZNK8QVariant5toIntEPb [QtCore]	_ZNK8QVariant5toMapE
_ZNK8QVariant5toUrlEv [QtCore]	_ZNK8QVariant6isNullE
_ZNK8QVariant6toBoolEv [QtCore]	_ZNK8QVariant6toCharE
_ZNK8QVariant6toDateEv [QtCore]	_ZNK8QVariant6toLineE
_ZNK8QVariant6toListEv [QtCore]	_ZNK8QVariant6toRectE
_ZNK8QVariant6toSizeEv [QtCore]	_ZNK8QVariant6toTimeE
_ZNK8QVariant6toUIntEPb [QtCore]	_ZNK8QVariant7toLineE
_ZNK8QVariant7toPointEv [QtCore]	_ZNK8QVariant7toRectE
_ZNK8QVariant7toSizeFEv [QtCore]	_ZNK8QVariant8toDoub
_ZNK8QVariant8toLocaleEv [QtCore]	_ZNK8QVariant8toPointl
_ZNK8QVariant8toRegExpEv [QtCore]	_ZNK8QVariant8toString
_ZNK8QVariant8typeNameEv [QtCore]	_ZNK8QVariant8userTyp
_ZNK8QVariant9constDataEv [QtCore]	_ZNK9QMetaEnum10key
_ZNK9QMetaEnum10valueToKeyEi [QtCore]	_ZNK9QMetaEnum11key
_ZNK9QMetaEnum11valueToKeysEi [QtCore]	_ZNK9QMetaEnum3keyl
_ZNK9QMetaEnum4nameEv [QtCore]	_ZNK9QMetaEnum5scop
_ZNK9QMetaEnum5valueEi [QtCore]	_ZNK9QMetaEnum6isFla
_ZNK9QMetaEnum8keyCountEv [QtCore]	_Zls6QDebugPK7QObjec
_Zls6QDebugRK8QVariant [QtCore]	_ZlsR11QDataStreamRK
_ZrsR11QDataStreamR8QVariant [QtCore]	

17.2.14. Qt4 Threading

17.2.14.1. Class data for QThread

The virtual table for the QThread class is described by [Table 17-93](#)

Table 17-93. Primary vtable for QThread

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QThread
vfunc[0]:	QThread::metaObject() const
vfunc[1]:	QThread::qt_metacast(char const*)
vfunc[2]:	QThread::qt_metacall(QMetaObject::Call, int, void**)

vfunc[3]:	QThread::~~QThread()
vfunc[4]:	QThread::~~QThread()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual

The Run Time Type Information for the QThread class is described by [Table 17-94](#)

Table 17-94. typeinfo for QThread

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QThread
basetype:	typeinfo for QObject

17.2.14.2. Interfaces for Qt4 Threading

An LSB conforming implementation shall provide the generic functions for Qt4 Threading specified in [Table 17-95](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-95. libQtCore - Qt4 Threading Function Interfaces

_ZN10QSemaphore10tryAcquireEi [QtCore]	_ZN10QSemaphore7acquireEi [QtCore]
_ZN10QSemaphore7releaseEi [QtCore]	_ZN10QSemaphoreC1Ei [QtCore]
_ZN10QSemaphoreC2Ei [QtCore]	_ZN10QSemaphoreD1Ev [QtCore]
_ZN10QSemaphoreD2Ev [QtCore]	_ZN14QReadWriteLock11lockForReadEv [QtCore]
_ZN14QReadWriteLock12lockForWriteEv [QtCore]	_ZN14QReadWriteLock14tryLockForReadEv [QtCore]
_ZN14QReadWriteLock15tryLockForWriteEv [QtCore]	_ZN14QReadWriteLock6unlockEv [QtCore]
_ZN14QReadWriteLockC1Ev [QtCore]	_ZN14QReadWriteLockC2Ev [QtCore]
_ZN14QReadWriteLockD1Ev [QtCore]	_ZN14QReadWriteLockD2Ev [QtCore]
_ZN14QWaitCondition4waitEP6QMutexm [QtCore]	_ZN14QWaitCondition7wakeAllEv [QtCore]

<u>_ZN14QWaitCondition7wakeOneEv [QtCore]</u>	<u>_ZN14QWaitConditionC1Ev [QtCore]</u>
<u>_ZN14QWaitConditionC2Ev [QtCore]</u>	<u>_ZN14QWaitConditionD1Ev [QtCore]</u>
<u>_ZN14QWaitConditionD2Ev [QtCore]</u>	<u>_ZN18QThreadStorageData3setEPv [QtCore]</u>
<u>_ZN18QThreadStorageData6finishEPPv [QtCore]</u>	<u>_ZN18QThreadStorageDataC1EPFvPvE [QtCore]</u>
<u>_ZN18QThreadStorageDataC2EPFvPvE [QtCore]</u>	<u>_ZN18QThreadStorageDataD1Ev [QtCore]</u>
<u>_ZN18QThreadStorageDataD2Ev [QtCore]</u>	<u>_ZN6QMutex4lockEv [QtCore]</u>
<u>_ZN6QMutex6unlockEv [QtCore]</u>	<u>_ZN6QMutex7tryLockEv [QtCore]</u>
<u>_ZN6QMutexC1ENS_13RecursionModeE [QtCore]</u>	<u>_ZN6QMutexC2ENS_13RecursionModeE [QtCore]</u>
<u>_ZN6QMutexD1Ev [QtCore]</u>	<u>_ZN6QMutexD2Ev [QtCore]</u>
<u>_ZN7QThread10terminatedEv [QtCore]</u>	<u>_ZN7QThread11qt_metacallEN11QMetaObject4CallEiPPv [QtCore]</u>
<u>_ZN7QThread11qt_metacastEPKc [QtCore]</u>	<u>_ZN7QThread11setPriorityENS_8PriorityE [QtCore]</u>
<u>_ZN7QThread12setStackSizeEj [QtCore]</u>	<u>_ZN7QThread13currentThreadEv [QtCore]</u>
<u>_ZN7QThread15currentThreadIdEv [QtCore]</u>	<u>_ZN7QThread21setTerminationEnabledEb [QtCore]</u>
<u>_ZN7QThread4execEv [QtCore]</u>	<u>_ZN7QThread4exitEi [QtCore]</u>
<u>_ZN7QThread4quitEv [QtCore]</u>	<u>_ZN7QThread4waitEm [QtCore]</u>
<u>_ZN7QThread5sleepEm [QtCore]</u>	<u>_ZN7QThread5startENS_8PriorityE [QtCore]</u>
<u>_ZN7QThread6msleepEm [QtCore]</u>	<u>_ZN7QThread6usleepEm [QtCore]</u>
<u>_ZN7QThread7startedEv [QtCore]</u>	<u>_ZN7QThread8finishedEv [QtCore]</u>
<u>_ZN7QThread9terminateEv [QtCore]</u>	<u>_ZN7QThreadC1EP7QObject [QtCore]</u>
<u>_ZN7QThreadC2EP7QObject [QtCore]</u>	<u>_ZN7QThreadD0Ev [QtCore]</u>
<u>_ZN7QThreadD1Ev [QtCore]</u>	<u>_ZN7QThreadD2Ev [QtCore]</u>
<u>_ZNK10QSemaphore9availableEv [QtCore]</u>	<u>_ZNK18QThreadStorageData3getEv [QtCore]</u>
<u>_ZNK7QThread10isFinishedEv [QtCore]</u>	<u>_ZNK7QThread10metaObjectEv [QtCore]</u>
<u>_ZNK7QThread8priorityEv [QtCore]</u>	<u>_ZNK7QThread9isRunningEv [QtCore]</u>
<u>_ZNK7QThread9stackSizeEv [QtCore]</u>	

17.2.15. Qt4 2D Graphics

17.2.15.1. Interfaces for Qt4 2D Graphics

An LSB conforming implementation shall provide the generic functions for Qt4 2D Graphics specified in [Table 17-96](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-96. libQtCore - Qt4 2D Graphics Function Interfaces

<u>_ZN5QRect10moveCenterERK6QPoint [QtCore]</u>	<u>_ZN5QSize5scaleERKS_N2Qt15AspectRatioModeE [QtCore]</u>
<u>_ZN5QSize9transposeEv [QtCore]</u>	<u>_ZN6QSizeF5scaleERKS_N2Qt15AspectRatioModeE [QtCore]</u>
<u>_ZN6QSizeF9transposeEv [QtCore]</u>	<u>_ZNK5QRect10intersectsERKS_ [QtCore]</u>
<u>_ZNK5QRect10normalizedEv [QtCore]</u>	<u>_ZNK5QRect8containsERK6QPointb [QtCore]</u>
<u>_ZNK5QRect8containsERKS_b [QtCore]</u>	<u>_ZNK5QRectanERKS_ [QtCore]</u>
<u>_ZNK5QRectoERKS_ [QtCore]</u>	<u>_ZNK6QLineF10unitVectorEv [QtCore]</u>
<u>_ZNK6QLineF5angleERKS_ [QtCore]</u>	<u>_ZNK6QLineF6isNullEv [QtCore]</u>
<u>_ZNK6QLineF6lengthEv [QtCore]</u>	<u>_ZNK6QLineF9intersectERKS_P7QPointF [QtCore]</u>
<u>_ZNK6QPoint15manhattanLengthEv [QtCore]</u>	<u>_ZNK6QRectF10intersectsERKS_ [QtCore]</u>
<u>_ZNK6QRectF10normalizedEv [QtCore]</u>	<u>_ZNK6QRectF8containsERK7QPointF [QtCore]</u>
<u>_ZNK6QRectF8containsERKS_ [QtCore]</u>	<u>_ZNK6QRectFanERKS_ [QtCore]</u>
<u>_ZNK6QRectForERKS_ [QtCore]</u>	<u>_Zls6QDebugRK5QLine [QtCore]</u>
<u>_Zls6QDebugRK5QRect [QtCore]</u>	<u>_Zls6QDebugRK5QSize [QtCore]</u>
<u>_Zls6QDebugRK6QLineF [QtCore]</u>	<u>_Zls6QDebugRK6QPoint [QtCore]</u>
<u>_Zls6QDebugRK6QRectF [QtCore]</u>	<u>_Zls6QDebugRK6QSizeF [QtCore]</u>
<u>_Zls6QDebugRK7QPointF [QtCore]</u>	<u>_ZlsR11QDataStreamRK5QLine [QtCore]</u>
<u>_ZlsR11QDataStreamRK5QRect [QtCore]</u>	<u>_ZlsR11QDataStreamRK5QSize [QtCore]</u>
<u>_ZlsR11QDataStreamRK6QLineF [QtCore]</u>	<u>_ZlsR11QDataStreamRK6QPoint [QtCore]</u>
<u>_ZlsR11QDataStreamRK6QRectF [QtCore]</u>	<u>_ZlsR11QDataStreamRK6QSizeF [QtCore]</u>
<u>_ZlsR11QDataStreamRK7QPointF [QtCore]</u>	<u>_ZrsR11QDataStreamR5QLine [QtCore]</u>
<u>_ZrsR11QDataStreamR5QRect [QtCore]</u>	<u>_ZrsR11QDataStreamR5QSize [QtCore]</u>
<u>_ZrsR11QDataStreamR6QLineF [QtCore]</u>	<u>_ZrsR11QDataStreamR6QPoint [QtCore]</u>
<u>_ZrsR11QDataStreamR6QRectF [QtCore]</u>	<u>_ZrsR11QDataStreamR6QSizeF [QtCore]</u>
<u>_ZrsR11QDataStreamR7QPointF [QtCore]</u>	

17.2.16. Qt4 Internals

17.2.16.1. Interfaces for Qt4 Internals

An LSB conforming implementation shall provide the generic functions for Qt4 Internals specified in [Table 17-97](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-97. libQtCore - Qt4 Internals Function Interfaces

<code>_ZN9QInternal12callFunctionENS_16InternalFunctionEPPv</code> [QtXml]	<code>_ZN9QInt</code>
<code>_ZN9QInternal17activateCallbacksENS_8CallbackEPPv</code> [QtXml]	<code>_ZN9QInt</code>
<code>_ZN9QtPrivate16QStringList_joinEPK11QStringListRK7QString</code> [QtCore]	<code>_ZN9QtPr</code>
<code>_ZN9QtPrivate18QStringList_filterEPK11QStringListRK7QRegExp</code> [QtCore]	<code>_ZN9QtPr</code> [QtCore]
<code>_ZN9QtPrivate19QStringList_indexOfEPK11QStringListRK7QRegExp</code> [QtCore]	<code>_ZN9QtPr</code> [QtCore]
<code>_ZN9QtPrivate23QStringList_lastIndexOfEPK11QStringListRK7QRegExp</code> [QtCore]	<code>_ZN9QtPr</code> [QtCore]
<code>_ZN9QtPrivate28QStringList_replaceInStringsEP11QStringListRK7QStringS4_N2Qt15CaseSensitivityE</code> [QtCore]	

17.3. Data Definitions for libQtCore

This section defines global identifiers and their values that are associated with interfaces contained in libQtCore. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

17.3.1. QtCore/qabstracteventdispatcher.h

```
class QAbstractEventDispatcher;
typedef struct QPair<int, int> QAbstractEventDispatcher::TimerInfo;
typedef bool QAbstractEventDispatcher::EventFilter;
```

17.3.2. QtCore/qabstractfileengine.h

```
class QAbstractFileEngine;
enum _ZN19QAbstractFileEngine8FileFlagE {
    ExeOtherPerm = 1,
    WriteOtherPerm = 2,
    ReadOtherPerm = 4,
    ExeGroupPerm = 16,
    WriteGroupPerm = 32,
    ReadGroupPerm = 64,
    ExeUserPerm = 256,
```

```

WriteUserPerm = 512,
ReadUserPerm = 1024,
ExeOwnerPerm = 4096,
WriteOwnerPerm = 8192,
ReadOwnerPerm = 16384,
PermsMask = 65535,
LinkType = 65536,
FileType = 131072,
DirectoryType = 262144,
TypesMask = 983040,
HiddenFlag = 1048576,
LocalDiskFlag = 2097152,
ExistsFlag = 4194304,
RootFlag = 8388608,
FlagsMask = 267386880,
FileInfoAll = 268435455
};
class QFlags < QAbstractFileEngine::FileFlag >;
typedef class QFlags < QAbstractFileEngine::FileFlag >
    QAbstractFileEngine::FileFlags;
enum _ZN19QAbstractFileEngine8FileNameE {
    DefaultName = 0,
    BaseName = 1,
    PathName = 2,
    AbsoluteName = 3,
    AbsolutePathName = 4,
    LinkName = 5,
    CanonicalName = 6,
    CanonicalPathName = 7
};
enum _ZN19QAbstractFileEngine9FileOwnerE {
    OwnerUser = 0,
    OwnerGroup = 1
};
enum _ZN19QAbstractFileEngine8FileTimeE {
    CreationTime = 0,
    ModificationTime = 1,
    AccessTime = 2
};
enum _ZN19QAbstractFileEngine9ExtensionE;
class QAbstractFileEngine::ExtensionOption;
class QAbstractFileEngine::ExtensionReturn;
class QAbstractFileEngineHandler;

```

17.3.3. QtCore/qabstractitemmodel.h

```

class QModelIndex;
class QPersistentModelIndex;
typedef class QList < QModelIndex > QModelIndexList;
class QAbstractItemModel;
class QAbstractTableModel;
class QAbstractListModel;

```

17.3.4. QtCore/qatomic.h

```

struct QBasicAtomic;
class QAtomic;

```

17.3.5. QtCore/qbasictimer.h

```
class QBasicTimer;
```

17.3.6. QtCore/qbitarray.h

```
class QBitArray;
class QBitRef;
```

17.3.7. QtCore/qbuffer.h

```
class QBuffer;
```

17.3.8. QtCore/qbytearray.h

```
class QByteArray;
typedef char QByteArray::iterator;
typedef char QByteArray::const_iterator;
typedef QByteArray::iterator QByteArray::Iterator;
typedef QByteArray::const_iterator QByteArray::ConstIterator;
typedef char QByteArray::const_reference;
typedef char QByteArray::reference;
struct QByteArray::Data;
class QByteRef;
```

17.3.9. QtCore/qbytearraymatcher.h

```
class QByteArrayMatcher;
```

17.3.10. QtCore/qchar.h

```
struct QLatin1Char;
class QChar;
enum _ZN5QChar16SpecialCharacterE {
    Null = 0,
    null = 0,
    Nbsp = 160,
    nbsp = 160,
    LineSeparator = 8232,
    ParagraphSeparator = 8233,
    ByteOrderMark = 65279,
    byteOrderMark = 65279,
    ObjectReplacementCharacter = 65532,
    replacement = 65533,
    ReplacementCharacter = 65533,
    byteOrderSwapped = 65534,
    ByteOrderSwapped = 65534
};
enum _ZN5QChar8CategoryE {
    NoCategory = 0,
    Mark_NonSpacing = 1,
    Mark_SpacingCombining = 2,
    Mark_Enclosing = 3,
    Number_DecimalDigit = 4,
```

```

    Number_Letter = 5,
    Number_Other = 6,
    Separator_Space = 7,
    Separator_Line = 8,
    Separator_Paragraph = 9,
    Other_Control = 10,
    Other_Format = 11,
    Other_Surrogate = 12,
    Other_PrivateUse = 13,
    Other_NotAssigned = 14,
    Letter_Uppercase = 15,
    Letter_Lowercase = 16,
    Letter_Titlecase = 17,
    Letter_Modifier = 18,
    Letter_Other = 19,
    Punctuation_Connector = 20,
    Punctuation_Dask = 21,
    Punctuation_Dash = 21,
    Punctuation_Open = 22,
    Punctuation_Close = 23,
    Punctuation_InitialQuote = 24,
    Punctuation_FinalQuote = 25,
    Punctuation_Other = 26,
    Symbol_Math = 27,
    Symbol_Currency = 28,
    Symbol_Modifier = 29,
    Symbol_Other = 30
};

enum _ZN5QChar9DirectionE {
    DirL = 0,
    DirR = 1,
    DirEN = 2,
    DirES = 3,
    DirET = 4,
    DirAN = 5,
    DirCS = 6,
    DirB = 7,
    DirS = 8,
    DirWS = 9,
    DirON = 10,
    DirLRE = 11,
    DirLRO = 12,
    DirAL = 13,
    DirRLE = 14,
    DirRLO = 15,
    DirPDF = 16,
    DirNSM = 17,
    DirBN = 18
};

enum _ZN5QChar13DecompositionE {
    NoDecomposition = 0,
    Single = 0,
    Canonical = 1,
    Font = 2,
    NoBreak = 3,
    Initial = 4,
    Medial = 5,
    Final = 6,
    Isolated = 7,
    Circle = 8,
    Super = 9,
    Sub = 10,

```

```

    Vertical = 11,
    Wide = 12,
    Narrow = 13,
    Small = 14,
    Square = 15,
    Compat = 16,
    Fraction = 17
};
enum _ZN5QChar7JoiningE {
    OtherJoining = 0,
    Dual = 1,
    Right = 2,
    Center = 3
};
enum _ZN5QChar14CombiningClassE {
    Combining_BelowLeftAttached = 200,
    Combining_BelowAttached = 202,
    Combining_BelowRightAttached = 204,
    Combining_LeftAttached = 208,
    Combining_RightAttached = 210,
    Combining_AboveLeftAttached = 212,
    Combining_AboveAttached = 214,
    Combining_AboveRightAttached = 216,
    Combining_BelowLeft = 218,
    Combining_Below = 220,
    Combining_BelowRight = 222,
    Combining_Left = 224,
    Combining_Right = 226,
    Combining_AboveLeft = 228,
    Combining_Above = 230,
    Combining_AboveRight = 232,
    Combining_DoubleBelow = 233,
    Combining_DoubleAbove = 234,
    Combining_IotaSubscript = 240
};
enum _ZN5QChar14UnicodeVersionE {
    Unicode_Unassigned = 0,
    Unicode_1_1 = 1,
    Unicode_2_0 = 2,
    Unicode_2_1_2 = 3,
    Unicode_3_0 = 4,
    Unicode_3_1 = 5,
    Unicode_3_2 = 6,
    Unicode_4_0 = 7
};

```

17.3.11. QtCore/qcoreapplication.h

```

class QCoreApplication;
enum _ZN16QCoreApplication8EncodingE {
    DefaultCodec = 0,
    UnicodeUTF8 = 1
};
typedef bool QCoreApplication::EventFilter;
typedef void QtCleanupFunction;

```

17.3.12. QtCore/qcoreevent.h

```

class QEvent;
enum _ZN6QEvent4TypeE {
    None = 0,
    Timer = 1,
    MouseButtonPress = 2,
    MouseButtonRelease = 3,
    MouseButtonDblClick = 4,
   MouseMove = 5,
    KeyPress = 6,
    KeyRelease = 7,
    FocusIn = 8,
    FocusOut = 9,
    Enter = 10,
    Leave = 11,
    Paint = 12,
    Move = 13,
    Resize = 14,
    Create = 15,
    Destroy = 16,
    Show = 17,
    Hide = 18,
    Close = 19,
    Quit = 20,
    ParentChange = 21,
    Reparent = 21,
    ThreadChange = 22,
    WindowActivate = 24,
    WindowDeactivate = 25,
    ShowToParent = 26,
    HideToParent = 27,
    Accel = 30,
    Wheel = 31,
    AccelAvailable = 32,
    WindowTitleChange = 33,
    CaptionChange = 33,
    WindowIconChange = 34,
    IconChange = 34,
    ApplicationWindowIconChange = 35,
    ApplicationFontChange = 36,
    ApplicationLayoutDirectionChange = 37,
    ApplicationPaletteChange = 38,
    PaletteChange = 39,
    Clipboard = 40,
    Speech = 42,
    MetaCall = 43,
    SockAct = 50,
    AccelOverride = 51,
    ShortcutOverride = 51,
    DeferredDelete = 52,
    DragEnter = 60,
    DragMove = 61,
    DragLeave = 62,
    Drop = 63,
    DragResponse = 64,
    ChildAdded = 68,
    ChildPolished = 69,
    ChildInserted = 70,
    ChildRemoved = 71,
    LayoutHint = 72,

```



```

ShowWindowRequest = 73,
PolishRequest = 74,
Polish = 75,
LayoutRequest = 76,
UpdateRequest = 77,
UpdateLater = 78,
EmbeddingControl = 79,
ActivateControl = 80,
DeactivateControl = 81,
ContextMenu = 82,
InputMethod = 83,
AccessibilityPrepare = 86,
TabletMove = 87,
LocaleChange = 88,
LanguageChange = 89,
LayoutDirectionChange = 90,
Style = 91,
TabletPress = 92,
TabletRelease = 93,
OkRequest = 94,
HelpRequest = 95,
IconDrag = 96,
FontChange = 97,
EnabledChange = 98,
ActivationChange = 99,
StyleChange = 100,
IconTextChange = 101,
ModifiedChange = 102,
WindowBlocked = 103,
WindowUnblocked = 104,
WindowStateChange = 105,
MouseTrackingChange = 109,
ToolTip = 110,
WhatsThis = 111,
StatusTip = 112,
ActionChanged = 113,
ActionAdded = 114,
ActionRemoved = 115,
FileOpen = 116,
Shortcut = 117,
WhatsThisClicked = 118,
AccessibilityHelp = 119,
ToolBarChange = 120,
ApplicationActivated = 121,
ApplicationDeactivated = 122,
QueryWhatsThis = 123,
EnterWhatsThisMode = 124,
LeaveWhatsThisMode = 125,
ZOrderChange = 126,
HoverEnter = 127,
HoverLeave = 128,
HoverMove = 129,
AccessibilityDescription = 130,
ParentAboutToChange = 131,
WinEventAct = 132,
AcceptDropsChange = 152,
MenubarUpdated = 153,
ZeroTimerEvent = 154,
User = 1000,
MaxUser = 65535
};
class QTimerEvent;

```

```
class QChildEvent;
class QCustomEvent;
```

17.3.13. QtCore/qdatastream.h

```
class QDataStream;
enum _ZN11QDataStream7VersionE {
    Qt_1_0 = 1,
    Qt_2_0 = 2,
    Qt_2_1 = 3,
    Qt_3_0 = 4,
    Qt_3_1 = 5,
    Qt_3_3 = 6,
    Qt_4_0 = 7,
    Qt_4_1 = 7
};
enum _ZN11QDataStream9ByteOrderE {
    BigEndian = 0,
    LittleEndian = 1
};
enum _ZN11QDataStream6StatusE {
    Ok = 0,
    ReadPastEnd = 1,
    ReadCorruptData = 2
};
```

17.3.14. QtCore/qdatetime.h

```
class QDate;
class QTime;
class QDateTime;
```

17.3.15. QtCore/qdebug.h

```
class QDebug;
struct QDebug::Stream;
```

17.3.16. QtCore/qdir.h

```
class QDir;
enum _ZN4QDir6FilterE {
    DefaultFilter = -1,
    NoFilter = -1,
    Dirs = 1,
    Files = 2,
    Drives = 4,
    AllEntries = 7,
    All = 7,
    NoSymLinks = 8,
    TypeMask = 15,
    Readable = 16,
    Writable = 32,
    Executable = 64,
    PermissionMask = 112,
    RWEMask = 112,
    Modified = 128,
```

```

    Hidden = 256,
    System = 512,
    AccessMask = 1008,
    AllDirs = 1024,
    CaseSensitive = 2048,
    NoDotAndDotDot = 4096
};
class QFlags < QDir::Filter >;
typedef class QFlags < QDir::Filter > QDir::Filters;
typedef QDir::Filters QDir::FilterSpec;
enum _ZN4QDir8SortFlagE {
    DefaultSort = -1,
    NoSort = -1,
    Name = 0,
    Time = 1,
    Size = 2,
    Unsorted = 3,
    SortByMask = 3,
    DirsFirst = 4,
    Reversed = 8,
    IgnoreCase = 16,
    DirsLast = 32,
    LocaleAware = 64,
    Type = 128
};
class QFlags < QDir::SortFlag >;
typedef class QFlags < QDir::SortFlag > QDir::SortFlags;
typedef QDir::SortFlags QDir::SortSpec;

```

17.3.17. QtCore/qeventloop.h

```

class QEventLoop;
enum _ZN10QEventLoop17ProcessEventFlagE {
    AllEvents = 0,
    ExcludeUserInputEvents = 1,
    ExcludeUserInput = 1,
    ExcludeSocketNotifiers = 2,
    WaitForMoreEvents = 4,
    WaitForMore = 4,
    X11ExcludeTimers = 8,
    DeferredDeletion = 16
};
class QFlags < QEventLoop::ProcessEventFlag >;
typedef class QFlags < QEventLoop::ProcessEventFlag >
    QEventLoop::ProcessEventFlags;

```

17.3.18. QtCore/qfactoryinterface.h

```

struct QFactoryInterface;

```

17.3.19. QtCore/qfile.h

```

class QFile;
enum _ZN5QFile9FileErrorE {
    NoError = 0,
    ReadError = 1,
    WriteError = 2,
    FatalError = 3,

```

```

ResourceError = 4,
OpenError = 5,
AbortError = 6,
TimeOutError = 7,
UnspecifiedError = 8,
RemoveError = 9,
RenameError = 10,
PositionError = 11,
ResizeError = 12,
PermissionsError = 13,
CopyError = 14,
ConnectError = 30
};
enum _ZN5QFile10PermissionE {
    ExeOther = 1,
    WriteOther = 2,
    ReadOther = 4,
    ExeGroup = 16,
    WriteGroup = 32,
    ReadGroup = 64,
    ExeUser = 256,
    WriteUser = 512,
    ReadUser = 1024,
    ExeOwner = 4096,
    WriteOwner = 8192,
    ReadOwner = 16384
};
class QFlags < QFile::Permission >;
typedef class QFlags < QFile::Permission > QFile::Permissions;
typedef class QByteArrayQFile::EncoderFn;
typedef class QStringQFile::DecoderFn;
typedef enum _ZN5QFile10PermissionE {
    ExeOther = 1,
    WriteOther = 2,
    ReadOther = 4,
    ExeGroup = 16,
    WriteGroup = 32,
    ReadGroup = 64,
    ExeUser = 256,
    WriteUser = 512,
    ReadUser = 1024,
    ExeOwner = 4096,
    WriteOwner = 8192,
    ReadOwner = 16384
} QFile::PermissionSpec;

```

17.3.20. QtCore/qfileinfo.h

```

class QFileInfo;
enum _ZN9QFile10PermissionE {
    ExeOther = 1,
    WriteOther = 2,
    ReadOther = 4,
    ExeGroup = 16,
    WriteGroup = 32,
    ReadGroup = 64,
    ExeUser = 256,
    WriteUser = 512,
    ReadUser = 1024,
    ExeOwner = 4096,
    WriteOwner = 8192,

```

```

    ReadOwner = 16384
};
class QFlags < QFileInfo::Permission >;
typedef class QFlags < QFileInfo::Permission > QFileInfo::PermissionSpec;
typedef class QList < QFileInfo > QFileInfoList;

```

17.3.21. QtCore/qfsfileengine.h

```
class QFSFileEngine;
```

17.3.22. QtCore/qglobal.h

```

typedef signed char qint8;
typedef unsigned char quint8;
typedef short qint16;
typedef unsigned short quint16;
typedef int qint32;
typedef unsigned int quint32;
typedef long long int qint64;
typedef unsigned long long int quint64;
typedef qint64 qlonglong;
typedef quint64 qulonglong;
typedef unsigned char uchar;
typedef int QNoImplicitBoolCast;
typedef double qreal;
typedef qint8 Q_INT8;
typedef quint8 Q_UINT8;
typedef qint16 Q_INT16;
typedef quint16 Q_UINT16;
typedef qint32 Q_INT32;
typedef quint32 Q_UINT32;
typedef qint64 Q_INT64;
typedef quint64 Q_UINT64;
typedef qint64 Q_LLONG;
typedef quint64 Q_ULLONG;
typedef long int Q_LONG;
typedef unsigned long int Q_ULONG;
class QSysInfo;
enum _ZN8QSysInfo6EndianE {
    BigEndian = 0,
    LittleEndian = 1,
    ByteOrder = 1
};
enum QtMsgType {
    QtDebugMsg = 0,
    QtWarningMsg = 1,
    QtCriticalMsg = 2,
    QtSystemMsg = 2,
    QtFatalMsg = 3
};
typedef void QtMsgHandler;
class QBool;
class QFlag;
enum QtValidLicenseForCoreModule {
    LicensedCore = 1
};
enum QtValidLicenseForGuiModule {
    LicensedGui = 1
};

```

```
enum QtValidLicenseForNetworkModule {
    LicensedNetwork = 1
};
enum QtValidLicenseForOpenGLModule {
    LicensedOpenGL = 1
};
enum QtValidLicenseForSqlModule {
    LicensedSql = 1
};
enum QtValidLicenseForXmlModule {
    LicensedXml = 1
};
enum QtValidLicenseForQt3SupportLightModule {
    LicensedQt3SupportLight = 1
};
enum QtValidLicenseForQt3SupportModule {
    LicensedQt3Support = 1
};
enum QtValidLicenseForSvgModule {
    LicensedSvg = 1
};
enum QtValidLicenseForActiveQtModule {
    LicensedActiveQt = 1
};
```

17.3.23. QtCore/qhash.h

```
struct QHashData;
struct QHashData::Node;
struct QHashDummyValue;
```

17.3.24. QtCore/qiodevice.h

```
class QIODevice;
enum _ZN9QIODevice12OpenModeFlagE {
    NotOpen = 0,
    ReadOnly = 1,
    WriteOnly = 2,
    ReadWrite = 3,
    Append = 4,
    Truncate = 8,
    Text = 16,
    Unbuffered = 32
};
class QFlags < QIODevice::OpenModeFlag >;
typedef class QFlags < QIODevice::OpenModeFlag > QIODevice::OpenMode;
typedef qint64 QIODevice::Offset;
typedef int QIODevice::Status;
```

17.3.25. QtCore/qlibrary.h

```
class QLibrary;
```

17.3.26. QtCore/qlibraryinfo.h

```
class QLibraryInfo;
enum _ZN12QLibraryInfo15LibraryLocationE {
    PrefixPath = 0,
    DocumentationPath = 1,
    HeadersPath = 2,
    LibrariesPath = 3,
    BinariesPath = 4,
    PluginsPath = 5,
    DataPath = 6,
    TranslationsPath = 7,
    SettingsPath = 8,
    DemosPath = 9,
    ExamplesPath = 10
};
```

17.3.27. QtCore/qline.h

```
class QLine;
class QLineF;
enum _ZN6QLineF13IntersectTypeE {
    NoIntersection = 0,
    BoundedIntersection = 1,
    UnboundedIntersection = 2
};
```

17.3.28. QtCore/qlinkedlist.h

```
struct QLinkedListData;
```

17.3.29. QtCore/qlist.h

```
class QList < QByteArray >;
class QList < QFileInfo >;
class QList < QVariant >;
class QList < QUrl >;
class QList < QModelIndex >;
class QList < QHostAddress >;
class QList < int >;
class QList < QObject * >;
class QList < QWidget * >;
class QList < QPair < QString, QString > >;
struct QListData;
struct QListData::Data;
```

17.3.30. QtCore/qlocale.h

```
class QLocale;
enum _ZN7QLocale8LanguageE {
    C = 1,
    Abkhazian = 2,
    Afan = 3,
    Afar = 4,
    Afrikaans = 5,
```

```
Albanian = 6,  
Amharic = 7,  
Arabic = 8,  
Armenian = 9,  
Assamese = 10,  
Aymara = 11,  
Azerbaijani = 12,  
Bashkir = 13,  
Basque = 14,  
Bengali = 15,  
Bhutani = 16,  
Bihari = 17,  
Bislama = 18,  
Breton = 19,  
Bulgarian = 20,  
Burmese = 21,  
Byelorussian = 22,  
Cambodian = 23,  
Catalan = 24,  
Chinese = 25,  
Corsican = 26,  
Croatian = 27,  
Czech = 28,  
Danish = 29,  
Dutch = 30,  
English = 31,  
Esperanto = 32,  
Estonian = 33,  
Faroese = 34,  
FijiLanguage = 35,  
Finnish = 36,  
French = 37,  
Frisian = 38,  
Gaelic = 39,  
Galician = 40,  
Georgian = 41,  
German = 42,  
Greek = 43,  
Greenlandic = 44,  
Guarani = 45,  
Gujarati = 46,  
Hausa = 47,  
Hebrew = 48,  
Hindi = 49,  
Hungarian = 50,  
Icelandic = 51,  
Indonesian = 52,  
Interlingua = 53,  
Interlingue = 54,  
Inuktitut = 55,  
Inupiak = 56,  
Irish = 57,  
Italian = 58,  
Japanese = 59,  
Javanese = 60,  
Kannada = 61,  
Kashmiri = 62,  
Kazakh = 63,  
Kinyarwanda = 64,  
Kirghiz = 65,  
Korean = 66,  
Kurdish = 67,
```



```
Kurundi = 68,  
Laothian = 69,  
Latin = 70,  
Latvian = 71,  
Lingala = 72,  
Lithuanian = 73,  
Macedonian = 74,  
Malagasy = 75,  
Malay = 76,  
Malayalam = 77,  
Maltese = 78,  
Maori = 79,  
Marathi = 80,  
Moldavian = 81,  
Mongolian = 82,  
NauruLanguage = 83,  
Nepali = 84,  
Norwegian = 85,  
Occitan = 86,  
Oriya = 87,  
Pashto = 88,  
Persian = 89,  
Polish = 90,  
Portuguese = 91,  
Punjabi = 92,  
Quechua = 93,  
RhaetoRomance = 94,  
Romanian = 95,  
Russian = 96,  
Samoan = 97,  
Sangho = 98,  
Sanskrit = 99,  
Serbian = 100,  
SerboCroatian = 101,  
Sesotho = 102,  
Setswana = 103,  
Shona = 104,  
Sindhi = 105,  
Singhalese = 106,  
Siswati = 107,  
Slovak = 108,  
Slovenian = 109,  
Somali = 110,  
Spanish = 111,  
Sundanese = 112,  
Swahili = 113,  
Swedish = 114,  
Tagalog = 115,  
Tajik = 116,  
Tamil = 117,  
Tatar = 118,  
Telugu = 119,  
Thai = 120,  
Tibetan = 121,  
Tigrinya = 122,  
TongaLanguage = 123,  
Tsonga = 124,  
Turkish = 125,  
Turkmen = 126,  
Twi = 127,  
Uigur = 128,  
Ukrainian = 129,
```

```

Urdu = 130,
Uzbek = 131,
Vietnamese = 132,
Volapuk = 133,
Welsh = 134,
Wolof = 135,
Xhosa = 136,
Yiddish = 137,
Yoruba = 138,
Zhuang = 139,
Zulu = 140,
Nynorsk = 141,
Bosnian = 142,
Divehi = 143,
Manx = 144,
Cornish = 145,
LastLanguage = 145
};
enum _ZN7QLocale7CountryE {
    AnyCountry = 0,
    Afghanistan = 1,
    Albania = 2,
    Algeria = 3,
    AmericanSamoa = 4,
    Andorra = 5,
    Angola = 6,
    Anguilla = 7,
    Antarctica = 8,
    AntiguaAndBarbuda = 9,
    Argentina = 10,
    Armenia = 11,
    Aruba = 12,
    Australia = 13,
    Austria = 14,
    Azerbaijan = 15,
    Bahamas = 16,
    Bahrain = 17,
    Bangladesh = 18,
    Barbados = 19,
    Belarus = 20,
    Belgium = 21,
    Belize = 22,
    Benin = 23,
    Bermuda = 24,
    Bhutan = 25,
    Bolivia = 26,
    BosniaAndHerzegovina = 27,
    Botswana = 28,
    BouvetIsland = 29,
    Brazil = 30,
    BritishIndianOceanTerritory = 31,
    BruneiDarussalam = 32,
    Bulgaria = 33,
    BurkinaFaso = 34,
    Burundi = 35,
    Cambodia = 36,
    Cameroon = 37,
    Canada = 38,
    CapeVerde = 39,
    CaymanIslands = 40,
    CentralAfricanRepublic = 41,
    Chad = 42,

```

```

Chile = 43,
China = 44,
ChristmasIsland = 45,
CocosIslands = 46,
Colombia = 47,
Comoros = 48,
DemocraticRepublicOfCongo = 49,
PeoplesRepublicOfCongo = 50,
CookIslands = 51,
CostaRica = 52,
IvoryCoast = 53,
Croatia = 54,
Cuba = 55,
Cyprus = 56,
CzechRepublic = 57,
Denmark = 58,
Djibouti = 59,
Dominica = 60,
DominicanRepublic = 61,
EastTimor = 62,
Ecuador = 63,
Egypt = 64,
ElSalvador = 65,
EquatorialGuinea = 66,
Eritrea = 67,
Estonia = 68,
Ethiopia = 69,
FalklandIslands = 70,
FaroeIslands = 71,
FijiCountry = 72,
Finland = 73,
France = 74,
MetropolitanFrance = 75,
FrenchGuiana = 76,
FrenchPolynesia = 77,
FrenchSouthernTerritories = 78,
Gabon = 79,
Gambia = 80,
Georgia = 81,
Germany = 82,
Ghana = 83,
Gibraltar = 84,
Greece = 85,
Greenland = 86,
Grenada = 87,
Guadeloupe = 88,
Guam = 89,
Guatemala = 90,
Guinea = 91,
GuineaBissau = 92,
Guyana = 93,
Haiti = 94,
HeardAndMcDonaldIslands = 95,
Honduras = 96,
HongKong = 97,
Hungary = 98,
Iceland = 99,
India = 100,
Indonesia = 101,
Iran = 102,
Iraq = 103,
Ireland = 104,

```

```

Israel = 105,
Italy = 106,
Jamaica = 107,
Japan = 108,
Jordan = 109,
Kazakhstan = 110,
Kenya = 111,
Kiribati = 112,
DemocraticRepublicOfKorea = 113,
RepublicOfKorea = 114,
Kuwait = 115,
Kyrgyzstan = 116,
Lao = 117,
Latvia = 118,
Lebanon = 119,
Lesotho = 120,
Liberia = 121,
LibyanArabJamahiriya = 122,
Liechtenstein = 123,
Lithuania = 124,
Luxembourg = 125,
Macau = 126,
Macedonia = 127,
Madagascar = 128,
Malawi = 129,
Malaysia = 130,
Maldives = 131,
Mali = 132,
Malta = 133,
MarshallIslands = 134,
Martinique = 135,
Mauritania = 136,
Mauritius = 137,
Mayotte = 138,
Mexico = 139,
Micronesia = 140,
Moldova = 141,
Monaco = 142,
Mongolia = 143,
Montserrat = 144,
Morocco = 145,
Mozambique = 146,
Myanmar = 147,
Namibia = 148,
NauruCountry = 149,
Nepal = 150,
Netherlands = 151,
NetherlandsAntilles = 152,
NewCaledonia = 153,
NewZealand = 154,
Nicaragua = 155,
Niger = 156,
Nigeria = 157,
Niue = 158,
NorfolkIsland = 159,
NorthernMarianaIslands = 160,
Norway = 161,
Oman = 162,
Pakistan = 163,
Palau = 164,
PalestinianTerritory = 165,
Panama = 166,

```

```

PapuaNewGuinea = 167,
Paraguay = 168,
Peru = 169,
Philippines = 170,
Pitcairn = 171,
Poland = 172,
Portugal = 173,
PuertoRico = 174,
Qatar = 175,
Reunion = 176,
Romania = 177,
RussianFederation = 178,
Rwanda = 179,
SaintKittsAndNevis = 180,
StLucia = 181,
StVincentAndTheGrenadines = 182,
Samoa = 183,
SanMarino = 184,
SaoTomeAndPrincipe = 185,
SaudiArabia = 186,
Senegal = 187,
Seychelles = 188,
SierraLeone = 189,
Singapore = 190,
Slovakia = 191,
Slovenia = 192,
SolomonIslands = 193,
Somalia = 194,
SouthAfrica = 195,
SouthGeorgiaAndTheSouthSandwichIslands = 196,
Spain = 197,
SriLanka = 198,
StHelena = 199,
StPierreAndMiquelon = 200,
Sudan = 201,
Suriname = 202,
SvalbardAndJanMayenIslands = 203,
Swaziland = 204,
Sweden = 205,
Switzerland = 206,
SyrianArabRepublic = 207,
Taiwan = 208,
Tajikistan = 209,
Tanzania = 210,
Thailand = 211,
Togo = 212,
Tokelau = 213,
TongaCountry = 214,
TrinidadAndTobago = 215,
Tunisia = 216,
Turkey = 217,
Turkmenistan = 218,
TurksAndCaicosIslands = 219,
Tuvalu = 220,
Uganda = 221,
Ukraine = 222,
UnitedArabEmirates = 223,
UnitedKingdom = 224,
UnitedStates = 225,
UnitedStatesMinorOutlyingIslands = 226,
Uruguay = 227,
Uzbekistan = 228,

```

```

Vanuatu = 229,
VaticanCityState = 230,
Venezuela = 231,
VietNam = 232,
BritishVirginIslands = 233,
USVirginIslands = 234,
WallisAndFutunaIslands = 235,
WesternSahara = 236,
Yemen = 237,
Yugoslavia = 238,
Zambia = 239,
Zimbabwe = 240,
SerbiaAndMontenegro = 241,
LastCountry = 241
};
enum _ZN7QLocale10FormatTypeE {
    LongFormat = 0,
    ShortFormat = 1
};

```

17.3.31. QtCore/qmap.h

```

class QMap < int, QVariant >;
class QMap < QString, QVariant >;
struct QMapData;
struct QMapData::Node;

```

17.3.32. QtCore/qmetaobject.h

```

class QMetaMethod;
enum _ZN11QMetaMethod6AccessE {
    Private = 0,
    Protected = 1,
    Public = 2
};
enum _ZN11QMetaMethod10MethodTypeE {
    Method = 0,
    Signal = 1,
    Slot = 2
};
enum _ZN11QMetaMethod10AttributesE {
    Compatibility = 1,
    Cloned = 2,
    Scriptable = 4
};
class QMetaEnum;
class QMetaProperty;
class QMetaClassInfo;

```

17.3.33. QtCore/qmetatype.h

```

class QMetaType;
enum _ZN9QMetaType4TypeE {
    Void = 0,
    Bool = 1,
    Int = 2,
    UInt = 3,
    Double = 6,

```

```

    QChar = 7,
    QString = 10,
    QByteArray = 12,
    VoidStar = 128,
    Long = 129,
    Short = 130,
    Char = 131,
    ULong = 132,
    UShort = 133,
    UChar = 134,
    Float = 135,
    QObjectStar = 136,
    QWidgetStar = 137,
    User = 256
};
typedef void QMetaType::Destructor;
typedef void QMetaType::Constructor;
typedef void QMetaType::SaveOperator;
typedef void QMetaType::LoadOperator;

```

17.3.34. QtCore/qmimedata.h

```
class QMimeData;
```

17.3.35. QtCore/qmutex.h

```

class QMutex;
enum _ZN6QMutexl3RecursionModeE {
    NonRecursive = 0,
    Recursive = 1
};
class QMutexLocker;

```

17.3.36. QtCore/qnamespace.h

```

enum _ZN2Qt11GlobalColorE {
    color0 = 0,
    color1 = 1,
    black = 2,
    white = 3,
    darkGray = 4,
    gray = 5,
    lightGray = 6,
    red = 7,
    green = 8,
    blue = 9,
    cyan = 10,
    magenta = 11,
    yellow = 12,
    darkRed = 13,
    darkGreen = 14,
    darkBlue = 15,
    darkCyan = 16,
    darkMagenta = 17,
    darkYellow = 18,
    transparent = 19
};
enum _ZN2Qt16KeyboardModifierE {

```

```

KeyboardModifierMask = -33554432,
NoModifier = 0,
ShiftModifier = 33554432,
ControlModifier = 67108864,
AltModifier = 134217728,
MetaModifier = 268435456,
KeypadModifier = 536870912
};
typedef class QFlags < Qt::KeyboardModifier > Qt::KeyboardModifiers;
enum _ZN2Qt8ModifierE {
    MODIFIER_MASK = -33554432,
    UNICODE_ACCEL = 0,
    SHIFT = 33554432,
    CTRL = 67108864,
    ALT = 134217728,
    META = 268435456
};
enum _ZN2Qt11MouseButtonE {
    NoButton = 0,
    LeftButton = 1,
    RightButton = 2,
    MidButton = 4,
    XButton1 = 8,
    XButton2 = 16,
    MouseButtonMask = 255
};
class QFlags < Qt::MouseButton >;
typedef class QFlags < Qt::MouseButton > Qt::MouseButtons;
enum _ZN2Qt16ButtonState_enumE {
    KeyButtonMask = -33554432,
    ShiftButton = 33554432,
    ControlButton = 67108864,
    AltButton = 134217728,
    MetaButton = 268435456,
    Keypad = 536870912
};
typedef int Qt::ButtonState;
enum _ZN2Qt11OrientationE {
    Horizontal = 1,
    Vertical = 2
};
class QFlags < Qt::Orientation >;
typedef class QFlags < Qt::Orientation > Qt::Orientations;
enum _ZN2Qt11FocusPolicyE {
    NoFocus = 0,
    TabFocus = 1,
    ClickFocus = 2,
    StrongFocus = 11,
    WheelFocus = 15
};
enum _ZN2Qt9SortOrderE {
    AscendingOrder = 0,
    Ascending = 0,
    DescendingOrder = 1,
    Descending = 1
};
enum _ZN2Qt13AlignmentFlagE {
    AlignLeft = 1,
    AlignAuto = 1,
    AlignLeading = 1,
    AlignRight = 2,
    AlignTrailing = 2,

```



```

    AlignHCenter = 4,
    AlignJustify = 8,
    AlignAbsolute = 16,
    AlignHorizontal_Mask = 31,
    AlignTop = 32,
    AlignBottom = 64,
    AlignVCenter = 128,
    AlignCenter = 132,
    AlignVertical_Mask = 224
};
class QFlags < Qt::AlignmentFlag >;
typedef class QFlags < Qt::AlignmentFlag > Qt::Alignment;
enum _ZN2Qt8TextFlagE {
    TextSingleLine = 256,
    SingleLine = 256,
    DontClip = 512,
    TextDontClip = 512,
    ExpandTabs = 1024,
    TextExpandTabs = 1024,
    ShowPrefix = 2048,
    TextShowMnemonic = 2048,
    TextWordWrap = 4096,
    WordBreak = 4096,
    BreakAnywhere = 8192,
    TextWrapAnywhere = 8192,
    DontPrint = 16384,
    TextDontPrint = 16384,
    TextHideMnemonic = 32768,
    NoAccel = 32768,
    TextIncludeTrailingSpaces = 134217728,
    IncludeTrailingSpaces = 134217728
};
typedef enum _ZN2Qt8TextFlagE {
    TextSingleLine = 256,
    SingleLine = 256,
    DontClip = 512,
    TextDontClip = 512,
    ExpandTabs = 1024,
    TextExpandTabs = 1024,
    ShowPrefix = 2048,
    TextShowMnemonic = 2048,
    TextWordWrap = 4096,
    WordBreak = 4096,
    BreakAnywhere = 8192,
    TextWrapAnywhere = 8192,
    DontPrint = 16384,
    TextDontPrint = 16384,
    TextHideMnemonic = 32768,
    NoAccel = 32768,
    TextIncludeTrailingSpaces = 134217728,
    IncludeTrailingSpaces = 134217728
} Qt::TextFlags;
enum _ZN2Qt13TextElideModeE {
    ElideLeft = 0,
    ElideRight = 1,
    ElideMiddle = 2
};
enum _ZN2Qt10WindowTypeE {
    Widget = 0,
    WStyle_Customize = 0,
    WStyle_NormalBorder = 0,
    WPaintDesktop = 0,

```

```

WPaintClever = 0,
WRepaintNoErase = 0,
WResizeNoErase = 0,
WMacNoSheet = 0,
WNoAutoErase = 0,
WType_TopLevel = 1,
Window = 1,
Dialog = 3,
WType_Dialog = 3,
WStyle_Dialog = 3,
WMacSheet = 5,
Sheet = 5,
WMacDrawer = 7,
Drawer = 7,
Popup = 9,
WType_Popup = 9,
WStyle_Tool = 11,
Tool = 11,
ToolTip = 13,
SplashScreen = 15,
WStyle_Splash = 15,
Desktop = 17,
WType_Desktop = 17,
SubWindow = 18,
WType_Mask = 255,
WindowType_Mask = 255,
WStyle_DialogBorder = 256,
MSWindowsFixedSizeDialogHint = 256,
MSWindowsOwnDC = 512,
WWinOwnDC = 512,
X11BypassWindowManagerHint = 1024,
WX11BypassWM = 1024,
FramelessWindowHint = 2048,
WStyle_NoBorder = 2048,
WStyle_NoBorderEx = 2048,
WStyle_Title = 4096,
WindowTitleHint = 4096,
WindowSystemMenuHint = 8192,
WStyle_SysMenu = 8192,
WStyle_Minimize = 16384,
WindowMinimizeButtonHint = 16384,
WStyle_Maximize = 32768,
WindowMaximizeButtonHint = 32768,
WStyle_MinMax = 49152,
WindowMinMaxButtonsHint = 49152,
WStyle_ContextHelp = 65536,
WindowContextHelpButtonHint = 65536,
WindowShadeButtonHint = 131072,
WStyle_StaysOnTop = 262144,
WindowStaysOnTopHint = 262144,
WMouseNoMask = 524288,
WDestroyiveClose = 1048576,
WNorthWestGravity = 2097152,
WStaticContents = 2097152,
WGroupLeader = 4194304,
WShowModal = 8388608,
WType_Modal = 8388611,
WNoMousePropagation = 16777216
};
class QFlags < Qt::WindowType >;
typedef class QFlags < Qt::WindowType > Qt::WindowFlags;
enum _ZN2Qt11WindowStateE {

```

```

    WindowNoState = 0,
    WindowMinimized = 1,
    WindowMaximized = 2,
    WindowFullScreen = 4,
    WindowActive = 8
};
class QFlags < Qt::WindowState >;
typedef class QFlags < Qt::WindowState > Qt::WindowStates;
enum _ZN2Qt15WidgetAttributeE {
    WA_Disabled = 0,
    WA_UnderMouse = 1,
    WA_MouseTracking = 2,
    WA_ContentsPropagated = 3,
    WA_OpaquePaintEvent = 4,
    WA_NoBackground = 4,
    WA_StaticContents = 5,
    WA_LaidOut = 7,
    WA_PaintOnScreen = 8,
    WA_NoSystemBackground = 9,
    WA_UpdatesDisabled = 10,
    WA_Mapped = 11,
    WA_MacNoClickThrough = 12,
    WA_PaintOutsidePaintEvent = 13,
    WA_InputMethodEnabled = 14,
    WA_WState_Visible = 15,
    WA_WState_Hidden = 16,
    WA_ForceDisabled = 32,
    WA_KeyCompression = 33,
    WA_PendingMoveEvent = 34,
    WA_PendingResizeEvent = 35,
    WA_SetPalette = 36,
    WA_SetFont = 37,
    WA_SetCursor = 38,
    WA_NoChildEventsFromChildren = 39,
    WA_WindowModified = 41,
    WA_Resized = 42,
    WA_Moved = 43,
    WA_PendingUpdate = 44,
    WA_InvalidSize = 45,
    WA_MacMetalStyle = 46,
    WA_CustomWhatsThis = 47,
    WA_LayoutOnEntireRect = 48,
    WA_OutsideWSRange = 49,
    WA_GrabbedShortcut = 50,
    WA_TransparentForMouseEvents = 51,
    WA_PaintUnclipped = 52,
    WA_SetWindowIcon = 53,
    WA_NoMouseReplay = 54,
    WA_DeleteOnClose = 55,
    WA_RightToLeft = 56,
    WA_SetLayoutDirection = 57,
    WA_NoChildEventsForParent = 58,
    WA_ForceUpdatesDisabled = 59,
    WA_WState_Created = 60,
    WA_WState_CompressKeys = 61,
    WA_WState_InPaintEvent = 62,
    WA_WState_Reparented = 63,
    WA_WState_ConfigPending = 64,
    WA_WState_Polished = 66,
    WA_WState_DND = 67,
    WA_WState_OwnSizePolicy = 68,
    WA_WState_ExplicitShowHide = 69,

```

```

    WA_ShowModal = 70,
    WA_MouseNoMask = 71,
    WA_GroupLeader = 72,
    WA_NoMousePropagation = 73,
    WA_Hover = 74,
    WA_InputMethodTransparent = 75,
    WA_QuitOnClose = 76,
    WA_KeyboardFocusChange = 77,
    WA_AcceptDrops = 78,
    WA_DropSiteRegistered = 79,
    WA_ForceAcceptDrops = 79,
    WA_WindowPropagation = 80,
    WA_NoX11EventCompression = 81,
    WA_TintedBackground = 82,
    WA_AttributeCount = 83
};
enum _ZN2Qt19ImageConversionFlagE {
    AutoColor = 0,
    AutoDither = 0,
    ThresholdAlphaDither = 0,
    DiffuseDither = 0,
    MonoOnly = 2,
    ColorMode_Mask = 3,
    ColorOnly = 3,
    OrderedAlphaDither = 4,
    DiffuseAlphaDither = 8,
    NoAlpha = 12,
    AlphaDither_Mask = 12,
    OrderedDither = 16,
    ThresholdDither = 32,
    Dither_Mask = 48,
    PreferDither = 64,
    AvoidDither = 128,
    DitherMode_Mask = 192
};
typedef class QFlags < Qt::ImageConversionFlag > Qt::ImageConversionFlags;
enum _ZN2Qt6BGModeE {
    TransparentMode = 0,
    OpaqueMode = 1
};
enum _ZN2Qt9PaintUnitE {
    PixelUnit = 0,
    LoMetricUnit = 1,
    HiMetricUnit = 2,
    LoEnglishUnit = 3,
    HiEnglishUnit = 4,
    TwipsUnit = 5
};
enum _ZN2Qt8GUIStyleE {
    MacStyle = 0,
    WindowsStyle = 1,
    Win3Style = 2,
    PMStyle = 3,
    MotifStyle = 4
};
enum _ZN2Qt3KeyE {
    Key_Space = 32,
    Key_Any = 32,
    Key_Exclam = 33,
    Key_QuoteDbl = 34,
    Key_NumberSign = 35,
    Key_Dollar = 36,

```

```
Key_Percent = 37,  
Key_Ampersand = 38,  
Key_Apostrophe = 39,  
Key_ParenLeft = 40,  
Key_ParenRight = 41,  
Key_Asterisk = 42,  
Key_Plus = 43,  
Key_Comma = 44,  
Key_Minus = 45,  
Key_Period = 46,  
Key_Slash = 47,  
Key_0 = 48,  
Key_1 = 49,  
Key_2 = 50,  
Key_3 = 51,  
Key_4 = 52,  
Key_5 = 53,  
Key_6 = 54,  
Key_7 = 55,  
Key_8 = 56,  
Key_9 = 57,  
Key_Colon = 58,  
Key_Semicolon = 59,  
Key_Less = 60,  
Key_Equal = 61,  
Key_Greater = 62,  
Key_Question = 63,  
Key_At = 64,  
Key_A = 65,  
Key_B = 66,  
Key_C = 67,  
Key_D = 68,  
Key_E = 69,  
Key_F = 70,  
Key_G = 71,  
Key_H = 72,  
Key_I = 73,  
Key_J = 74,  
Key_K = 75,  
Key_L = 76,  
Key_M = 77,  
Key_N = 78,  
Key_O = 79,  
Key_P = 80,  
Key_Q = 81,  
Key_R = 82,  
Key_S = 83,  
Key_T = 84,  
Key_U = 85,  
Key_V = 86,  
Key_W = 87,  
Key_X = 88,  
Key_Y = 89,  
Key_Z = 90,  
Key_BracketLeft = 91,  
Key_Backslash = 92,  
Key_BracketRight = 93,  
Key_AsciiCircum = 94,  
Key_Underscore = 95,  
Key_QuoteLeft = 96,  
Key_BraceLeft = 123,  
Key_Bar = 124,
```

```

Key_BraceRight = 125,
Key_AsciiTilde = 126,
Key_nobreakspace = 160,
Key_exclamdown = 161,
Key_cent = 162,
Key_sterling = 163,
Key_currency = 164,
Key_yen = 165,
Key_brokenbar = 166,
Key_section = 167,
Key_diaeresis = 168,
Key_copyright = 169,
Key_ordfeminine = 170,
Key_guillemotleft = 171,
Key_notsign = 172,
Key_hyphen = 173,
Key_registered = 174,
Key_macron = 175,
Key_degree = 176,
Key_plusminus = 177,
Key_twosuperior = 178,
Key_threesuperior = 179,
Key_acute = 180,
Key_mu = 181,
Key_paragraph = 182,
Key_periodcentered = 183,
Key_cedilla = 184,
Key_onesuperior = 185,
Key_masculine = 186,
Key_guillemotright = 187,
Key_onequarter = 188,
Key_onehalf = 189,
Key_threequarters = 190,
Key_questiondown = 191,
Key_agrave = 192,
Key_Agrave = 192,
Key_Aacute = 193,
Key_aacute = 193,
Key_acircumflex = 194,
Key_Acircumflex = 194,
Key_Atilde = 195,
Key_atilde = 195,
Key_Adiaeresis = 196,
Key_adiaeresis = 196,
Key_Aring = 197,
Key_aring = 197,
Key_AE = 198,
Key_ae = 198,
Key_Ccedilla = 199,
Key_ccedilla = 199,
Key_Egrave = 200,
Key_egrave = 200,
Key_eacute = 201,
Key_Eacute = 201,
Key_Ecircumflex = 202,
Key_ecircumflex = 202,
Key_ediaeresis = 203,
Key_Ediaeresis = 203,
Key_Igrave = 204,
Key_igrave = 204,
Key_iacute = 205,
Key_Iacute = 205,

```

```

Key_icircumflex = 206,
Key_Icircumflex = 206,
Key_idiaeresis = 207,
Key_Idiaeresis = 207,
Key_eth = 208,
Key_ETH = 208,
Key_ntilde = 209,
Key_Ntilde = 209,
Key_ograve = 210,
Key_Ograve = 210,
Key_oacute = 211,
Key_Oacute = 211,
Key_ocircumflex = 212,
Key_Ocircumflex = 212,
Key_otilde = 213,
Key_Otilde = 213,
Key_Odiaeresis = 214,
Key_odiaeresis = 214,
Key_multiply = 215,
Key_Ooblique = 216,
Key_oslash = 216,
Key_Ugrave = 217,
Key_ugrave = 217,
Key_Uacute = 218,
Key_uacute = 218,
Key_ucircumflex = 219,
Key_Ucircumflex = 219,
Key_udiaeresis = 220,
Key_Udiaeresis = 220,
Key_yacute = 221,
Key_Yacute = 221,
Key_THORN = 222,
Key_thorn = 222,
Key_ssharp = 223,
Key_division = 247,
Key_ydiaeresis = 255,
Key_Escape = 16777216,
Key_Tab = 16777217,
Key_Backtab = 16777218,
Key_BackTab = 16777218,
Key_Backspace = 16777219,
Key_BackSpace = 16777219,
Key_Return = 16777220,
Key_Enter = 16777221,
Key_Insert = 16777222,
Key_Delete = 16777223,
Key_Pause = 16777224,
Key_Print = 16777225,
Key_SysReq = 16777226,
Key_Clear = 16777227,
Key_Home = 16777232,
Key_End = 16777233,
Key_Left = 16777234,
Key_Up = 16777235,
Key_Right = 16777236,
Key_Down = 16777237,
Key_PageUp = 16777238,
Key_Prior = 16777238,
Key_PageDown = 16777239,
Key_Next = 16777239,
Key_Shift = 16777248,
Key_Control = 16777249,

```

```
Key_Meta = 16777250,  
Key_Alt = 16777251,  
Key_CapsLock = 16777252,  
Key_NumLock = 16777253,  
Key_ScrollLock = 16777254,  
Key_F1 = 16777264,  
Key_F2 = 16777265,  
Key_F3 = 16777266,  
Key_F4 = 16777267,  
Key_F5 = 16777268,  
Key_F6 = 16777269,  
Key_F7 = 16777270,  
Key_F8 = 16777271,  
Key_F9 = 16777272,  
Key_F10 = 16777273,  
Key_F11 = 16777274,  
Key_F12 = 16777275,  
Key_F13 = 16777276,  
Key_F14 = 16777277,  
Key_F15 = 16777278,  
Key_F16 = 16777279,  
Key_F17 = 16777280,  
Key_F18 = 16777281,  
Key_F19 = 16777282,  
Key_F20 = 16777283,  
Key_F21 = 16777284,  
Key_F22 = 16777285,  
Key_F23 = 16777286,  
Key_F24 = 16777287,  
Key_F25 = 16777288,  
Key_F26 = 16777289,  
Key_F27 = 16777290,  
Key_F28 = 16777291,  
Key_F29 = 16777292,  
Key_F30 = 16777293,  
Key_F31 = 16777294,  
Key_F32 = 16777295,  
Key_F33 = 16777296,  
Key_F34 = 16777297,  
Key_F35 = 16777298,  
Key_Super_L = 16777299,  
Key_Super_R = 16777300,  
Key_Menu = 16777301,  
Key_Hyper_L = 16777302,  
Key_Hyper_R = 16777303,  
Key_Help = 16777304,  
Key_Direction_L = 16777305,  
Key_Direction_R = 16777312,  
Key_Back = 16777313,  
Key_Forward = 16777314,  
Key_Stop = 16777315,  
Key_Refresh = 16777316,  
Key_VolumeDown = 16777328,  
Key_VolumeMute = 16777329,  
Key_VolumeUp = 16777330,  
Key_BassBoost = 16777331,  
Key_BassUp = 16777332,  
Key_BassDown = 16777333,  
Key_TrebleUp = 16777334,  
Key_TrebleDown = 16777335,  
Key_MediaPlay = 16777344,  
Key_MediaStop = 16777345,
```



```

Key_MediaPrev = 16777346,
Key_MediaPrevious = 16777346,
Key_MediaNext = 16777347,
Key_MediaRecord = 16777348,
Key_HomePage = 16777360,
Key_Favorites = 16777361,
Key_Search = 16777362,
Key_Standby = 16777363,
Key_OpenUrl = 16777364,
Key_LaunchMail = 16777376,
Key_LaunchMedia = 16777377,
Key_Launch0 = 16777378,
Key_Launch1 = 16777379,
Key_Launch2 = 16777380,
Key_Launch3 = 16777381,
Key_Launch4 = 16777382,
Key_Launch5 = 16777383,
Key_Launch6 = 16777384,
Key_Launch7 = 16777385,
Key_Launch8 = 16777386,
Key_Launch9 = 16777387,
Key_LaunchA = 16777388,
Key_LaunchB = 16777389,
Key_LaunchC = 16777390,
Key_LaunchD = 16777391,
Key_LaunchE = 16777392,
Key_LaunchF = 16777393,
Key_AltGr = 16781571,
Key_Multi_key = 16781600,
Key_Kanji = 16781601,
Key_Muhenkan = 16781602,
Key_Henkan = 16781603,
Key_Romaji = 16781604,
Key_Hiragana = 16781605,
Key_Katakana = 16781606,
Key_Hiragana_Katakana = 16781607,
Key_Zenkaku = 16781608,
Key_Hankaku = 16781609,
Key_Zenkaku_Hankaku = 16781610,
Key_Touroku = 16781611,
Key_Massyo = 16781612,
Key_Kana_Lock = 16781613,
Key_Kana_Shift = 16781614,
Key_Eisu_Shift = 16781615,
Key_Eisu_toggle = 16781616,
Key_Hangul = 16781617,
Key_Hangul_Start = 16781618,
Key_Hangul_End = 16781619,
Key_Hangul_Hanja = 16781620,
Key_Hangul_Jamo = 16781621,
Key_Hangul_Romaja = 16781622,
Key_Codeinput = 16781623,
Key_Hangul_Jeonja = 16781624,
Key_Hangul_Banja = 16781625,
Key_Hangul_PreHanja = 16781626,
Key_Hangul_PostHanja = 16781627,
Key_SingleCandidate = 16781628,
Key_MultipleCandidate = 16781629,
Key_PreviousCandidate = 16781630,
Key_Hangul_Special = 16781631,
Key_Mode_switch = 16781694,
Key_Dead_Grave = 16781904,

```

```

Key_Dead_Acute = 16781905,
Key_Dead_Circumflex = 16781906,
Key_Dead_Tilde = 16781907,
Key_Dead_Macron = 16781908,
Key_Dead_Breve = 16781909,
Key_Dead_Abovedot = 16781910,
Key_Dead_Diaeresis = 16781911,
Key_Dead_Abovering = 16781912,
Key_Dead_Doubleacute = 16781913,
Key_Dead_Caron = 16781914,
Key_Dead_Cedilla = 16781915,
Key_Dead_Ogonek = 16781916,
Key_Dead_Iota = 16781917,
Key_Dead_Voiced_Sound = 16781918,
Key_Dead_Semivoiced_Sound = 16781919,
Key_Dead_Belowdot = 16781920,
Key_Dead_Hook = 16781921,
Key_Dead_Horn = 16781922,
Key_MediaLast = 16842751,
Key_Select = 16842752,
Key_Yes = 16842753,
Key_No = 16842754,
Key_Context1 = 17825792,
Key_Context2 = 17825793,
Key_Context3 = 17825794,
Key_Context4 = 17825795,
Key_Call = 17825796,
Key_Hangup = 17825797,
Key_Flip = 17825798,
Key_unknown = 33554431
};
enum _ZN2Qt9ArrowTypeE {
    NoArrow = 0,
    UpArrow = 1,
    DownArrow = 2,
    LeftArrow = 3,
    RightArrow = 4
};
enum _ZN2Qt8PenStyleE {
    NoPen = 0,
    SolidLine = 1,
    DashLine = 2,
    DotLine = 3,
    DashDotLine = 4,
    DashDotDotLine = 5,
    CustomDashLine = 6,
    MPenStyle = 15
};
enum _ZN2Qt11PenCapStyleE {
    FlatCap = 0,
    SquareCap = 16,
    RoundCap = 32,
    MPenCapStyle = 48
};
enum _ZN2Qt12PenJoinStyleE {
    MiterJoin = 0,
    BevelJoin = 64,
    RoundJoin = 128,
    MPenJoinStyle = 192
};
enum _ZN2Qt10BrushStyleE {
    NoBrush = 0,

```

```

SolidPattern = 1,
Dense1Pattern = 2,
Dense2Pattern = 3,
Dense3Pattern = 4,
Dense4Pattern = 5,
Dense5Pattern = 6,
Dense6Pattern = 7,
Dense7Pattern = 8,
HorPattern = 9,
VerPattern = 10,
CrossPattern = 11,
BDiagPattern = 12,
FDiagPattern = 13,
DiagCrossPattern = 14,
LinearGradientPattern = 15,
RadialGradientPattern = 16,
ConicalGradientPattern = 17,
TexturePattern = 24,
CustomPattern = 24
};
enum _ZN2Qt8UIEffectE {
    UI_General = 0,
    UI_AnimateMenu = 1,
    UI_FadeMenu = 2,
    UI_AnimateCombo = 3,
    UI_AnimateTooltip = 4,
    UI_FadeTooltip = 5,
    UI_AnimateToolBox = 6
};
enum _ZN2Qt11CursorShapeE {
    ArrowCursor = 0,
    arrowCursor = 0,
    UpArrowCursor = 1,
    upArrowCursor = 1,
    CrossCursor = 2,
    crossCursor = 2,
    waitCursor = 3,
    WaitCursor = 3,
    ibeamCursor = 4,
    IBeamCursor = 4,
    SizeVerCursor = 5,
    sizeVerCursor = 5,
    sizeHorCursor = 6,
    SizeHorCursor = 6,
    SizeBDiagCursor = 7,
    sizeBDiagCursor = 7,
    sizeFDiagCursor = 8,
    SizeFDiagCursor = 8,
    SizeAllCursor = 9,
    sizeAllCursor = 9,
    BlankCursor = 10,
    blankCursor = 10,
    splitVCursor = 11,
    SplitVCursor = 11,
    splitHCursor = 12,
    SplitHCursor = 12,
    PointingHandCursor = 13,
    pointingHandCursor = 13,
    ForbiddenCursor = 14,
    forbiddenCursor = 14,
    whatsThisCursor = 15,
    WhatsThisCursor = 15,

```

```

    BusyCursor = 16,
    LastCursor = 16,
    BitmapCursor = 24
};
enum _ZN2Qt10TextFormatE {
    PlainText = 0,
    RichText = 1,
    AutoText = 2,
    LogText = 3
};
enum _ZN2Qt15AspectRatioModeE {
    IgnoreAspectRatio = 0,
    ScaleFree = 0,
    KeepAspectRatio = 1,
    ScaleMin = 1,
    KeepAspectRatioByExpanding = 2,
    ScaleMax = 2
};
typedef enum _ZN2Qt15AspectRatioModeE {
    IgnoreAspectRatio = 0,
    ScaleFree = 0,
    KeepAspectRatio = 1,
    ScaleMin = 1,
    KeepAspectRatioByExpanding = 2,
    ScaleMax = 2
} Qt::ScaleMode;
enum _ZN2Qt15AnchorAttributeE {
    AnchorName = 0,
    AnchorHref = 1
};
enum _ZN2Qt14DockWidgetAreaE {
    LeftDockWidgetArea = 1,
    RightDockWidgetArea = 2,
    TopDockWidgetArea = 4,
    BottomDockWidgetArea = 8,
    DockWidgetArea_Mask = 15,
    AllDockWidgetAreas = 15
};
typedef class QFlags < Qt::DockWidgetArea > Qt::DockWidgetAreas;
enum _ZN2Qt11ToolBarAreaE {
    LeftToolBarArea = 1,
    RightToolBarArea = 2,
    TopToolBarArea = 4,
    BottomToolBarArea = 8,
    ToolBarArea_Mask = 15,
    AllToolBarAreas = 15
};
typedef class QFlags < Qt::ToolBarArea > Qt::ToolBarAreas;
enum _ZN2Qt4DockE {
    DockUnmanaged = 0,
    Unmanaged = 0,
    TornOff = 1,
    DockTornOff = 1,
    Top = 2,
    DockTop = 2,
    DockBottom = 3,
    Bottom = 3,
    DockRight = 4,
    Right = 4,
    DockLeft = 5,
    Left = 5,
    DockMinimized = 6,

```

```

    Minimized = 6
};
typedef enum _ZN2Qt4DockE {
    DockUnmanaged = 0,
    Unmanaged = 0,
    TornOff = 1,
    DockTornOff = 1,
    Top = 2,
    DockTop = 2,
    DockBottom = 3,
    Bottom = 3,
    DockRight = 4,
    Right = 4,
    DockLeft = 5,
    Left = 5,
    DockMinimized = 6,
    Minimized = 6
} Qt::ToolBarDock;
enum _ZN2Qt10DateFormatE {
    TextDate = 0,
    ISODate = 1,
    LocalDate = 2
};
enum _ZN2Qt8TimeSpecE {
    LocalTime = 0,
    UTC = 1
};
enum _ZN2Qt9DayOfWeekE {
    Monday = 1,
    Tuesday = 2,
    Wednesday = 3,
    Thursday = 4,
    Friday = 5,
    Saturday = 6,
    Sunday = 7
};
enum _ZN2Qt15ScrollBarPolicyE {
    ScrollBarAsNeeded = 0,
    ScrollBarAlwaysOff = 1,
    ScrollBarAlwaysOn = 2
};
enum _ZN2Qt14BackgroundModeE {
    FixedColor = 0,
    FixedPixmap = 1,
    NoBackground = 2,
    PaletteForeground = 3,
    PaletteButton = 4,
    PaletteLight = 5,
    PaletteMidlight = 6,
    PaletteDark = 7,
    PaletteMid = 8,
    PaletteText = 9,
    PaletteBrightText = 10,
    PaletteBase = 11,
    PaletteBackground = 12,
    PaletteShadow = 13,
    PaletteHighlight = 14,
    PaletteHighlightedText = 15,
    PaletteButtonText = 16,
    PaletteLink = 17,
    PaletteLinkVisited = 18,
    X11ParentRelative = 19
};

```

```

};
enum _ZN2Qt15CaseSensitivityE {
    CaseInsensitive = 0,
    CaseSensitive = 1
};
enum _ZN2Qt6CornerE {
    TopLeftCorner = 0,
    TopLeft = 0,
    TopRightCorner = 1,
    TopRight = 1,
    BottomLeftCorner = 2,
    BottomLeft = 2,
    BottomRightCorner = 3,
    BottomRight = 3
};
enum _ZN2Qt14ConnectionTypeE {
    AutoConnection = 0,
    DirectConnection = 1,
    QueuedConnection = 2,
    AutoCompatConnection = 3
};
enum _ZN2Qt15ShortcutContextE {
    WidgetShortcut = 0,
    WindowShortcut = 1,
    ApplicationShortcut = 2
};
enum _ZN2Qt8FillRuleE {
    OddEvenFill = 0,
    WindingFill = 1
};
enum _ZN2Qt13ClipOperationE {
    NoClip = 0,
    ReplaceClip = 1,
    IntersectClip = 2,
    UniteClip = 3
};
enum _ZN2Qt18TransformationModeE {
    FastTransformation = 0,
    SmoothTransformation = 1
};
enum _ZN2Qt11FocusReasonE {
    MouseFocusReason = 0,
    TabFocusReason = 1,
    BacktabFocusReason = 2,
    ActiveWindowFocusReason = 3,
    PopupFocusReason = 4,
    ShortcutFocusReason = 5,
    MenuBarFocusReason = 6,
    OtherFocusReason = 7,
    NoFocusReason = 8
};
enum _ZN2Qt17ContextMenuPolicyE {
    NoContextMenu = 0,
    DefaultContextMenu = 1,
    ActionsContextMenu = 2,
    CustomContextMenu = 3
};
enum _ZN2Qt16InputMethodQueryE {
    ImMicroFocus = 0,
    ImFont = 1,
    ImCursorPosition = 2,
    ImSurroundingText = 3,

```

```

    ImCurrentSelection = 4
};
enum _ZN2Qt15ToolButtonStyleE {
    ToolButtonIconOnly = 0,
    ToolButtonTextOnly = 1,
    ToolButtonTextBesideIcon = 2,
    ToolButtonTextUnderIcon = 3
};
enum _ZN2Qt15LayoutDirectionE {
    LeftToRight = 0,
    RightToLeft = 1
};
enum _ZN2Qt10DropActionE {
    IgnoreAction = 0,
    CopyAction = 1,
    MoveAction = 2,
    LinkAction = 4,
    ActionMask = 255,
    TargetMoveAction = 32770
};
typedef class QFlags < Qt::DropAction > Qt::DropActions;
enum _ZN2Qt10CheckStateE {
    Unchecked = 0,
    PartiallyChecked = 1,
    Checked = 2
};
enum _ZN2Qt12ItemDataRoleE {
    DisplayRole = 0,
    DecorationRole = 1,
    EditRole = 2,
    ToolTipRole = 3,
    StatusTipRole = 4,
    WhatsThisRole = 5,
    FontRole = 6,
    TextAlignmentRole = 7,
    BackgroundColorRole = 8,
    TextColorRole = 9,
    CheckStateRole = 10,
    AccessibleTextRole = 11,
    AccessibleDescriptionRole = 12,
    SizeHintRole = 13,
    UserRole = 32
};
enum _ZN2Qt8ItemFlagE {
    ItemIsSelectable = 1,
    ItemIsEditable = 2,
    ItemIsDragEnabled = 4,
    ItemIsDropEnabled = 8,
    ItemIsUserCheckable = 16,
    ItemIsEnabled = 32,
    ItemIsTristate = 64
};
class QFlags < Qt::ItemFlag >;
typedef class QFlags < Qt::ItemFlag > Qt::ItemFlags;
enum _ZN2Qt9MatchFlagE {
    MatchExactly = 0,
    MatchContains = 1,
    MatchStartsWith = 2,
    MatchEndsWith = 3,
    MatchRegExp = 4,
    MatchWildcard = 5,
    MatchCaseSensitive = 16,

```

```

    MatchWrap = 32,
    MatchRecursive = 64
};
typedef class QFlags < Qt::MatchFlag > Qt::MatchFlags;
typedef unsigned long int Qt::HANDLE;
typedef Qt::WindowFlags Qt::WFlags;
enum _ZN2Qt14WindowModalityE {
    NonModal = 0,
    WindowModal = 1,
    ApplicationModal = 2
};
class QInternal;
enum _ZN9QInternal16PaintDeviceFlagsE {
    UnknownDevice = 0,
    Widget = 1,
    Pixmap = 2,
    Image = 3,
    Printer = 4,
    Picture = 5,
    Pbuffer = 6
};
enum _ZN9QInternal12RelayoutTypeE {
    RelayoutNormal = 0,
    RelayoutDragging = 1,
    RelayoutDropped = 2
};
typedef qint32 QCOORD;

```

17.3.37. QtCore/qobject.h

```

typedef class QList < QObject * >QObjectList;
class QObjectData;
class QObject;
class QObjectUserData;

```

17.3.38. QtCore/qobjectcleanuphandler.h

```

class QObjectCleanupHandler;

```

17.3.39. QtCore/qobjectdefs.h

```

class QGenericArgument;
class QGenericReturnArgument;
struct QMetaObject;
enum _ZN11QMetaObject4CallE {
    InvokeMetaMethod = 0,
    ReadProperty = 1,
    WriteProperty = 2,
    ResetProperty = 3,
    QueryPropertyDesignable = 4,
    QueryPropertyScriptable = 5,
    QueryPropertyStored = 6,
    QueryPropertyEditable = 7,
    QueryPropertyUser = 8
};

```

17.3.40. QtCore/qpairs.h

```
struct QPair <int, int >;
```

17.3.41. QtCore/qplugin.h

```
typedef class QObjectQtPluginInstanceFunction;
```

17.3.42. QtCore/qpluginloader.h

```
class QPluginLoader;
```

17.3.43. QtCore/qpoint.h

```
class QPoint;
class QPointF;
```

17.3.44. QtCore/qprocess.h

```
typedef qint64 Q_PID;
class QProcess;
enum _ZN8QProcess12ProcessErrorE {
    FailedToStart = 0,
    Crashed = 1,
    Timedout = 2,
    ReadError = 3,
    WriteError = 4,
    UnknownError = 5
};
enum _ZN8QProcess12ProcessStateE {
    NotRunning = 0,
    Starting = 1,
    Running = 2
};
enum _ZN8QProcess14ProcessChannelE {
    StandardOutput = 0,
    StandardError = 1
};
enum _ZN8QProcess18ProcessChannelModeE {
    SeparateChannels = 0,
    MergedChannels = 1,
    ForwardedChannels = 2
};
enum _ZN8QProcess10ExitStatusE {
    NormalExit = 0,
    CrashExit = 1
};
```

17.3.45. QtCore/qreadwritelock.h

```
typedef enum QtValidLicenseForCoreModule QtCoreModule;
class QReadWriteLock;
class QReadLocker;
class QWriteLocker;
```

17.3.46. QtCore/qrect.h

```
class QRect;  
class QRectF;
```

17.3.47. QtCore/qregexp.h

```
class QRegExp;  
enum _ZN7QRegExp13PatternSyntaxE {  
    RegExp = 0,  
    Wildcard = 1,  
    FixedString = 2  
};  
enum _ZN7QRegExp9CaretModeE {  
    CaretAtZero = 0,  
    CaretAtOffset = 1,  
    CaretWontMatch = 2  
};
```

17.3.48. QtCore/qsemaphore.h

```
class QSemaphore;
```

17.3.49. QtCore/qsettings.h

```
class QSettings;  
enum _ZN9QSettings6StatusE {  
    NoError = 0,  
    AccessError = 1,  
    FormatError = 2  
};  
enum _ZN9QSettings6FormatE {  
    NativeFormat = 0,  
    IniFormat = 1,  
    InvalidFormat = 16,  
    CustomFormat1 = 17,  
    CustomFormat2 = 18,  
    CustomFormat3 = 19,  
    CustomFormat4 = 20,  
    CustomFormat5 = 21,  
    CustomFormat6 = 22,  
    CustomFormat7 = 23,  
    CustomFormat8 = 24,  
    CustomFormat9 = 25,  
    CustomFormat10 = 26,  
    CustomFormat11 = 27,  
    CustomFormat12 = 28,  
    CustomFormat13 = 29,  
    CustomFormat14 = 30,  
    CustomFormat15 = 31,  
    CustomFormat16 = 32  
};  
enum _ZN9QSettings5ScopeE {  
    UserScope = 0,  
    User = 0,
```

```

        SystemScope = 1,
        Global = 1
};
typedef class QMap < QString, QVariant > QSettings::SettingsMap;
typedef bool QSettings::ReadFunc;
typedef bool QSettings::WriteFunc;
enum _ZN9QSettings6SystemE {
    Unix = 0,
    Windows = 1,
    Mac = 2
};

```

17.3.50. QtCore/qshareddata.h

```
class QSharedData;
```

17.3.51. QtCore/qsignalmapper.h

```
class QSignalMapper;
```

17.3.52. QtCore/qsize.h

```
class QSize;
class QSizeF;
```

17.3.53. QtCore/qsocketnotifier.h

```

class QSocketNotifier;
enum _ZN15QSocketNotifier4TypeE {
    Read = 0,
    Write = 1,
    Exception = 2
};

```

17.3.54. QtCore/qstring.h

```

class QString;
enum _ZN7QString11SectionFlagE {
    SectionDefault = 0,
    SectionSkipEmpty = 1,
    SectionIncludeLeadingSep = 2,
    SectionIncludeTrailingSep = 4,
    SectionCaseInsensitiveSeps = 8
};
class QFlags < QString::SectionFlag >;
typedef class QFlags < QString::SectionFlag > QString::SectionFlags;
enum _ZN7QString13SplitBehaviorE {
    KeepEmptyParts = 0,
    SkipEmptyParts = 1
};
enum _ZN7QString17NormalizationFormE {
    NormalizationForm_D = 0,
    NormalizationForm_C = 1,
    NormalizationForm_KD = 2,
    NormalizationForm_KC = 3
};

```

```
};
typedef class QCharQString::iterator;
typedef class QCharQString::const_iterator;
typedef QString::iterator QString::Iterator;
typedef QString::const_iterator QString::ConstIterator;
struct QString::Null;
struct QString::Data;
class QLatin1String;
class QCharRef;
class QConstString;
```

17.3.55. QtCore/qstringlist.h

```
class QStringList;
```

17.3.56. QtCore/qstringmatcher.h

```
class QStringMatcher;
```

17.3.57. QtCore/qtemporaryfile.h

```
class QTemporaryFile;
```

17.3.58. QtCore/qttextcodec.h

```
class QTextCodec;
enum _ZN10QTextCodecI4ConversionFlagE {
    ConvertInvalidToNull = -2147483648,
    DefaultConversion = 0,
    IgnoreHeader = 1
};
class QFlags < QTextCodec::ConversionFlag >;
typedef class QFlags < QTextCodec::ConversionFlag >
    QTextCodec::ConversionFlags;
struct QTextCodec::ConverterState;
class QTextEncoder;
class QTextDecoder;
```

17.3.59. QtCore/qttextcodecplugin.h

```
struct QTextCodecFactoryInterface;
class QTextCodecPlugin;
```

17.3.60. QtCore/qttextstream.h

```
class QTextStream;
enum _ZN11QTextStreamI8RealNumberNotationE {
    SmartNotation = 0,
    FixedNotation = 1,
    ScientificNotation = 2
};
enum _ZN11QTextStreamI4FieldAlignmentE {
    AlignLeft = 0,
```

```

    AlignRight = 1,
    AlignCenter = 2,
    AlignAccountingStyle = 3
};
enum _ZN11QTextStream6StatusE {
    Ok = 0,
    ReadPastEnd = 1,
    ReadCorruptData = 2
};
enum _ZN11QTextStream10NumberFlagE {
    ShowBase = 1,
    ForcePoint = 2,
    ForceSign = 4,
    UppercaseBase = 8,
    UppercaseDigits = 16
};
class QFlags < QTextStream::NumberFlag >;
typedef class QFlags < QTextStream::NumberFlag > QTextStream::NumberFlags;
enum _ZN11QTextStream8EncodingE {
    Locale = 0,
    Latin1 = 1,
    Unicode = 2,
    UnicodeNetworkOrder = 3,
    UnicodeReverse = 4,
    RawUnicode = 5,
    UnicodeUTF8 = 6
};
typedef class QTextStreamQTextStreamFunction;
typedef void QTSMFI;
typedef void QTSMFC;
class QTextStreamManipulator;
typedef class QTextStreamQTS;
class QTextIStream;
class QTextOStream;

```

17.3.61. QtCore/qthread.h

```

class QThread;
enum _ZN7QThread8PriorityE {
    IdlePriority = 0,
    LowestPriority = 1,
    LowPriority = 2,
    NormalPriority = 3,
    HighPriority = 4,
    HighestPriority = 5,
    TimeCriticalPriority = 6,
    InheritPriority = 7
};

```

17.3.62. QtCore/qthreadstorage.h

```

class QThreadStorageData;

```

17.3.63. QtCore/qtimer.h

```
class QTimer;
```

17.3.64. QtCore/qtranslator.h

```
class QTranslator;
```

17.3.65. QtCore/qurl.h

```
class QUrl;
enum _ZN4QUrl11ParsingModeE {
    TolerantMode = 0,
    StrictMode = 1
};
enum _ZN4QUrl16FormattingOptionE {
    None = 0,
    RemoveScheme = 1,
    RemovePassword = 2,
    RemoveUserInfo = 6,
    RemovePort = 8,
    RemoveAuthority = 30,
    RemovePath = 32,
    RemoveQuery = 64,
    RemoveFragment = 128,
    StripTrailingSlash = 65536
};
class QFlags < QUrl::FormattingOption >;
typedef class QFlags < QUrl::FormattingOption > QUrl::FormattingOptions;
```

17.3.66. QtCore/quuid.h

```
struct QUuid;
enum _ZN5QUuid7VariantE {
    VarUnknown = -1,
    NCS = 0,
    DCE = 2,
    Microsoft = 6,
    Reserved = 7
};
enum _ZN5QUuid7VersionE {
    VerUnknown = -1,
    Time = 1,
    EmbeddedPOSIX = 2,
    Name = 3,
    Random = 4
};
```

17.3.67. QtCore/qvariant.h

```
class QVariant;
enum _ZN8QVariant4TypeE {
    LastType = -1,
    Invalid = 0,
    Bool = 1,
```

```

    Int = 2,
    UInt = 3,
    LongLong = 4,
    ULongLong = 5,
    Double = 6,
    Char = 7,
    Map = 8,
    List = 9,
    String = 10,
    StringList = 11,
    ByteArray = 12,
    CString = 12,
    BitArray = 13,
    Date = 14,
    Time = 15,
    DateTime = 16,
    Url = 17,
    Locale = 18,
    Rect = 19,
    RectF = 20,
    Size = 21,
    SizeF = 22,
    Line = 23,
    LineF = 24,
    Point = 25,
    PointF = 26,
    RegExp = 27,
    ColorGroup = 63,
    Font = 64,
    Pixmap = 65,
    Brush = 66,
    Color = 67,
    Palette = 68,
    IconSet = 69,
    Icon = 69,
    Image = 70,
    Polygon = 71,
    PointArray = 71,
    Region = 72,
    Bitmap = 73,
    Cursor = 74,
    SizePolicy = 75,
    KeySequence = 76,
    Pen = 77,
    TextLength = 78,
    TextFormat = 79,
    UserType = 127
};
struct QVariant::PrivateShared;
struct QVariant::Private;
union _ZN8QVariant7Private4DataE;
typedef void QVariant::f_construct;
typedef void QVariant::f_clear;
typedef bool QVariant::f_null;
typedef void QVariant::f_load;
typedef void QVariant::f_save;
typedef bool QVariant::f_compare;
typedef bool QVariant::f_convert;
typedef bool QVariant::f_canConvert;
typedef void QVariant::f_debugStream;
struct QVariant::Handler;
typedef class QList < QVariant > QVariantList;

```

```
typedef class QMap < QString, QVariant > QVariantMap;
class QVariantComparisonHelper;
```

17.3.68. QtCore/qvector.h

```
class QVector < QVariant >;
struct QVectorData;
```

17.3.69. QtCore/qwaitcondition.h

```
class QWaitCondition;
```

17.4. Interface Definitions for libQtCore

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The interfaces defined on the following pages are included in libQtCore and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 17.2](#) shall behave as described in the referenced base document.

_Z5qFreePv

Name

qFree -- free the memory space

Synopsis

```
#include <QtCore/qglobal.h>
void qFree (void *ptr);
```

Description

The `qFree()` function has the same behavior as the `free()` function described in POSIX 1003.1-2001 (ISO/IEC 9945-2003).

_Z7qgetenvPKc

Name

qgetenv -- get value of an environment variable

Synopsis

```
#include <QtCore/qglobal.h>
QByteArray qgetenv (const char *varName);
```

Description

The `qgetenv()` function has the same behavior as the `getenv()` function described in [POSIX 1003.1-2001 \(ISO/IEC 9945-2003\)](#) except that the result is represented as `QByteArray`.

_ZN11QMetaObject7connectEPK7QObjectiS2_iiPi

Name

QMetaObject::connect -- connect signals

Synopsis

```
#include <QtCore/qmetaobject.h>
bool QMetaObject::connect(const QObject * sender, int signal_index, const
QObject * receiver, int method_index, int type, int * types);
```

Description

The `QMetaObject::connect()` function shall connect the signal with *signal_index* index from the sender to the receiver's slot.

The *type* specifies connection type and should have one of the `Qt::ConnectionType` values.

types is a 0-terminated vector of meta types for queued connections.

If *signal_index* is -1, then the function shall effectively connect all signals from the sender to the receiver's slot.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN16QCoreApplication10unixSignalEi

Name

QCoreApplication::unixSignal -- emit a signal whenever a Unix signal is received

Synopsis

```
#include <QtCore/qcoreapplication.h>

void QCoreApplication::unixSignal (int number);
```

Description

The `QCoreApplication::unixSignal()` is a Qt signal function.

The signal is emitted whenever Unix signal is received by the application. The Unix signal received is specified by its number *number*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN4QDir21nameFiltersFromStringERK7QString

Name

QDir::nameFiltersFromString -- retrieve a list of name filters from the given

Synopsis

```
#include <QtCore/qdir.h>
static QStringList QDir::nameFiltersFromString (const QString
&nameFilter);
```

Description

The `QDir::nameFiltersFromString()` function shall return a list of name filters from the given string *nameFilter*.

If there is more than one filter in the string, then each pair of filters should be separated by a space or by a semicolon.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN7QString4freeEPNS_4DataE

Name

QString::free -- free the memory space

Synopsis

```
#include <QtCore/qstring.h>
static void QString::free (Data *d);
```

Description

The `QString::free()` function shall free the memory area allocated for the *d* object.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN9QHashData12allocateNodeEv

Name

QHashData::allocateNode -- allocate memory for the node

Synopsis

```
#include <QtCore/qhash.h>
void * QHashData::allocateNode(void);
```

Description

The `QHashData::allocateNode()` function shall allocate the memory for the object's node.

The call to this function is equivalent to the call for the `qMalloc()` function with the argument equal to the `nodeSize` property of the object.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN9QHashData8freeNodeEPv

Name

QHashData::freeNode -- free the memory occupied by the node

Synopsis

```
#include <QtCore/qhash.h>
void QHashData::freeNode(void * node);
```

Description

The `QHashData::freeNode()` function shall free the memory occupied by the *node*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN9QMetaType12registerTypeEPKcPFvPvEPFS2_PKv

Name

QMetaType::registerType -- register a user type for marshalling

Synopsis

```
#include <QtCore/qmetatype.h>

static int QMetaType::registerType(const char * typeName, Destructor
destructor, Constructor constructor);
```

Description

The `QMetaType::registerType()` function shall register a user type for marshalling, with a *typeName* name, *destructor* destructor, and a *constructor* constructor.

The function shall return the type's handle on success, or -1 if the type could not be registered.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK11QMetaObject4castEP7QObject

Name

QMetaObject::cast -- check if an object inherits from the meta-object

Synopsis

```
#include <QtCore/qobjectdefs.h>
QObject * QMetaObject::cast (QObject *obj);
```

Description

The `QMetaObject::cast()` function shall check if the object pointed by *obj* inherits from the current meta-object. If yes, the function shall return *obj*. Otherwise it shall return 0.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK13QMetaProperty12hasStdCppSetEv

Name

QMetaProperty::hasStdCppSet -- check if a property follows "name" / "setName" pattern

Synopsis

```
#include <QtCore/qmetaobject.h>
bool QMetaProperty::hasStdCppSet(void);
```

Description

The `QMetaProperty::hasStdCppSet()` function shall return true if the property has a C++ setter function that follows Qt's standard "name" / "setName" pattern. This function can be queried in order to avoid expensive `QObject::setProperty()` calls. All properties in Qt should follow the pattern mentioned.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK21QPersistentModelIndex10internalIdEv

Name

QPersistentModelIndex::internalId -- get the id used to associate the index with the internal data structure

Synopsis

```
#include <QtCore/qabstractitemmodel.h>
qint64 QPersistentModelIndex::internalId (void);
```

Description

The `QPersistentModelIndex::internalId()` function shall return the internal integer identifier used by the model to associate the index with the internal data structure.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK21QPersistentModelIndex15internalPointerEv

Name

QPersistentModelIndex::internalPointer -- get the pointer used to associate the index with the internal data structure

Synopsis

```
#include <QtCore/qabstractitemmodel.h>
void * QPersistentModelIndex::internalPointer (void);
```

Description

The `QPersistentModelIndex::internalPointer()` function shall return the internal pointer used by the model to associate the index with the internal data structure.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

Name

QUrl::operator< -- compare URLs

Synopsis

```
#include <QtCore/qurl.h>
bool QUrl::operator< (const QUrl &url);
```

Description

This operator shall return true if the URL represented by its caller is "less than" the given URL.

This operator provides a means of ordering URLs. If two URLs are not equal than one of them should be "less than" the other. No exact comparison algorithm is specified.

This operator is not intended to be used used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK5QFile10fileEngineEv

Name

QFile::fileEngine -- get the QIOEngine for this QFile object

Synopsis

```
#include <QtCore/qfile.h>
virtual QAbstractFileEngine * QFile::fileEngine (void);
```

Description

The `QFile::fileEngine()` function shall return the the QIOEngine for this QFile object.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

QUuid::operator >

Name

QUuid::operator > -- UUID greater-than comparison operator

Synopsis

```
public class QUuid {  
    bool operator >(const QUuid & other); }
```

Description

QUuid::operator > has the same specification as in [QtCore 4.2.0](#), except for differences noted below.

Return Value

Returns true if this QUuid has the same variant field as the other QUuid and is lexicographically after the other QUuid. If the other QUuid has a different variant field, the return value is unspecified.

QUuid::operator <

Name

QUuid::operator < -- UUID less-than comparison operator

Synopsis

```
public class QUuid {  
    bool operator <(const QUuid & other); }
```

Description

QUuid::operator < has the same specification as in [QtCore 4.2.0](#), except for differences noted below.

Return Value

Returns true if this QUuid has the same variant field as the other QUuid and is lexicographically before the other QUuid. If the other QUuid has a different variant field, the return value is unspecified.

_ZNK7QObject9queryListEPKcS1_bb

Name

QObject::queryList -- search the children and optionally grandchildren of the object

Synopsis

```
#include <QtCore/qobject.h>

QObjectList QObject::queryList(const char * inheritsClass = 0 , const
char * objName = 0, bool regexpMatch = true, bool recursiveSearch =
true);
```

Description

The `QObject::queryList()` function shall search the children and optionally grandchildren of this object.

The function shall return a list of those objects that are named or that match *objName* and inherit *inheritsClass*. If *inheritsClass* is 0 (the default), all classes match. If *objName* is 0 (the default), all object names match.

If *regexpMatch* is true (the default), *objName* is a regular expression that the objects's names must match. The syntax is that of a `QRegExp`. If *regexpMatch* is false, *objName* is a string and object names must match it exactly.

Note that *inheritsClass* uses single inheritance from `QObject`, the way `inherits()` does. According to `inherits()`, `QWidget` inherits `QObject` but not `QPaintDevice`. This does not quite match reality, but is the best that can be done on the wide variety of compilers Qt supports.

Finally, if *recursiveSearch* is true (the default), the `QObject::queryList()` shall search n-th-generation as well as first-generation children.

Warning: Delete the obtained list as soon you have finished using it. The list contains pointers that may become invalid at almost any time without notice (as soon as the user closes a window you may have dangling pointers, for example).

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

See Also

`child()`, `children()`, `parent()`, `inherits()`, `objectName()`, `QRegExp()`

17.5. Interfaces for libQtGui

Table 17-98 defines the library name and shared object name for the libQtGui library

Table 17-98. libQtGui Definition

Library:	libQtGui
SONAME:	libQtGui.so.4

The behavior of the interfaces in this library is specified by the following specifications:

[CXXABI-1.86] Itanium™ C++ ABI

[LSB] This Specification

[QtGui] QtGui 4.2.0

[QtXml] QtXml 4.2.0

17.5.1. Qt4 GUI Functions

17.5.1.1. Interfaces for Qt4 GUI Functions

An LSB conforming implementation shall provide the generic functions for Qt4 GUI Functions specified in Table 17-99, with the full mandatory functionality as described in the referenced underlying specification.

Table 17-99. libQtGui - Qt4 GUI Functions Function Interfaces

<u>_Z10qDrawArrowP8QPainterN2Qt9ArrowTypeENS1_8GUIStyleEbiiiiRK8QPaletteb</u> [QtGui]	<u>_Z13qDrawWinPanelP8QPa</u>
<u>_Z6bitBltP12QPaintDeviceRK6QPointPKS_RK5QRectb</u> [QtGui]	<u>_Z6bitBltP12QPaintDeviceii</u>
<u>_Z6bitBltP12QPaintDeviceiiPKS_iiiib</u> [QtGui]	<u>_Z6bitBltP6QImageiiPKS_iii</u>
<u>_Z7copyBltP7QPixmapiiPKS_iiii</u> [QtGui]	<u>_Z9qDrawItemP8QPainterN2</u> [QtGui]
<u>_Z9qItemRectP8QPainterN2Qt8GUIStyleEiiiiibPK7QPixmapRK7QStringi</u> [QtGui]	<u>_ZN10QTextBlock8iteratorm</u>
<u>_ZN10QTextBlock8iteratorppEv</u> [QtGui]	<u>_ZN10QTextFrame8iteratorma</u>
<u>_ZN10QTextFrame8iteratormmmEv</u> [QtGui]	<u>_ZN10QTextFrame8iteratorpp</u>
<u>_ZN20QStyleOptionSizeGripC1Ei</u> [QtXml]	<u>_ZN20QStyleOptionSizeGripC</u>
<u>_ZN20QStyleOptionSizeGripC2Ei</u> [QtXml]	<u>_ZN20QStyleOptionSizeGripC</u>
<u>_ZN2Qt12codecForHtmlERK10QByteArray</u> [LSB]	<u>_ZN2Qt15mightBeRichTextE</u>
<u>_ZN2Qt20convertFromPlainTextERK7QStringNS_14WhiteSpaceModeE</u> [QtGui]	<u>_ZN2Qt6escapeERK7QString</u>
<u>_ZNK10QTextBlock8iterator8fragmentEv</u> [QtGui]	<u>_ZNK10QTextFrame8iterator</u>
<u>_ZNK10QTextFrame8iterator12currentFrameEv</u> [QtGui]	

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 GUI Functions specified in [Table 17-100](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-100. libQtGui - Qt4 GUI Functions Deprecated Function Interfaces

_ZN10qDrawArrowP8QPainterN2Qt9ArrowTypeENS1_8GUIStyleEbiiiiRK8QPalettab [QtGui]	_Z9qDrawItemP8QPainterN2 [QtGui]
_Z9qItemRectP8QPainterN2Qt8GUIStyleEiiiiibPK7QPixmapRK7QStringi [QtGui]	

An LSB conforming implementation shall provide the generic data interfaces for Qt4 GUI Functions specified in [Table 17-101](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-101. libQtGui - Qt4 GUI Functions Data Interfaces

_ZN10QBoxLayout16staticMetaObjectE [QtGui]	_ZN10QClipboard16staticMetaObjectE [QtGui]
_ZN10QCompleter16staticMetaObjectE [QtXml]	_ZN10QLCDNumber16staticMetaObjectE [QtGui]
_ZN10QScrollBar16staticMetaObjectE [QtGui]	_ZN10QStatusBar16staticMetaObjectE [QtGui]
_ZN10QTabWidget16staticMetaObjectE [QtGui]	_ZN10QTableView16staticMetaObjectE [QtGui]
_ZN10QTextFrame16staticMetaObjectE [QtGui]	_ZN10QTextTable16staticMetaObjectE [QtGui]
_ZN10QUndoGroup16staticMetaObjectE [QtXml]	_ZN10QUndoStack16staticMetaObjectE [QtXml]
_ZN10QValidator16staticMetaObjectE [QtGui]	_ZN10QWorkspace16staticMetaObjectE [QtGui]
_ZN11QDockWidget16staticMetaObjectE [QtGui]	_ZN11QFileDialog16staticMetaObjectE [QtGui]
_ZN11QFocusFrame16staticMetaObjectE [QtGui]	_ZN11QFontDialog16staticMetaObjectE [QtGui]
_ZN11QGridLayout16staticMetaObjectE [QtGui]	_ZN11QHBoxLayout16staticMetaObjectE [QtGui]
_ZN11QHeaderView16staticMetaObjectE [QtGui]	_ZN11QListWidget16staticMetaObjectE [QtGui]
_ZN11QMainWindow16staticMetaObjectE [QtGui]	_ZN11QMessageBox16staticMetaObjectE [QtGui]
_ZN11QMotifStyle16staticMetaObjectE [QtGui]	_ZN11QProxyModel16staticMetaObjectE [QtGui]
_ZN11QPushButton16staticMetaObjectE [QtGui]	_ZN11QRubberBand16staticMetaObjectE [QtGui]
_ZN11QScrollArea16staticMetaObjectE [QtGui]	_ZN11QSizePolicy16staticMetaObjectE [QtGui]
_ZN11QTextFormat16staticMetaObjectE [QtGui]	_ZN11QTextObject16staticMetaObjectE [QtGui]
_ZN11QToolButton16staticMetaObjectE [QtGui]	_ZN11QTreeWidget16staticMetaObjectE [QtGui]
_ZN11QVBoxLayout16staticMetaObjectE [QtGui]	_ZN12QActionGroup16staticMetaObjectE [QtGui]
_ZN12QApplication16staticMetaObjectE [QtGui]	_ZN12QButtonGroup16staticMetaObjectE [QtGui]
_ZN12QColorDialog16staticMetaObjectE [QtGui]	_ZN12QCommonStyle16staticMetaObjectE [QtGui]

_ZN12QInputDialog16staticMetaObjectE [QtGui]	_ZN12QPrintDialog16staticMetaObjectE [QtGui]
_ZN12QProgressBar16staticMetaObjectE [QtGui]	_ZN12QRadioButton16staticMetaObjectE [QtGui]
_ZN12QStylePlugin16staticMetaObjectE [QtGui]	_ZN12QTableWidget16staticMetaObjectE [QtGui]
_ZN12QTextBrowser16staticMetaObjectE [QtGui]	_ZN13QDateTimeEdit16staticMetaObjectE [QtGui]
_ZN13QErrorMessage16staticMetaObjectE [QtGui]	_ZN13QFontComboBox16staticMetaObjectE [QtXml]
_ZN13QFontDatabase16staticMetaObjectE [QtXml]	_ZN13QGraphicsView16staticMetaObjectE [QtXml]
_ZN13QInputContext16staticMetaObjectE [QtGui]	_ZN13QIntValidator16staticMetaObjectE [QtGui]
_ZN13QItemDelegate16staticMetaObjectE [QtGui]	_ZN13QSplashScreen16staticMetaObjectE [QtGui]
_ZN13QTextDocument16staticMetaObjectE [QtGui]	_ZN13QWidgetAction16staticMetaObjectE [QtXml]
_ZN13QWindowsStyle16staticMetaObjectE [QtGui]	_ZN14QDesktopWidget16staticMetaObjectE [QtGui]
_ZN14QDoubleSpinBox16staticMetaObjectE [QtGui]	_ZN14QGraphicsScene16staticMetaObjectE [QtXml]
_ZN14QImageIOPlugin16staticMetaObjectE [QtGui]	_ZN14QStackedLayout16staticMetaObjectE [QtGui]
_ZN14QStackedWidget16staticMetaObjectE [QtGui]	_ZN15QAbstractButton16staticMetaObjectE [QtGui]
_ZN15QAbstractSlider16staticMetaObjectE [QtGui]	_ZN15QCalendarWidget16staticMetaObjectE [QtXml]
_ZN15QPlastiqueStyle16staticMetaObjectE [QtGui]	_ZN15QProgressDialog16staticMetaObjectE [QtGui]
_ZN15QSessionManager16staticMetaObjectE [QtGui]	_ZN15QSplitterHandle16staticMetaObjectE [QtGui]
_ZN15QSystemTrayIcon16staticMetaObjectE [QtXml]	_ZN15QTextBlockGroup16staticMetaObjectE [QtGui]
_ZN16QAbstractSpinBox16staticMetaObjectE [QtGui]	_ZN16QCleanlooksStyle16staticMetaObjectE [QtXml]
_ZN16QDialogButtonBox16staticMetaObjectE [QtXml]	_ZN16QDoubleValidator16staticMetaObjectE [QtGui]
_ZN16QPageSetupDialog16staticMetaObjectE [QtXml]	_ZN16QRegExpValidator16staticMetaObjectE [QtGui]
_ZN16QStringListModel16staticMetaObjectE [QtGui]	_ZN17QAbstractItemView16staticMetaObjectE [QtGui]
_ZN17QAccessiblePlugin16staticMetaObjectE [QtGui]	_ZN17QDataWidgetMapper16staticMetaObjectE [QtXml]
_ZN17QGraphicsTextItem16staticMetaObjectE [QtXml]	_ZN17QIconEnginePlugin16staticMetaObjectE [QtGui]
_ZN18QStandardItemModel16staticMetaObjectE [QtGui]	_ZN18QSyntaxHighlighter16staticMetaObjectE [QtGui]
_ZN19QAbstractProxyModel16staticMetaObjectE [QtGui]	_ZN19QAbstractScrollArea16staticMetaObjectE [QtGui]
_ZN19QInputContextPlugin16staticMetaObjectE [QtGui]	_ZN19QItemSelectionModel16staticMetaObjectE [QtGui]
_ZN20QAbstractPrintDialog16staticMetaObjectE [QtXml]	_ZN20QPictureFormatPlugin16staticMetaObjectE [QtGui]

_ZN21QAbstractItemDelegate16staticMetaObjectE [QtGui]	_ZN21QSortFilterProxyModel16staticMetaObjectE [QtGui]
_ZN22QGraphicsItemAnimation16staticMetaObjectE [QtXml]	_ZN23QAccessibleBridgePlugin16staticMetaObjectE [QtGui]
_ZN24QAbstractPageSetupDialog16staticMetaObjectE [QtXml]	_ZN27QAbstractTextDocumentLayout16staticMetaObjectE [QtGui]
_ZN5QDial16staticMetaObjectE [QtGui]	_ZN5QDrag16staticMetaObjectE [QtGui]
_ZN5QMenu16staticMetaObjectE [QtGui]	_ZN6QFrame16staticMetaObjectE [QtGui]
_ZN6QLabel16staticMetaObjectE [QtGui]	_ZN6QMovie16staticMetaObjectE [QtGui]
_ZN6QSound16staticMetaObjectE [QtGui]	_ZN6QStyle16staticMetaObjectE [QtGui]
_ZN7QAction16staticMetaObjectE [QtGui]	_ZN7QDialog16staticMetaObjectE [QtGui]
_ZN7QLayout16staticMetaObjectE [QtGui]	_ZN7QSlider16staticMetaObjectE [QtGui]
_ZN7QTabBar16staticMetaObjectE [QtGui]	_ZN7QWidget16staticMetaObjectE [QtGui]
_ZN8QMenuBar16staticMetaObjectE [QtGui]	_ZN8QPainter16staticMetaObjectE [QtXml]
_ZN8QPalette16staticMetaObjectE [QtGui]	_ZN8QSpinBox16staticMetaObjectE [QtGui]
_ZN8QToolBar16staticMetaObjectE [QtGui]	_ZN8QToolBox16staticMetaObjectE [QtGui]
_ZN9QCDEStyle16staticMetaObjectE [QtGui]	_ZN9QCheckBox16staticMetaObjectE [QtGui]
_ZN9QComboBox16staticMetaObjectE [QtGui]	_ZN9QDateEdit16staticMetaObjectE [QtGui]
_ZN9QDirModel16staticMetaObjectE [QtGui]	_ZN9QGradient16staticMetaObjectE [QtXml]
_ZN9QGroupBox16staticMetaObjectE [QtGui]	_ZN9QLineEdit16staticMetaObjectE [QtGui]
_ZN9QListView16staticMetaObjectE [QtGui]	_ZN9QMenuItem16staticMetaObjectE [QtXml]
_ZN9QShortcut16staticMetaObjectE [QtGui]	_ZN9QSizeGrip16staticMetaObjectE [QtGui]
_ZN9QSplitter16staticMetaObjectE [QtGui]	_ZN9QTextEdit16staticMetaObjectE [QtGui]
_ZN9QTextList16staticMetaObjectE [QtGui]	_ZN9QTimeEdit16staticMetaObjectE [QtGui]
_ZN9QTreeView16staticMetaObjectE [QtGui]	_ZN9QUndoView16staticMetaObjectE [QtXml]
_ZTI10QBoxLayout [CXXABI-1.86]	_ZTI10QClipboard [CXXABI-1.86]
_ZTI10QCompleter [CXXABI-1.86]	_ZTI10QDropEvent [CXXABI-1.86]
_ZTI10QHelpEvent [CXXABI-1.86]	_ZTI10QHideEvent [CXXABI-1.86]
_ZTI10QLCDNumber [CXXABI-1.86]	_ZTI10QMoveEvent [CXXABI-1.86]
_ZTI10QScrollBar [CXXABI-1.86]	_ZTI10QShowEvent [CXXABI-1.86]
_ZTI10QStatusBar [CXXABI-1.86]	_ZTI10QTabWidget [CXXABI-1.86]
_ZTI10QTableView [CXXABI-1.86]	_ZTI10QTextFrame [CXXABI-1.86]
_ZTI10QTextTable [CXXABI-1.86]	_ZTI10QUndoGroup [CXXABI-1.86]
_ZTI10QUndoStack [CXXABI-1.86]	_ZTI10QValidator [CXXABI-1.86]

<u>_ZTI10QWorkspace [CXXABI-1.86]</u>	<u>_ZTI11QAccessible [CXXABI-1.86]</u>
<u>_ZTI11QCloseEvent [CXXABI-1.86]</u>	<u>_ZTI11QDockWidget [CXXABI-1.86]</u>
<u>_ZTI11QFileDialog [CXXABI-1.86]</u>	<u>_ZTI11QFocusEvent [CXXABI-1.86]</u>
<u>_ZTI11QFocusFrame [CXXABI-1.86]</u>	<u>_ZTI11QFontDialog [CXXABI-1.86]</u>
<u>_ZTI11QGridLayout [CXXABI-1.86]</u>	<u>_ZTI11QHBoxLayout [CXXABI-1.86]</u>
<u>_ZTI11QHeaderView [CXXABI-1.86]</u>	<u>_ZTI11QHoverEvent [CXXABI-1.86]</u>
<u>_ZTI11QIconEngine [CXXABI-1.86]</u>	<u>_ZTI11QInputEvent [CXXABI-1.86]</u>
<u>_ZTI11QLayoutItem [CXXABI-1.86]</u>	<u>_ZTI11QListWidget [CXXABI-1.86]</u>
<u>_ZTI11QMainWindow [CXXABI-1.86]</u>	<u>_ZTI11QMessageBox [CXXABI-1.86]</u>
<u>_ZTI11QMimeSource [CXXABI-1.86]</u>	<u>_ZTI11QMotifStyle [CXXABI-1.86]</u>
<u>_ZTI11QMouseEvent [CXXABI-1.86]</u>	<u>_ZTI11QPaintEvent [CXXABI-1.86]</u>
<u>_ZTI11QProxyModel [CXXABI-1.86]</u>	<u>_ZTI11QPushButton [CXXABI-1.86]</u>
<u>_ZTI11QRubberBand [CXXABI-1.86]</u>	<u>_ZTI11QScrollArea [CXXABI-1.86]</u>
<u>_ZTI11QSpacerItem [CXXABI-1.86]</u>	<u>_ZTI11QStrokerOps [CXXABI-1.86]</u>
<u>_ZTI11QTextObject [CXXABI-1.86]</u>	<u>_ZTI11QToolButton [CXXABI-1.86]</u>
<u>_ZTI11QTreeWidget [CXXABI-1.86]</u>	<u>_ZTI11QVBoxLayout [CXXABI-1.86]</u>
<u>_ZTI11QWheelEvent [CXXABI-1.86]</u>	<u>_ZTI11QWidgetItem [CXXABI-1.86]</u>
<u>_ZTI12QActionEvent [CXXABI-1.86]</u>	<u>_ZTI12QActionGroup [CXXABI-1.86]</u>
<u>_ZTI12QApplication [CXXABI-1.86]</u>	<u>_ZTI12QButtonGroup [CXXABI-1.86]</u>
<u>_ZTI12QColorDialog [CXXABI-1.86]</u>	<u>_ZTI12QCommonStyle [CXXABI-1.86]</u>
<u>_ZTI12QDashStroker [CXXABI-1.86]</u>	<u>_ZTI12QInputDialog [CXXABI-1.86]</u>
<u>_ZTI12QPaintDevice [CXXABI-1.86]</u>	<u>_ZTI12QPaintEngine [CXXABI-1.86]</u>
<u>_ZTI12QPrintDialog [CXXABI-1.86]</u>	<u>_ZTI12QPrintEngine [CXXABI-1.86]</u>
<u>_ZTI12QProgressBar [CXXABI-1.86]</u>	<u>_ZTI12QRadioButton [CXXABI-1.86]</u>
<u>_ZTI12QResizeEvent [CXXABI-1.86]</u>	<u>_ZTI12QStylePlugin [CXXABI-1.86]</u>
<u>_ZTI12QTableWidget [CXXABI-1.86]</u>	<u>_ZTI12QTabletEvent [CXXABI-1.86]</u>
<u>_ZTI12QTextBrowser [CXXABI-1.86]</u>	<u>_ZTI12QUndoCommand [CXXABI-1.86]</u>
<u>_ZTI13QDateTimeEdit [CXXABI-1.86]</u>	<u>_ZTI13QErrorMessage [CXXABI-1.86]</u>
<u>_ZTI13QFontComboBox [CXXABI-1.86]</u>	<u>_ZTI13QFontEngineFT [CXXABI-1.86]</u>
<u>_ZTI13QGraphicsItem [CXXABI-1.86]</u>	<u>_ZTI13QGraphicsView [CXXABI-1.86]</u>
<u>_ZTI13QInputContext [CXXABI-1.86]</u>	<u>_ZTI13QIntValidator [CXXABI-1.86]</u>
<u>_ZTI13QItemDelegate [CXXABI-1.86]</u>	<u>_ZTI13QSplashScreen [CXXABI-1.86]</u>
<u>_ZTI13QStandardItem [CXXABI-1.86]</u>	<u>_ZTI13QTextDocument [CXXABI-1.86]</u>

_ZTI13QWidgetAction [CXXABI-1.86]	_ZTI13QWindowsStyle [CXXABI-1.86]
_ZTI14QDesktopWidget [CXXABI-1.86]	_ZTI14QDoubleSpinBox [CXXABI-1.86]
_ZTI14QDragMoveEvent [CXXABI-1.86]	_ZTI14QFileOpenEvent [CXXABI-1.86]
_ZTI14QGraphicsScene [CXXABI-1.86]	_ZTI14QIconDragEvent [CXXABI-1.86]
_ZTI14QImageIOPlugin [CXXABI-1.86]	_ZTI14QLayoutPrivate [CXXABI-1.86]
_ZTI14QShortcutEvent [CXXABI-1.86]	_ZTI14QStackedLayout [CXXABI-1.86]
_ZTI14QStackedWidget [CXXABI-1.86]	_ZTI14QWidgetPrivate [CXXABI-1.86]
_ZTI15QAbstractButton [CXXABI-1.86]	_ZTI15QAbstractSlider [CXXABI-1.86]
_ZTI15QCalendarWidget [CXXABI-1.86]	_ZTI15QClipboardEvent [CXXABI-1.86]
_ZTI15QDragEnterEvent [CXXABI-1.86]	_ZTI15QDragLeaveEvent [CXXABI-1.86]
_ZTI15QImageIOHandler [CXXABI-1.86]	_ZTI15QListWidgetItem [CXXABI-1.86]
_ZTI15QPlastiqueStyle [CXXABI-1.86]	_ZTI15QProgressDialog [CXXABI-1.86]
_ZTI15QSessionManager [CXXABI-1.86]	_ZTI15QSplitterHandle [CXXABI-1.86]
_ZTI15QStatusTipEvent [CXXABI-1.86]	_ZTI15QSystemTrayIcon [CXXABI-1.86]
_ZTI15QTextBlockGroup [CXXABI-1.86]	_ZTI15QTreeWidgetItem [CXXABI-1.86]
_ZTI15QX11EmbedWidget [CXXABI-1.86]	_ZTI16QAbstractSpinBox [CXXABI-1.86]
_ZTI16QCleanlooksStyle [CXXABI-1.86]	_ZTI16QDialogButtonBox [CXXABI-1.86]
_ZTI16QDoubleValidator [CXXABI-1.86]	_ZTI16QPageSetupDialog [CXXABI-1.86]
_ZTI16QRegExpValidator [CXXABI-1.86]	_ZTI16QStringListModel [CXXABI-1.86]
_ZTI16QTableWidgetItem [CXXABI-1.86]	_ZTI17QAbstractItemView [CXXABI-1.86]
_ZTI17QAccessibleObject [CXXABI-1.86]	_ZTI17QAccessiblePlugin [CXXABI-1.86]
_ZTI17QAccessibleWidget [CXXABI-1.86]	_ZTI17QContextMenuEvent [CXXABI-1.86]
_ZTI17QDataWidgetMapper [CXXABI-1.86]	_ZTI17QFactoryInterface [CXXABI-1.86]
_ZTI17QFileIconProvider [CXXABI-1.86]	_ZTI17QGraphicsLineItem [CXXABI-1.86]
_ZTI17QGraphicsPathItem [CXXABI-1.86]	_ZTI17QGraphicsRectItem [CXXABI-1.86]
_ZTI17QGraphicsTextItem [CXXABI-1.86]	_ZTI17QIconEnginePlugin [CXXABI-1.86]
_ZTI17QInputMethodEvent [CXXABI-1.86]	_ZTI18QDragResponseEvent [CXXABI-1.86]
_ZTI18QGraphicsItemGroup [CXXABI-1.86]	_ZTI18QItemEditorFactory [CXXABI-1.86]
_ZTI18QStandardItemModel [CXXABI-1.86]	_ZTI18QSyntaxHighlighter [CXXABI-1.86]
_ZTI18QTextBlockUserData [CXXABI-1.86]	_ZTI18QX11EmbedContainer [CXXABI-1.86]
_ZTI19QAbstractProxyModel [CXXABI-1.86]	_ZTI19QAbstractScrollArea [CXXABI-1.86]
_ZTI19QApplicationPrivate [CXXABI-1.86]	_ZTI19QGraphicsPixmapItem [CXXABI-1.86]
_ZTI19QGraphicsSceneEvent [CXXABI-1.86]	_ZTI19QInputContextPlugin [CXXABI-1.86]

_ZTI19QItemSelectionMode [CXXABI-1.86]	_ZTI19QToolBarChangeEvent [CXXABI-1.86]
_ZTI20QAbstractPrintDialog [CXXABI-1.86]	_ZTI20QAccessibleInterface [CXXABI-1.86]
_ZTI20QGraphicsEllipseItem [CXXABI-1.86]	_ZTI20QGraphicsPolygonItem [CXXABI-1.86]
_ZTI20QMenuBarUpdatedEvent [CXXABI-1.86]	_ZTI20QPictureFormatPlugin [CXXABI-1.86]
_ZTI20QTextFrameLayoutData [CXXABI-1.86]	_ZTI20QTextObjectInterface [CXXABI-1.86]
_ZTI20QWidgetResizeHandler [CXXABI-1.86]	_ZTI21QAbstractItemDelegate [CXXABI-1.86]
_ZTI21QSortFilterProxyModel [CXXABI-1.86]	_ZTI22QAccessibleApplication [CXXABI-1.86]
_ZTI22QGraphicsItemAnimation [CXXABI-1.86]	_ZTI22QStyleFactoryInterface [CXXABI-1.86]
_ZTI22QWhatsThisClickedEvent [CXXABI-1.86]	_ZTI23QAccessibleBridgePlugin [CXXABI-1.86]
_ZTI23QGraphicsSceneHelpEvent [CXXABI-1.86]	_ZTI23QGraphicsSimpleTextItem [CXXABI-1.86]
_ZTI23QPictureFormatInterface [CXXABI-1.86]	_ZTI23QWindowStateChangeEvent [CXXABI-1.86]
_ZTI24QAbstractPageSetupDialog [CXXABI-1.86]	_ZTI24QGraphicsSceneHoverEvent [CXXABI-1.86]
_ZTI24QGraphicsSceneMouseEvent [CXXABI-1.86]	_ZTI24QGraphicsSceneWheelEvent [CXXABI-1.86]
_ZTI26QAbstractGraphicsShapeItem [CXXABI-1.86]	_ZTI27QAbstractTextDocumentLayout [CXXABI-1.86]
_ZTI27QAccessibleFactoryInterface [CXXABI-1.86]	_ZTI27QGraphicsSceneDragDropEvent [CXXABI-1.86]
_ZTI27QIconEngineFactoryInterface [CXXABI-1.86]	_ZTI29QInputContextFactoryInterface [CXXABI-1.86]
_ZTI30QGraphicsSceneContextMenuEvent [CXXABI-1.86]	_ZTI31QImageIOHandlerFactoryInterface [CXXABI-1.86]
_ZTI33QAccessibleBridgeFactoryInterface [CXXABI-1.86]	_ZTI5QDial [CXXABI-1.86]
_ZTI5QDrag [CXXABI-1.86]	_ZTI5QMenu [CXXABI-1.86]
_ZTI6QFrame [CXXABI-1.86]	_ZTI6QImage [CXXABI-1.86]
_ZTI6QLabel [CXXABI-1.86]	_ZTI6QMovie [CXXABI-1.86]
_ZTI6QSound [CXXABI-1.86]	_ZTI6QStyle [CXXABI-1.86]
_ZTI7QAction [CXXABI-1.86]	_ZTI7QBitmap [CXXABI-1.86]
_ZTI7QDialog [CXXABI-1.86]	_ZTI7QLayout [CXXABI-1.86]
_ZTI7QPixmap [CXXABI-1.86]	_ZTI7QSlider [CXXABI-1.86]
_ZTI7QTabBar [CXXABI-1.86]	_ZTI7QWidget [CXXABI-1.86]
_ZTI8QMenuBar [CXXABI-1.86]	_ZTI8QPicture [CXXABI-1.86]
_ZTI8QPrinter [CXXABI-1.86]	_ZTI8QSpinBox [CXXABI-1.86]
_ZTI8QStroker [CXXABI-1.86]	_ZTI8QToolBar [CXXABI-1.86]
_ZTI8QToolBox [CXXABI-1.86]	_ZTI9QCDEStyle [CXXABI-1.86]
_ZTI9QCheckBox [CXXABI-1.86]	_ZTI9QComboBox [CXXABI-1.86]

_ZTI9QDateEdit [CXXABI-1.86]	_ZTI9QDirModel [CXXABI-1.86]
_ZTI9QGroupBox [CXXABI-1.86]	_ZTI9QKeyEvent [CXXABI-1.86]
_ZTI9QLineEdit [CXXABI-1.86]	_ZTI9QListView [CXXABI-1.86]
_ZTI9QMenuItem [CXXABI-1.86]	_ZTI9QShortcut [CXXABI-1.86]
_ZTI9QSizeGrip [CXXABI-1.86]	_ZTI9QSplitter [CXXABI-1.86]
_ZTI9QTextEdit [CXXABI-1.86]	_ZTI9QTextList [CXXABI-1.86]
_ZTI9QTimeEdit [CXXABI-1.86]	_ZTI9QTreeView [CXXABI-1.86]
_ZTI9QUndoView [CXXABI-1.86]	_ZTV10QBoxLayout [CXXABI-1.86]
_ZTV10QClipboard [CXXABI-1.86]	_ZTV10QCompleter [CXXABI-1.86]
_ZTV10QDropEvent [CXXABI-1.86]	_ZTV10QHelpEvent [CXXABI-1.86]
_ZTV10QHideEvent [CXXABI-1.86]	_ZTV10QLCDNumber [CXXABI-1.86]
_ZTV10QMoveEvent [CXXABI-1.86]	_ZTV10QScrollBar [CXXABI-1.86]
_ZTV10QShowEvent [CXXABI-1.86]	_ZTV10QStatusBar [CXXABI-1.86]
_ZTV10QTabWidget [CXXABI-1.86]	_ZTV10QTableView [CXXABI-1.86]
_ZTV10QTextFrame [CXXABI-1.86]	_ZTV10QTextTable [CXXABI-1.86]
_ZTV10QUndoGroup [CXXABI-1.86]	_ZTV10QUndoStack [CXXABI-1.86]
_ZTV10QValidator [CXXABI-1.86]	_ZTV10QWorkspace [CXXABI-1.86]
_ZTV11QCloseEvent [CXXABI-1.86]	_ZTV11QDockWidget [CXXABI-1.86]
_ZTV11QFileDialog [CXXABI-1.86]	_ZTV11QFocusEvent [CXXABI-1.86]
_ZTV11QFocusFrame [CXXABI-1.86]	_ZTV11QFontDialog [CXXABI-1.86]
_ZTV11QGridLayout [CXXABI-1.86]	_ZTV11QHBoxLayout [CXXABI-1.86]
_ZTV11QHeaderView [CXXABI-1.86]	_ZTV11QHoverEvent [CXXABI-1.86]
_ZTV11QIconEngine [CXXABI-1.86]	_ZTV11QInputEvent [CXXABI-1.86]
_ZTV11QLayoutItem [CXXABI-1.86]	_ZTV11QListWidget [CXXABI-1.86]
_ZTV11QMainWindow [CXXABI-1.86]	_ZTV11QMessageBox [CXXABI-1.86]
_ZTV11QMimeSource [CXXABI-1.86]	_ZTV11QMotifStyle [CXXABI-1.86]
_ZTV11QMouseEvent [CXXABI-1.86]	_ZTV11QPaintEvent [CXXABI-1.86]
_ZTV11QProxyModel [CXXABI-1.86]	_ZTV11QPushButton [CXXABI-1.86]
_ZTV11QRubberBand [CXXABI-1.86]	_ZTV11QScrollArea [CXXABI-1.86]
_ZTV11QSpacerItem [CXXABI-1.86]	_ZTV11QStrokerOps [CXXABI-1.86]
_ZTV11QTextObject [CXXABI-1.86]	_ZTV11QToolButton [CXXABI-1.86]
_ZTV11QTreeWidget [CXXABI-1.86]	_ZTV11QVBoxLayout [CXXABI-1.86]
_ZTV11QWheelEvent [CXXABI-1.86]	_ZTV11QWidgetItem [CXXABI-1.86]

<u>_ZTV12QActionEvent [CXXABI-1.86]</u>	<u>_ZTV12QActionGroup [CXXABI-1.86]</u>
<u>_ZTV12QApplication [CXXABI-1.86]</u>	<u>_ZTV12QButtonGroup [CXXABI-1.86]</u>
<u>_ZTV12QColorDialog [CXXABI-1.86]</u>	<u>_ZTV12QCommonStyle [CXXABI-1.86]</u>
<u>_ZTV12QDashStroker [CXXABI-1.86]</u>	<u>_ZTV12QInputDialog [CXXABI-1.86]</u>
<u>_ZTV12QPaintDevice [CXXABI-1.86]</u>	<u>_ZTV12QPaintEngine [CXXABI-1.86]</u>
<u>_ZTV12QPrintDialog [CXXABI-1.86]</u>	<u>_ZTV12QPrintEngine [CXXABI-1.86]</u>
<u>_ZTV12QProgressBar [CXXABI-1.86]</u>	<u>_ZTV12QRadioButton [CXXABI-1.86]</u>
<u>_ZTV12QResizeEvent [CXXABI-1.86]</u>	<u>_ZTV12QStylePlugin [CXXABI-1.86]</u>
<u>_ZTV12QTableWidget [CXXABI-1.86]</u>	<u>_ZTV12QTabletEvent [CXXABI-1.86]</u>
<u>_ZTV12QTextBrowser [CXXABI-1.86]</u>	<u>_ZTV12QUndoCommand [CXXABI-1.86]</u>
<u>_ZTV13QDateTimeEdit [CXXABI-1.86]</u>	<u>_ZTV13QErrorMessage [CXXABI-1.86]</u>
<u>_ZTV13QFontEngineFT [CXXABI-1.86]</u>	<u>_ZTV13QGraphicsItem [CXXABI-1.86]</u>
<u>_ZTV13QInputContext [CXXABI-1.86]</u>	<u>_ZTV13QIntValidator [CXXABI-1.86]</u>
<u>_ZTV13QItemDelegate [CXXABI-1.86]</u>	<u>_ZTV13QSplashScreen [CXXABI-1.86]</u>
<u>_ZTV13QStandardItem [CXXABI-1.86]</u>	<u>_ZTV13QTextDocument [CXXABI-1.86]</u>
<u>_ZTV13QWidgetAction [CXXABI-1.86]</u>	<u>_ZTV13QWindowsStyle [CXXABI-1.86]</u>
<u>_ZTV14QDesktopWidget [CXXABI-1.86]</u>	<u>_ZTV14QDoubleSpinBox [CXXABI-1.86]</u>
<u>_ZTV14QDragMoveEvent [CXXABI-1.86]</u>	<u>_ZTV14QFileOpenEvent [CXXABI-1.86]</u>
<u>_ZTV14QGraphicsScene [CXXABI-1.86]</u>	<u>_ZTV14QIconDragEvent [CXXABI-1.86]</u>
<u>_ZTV14QImageIOPlugin [CXXABI-1.86]</u>	<u>_ZTV14QLayoutPrivate [CXXABI-1.86]</u>
<u>_ZTV14QShortcutEvent [CXXABI-1.86]</u>	<u>_ZTV14QStackedLayout [CXXABI-1.86]</u>
<u>_ZTV14QStackedWidget [CXXABI-1.86]</u>	<u>_ZTV14QWidgetPrivate [CXXABI-1.86]</u>
<u>_ZTV15QAbstractButton [CXXABI-1.86]</u>	<u>_ZTV15QAbstractSlider [CXXABI-1.86]</u>
<u>_ZTV15QClipboardEvent [CXXABI-1.86]</u>	<u>_ZTV15QDragEnterEvent [CXXABI-1.86]</u>
<u>_ZTV15QDragLeaveEvent [CXXABI-1.86]</u>	<u>_ZTV15QImageIOHandler [CXXABI-1.86]</u>
<u>_ZTV15QListWidgetItem [CXXABI-1.86]</u>	<u>_ZTV15QPlastiqueStyle [CXXABI-1.86]</u>
<u>_ZTV15QProgressDialog [CXXABI-1.86]</u>	<u>_ZTV15QSessionManager [CXXABI-1.86]</u>
<u>_ZTV15QSplitterHandle [CXXABI-1.86]</u>	<u>_ZTV15QStatusTipEvent [CXXABI-1.86]</u>
<u>_ZTV15QSystemTrayIcon [CXXABI-1.86]</u>	<u>_ZTV15QTextBlockGroup [CXXABI-1.86]</u>
<u>_ZTV15QTreeWidgetItem [CXXABI-1.86]</u>	<u>_ZTV15QX11EmbedWidget [CXXABI-1.86]</u>
<u>_ZTV16QAbstractSpinBox [CXXABI-1.86]</u>	<u>_ZTV16QCleanlooksStyle [CXXABI-1.86]</u>
<u>_ZTV16QDoubleValidator [CXXABI-1.86]</u>	<u>_ZTV16QPageSetupDialog [CXXABI-1.86]</u>
<u>_ZTV16QRegExpValidator [CXXABI-1.86]</u>	<u>_ZTV16QStringListModel [CXXABI-1.86]</u>

_ZTV16QTableWidgetItem [CXXABI-1.86]	_ZTV17QAbstractItemView [CXXABI-1.86]
_ZTV17QAccessibleObject [CXXABI-1.86]	_ZTV17QAccessiblePlugin [CXXABI-1.86]
_ZTV17QAccessibleWidget [CXXABI-1.86]	_ZTV17QContextMenuEvent [CXXABI-1.86]
_ZTV17QDataWidgetMapper [CXXABI-1.86]	_ZTV17QFactoryInterface [CXXABI-1.86]
_ZTV17QFileIconProvider [CXXABI-1.86]	_ZTV17QGraphicsLineItem [CXXABI-1.86]
_ZTV17QGraphicsPathItem [CXXABI-1.86]	_ZTV17QGraphicsRectItem [CXXABI-1.86]
_ZTV17QIconEnginePlugin [CXXABI-1.86]	_ZTV17QInputMethodEvent [CXXABI-1.86]
_ZTV18QDragResponseEvent [CXXABI-1.86]	_ZTV18QGraphicsItemGroup [CXXABI-1.86]
_ZTV18QItemEditorFactory [CXXABI-1.86]	_ZTV18QStandardItemModel [CXXABI-1.86]
_ZTV18QSyntaxHighlighter [CXXABI-1.86]	_ZTV18QTextBlockUserData [CXXABI-1.86]
_ZTV18QX11EmbedContainer [CXXABI-1.86]	_ZTV19QAbstractProxyModel [CXXABI-1.86]
_ZTV19QAbstractScrollArea [CXXABI-1.86]	_ZTV19QApplicationPrivate [CXXABI-1.86]
_ZTV19QGraphicsPixmapItem [CXXABI-1.86]	_ZTV19QGraphicsSceneEvent [CXXABI-1.86]
_ZTV19QInputContextPlugin [CXXABI-1.86]	_ZTV19QItemSelectionModel [CXXABI-1.86]
_ZTV19QToolBarChangeEvent [CXXABI-1.86]	_ZTV20QAbstractPrintDialog [CXXABI-1.86]
_ZTV20QAccessibleInterface [CXXABI-1.86]	_ZTV20QGraphicsEllipseItem [CXXABI-1.86]
_ZTV20QGraphicsPolygonItem [CXXABI-1.86]	_ZTV20QMenuBarUpdatedEvent [CXXABI-1.86]
_ZTV20QPictureFormatPlugin [CXXABI-1.86]	_ZTV20QTextFrameLayoutData [CXXABI-1.86]
_ZTV20QTextObjectInterface [CXXABI-1.86]	_ZTV20QWidgetResizeHandler [CXXABI-1.86]
_ZTV21QAbstractItemDelegate [CXXABI-1.86]	_ZTV21QSortFilterProxyModel [CXXABI-1.86]
_ZTV22QAccessibleApplication [CXXABI-1.86]	_ZTV22QGraphicsItemAnimation [CXXABI-1.86]
_ZTV22QStyleFactoryInterface [CXXABI-1.86]	_ZTV22QWhatsThisClickedEvent [CXXABI-1.86]
_ZTV23QAccessibleBridgePlugin [CXXABI-1.86]	_ZTV23QGraphicsSceneHelpEvent [CXXABI-1.86]
_ZTV23QGraphicsSimpleTextItem [CXXABI-1.86]	_ZTV23QPictureFormatInterface [CXXABI-1.86]
_ZTV23QWindowStateChangeEvent [CXXABI-1.86]	_ZTV24QAbstractPageSetupDialog [CXXABI-1.86]
_ZTV24QGraphicsSceneHoverEvent [CXXABI-1.86]	_ZTV24QGraphicsSceneMouseEvent [CXXABI-1.86]
_ZTV24QGraphicsSceneWheelEvent [CXXABI-1.86]	_ZTV26QAbstractGraphicsShapeItem [CXXABI-1.86]
_ZTV27QAbstractTextDocumentLayout [CXXABI-1.86]	_ZTV27QAccessibleFactoryInterface [CXXABI-1.86]
_ZTV27QGraphicsSceneDragDropEvent [CXXABI-1.86]	_ZTV27QIconEngineFactoryInterface [CXXABI-1.86]
_ZTV29QInputContextFactoryInterface [CXXABI-1.86]	_ZTV30QGraphicsSceneContextMenuEvent [CXXABI-1.86]

_ZTV31QImageIOHandlerFactoryInterface [CXXABI-1.86]	_ZTV33QAccessibleBridgeFactoryInterface [CXXABI-1.86]
_ZTV5QDial [CXXABI-1.86]	_ZTV5QDrag [CXXABI-1.86]
_ZTV5QMenu [CXXABI-1.86]	_ZTV6QFrame [CXXABI-1.86]
_ZTV6QImage [CXXABI-1.86]	_ZTV6QLabel [CXXABI-1.86]
_ZTV6QMovie [CXXABI-1.86]	_ZTV6QSound [CXXABI-1.86]
_ZTV6QStyle [CXXABI-1.86]	_ZTV7QAction [CXXABI-1.86]
_ZTV7QBitmap [CXXABI-1.86]	_ZTV7QDialog [CXXABI-1.86]
_ZTV7QLayout [CXXABI-1.86]	_ZTV7QPixmap [CXXABI-1.86]
_ZTV7QSlider [CXXABI-1.86]	_ZTV7QTabBar [CXXABI-1.86]
_ZTV7QWidget [CXXABI-1.86]	_ZTV8QMenuBar [CXXABI-1.86]
_ZTV8QPicture [CXXABI-1.86]	_ZTV8QPrinter [CXXABI-1.86]
_ZTV8QSpinBox [CXXABI-1.86]	_ZTV8QStroker [CXXABI-1.86]
_ZTV8QToolBar [CXXABI-1.86]	_ZTV8QToolBox [CXXABI-1.86]
_ZTV9QCDEStyle [CXXABI-1.86]	_ZTV9QCheckBox [CXXABI-1.86]
_ZTV9QComboBox [CXXABI-1.86]	_ZTV9QDateEdit [CXXABI-1.86]
_ZTV9QDirModel [CXXABI-1.86]	_ZTV9QGroupBox [CXXABI-1.86]
_ZTV9QKeyEvent [CXXABI-1.86]	_ZTV9QLineEdit [CXXABI-1.86]
_ZTV9QListView [CXXABI-1.86]	_ZTV9QMenuItem [CXXABI-1.86]
_ZTV9QShortcut [CXXABI-1.86]	_ZTV9QSizeGrip [CXXABI-1.86]
_ZTV9QSplitter [CXXABI-1.86]	_ZTV9QTextEdit [CXXABI-1.86]
_ZTV9QTextList [CXXABI-1.86]	_ZTV9QTimeEdit [CXXABI-1.86]
_ZTV9QTreeView [CXXABI-1.86]	

17.5.2. Qt4 Organizers

17.5.2.1. Class data for QButtonGroup

The virtual table for the QButtonGroup class is described by [Table 17-102](#)

Table 17-102. Primary vtable for QButtonGroup

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QButtonGroup

vfunc[0]:	QButtonGroup::metaObject() const
vfunc[1]:	QButtonGroup::qt_metacast(char const*)
vfunc[2]:	QButtonGroup::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QButtonGroup::~~QButtonGroup()
vfunc[4]:	QButtonGroup::~~QButtonGroup()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QButtonGroup class is described by [Table 17-103](#)

Table 17-103. typeinfo for QButtonGroup

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QButtonGroup
basetype:	typeinfo for QObject

17.5.2.2. Class data for QGroupBox

The virtual table for the QGroupBox class is described by [Table 17-104](#)

Table 17-104. Primary vtable for QGroupBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGroupBox
vfunc[0]:	QGroupBox::metaObject() const
vfunc[1]:	QGroupBox::qt_metacast(char const*)
vfunc[2]:	QGroupBox::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QGroupBox::~~QGroupBox()
vfunc[4]:	QGroupBox::~~QGroupBox()
vfunc[5]:	QGroupBox::event(QEvent*)

vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QGroupBox::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QGroupBox::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QGroupBox::mousePressEvent(QMouseEvent*)
vfunc[19]:	QGroupBox::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QGroupBox::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QGroupBox::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QGroupBox::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QGroupBox::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)

vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QGroupBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QGroupBox class is described by [Table 17-105](#)

Table 17-105. typeinfo for QGroupBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGroupBox
basetype:	typeinfo for QWidget

17.5.2.3. Class data for QSplitter

The virtual table for the QSplitter class is described by [Table 17-106](#)

Table 17-106. Primary vtable for QSplitter

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSplitter
vfunc[0]:	QSplitter::metaObject() const
vfunc[1]:	QSplitter::qt_metacast(char const*)
vfunc[2]:	QSplitter::qt_metacall(QMetaObject::Call, int, void**)

vfunc[3]:	QSplitter::~QSplitter()
vfunc[4]:	QSplitter::~~QSplitter()
vfunc[5]:	QSplitter::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QSplitter::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QSplitter::sizeHint() const
vfunc[15]:	QSplitter::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QFrame::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QSplitter::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)

vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QSplitter::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QSplitter::createHandle()

The Run Time Type Information for the QSplitter class is described by [Table 17-107](#)

Table 17-107. typeinfo for QSplitter

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSplitter
basetype:	typeinfo for QFrame

17.5.2.4. Class data for QSplitterHandle

The virtual table for the QSplitterHandle class is described by [Table 17-108](#)

Table 17-108. Primary vtable for QSplitterHandle

Base Offset	0
Virtual Base Offset	0

RTTI	typeid for QSplitterHandle
vfunc[0]:	QSplitterHandle::metaObject() const
vfunc[1]:	QSplitterHandle::qt_metacast(char const*)
vfunc[2]:	QSplitterHandle::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QSplitterHandle::~~QSplitterHandle()
vfunc[4]:	NULL or QSplitterHandle::~~QSplitterHandle()
vfunc[5]:	QSplitterHandle::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QSplitterHandle::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QSplitterHandle::mousePressEvent(QMouseEvent*)
vfunc[19]:	QSplitterHandle::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QSplitterHandle::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QSplitterHandle::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)

vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QSplitterHandle class is described by [Table 17-109](#)

Table 17-109. typeinfo for QSplitterHandle

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSplitterHandle
basetype:	typeinfo for QWidget

17.5.2.5. Interfaces for Qt4 Organizers

An LSB conforming implementation shall provide the generic functions for Qt4 Organizers specified in [Table 17-110](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-110. libQtGui - Qt4 Organizers Function Interfaces

_ZN12QButtonGroup11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN12QButtonGroup11qt_metacastEPKc [QtGui]
_ZN12QButtonGroup12removeButtonEP15QAbstractButton [QtGui]	_ZN12QButtonGroup12setExclusiveEb [QtGui]
_ZN12QButtonGroup13buttonClickedEP15QAbstractButton [QtGui]	_ZN12QButtonGroup13buttonClickedEi [QtGui]
_ZN12QButtonGroup13buttonPressedEP15QAbstractButton [QtXml]	_ZN12QButtonGroup13buttonPressedEi [QtXml]
_ZN12QButtonGroup14buttonReleasedEP15QAbstractButton [QtXml]	_ZN12QButtonGroup14buttonReleasedEi [QtXml]
_ZN12QButtonGroup5setIdEP15QAbstractButtoni [QtGui]	_ZN12QButtonGroup9addButtonEP15QAbstractButtoni [QtGui]
_ZN12QButtonGroup9addButtonEP15QAbstractButtoni [QtGui]	_ZN12QButtonGroupC1EP7QObject [QtGui]
_ZN12QButtonGroupC2EP7QObject [QtGui]	_ZN12QButtonGroupD0Ev [QtGui]
_ZN12QButtonGroupD1Ev [QtGui]	_ZN12QButtonGroupD2Ev [QtGui]
_ZN15QSplitterHandle10paintEventEP11QPaintEvent [QtGui]	_ZN15QSplitterHandle11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN15QSplitterHandle11qt_metacastEPKc [QtGui]	_ZN15QSplitterHandle12moveSplitterEi [QtGui]
_ZN15QSplitterHandle14mouseMoveEventEP11QMouseEvent [QtGui]	_ZN15QSplitterHandle14setOrientationEN2Qt11Orientation [QtGui]
_ZN15QSplitterHandle15mousePressEventEP11QMouseEvent [QtGui]	_ZN15QSplitterHandle17mouseReleaseEventEP11QMouseEvent [QtGui]
_ZN15QSplitterHandle20closestLegalPositionEi [QtGui]	_ZN15QSplitterHandle5eventEP6QEvent [QtGui]
_ZN15QSplitterHandleC1EN2Qt11OrientationEP9QSplitter [QtGui]	_ZN15QSplitterHandleC2EN2Qt11OrientationEP9QSplitter [QtGui]
_ZN9QGroupBox10childEventEP11QChildEvent [QtGui]	_ZN9QGroupBox10paintEventEP11QPaintEvent [QtGui]
_ZN9QGroupBox10setCheckedEb [QtGui]	_ZN9QGroupBox11changeEventEP6QEvent [QtGui]
_ZN9QGroupBox11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN9QGroupBox11qt_metacastEPKc [QtGui]
_ZN9QGroupBox11resizeEventEP12QResizeEvent [QtGui]	_ZN9QGroupBox12focusInEventEP11QFocusEvent [QtGui]
_ZN9QGroupBox12setAlignmentEi [QtGui]	_ZN9QGroupBox12setCheckableEb [QtGui]
_ZN9QGroupBox14mouseMoveEventEP11QMouseEvent [QtGui]	_ZN9QGroupBox15mousePressEventEP11QMouseEvent [QtGui]
_ZN9QGroupBox17mouseReleaseEventEP11QMouseEvent [QtGui]	_ZN9QGroupBox5eventEP6QEvent [QtGui]
_ZN9QGroupBox7clickedEb [QtXml]	_ZN9QGroupBox7setFlatEb [QtGui]
_ZN9QGroupBox7toggledEb [QtGui]	_ZN9QGroupBox8setTitleERK7QString [QtGui]

_ZN9QGroupBoxC1EP7QWidget [QtGui]	_ZN9QGroupBoxC1EP7QWidgetPKc [QtGui]
_ZN9QGroupBoxC1ERK7QStringP7QWidget [QtGui]	_ZN9QGroupBoxC1ERK7QStringP7QWidgetPKc [QtGui]
_ZN9QGroupBoxC2EP7QWidget [QtGui]	_ZN9QGroupBoxC2EP7QWidgetPKc [QtGui]
_ZN9QGroupBoxC2ERK7QStringP7QWidget [QtGui]	_ZN9QGroupBoxC2ERK7QStringP7QWidgetPKc [QtGui]
_ZN9QGroupBoxD0Ev [QtGui]	_ZN9QGroupBoxD1Ev [QtGui]
_ZN9QGroupBoxD2Ev [QtGui]	_ZN9QSplitter10childEventEP11QChildEvent [QtGui]
_ZN9QSplitter11changeEventEP6QEvent [QtGui]	_ZN9QSplitter11qt_metacallEN11QMetaObject [QtGui]
_ZN9QSplitter11qt_metacastEPKc [QtGui]	_ZN9QSplitter11resizeEventEP12QResizeEvent [QtGui]
_ZN9QSplitter12createHandleEv [QtGui]	_ZN9QSplitter12insertWidgetEiP7QWidget [QtGui]
_ZN9QSplitter12moveSplitterEii [QtGui]	_ZN9QSplitter12restoreStateERK10QByteArray [QtGui]
_ZN9QSplitter13setResizeModeEP7QWidgetNS_10ResizeModeE [QtGui]	_ZN9QSplitter13setRubberBandEi [QtGui]
_ZN9QSplitter13splitterMovedEii [QtGui]	_ZN9QSplitter14setCollapsibleEib [QtGui]
_ZN9QSplitter14setHandleWidthEi [QtGui]	_ZN9QSplitter14setOrientationEN2Qt11Orientation [QtGui]
_ZN9QSplitter15setOpaqueResizeEb [QtGui]	_ZN9QSplitter16setStretchFactorEii [QtGui]
_ZN9QSplitter20closestLegalPositionEii [QtGui]	_ZN9QSplitter22setChildrenCollapsibleEb [QtGui]
_ZN9QSplitter5eventEP6QEvent [QtGui]	_ZN9QSplitter7refreshEv [QtGui]
_ZN9QSplitter8setSizesERK5QListIiE [QtGui]	_ZN9QSplitter9addWidgetEP7QWidget [QtGui]
_ZN9QSplitterC1EN2Qt11OrientationEP7QWidget [QtGui]	_ZN9QSplitterC1EN2Qt11OrientationEP7QWidgetPKc [QtGui]
_ZN9QSplitterC1EP7QWidget [QtGui]	_ZN9QSplitterC1EP7QWidgetPKc [QtGui]
_ZN9QSplitterC2EN2Qt11OrientationEP7QWidget [QtGui]	_ZN9QSplitterC2EN2Qt11OrientationEP7QWidgetPKc [QtGui]
_ZN9QSplitterC2EP7QWidget [QtGui]	_ZN9QSplitterC2EP7QWidgetPKc [QtGui]
_ZN9QSplitterD0Ev [QtGui]	_ZN9QSplitterD1Ev [QtGui]
_ZN9QSplitterD2Ev [QtGui]	_ZNK12QButtonGroup10metaObjectEv [QtGui]
_ZNK12QButtonGroup13checkedButtonEv [QtGui]	_ZNK12QButtonGroup2idEP15QAbstractButton [QtGui]
_ZNK12QButtonGroup6buttonEi [QtGui]	_ZNK12QButtonGroup7buttonsEv [QtGui]
_ZNK12QButtonGroup9checkedIdEv [QtGui]	_ZNK12QButtonGroup9exclusiveEv [QtGui]
_ZNK15QSplitterHandle10metaObjectEv [QtGui]	_ZNK15QSplitterHandle11orientationEv [QtGui]
_ZNK15QSplitterHandle12opaqueResizeEv [QtGui]	_ZNK15QSplitterHandle8sizeHintEv [QtGui]
_ZNK15QSplitterHandle8splitterEv [QtGui]	_ZNK9QGroupBox10metaObjectEv [QtGui]
_ZNK9QGroupBox11isCheckableEv [QtGui]	_ZNK9QGroupBox15minimumSizeHintEv [QtGui]
_ZNK9QGroupBox5titleEv [QtGui]	_ZNK9QGroupBox6isFlatEv [QtGui]

_ZNK9QGroupBox9alignmentEv [QtGui]	_ZNK9QGroupBox9isCheckedEv [QtGui]
_ZNK9QSplitter10metaObjectEv [QtGui]	_ZNK9QSplitter11handleWidthEv [QtGui]
_ZNK9QSplitter11orientationEv [QtGui]	_ZNK9QSplitter12opaqueResizeEv [QtGui]
_ZNK9QSplitter13isCollapsibleEi [QtGui]	_ZNK9QSplitter15minimumSizeHintEv [QtGui]
_ZNK9QSplitter19childrenCollapsibleEv [QtGui]	_ZNK9QSplitter5countEv [QtGui]
_ZNK9QSplitter5sizesEv [QtGui]	_ZNK9QSplitter6handleEi [QtGui]
_ZNK9QSplitter6widgetEi [QtGui]	_ZNK9QSplitter7indexOfEP7QWidget [QtGui]
ZNK9QSplitter8getRangeEiPiS0 [QtGui]	_ZNK9QSplitter8sizeHintEv [QtGui]
_ZNK9QSplitter9saveStateEv [QtGui]	_ZlsR11QTextStreamRK9QSplitter [QtGui]
_ZrsR11QTextStreamR9QSplitter [QtGui]	

17.5.3. Qt4 Events

17.5.3.1. Class data for QInputEvent

The virtual table for the QInputEvent class is described by [Table 17-111](#)

Table 17-111. Primary vtable for QInputEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QInputEvent
vfunc[0]:	QInputEvent::~~QInputEvent()
vfunc[1]:	QInputEvent::~~QInputEvent()

The Run Time Type Information for the QInputEvent class is described by [Table 17-112](#)

Table 17-112. typeinfo for QInputEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QInputEvent
basetype:	typeinfo for QEvent

17.5.3.2. Class data for QMouseEvent

The virtual table for the QMouseEvent class is described by [Table 17-113](#)

Table 17-113. Primary vtable for QMouseEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMouseEvent
vfunc[0]:	QMouseEvent::~~QMouseEvent()
vfunc[1]:	QMouseEvent::~~QMouseEvent()

The Run Time Type Information for the QMouseEvent class is described by [Table 17-114](#)

Table 17-114. typeinfo for QMouseEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMouseEvent
basetype:	typeinfo for QInputEvent

17.5.3.3. Class data for QHoverEvent

The virtual table for the QHoverEvent class is described by [Table 17-115](#)

Table 17-115. Primary vtable for QHoverEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHoverEvent
vfunc[0]:	QHoverEvent::~~QHoverEvent()
vfunc[1]:	QHoverEvent::~~QHoverEvent()

The Run Time Type Information for the QHoverEvent class is described by [Table 17-116](#)

Table 17-116. typeinfo for QHoverEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHoverEvent
basetype:	typeinfo for QEvent

17.5.3.4. Class data for QWheelEvent

The virtual table for the QWheelEvent class is described by [Table 17-117](#)

Table 17-117. Primary vtable for QWheelEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWheelEvent
vfunc[0]:	QWheelEvent::~~QWheelEvent()
vfunc[1]:	QWheelEvent::~~QWheelEvent()

The Run Time Type Information for the QWheelEvent class is described by [Table 17-118](#)

Table 17-118. typeinfo for QWheelEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWheelEvent
basetype:	typeinfo for QInputEvent

17.5.3.5. Class data for QTabletEvent

The virtual table for the QTabletEvent class is described by [Table 17-119](#)

Table 17-119. Primary vtable for QTabletEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTabletEvent
vfunc[0]:	QTabletEvent::~~QTabletEvent()
vfunc[1]:	QTabletEvent::~~QTabletEvent()

The Run Time Type Information for the QTabletEvent class is described by [Table 17-120](#)

Table 17-120. typeinfo for QTabletEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTabletEvent
basetype:	typeinfo for QInputEvent

17.5.3.6. Class data for QKeyEvent

The virtual table for the QKeyEvent class is described by [Table 17-121](#)

Table 17-121. Primary vtable for QKeyEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QKeyEvent
vfunc[0]:	QKeyEvent::~~QKeyEvent()
vfunc[1]:	QKeyEvent::~~QKeyEvent()

The Run Time Type Information for the QKeyEvent class is described by [Table 17-122](#)

Table 17-122. typeinfo for QKeyEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QKeyEvent
basetype:	typeinfo for QInputEvent

17.5.3.7. Class data for QFocusEvent

The virtual table for the QFocusEvent class is described by [Table 17-123](#)

Table 17-123. Primary vtable for QFocusEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFocusEvent
vfunc[0]:	QFocusEvent::~~QFocusEvent()
vfunc[1]:	QFocusEvent::~~QFocusEvent()

The Run Time Type Information for the QFocusEvent class is described by [Table 17-124](#)

Table 17-124. typeinfo for QFocusEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFocusEvent
basetype:	typeinfo for QEvent

17.5.3.8. Class data for QPaintEvent

The virtual table for the QPaintEvent class is described by [Table 17-125](#)

Table 17-125. Primary vtable for QPaintEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPaintEvent
vfunc[0]:	QPaintEvent::~~QPaintEvent()
vfunc[1]:	QPaintEvent::~~QPaintEvent()

The Run Time Type Information for the QPaintEvent class is described by [Table 17-126](#)

Table 17-126. typeinfo for QPaintEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPaintEvent
basetype:	typeinfo for QEvent

17.5.3.9. Class data for QMoveEvent

The virtual table for the QMoveEvent class is described by [Table 17-127](#)

Table 17-127. Primary vtable for QMoveEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMoveEvent
vfunc[0]:	QMoveEvent::~~QMoveEvent()
vfunc[1]:	QMoveEvent::~~QMoveEvent()

The Run Time Type Information for the QMoveEvent class is described by [Table 17-128](#)

Table 17-128. typeinfo for QMoveEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMoveEvent
basetype:	typeinfo for QEvent

17.5.3.10. Class data for QResizeEvent

The virtual table for the QResizeEvent class is described by [Table 17-129](#)

Table 17-129. Primary vtable for QResizeEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QResizeEvent
vfunc[0]:	QResizeEvent::~~QResizeEvent()
vfunc[1]:	QResizeEvent::~~QResizeEvent()

The Run Time Type Information for the QResizeEvent class is described by [Table 17-130](#)

Table 17-130. typeinfo for QResizeEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QResizeEvent
basetype:	typeinfo for QEvent

17.5.3.11. Class data for QCloseEvent

The virtual table for the QCloseEvent class is described by [Table 17-131](#)

Table 17-131. Primary vtable for QCloseEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCloseEvent
vfunc[0]:	QCloseEvent::~~QCloseEvent()
vfunc[1]:	QCloseEvent::~~QCloseEvent()

The Run Time Type Information for the QCloseEvent class is described by [Table 17-132](#)

Table 17-132. typeinfo for QCloseEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCloseEvent
basetype:	typeinfo for QEvent

17.5.3.12. Class data for QIconDragEvent

The virtual table for the QIconDragEvent class is described by [Table 17-133](#)

Table 17-133. Primary vtable for QIconDragEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIconDragEvent
vfunc[0]:	QIconDragEvent::~~QIconDragEvent()
vfunc[1]:	QIconDragEvent::~~QIconDragEvent()

The Run Time Type Information for the QIconDragEvent class is described by [Table 17-134](#)

Table 17-134. typeinfo for QIconDragEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIconDragEvent
basetype:	typeinfo for QEvent

17.5.3.13. Class data for QShowEvent

The virtual table for the QShowEvent class is described by [Table 17-135](#)

Table 17-135. Primary vtable for QShowEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QShowEvent
vfunc[0]:	QShowEvent::~~QShowEvent()
vfunc[1]:	QShowEvent::~~QShowEvent()

The Run Time Type Information for the QShowEvent class is described by [Table 17-136](#)

Table 17-136. typeinfo for QShowEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QShowEvent
basetype:	typeinfo for QEvent

17.5.3.14. Class data for QHideEvent

The virtual table for the QHideEvent class is described by [Table 17-137](#)

Table 17-137. Primary vtable for QHideEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHideEvent
vfunc[0]:	QHideEvent::~~QHideEvent()
vfunc[1]:	QHideEvent::~~QHideEvent()

The Run Time Type Information for the QHideEvent class is described by [Table 17-138](#)

Table 17-138. typeinfo for QHideEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHideEvent
basetype:	typeinfo for QEvent

17.5.3.15. Class data for QContextMenuEvent

The virtual table for the QContextMenuEvent class is described by [Table 17-139](#)

Table 17-139. Primary vtable for QContextMenuEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QContextMenuEvent
vfunc[0]:	QContextMenuEvent::~~QContextMenuEvent()
vfunc[1]:	QContextMenuEvent::~~QContextMenuEvent()

The Run Time Type Information for the QContextMenuEvent class is described by [Table 17-140](#)

Table 17-140. typeinfo for QContextMenuEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QContextMenuEvent
basetype:	typeinfo for QInputEvent

17.5.3.16. Class data for QInputMethodEvent

The virtual table for the QInputMethodEvent class is described by [Table 17-141](#)

Table 17-141. Primary vtable for QInputMethodEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QInputMethodEvent
vfunc[0]:	NULL or QInputMethodEvent::~~QInputMethodEvent()
vfunc[1]:	NULL or QInputMethodEvent::~~QInputMethodEvent()

The Run Time Type Information for the QInputMethodEvent class is described by [Table 17-142](#)

Table 17-142. typeinfo for QInputMethodEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QInputMethodEvent
basetype:	typeinfo for QEvent

17.5.3.17. Class data for QHelpEvent

The virtual table for the QHelpEvent class is described by [Table 17-143](#)

Table 17-143. Primary vtable for QHelpEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHelpEvent
vfunc[0]:	QHelpEvent::~~QHelpEvent()
vfunc[1]:	QHelpEvent::~~QHelpEvent()

The Run Time Type Information for the QHelpEvent class is described by [Table 17-144](#)

Table 17-144. typeinfo for QHelpEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHelpEvent
basetype:	typeinfo for QEvent

17.5.3.18. Class data for QStatusTipEvent

The virtual table for the QStatusTipEvent class is described by [Table 17-145](#)

Table 17-145. Primary vtable for QStatusTipEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStatusTipEvent
vfunc[0]:	QStatusTipEvent::~~QStatusTipEvent()
vfunc[1]:	QStatusTipEvent::~~QStatusTipEvent()

The Run Time Type Information for the QStatusTipEvent class is described by [Table 17-146](#)

Table 17-146. typeinfo for QStatusTipEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStatusTipEvent
basetype:	typeinfo for QEvent

17.5.3.19. Class data for QWhatsThisClickedEvent

The virtual table for the QWhatsThisClickedEvent class is described by [Table 17-147](#)

Table 17-147. Primary vtable for QWhatsThisClickedEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWhatsThisClickedEvent
vfunc[0]:	QWhatsThisClickedEvent::~~QWhatsThisClickedEvent()
vfunc[1]:	QWhatsThisClickedEvent::~~QWhatsThisClickedEvent()

The Run Time Type Information for the QWhatsThisClickedEvent class is described by [Table 17-148](#)

Table 17-148. typeinfo for QWhatsThisClickedEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWhatsThisClickedEvent
basetype:	typeinfo for QEvent

17.5.3.20. Class data for QActionEvent

The virtual table for the QActionEvent class is described by [Table 17-149](#)

Table 17-149. Primary vtable for QActionEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QActionEvent
vfunc[0]:	QActionEvent::~~QActionEvent()
vfunc[1]:	QActionEvent::~~QActionEvent()

The Run Time Type Information for the QActionEvent class is described by [Table 17-150](#)

Table 17-150. typeinfo for QActionEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QActionEvent
basetype:	typeinfo for QEvent

17.5.3.21. Class data for QFileOpenEvent

The virtual table for the QFileOpenEvent class is described by [Table 17-151](#)

Table 17-151. Primary vtable for QFileOpenEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFileOpenEvent
vfunc[0]:	QFileOpenEvent::~~QFileOpenEvent()
vfunc[1]:	QFileOpenEvent::~~QFileOpenEvent()

The Run Time Type Information for the QFileOpenEvent class is described by [Table 17-152](#)

Table 17-152. typeinfo for QFileOpenEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFileOpenEvent
basetype:	typeinfo for QEvent

17.5.3.22. Class data for QToolBarChangeEvent

The virtual table for the QToolBarChangeEvent class is described by [Table 17-153](#)

Table 17-153. Primary vtable for QToolBarChangeEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QToolBarChangeEvent
vfunc[0]:	QToolBarChangeEvent::~~QToolBarChangeEvent()
vfunc[1]:	QToolBarChangeEvent::~~QToolBarChangeEvent()

The Run Time Type Information for the QToolBarChangeEvent class is described by [Table 17-154](#)

Table 17-154. typeinfo for QToolBarChangeEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QToolBarChangeEvent
basetype:	typeinfo for QEvent

17.5.3.23. Class data for QShortcutEvent

The virtual table for the QShortcutEvent class is described by [Table 17-155](#)

Table 17-155. Primary vtable for QShortcutEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QShortcutEvent
vfunc[0]:	QShortcutEvent::~~QShortcutEvent()
vfunc[1]:	QShortcutEvent::~~QShortcutEvent()

The Run Time Type Information for the QShortcutEvent class is described by [Table 17-156](#)

Table 17-156. typeinfo for QShortcutEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QShortcutEvent
basetype:	typeinfo for QEvent

17.5.3.24. Class data for QClipboardEvent

The virtual table for the QClipboardEvent class is described by [Table 17-157](#)

Table 17-157. Primary vtable for QClipboardEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QClipboardEvent
vfunc[0]:	QClipboardEvent::~~QClipboardEvent()
vfunc[1]:	QClipboardEvent::~~QClipboardEvent()

The Run Time Type Information for the QClipboardEvent class is described by [Table 17-158](#)

Table 17-158. typeinfo for QClipboardEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QClipboardEvent
basetype:	typeinfo for QEvent

17.5.3.25. Class data for QWindowStateChangeEvent

The virtual table for the QWindowStateChangeEvent class is described by [Table 17-159](#)

Table 17-159. Primary vtable for QWindowStateChangeEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWindowStateChangeEvent
vfunc[0]:	QWindowStateChangeEvent::~~QWindowStateChangeEvent()
vfunc[1]:	QWindowStateChangeEvent::~~QWindowStateChangeEvent()

The Run Time Type Information for the QWindowStateChangeEvent class is described by [Table 17-160](#)

Table 17-160. typeinfo for QWindowStateChangeEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWindowStateChangeEvent
basetype:	typeinfo for QEvent

17.5.3.26. Class data for QMenuBarUpdatedEvent

The virtual table for the QMenuBarUpdatedEvent class is described by [Table 17-161](#)

Table 17-161. Primary vtable for QMenuBarUpdatedEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMenubarUpdatedEvent
vfunc[0]:	NULL or QMenubarUpdatedEvent::~~QMenubarUpdatedEvent()
vfunc[1]:	NULL or QMenubarUpdatedEvent::~~QMenubarUpdatedEvent()

The Run Time Type Information for the QMenubarUpdatedEvent class is described by [Table 17-162](#)

Table 17-162. typeinfo for QMenubarUpdatedEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMenubarUpdatedEvent
basetype:	typeinfo for QEvent

17.5.3.27. Interfaces for Qt4 Events

An LSB conforming implementation shall provide the generic functions for Qt4 Events specified in [Table 17-163](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-163. libQtGui - Qt4 Events Function Interfaces

ZN10QHelpEventC1EN6QEvent4TypeERK6QPointS4 [QtGui]
_ZN10QHelpEventD0Ev [QtGui]
_ZN10QHelpEventD2Ev [QtGui]
_ZN10QHideEventC2Ev [QtGui]
_ZN10QHideEventD1Ev [QtGui]
ZN10QMoveEventC1ERK6QPointS2 [QtGui]
_ZN10QMoveEventD0Ev [QtGui]
_ZN10QMoveEventD2Ev [QtGui]
_ZN10QShowEventC2Ev [QtGui]
_ZN10QShowEventD1Ev [QtGui]
_ZN11QCloseEventC1Ev [QtGui]
_ZN11QCloseEventD0Ev [QtGui]
_ZN11QCloseEventD2Ev [QtGui]
_ZN11QFocusEventC1EN6QEvent4TypeEN2Qt11FocusReasonE [QtGui]
_ZN11QFocusEventD0Ev [QtGui]
_ZN11QFocusEventD2Ev [QtGui]

<u>_ZN11QHoverEventC2EN6QEvent4TypeERK6QPointS4_ [QtGui]</u>
<u>_ZN11QHoverEventD1Ev [QtGui]</u>
<u>_ZN11QInputEventC1EN6QEvent4TypeE6QFlagsIN2Qt16KeyboardModifierEE [QtGui]</u>
<u>_ZN11QInputEventD0Ev [QtGui]</u>
<u>_ZN11QInputEventD2Ev [QtGui]</u>
<u>_ZN11QMouseEventC1EN6QEvent4TypeERK6QPointS4_N2Qt11MouseButtonE6QFlagsIS6_ES7_INS5_16KeyboardModifierEE [QtGui]</u>
<u>_ZN11QMouseEventC1EN6QEvent4TypeERK6QPointii [QtGui]</u>
<u>_ZN11QMouseEventC2EN6QEvent4TypeERK6QPointS4_N2Qt11MouseButtonE6QFlagsIS6_ES7_INS5_16KeyboardModifierEE [QtGui]</u>
<u>_ZN11QMouseEventC2EN6QEvent4TypeERK6QPointii [QtGui]</u>
<u>_ZN11QMouseEventD1Ev [QtGui]</u>
<u>_ZN11QPaintEventC1ERK5QRect [QtGui]</u>
<u>_ZN11QPaintEventC1ERK7QRegionRK5QRect [QtGui]</u>
<u>_ZN11QPaintEventC2ERK7QRegion [QtGui]</u>
<u>_ZN11QPaintEventD0Ev [QtGui]</u>
<u>_ZN11QPaintEventD2Ev [QtGui]</u>
<u>_ZN11QWheelEventC1ERK6QPointS2_iiN2Qt11OrientationE [QtGui]</u>
<u>_ZN11QWheelEventC1ERK6QPointiiN2Qt11OrientationE [QtGui]</u>
<u>_ZN11QWheelEventC2ERK6QPointS2_iiN2Qt11OrientationE [QtGui]</u>
<u>_ZN11QWheelEventC2ERK6QPointiiN2Qt11OrientationE [QtGui]</u>
<u>_ZN11QWheelEventD1Ev [QtGui]</u>
<u>_ZN12QActionEventC1EiP7QActionS1_ [QtGui]</u>
<u>_ZN12QActionEventD0Ev [QtGui]</u>
<u>_ZN12QActionEventD2Ev [QtGui]</u>
<u>_ZN12QResizeEventC2ERK5QSizeS2_ [QtGui]</u>
<u>_ZN12QResizeEventD1Ev [QtGui]</u>
<u>_ZN12QTabletEventC1EN6QEvent4TypeERK6QPointS4_RK7QPointFiiddi6QFlagsIN2Qt16KeyboardModifierEE [QtGui]</u>
<u>_ZN12QTabletEventD0Ev [QtGui]</u>
<u>_ZN12QTabletEventD2Ev [QtGui]</u>

_ZN14QFileOpenEventC2ERK7QString [QtGui]
_ZN14QFileOpenEventD1Ev [QtGui]
_ZN14QIconDragEventC1Ev [QtGui]
_ZN14QIconDragEventD0Ev [QtGui]
_ZN14QIconDragEventD2Ev [QtGui]
_ZN14QShortcutEventC2ERK12QKeySequenceib [QtGui]
_ZN14QShortcutEventD1Ev [QtGui]
_ZN15QStatusTipEventC1ERK7QString [QtGui]
_ZN15QStatusTipEventD0Ev [QtGui]
_ZN15QStatusTipEventD2Ev [QtGui]
_ZN17QContextMenuEventC1ENS_6ReasonERK6QPointS3_ [QtGui]
_ZN17QContextMenuEventC1ENS_6ReasonERK6QPointi [QtGui]
_ZN17QContextMenuEventC2ENS_6ReasonERK6QPointS3_ [QtGui]
_ZN17QContextMenuEventC2ENS_6ReasonERK6QPointi [QtGui]
_ZN17QContextMenuEventD1Ev [QtGui]
_ZN17QInputMethodEventI5setCommitStringERK7QStringii [QtGui]
ZN17QInputMethodEventC1ERKS [QtGui]
_ZN17QInputMethodEventC2ERK7QStringRK5QListINS_9AttributeEE [QtGui]
_ZN17QInputMethodEventC2Ev [QtGui]
_ZN19QToolBarChangeEventC2Eb [LSB]
_ZN19QToolBarChangeEventD1Ev [QtGui]
_ZN20QMenuBarUpdatedEventC1EP8QMenuBar [QtGui]
_ZN22QWhatsThisClickedEventC1ERK7QString [QtGui]
_ZN22QWhatsThisClickedEventD0Ev [QtGui]
_ZN22QWhatsThisClickedEventD2Ev [QtGui]
_ZN23QWindowStateChangeEventC1E6QFlagsIN2Qt11WindowStateEEb [QtGui]
_ZN23QWindowStateChangeEventC2E6QFlagsIN2Qt11WindowStateEEb [QtGui]
_ZN23QWindowStateChangeEventD1Ev [QtGui]
_ZN9QKeyEvent22createExtendedKeyEventEN6QEvent4TypeEi6QFlagsIN2Qt16KeyboardModifierEEjjjRK7QString [QtGui]
_ZN9QKeyEventC2EN6QEvent4TypeEi6QFlagsIN2Qt16KeyboardModifierEERK7QStringbt [QtGui]
_ZN9QKeyEventD1Ev [QtGui]
_ZNK11QFocusEvent6reasonEv [QtXml]
_ZNK23QWindowStateChangeEvent10isOverrideEv [QtGui]

_ZNK9QKeyEvent15nativeModifiersEv [QtXml]
_ZNK9QKeyEvent7matchesEN12QKeySequence11StandardKeyE [QtXml]
_Zls6QDebugPK6QEvent [QtGui]

17.5.4. Qt4 Fonts

17.5.4.1. Interfaces for Qt4 Fonts

An LSB conforming implementation shall provide the generic functions for Qt4 Fonts specified in [Table 17-164](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-164. libQtGui - Qt4 Fonts Function Interfaces

_ZN12QFontMetricsC1ERK5QFont [QtGui]	_ZN12QFontMetricsC1ERK5QFont [QtGui]
ZN12QFontMetricsC1ERKS [QtGui]	_ZN12QFontMetricsC2ERK5QFont [QtGui]
_ZN12QFontMetricsC2ERK5QFontP12QPaintDevice [QtGui]	_ZN12QFontMetricsC2ERKS_ [QtGui]
_ZN12QFontMetricsD1Ev [QtGui]	_ZN12QFontMetricsD2Ev [QtGui]
ZN12QFontMetricsaSERKS [QtGui]	_ZN12QFontMetricseqERKS_ [QtGui]
_ZN13QFontComboBox11qt_metacallEN11QMetaObject4CallEiPPv [QtXml]	_ZN13QFontComboBox11qt_metacallEN11QMetaObject4CallEiPPv [QtXml]
_ZN13QFontComboBox14setCurrentFontERK5QFont [QtXml]	_ZN13QFontComboBox14setCurrentFontERK5QFont [QtXml]
_ZN13QFontComboBox16setWritingSystemEN13QFontDatabase13WritingSystemE [QtXml]	_ZN13QFontComboBox18currentWritingSystem [QtGui]
_ZN13QFontComboBox5eventEP6QEvent [QtXml]	_ZN13QFontComboBoxC1EP7QWidget [QtXml]
_ZN13QFontComboBoxC2EP7QWidget [QtXml]	_ZN13QFontComboBoxD0Ev [QtXml]
_ZN13QFontComboBoxD1Ev [QtXml]	_ZN13QFontComboBoxD2Ev [QtXml]
ZN13QFontDatabase10pointSizesERK7QStringS2 [QtGui]	_ZN13QFontDatabase11smoothSize [QtGui]
_ZN13QFontDatabase11styleStringERK5QFont [QtGui]	_ZN13QFontDatabase11styleStringERK5QFont [QtGui]
_ZN13QFontDatabase13standardSizesEv [QtGui]	_ZN13QFontDatabase17writingSystem [QtGui]
_ZN13QFontDatabase18addApplicationFontERK7QString [QtXml]	_ZN13QFontDatabase19writingSystem [QtGui]
_ZN13QFontDatabase21removeApplicationFontEi [QtXml]	_ZN13QFontDatabase23applicationFontEi [QtGui]
_ZN13QFontDatabase25removeAllApplicationFontsEv [QtXml]	_ZN13QFontDatabase26addApplicationFontERK7QString [QtXml]
_ZN13QFontDatabaseC1Ev [QtGui]	_ZN13QFontDatabaseC2Ev [QtGui]
_ZN13QFontMetricsFC1ERK12QFontMetrics [QtXml]	_ZN13QFontMetricsFC1ERK12QFontMetrics [QtXml]

_ZN13QFontMetricsFC1ERK5QFontP12QPaintDevice [QtGui]	_ZN13QFontMetricsFC1ERK5QFontP12QPaintDevice [QtGui]
_ZN13QFontMetricsFC2ERK12QFontMetrics [QtXml]	_ZN13QFontMetricsFC2ERK12QFontMetrics [QtXml]
_ZN13QFontMetricsFC2ERK5QFontP12QPaintDevice [QtGui]	_ZN13QFontMetricsFC2ERK5QFontP12QPaintDevice [QtGui]
_ZN13QFontMetricsFD1Ev [QtGui]	_ZN13QFontMetricsFD2Ev [QtGui]
_ZN13QFontMetricsFaSERK12QFontMetrics [QtXml]	_ZN13QFontMetricsFaSERK12QFontMetrics [QtXml]
ZN13QFontMetricsFeqERKS [QtGui]	_ZN13QFontMetricsFeqERKS_ [QtGui]
_ZN5QFont10initializeEv [QtGui]	_ZN5QFont10setKerningEb [QtGui]
_ZN5QFont10setRawModeEb [QtGui]	_ZN5QFont10setRawNameEb [QtGui]
_ZN5QFont10setStretchEi [QtGui]	_ZN5QFont10substituteERK7QString [QtGui]
_ZN5QFont11defaultFontEv [QtGui]	_ZN5QFont11setOverlineEb [QtGui]
_ZN5QFont11substitutesERK7QString [QtGui]	_ZN5QFont12setPixelSizeEi [QtGui]
_ZN5QFont12setPointSizeEi [QtGui]	_ZN5QFont12setStrikeOutEb [QtGui]
_ZN5QFont12setStyleHintENS_9StyleHintENS_13StyleStrategyE [QtGui]	_ZN5QFont12setUnderlineEb [QtGui]
_ZN5QFont13setFixedPitchEb [QtGui]	_ZN5QFont13setPointSizeFEi [QtGui]
_ZN5QFont13substitutionsEv [QtGui]	_ZN5QFont14setDefaultFontEb [QtGui]
_ZN5QFont15cacheStatisticsEv [QtGui]	_ZN5QFont16setStyleStrategyE [QtGui]
_ZN5QFont17setPixelSizeFloatEd [QtGui]	_ZN5QFont18insertSubstitutionERK7QString [QtGui]
_ZN5QFont18removeSubstitutionERK7QString [QtGui]	_ZN5QFont19insertSubstitutionERK7QString [QtGui]
_ZN5QFont7cleanupEv [LSB]	_ZN5QFont8setStyleENS_5Style [QtGui]
_ZN5QFont9setFamilyERK7QString [QtGui]	_ZN5QFont9setWeightEi [QtGui]
_ZN5QFontC1ERK7QStringiib [QtGui]	_ZN5QFontC1ERKS_ [QtGui]
_ZN5QFontC1ERKS_P12QPaintDevice [QtGui]	_ZN5QFontC1Ev [QtGui]
_ZN5QFontC2ERK7QStringiib [QtGui]	_ZN5QFontC2ERKS_ [QtGui]
_ZN5QFontC2ERKS_P12QPaintDevice [QtGui]	_ZN5QFontC2Ev [QtGui]
_ZN5QFontD1Ev [QtGui]	_ZN5QFontD2Ev [QtGui]
ZN5QFontaSERKS [QtGui]	_ZN9QFontInfoC1ERK5QFontInfo [QtGui]
ZN9QFontInfoC1ERKS [QtGui]	_ZN9QFontInfoC2ERK5QFontInfo [QtGui]
ZN9QFontInfoC2ERKS [QtGui]	_ZN9QFontInfoD1Ev [QtGui]
_ZN9QFontInfoD2Ev [QtGui]	_ZN9QFontInfoaSERKS_ [QtGui]
_ZNK12QFontMetrics10elidedTextERK7QStringN2Qt13TextElideModeEii [QtXml]	_ZNK12QFontMetrics11leftBearing [QtGui]
_ZNK12QFontMetrics11lineSpacingEv [QtGui]	_ZNK12QFontMetrics11overline [QtGui]
_ZNK12QFontMetrics12boundingRectE5QChar [QtGui]	_ZNK12QFontMetrics12boundingRectE5QChar [QtGui]

_ZNK12QFontMetrics12boundingRectERK7QString [QtGui]	_ZNK12QFontMetrics12right
_ZNK12QFontMetrics12strikeOutPosEv [QtGui]	_ZNK12QFontMetrics12under
_ZNK12QFontMetrics14minLeftBearingEv [QtGui]	_ZNK12QFontMetrics15minR
_ZNK12QFontMetrics16averageCharWidthEv [QtXml]	_ZNK12QFontMetrics4sizeEi
_ZNK12QFontMetrics5widthE5QChar [QtGui]	_ZNK12QFontMetrics5widthI
_ZNK12QFontMetrics6ascentEv [QtGui]	_ZNK12QFontMetrics6height
_ZNK12QFontMetrics6inFontE5QChar [QtGui]	_ZNK12QFontMetrics7descer
_ZNK12QFontMetrics7leadingEv [QtGui]	_ZNK12QFontMetrics7xHeig
_ZNK12QFontMetrics8maxWidthEv [QtGui]	_ZNK12QFontMetrics9charW
_ZNK12QFontMetrics9lineWidthEv [QtGui]	_ZNK12QFontMetricseqERK
_ZNK13QFontComboBox10metaObjectEv [QtXml]	_ZNK13QFontComboBox11c
_ZNK13QFontComboBox11fontFiltersEv [QtXml]	_ZNK13QFontComboBox13w
_ZNK13QFontComboBox8sizeHintEv [QtXml]	_ZNK13QFontDatabase10isS
ZNK13QFontDatabase12isFixedPitchERK7QStringS2 [QtGui]	_ZNK13QFontDatabase14wri
_ZNK13QFontDatabase14writingSystemsEv [QtGui]	_ZNK13QFontDatabase16isB
ZNK13QFontDatabase18isSmoothlyScalableERK7QStringS2 [QtGui]	_ZNK13QFontDatabase4bold
_ZNK13QFontDatabase4fontERK7QStringS2_i [QtGui]	_ZNK13QFontDatabase6italic
_ZNK13QFontDatabase6stylesERK7QString [QtGui]	_ZNK13QFontDatabase6weig
_ZNK13QFontDatabase8familiesENS_13WritingSystemE [QtGui]	_ZNK13QFontMetricsF10elid [QtXml]
_ZNK13QFontMetricsF11leftBearingE5QChar [QtGui]	_ZNK13QFontMetricsF11line
_ZNK13QFontMetricsF11overlinePosEv [QtGui]	_ZNK13QFontMetricsF12bou
_ZNK13QFontMetricsF12boundingRectERK6QRectFiRK7QStringiPi [QtGui]	_ZNK13QFontMetricsF12bou
_ZNK13QFontMetricsF12rightBearingE5QChar [QtGui]	_ZNK13QFontMetricsF12stri
_ZNK13QFontMetricsF12underlinePosEv [QtGui]	_ZNK13QFontMetricsF14min
_ZNK13QFontMetricsF15minRightBearingEv [QtGui]	_ZNK13QFontMetricsF16ave
_ZNK13QFontMetricsF4sizeEiRK7QStringiPi [QtGui]	_ZNK13QFontMetricsF5width
_ZNK13QFontMetricsF5widthERK7QString [QtGui]	_ZNK13QFontMetricsF6ascen
_ZNK13QFontMetricsF6heightEv [QtGui]	_ZNK13QFontMetricsF6inFor
_ZNK13QFontMetricsF7descentEv [QtGui]	_ZNK13QFontMetricsF7leadi
_ZNK13QFontMetricsF7xHeightEv [QtGui]	_ZNK13QFontMetricsF8max
_ZNK13QFontMetricsF9lineWidthEv [QtGui]	_ZNK13QFontMetricsFeqER
_ZNK5QFont10exactMatchEv [QtGui]	_ZNK5QFont10fixedPitchEv

_ZNK5QFont10pointSizeFEv [QtGui]	_ZNK5QFont13defaultFamily
_ZNK5QFont13styleStrategyEv [QtGui]	_ZNK5QFont14lastResortFont
_ZNK5QFont16lastResortFamilyEv [QtGui]	_ZNK5QFont3keyEv [QtGui]
_ZNK5QFont5styleEv [QtGui]	_ZNK5QFont6familyEv [QtGui]
_ZNK5QFont6handleEv [QtGui]	_ZNK5QFont6weightEv [QtGui]
_ZNK5QFont7kerningEv [QtGui]	_ZNK5QFont7rawModeEv [QtGui]
_ZNK5QFont7rawNameEv [QtGui]	_ZNK5QFont7resolveERKS_
_ZNK5QFont7stretchEv [QtGui]	_ZNK5QFont8isCopyOfERKS_
_ZNK5QFont8overlineEv [QtGui]	_ZNK5QFont8toStringEv [QtGui]
_ZNK5QFont9pixelSizeEv [QtGui]	_ZNK5QFont9pointSizeEv [QtGui]
_ZNK5QFont9strikeOutEv [QtGui]	_ZNK5QFont9styleHintEv [QtGui]
_ZNK5QFont9underlineEv [QtGui]	_ZNK5QFontcv8QVariantEv [QtGui]
ZNK5QFonteqERKS [QtGui]	_ZNK5QFontltERKS_ [QtGui]
ZNK5QFontneERKS [QtGui]	_ZNK9QFontInfo10exactMatch
_ZNK9QFontInfo10fixedPitchEv [QtGui]	_ZNK9QFontInfo10pointSize
_ZNK9QFontInfo5styleEv [QtGui]	_ZNK9QFontInfo6familyEv [QtGui]
_ZNK9QFontInfo6italicEv [QtGui]	_ZNK9QFontInfo6weightEv [QtGui]
_ZNK9QFontInfo7rawModeEv [QtGui]	_ZNK9QFontInfo8overlineEv [QtGui]
_ZNK9QFontInfo9pixelSizeEv [QtGui]	_ZNK9QFontInfo9pointSize
_ZNK9QFontInfo9strikeOutEv [LSB]	_ZNK9QFontInfo9styleHint
_ZNK9QFontInfo9underlineEv [LSB]	_ZlsR11QDataStreamRK5QFont
_ZrsR11QDataStreamR5QFont [QtGui]	

17.5.5. Qt4 Colors

17.5.5.1. Interfaces for Qt4 Colors

An LSB conforming implementation shall provide the generic functions for Qt4 Colors specified in [Table 17-165](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-165. libQtGui - Qt4 Colors Function Interfaces

_ZN6QColor10colorNamesEv [QtGui]	_ZN6QColor10invalidateEv [LSB]
_ZN6QColor13setNamedColorERK7QString [QtGui]	_ZN6QColor6setHsvEiiii [QtGui]
_ZN6QColor6setRedEi [QtGui]	_ZN6QColor6setRgbEiiii [QtGui]

_ZN6QColor6setRgbEj [QtGui]	_ZN6QColor7fromHsvEiiii [QtGui]
_ZN6QColor7fromRgbEiiii [QtGui]	_ZN6QColor7fromRgbEj [QtGui]
_ZN6QColor7getCmykEPiS0_S0_S0_S0_ [QtGui]	_ZN6QColor7setBlueEi [QtGui]
_ZN6QColor7setCmykEiiii [QtGui]	_ZN6QColor7setHsvFEdddd [QtGui]
_ZN6QColor7setRedFE [QtGui]	_ZN6QColor7setRgbFEdddd [QtGui]
_ZN6QColor7setRgbaEj [QtGui]	_ZN6QColor8fromCmykEiiii [QtGui]
_ZN6QColor8fromHsvFEdddd [QtGui]	_ZN6QColor8fromRgbFEdddd [QtGui]
_ZN6QColor8fromRgbaEj [QtGui]	_ZN6QColor8getCmykFEPdS0_S0_S0_ [QtGui]
_ZN6QColor8setAlphaEi [QtGui]	_ZN6QColor8setBlueFE [QtGui]
_ZN6QColor8setCmykFEdddd [QtGui]	_ZN6QColor8setGreenEi [QtGui]
_ZN6QColor9fromCmykFEdddd [QtGui]	_ZN6QColor9setAlphaFE [QtGui]
_ZN6QColor9setGreenFE [QtGui]	_ZN6QColorC1EN2Qt11GlobalColorE [QtGui]
_ZN6QColorC1ENS_4SpecE [QtXml]	_ZN6QColorC1Ej [QtGui]
_ZN6QColorC2EN2Qt11GlobalColorE [QtGui]	_ZN6QColorC2ENS_4SpecE [QtXml]
_ZN6QColorC2Ej [QtGui]	_ZN6QColoraSEN2Qt11GlobalColorE [QtGui]
ZN6QColoraSERKS [QtGui]	_ZN8QPalette13setColorGroupENS_10ColorGroupENS_9ColorRoleERK6QBrush [QtGui]
_ZN8QPalette8setBrushENS_10ColorGroupENS_9ColorRoleERK6QBrush [QtGui]	_ZN8QPaletteC1EN2Qt11GlobalColorE [QtGui]
_ZN8QPaletteC1ERK11QColorGroupS2_S2_ [QtGui]	_ZN8QPaletteC1ERK6QBrushS2_S2_S2_ [QtGui]
_ZN8QPaletteC1ERK6QColor [QtGui]	_ZN8QPaletteC1ERK6QColorS2_ [QtGui]
_ZN8QPaletteC1ERK6QColorS2_S2_S2_S2_S2_S2_ [QtGui]	_ZN8QPaletteC1ERKS_ [QtGui]
_ZN8QPaletteC1Ev [QtGui]	_ZN8QPaletteC2EN2Qt11GlobalColorE [QtGui]
_ZN8QPaletteC2ERK11QColorGroupS2_S2_ [QtGui]	_ZN8QPaletteC2ERK6QBrushS2_S2_S2_ [QtGui]
_ZN8QPaletteC2ERK6QColor [QtGui]	_ZN8QPaletteC2ERK6QColorS2_ [QtGui]
_ZN8QPaletteC2ERK6QColorS2_S2_S2_S2_S2_S2_ [QtGui]	_ZN8QPaletteC2ERKS_ [QtGui]
_ZN8QPaletteC2Ev [QtGui]	_ZN8QPaletteD1Ev [QtGui]
_ZN8QPaletteD2Ev [QtGui]	_ZN8QPaletteaSERKS_ [QtGui]
_ZN9QColormap10initializeEv [QtGui]	_ZN9QColormap7cleanupEv [QtGui]
_ZN9QColormap8instanceEi [QtGui]	_ZN9QColormapC1ERKS_ [QtGui]
ZN9QColormapC2ERKS [QtGui]	_ZN9QColormapD1Ev [QtGui]
_ZN9QColormapD2Ev [QtGui]	_ZN9QColomapaSERKS_ [QtXml]
_ZNK11QColorGroupcv8QVariantEv [QtGui]	_ZNK11QColorGroupeqERKS_ [QtGui]

<u>_ZNK6QColor10saturationEv [QtGui]</u>	<u>_ZNK6QColor11saturationFEv [QtGui]</u>
<u>_ZNK6QColor3hueEv [QtGui]</u>	<u>_ZNK6QColor3redEv [QtGui]</u>
<u>_ZNK6QColor3rgbEv [QtGui]</u>	<u>_ZNK6QColor4blueEv [QtGui]</u>
<u>_ZNK6QColor4cyanEv [QtGui]</u>	<u>_ZNK6QColor4darkEi [QtGui]</u>
<u>_ZNK6QColor4hueFEv [QtGui]</u>	<u>_ZNK6QColor4nameEv [QtGui]</u>
<u>_ZNK6QColor4redFEv [QtGui]</u>	<u>_ZNK6QColor4rgbaEv [QtGui]</u>
<u>_ZNK6QColor5alphaEv [QtGui]</u>	<u>_ZNK6QColor5blackEv [QtGui]</u>
<u>_ZNK6QColor5blueFEv [QtGui]</u>	<u>_ZNK6QColor5cyanFEv [QtGui]</u>
<u>_ZNK6QColor5greenEv [QtGui]</u>	<u>_ZNK6QColor5lightEi [QtGui]</u>
<u>_ZNK6QColor5pixelEi [QtGui]</u>	<u>_ZNK6QColor5toHsvEv [QtGui]</u>
<u>_ZNK6QColor5toRgbEv [QtGui]</u>	<u>_ZNK6QColor5valueEv [QtGui]</u>
<u>_ZNK6QColor6alphaFEv [QtGui]</u>	<u>_ZNK6QColor6blackFEv [QtGui]</u>
<u>_ZNK6QColor6getHsvEPiS0_S0_S0_ [QtGui]</u>	<u>_ZNK6QColor6getRgbEPiS0_S0_S0_ [QtGui]</u>
<u>_ZNK6QColor6greenFEv [QtGui]</u>	<u>_ZNK6QColor6toCmykEv [QtGui]</u>
<u>_ZNK6QColor6valueFEv [QtGui]</u>	<u>_ZNK6QColor6yellowEv [QtGui]</u>
<u>_ZNK6QColor7getHsvFEPdS0_S0_S0_ [QtGui]</u>	<u>_ZNK6QColor7getRgbFEPdS0_S0_S0_ [QtGui]</u>
<u>_ZNK6QColor7magentaEv [QtGui]</u>	<u>_ZNK6QColor7yellowFEv [QtGui]</u>
<u>_ZNK6QColor8magentaFEv [QtGui]</u>	<u>_ZNK6QColor9convertToENS_4SpecE [QtGui]</u>
<u>_ZNK6QColorcv8QVariantEv [QtGui]</u>	<u>_ZNK6QColoreqERKS_ [QtGui]</u>
<u>_ZNK6QColorneERKS_ [QtGui]</u>	<u>_ZNK8QPalette10isBrushSetENS_10C [QtGui]</u>
<u>_ZNK8QPalette12serialNumberEv [QtGui]</u>	<u>_ZNK8QPalette5brushENS_10ColorGr [QtGui]</u>
<u>_ZNK8QPalette7isEqualENS_10ColorGroupES0_ [QtGui]</u>	<u>_ZNK8QPalette7resolveERKS_ [QtGui]</u>
<u>_ZNK8QPalette8isCopyOfERKS_ [QtGui]</u>	<u>_ZNK8QPalettetcv8QVariantEv [QtGui]</u>
<u>_ZNK8QPaletteteqERKS_ [QtGui]</u>	<u>_ZNK9QColormap4modeEv [QtGui]</u>
<u>_ZNK9QColormap4sizeEv [QtGui]</u>	<u>_ZNK9QColormap5depthEv [QtGui]</u>
<u>_ZNK9QColormap5pixelERK6QColor [QtGui]</u>	<u>_ZNK9QColormap7colorAtEj [QtGui]</u>
<u>_ZNK9QColormap8colormapEv [QtGui]</u>	<u>_Zls6QDebugRK6QColor [QtGui]</u>
<u>_ZlsR11QDataStreamRK11QColorGroup [QtGui]</u>	<u>_ZlsR11QDataStreamRK6QColor [QtGui]</u>
<u>_ZlsR11QDataStreamRK8QPalette [QtGui]</u>	<u>_ZrsR11QDataStreamR11QColorGroup [QtGui]</u>
<u>_ZrsR11QDataStreamR6QColor [QtGui]</u>	<u>_ZrsR11QDataStreamR8QPalette [QtGui]</u>

17.5.6. Qt4 Accessibility

17.5.6.1. Class data for QAccessibleBridgeFactoryInterface

The virtual table for the QAccessibleBridgeFactoryInterface class is described by [Table 17-166](#)

Table 17-166. Primary vtable for QAccessibleBridgeFactoryInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAccessibleBridgeFactoryInterface
vfunc[0]:	NULL or QAccessibleBridgeFactoryInterface::~~QAccessibleBridgeFactoryInterface()
vfunc[1]:	NULL or QAccessibleBridgeFactoryInterface::~~QAccessibleBridgeFactoryInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QAccessibleBridgeFactoryInterface class is described by [Table 17-167](#)

Table 17-167. typeinfo for QAccessibleBridgeFactoryInterface

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAccessibleBridgeFactoryInterface
basetype:	typeinfo for QFactoryInterface

17.5.6.2. Class data for QAccessibleBridgePlugin

The virtual table for the QAccessibleBridgePlugin class is described by [Table 17-168](#)

Table 17-168. Primary vtable for QAccessibleBridgePlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAccessibleBridgePlugin
vfunc[0]:	QAccessibleBridgePlugin::metaObject() const
vfunc[1]:	QAccessibleBridgePlugin::qt_metacast(char const*)
vfunc[2]:	QAccessibleBridgePlugin::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAccessibleBridgePlugin::~~QAccessibleBridgePlugin()

vfunc[4]:	QAccessibleBridgePlugin::~QAccessibleBridgePlugin()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual

The Run Time Type Information for the QAccessibleBridgePlugin class is described by [Table 17-169](#)

Table 17-169. typeinfo for QAccessibleBridgePlugin

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QAccessibleBridgePlugin	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QAccessibleBridgeFactoryInterface	2050

17.5.6.3. Class data for QAccessibleInterface

The virtual table for the QAccessibleInterface class is described by [Table 17-170](#)

Table 17-170. Primary vtable for QAccessibleInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAccessibleInterface
vfunc[0]:	NULL or QAccessibleInterface::~QAccessibleInterface()
vfunc[1]:	NULL or QAccessibleInterface::~QAccessibleInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual

vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	__cxa_pure_virtual
vfunc[10]:	__cxa_pure_virtual
vfunc[11]:	__cxa_pure_virtual
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	__cxa_pure_virtual

The Run Time Type Information for the QAccessibleInterface class is described by [Table 17-171](#)

Table 17-171. typeinfo for QAccessibleInterface

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAccessibleInterface
basetype:	typeinfo for QAccessible

17.5.6.4. Class data for QAccessibleObject

The virtual table for the QAccessibleObject class is described by [Table 17-172](#)

Table 17-172. Primary vtable for QAccessibleObject

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAccessibleObject
vfunc[0]:	QAccessibleObject::~~QAccessibleObject()
vfunc[1]:	QAccessibleObject::~~QAccessibleObject()
vfunc[2]:	QAccessibleObject::isValid() const
vfunc[3]:	QAccessibleObject::object() const
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual

vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	__cxa_pure_virtual
vfunc[10]:	QAccessibleObject::setText(QAccessible::Text, int, QString const&)
vfunc[11]:	QAccessibleObject::rect(int) const
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	QAccessibleObject::userActionCount(int) const
vfunc[15]:	QAccessibleObject::actionText(int, QAccessible::Text, int) const
vfunc[16]:	QAccessibleObject::doAction(int, int, QList<QVariant> const&)

The Run Time Type Information for the QAccessibleObject class is described by [Table 17-173](#)

Table 17-173. typeid for QAccessibleObject

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QAccessibleObject
basetype:	typeid for QAccessibleInterface

17.5.6.5. Class data for QAccessibleApplication

The virtual table for the QAccessibleApplication class is described by [Table 17-174](#)

Table 17-174. Primary vtable for QAccessibleApplication

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QAccessibleApplication
vfunc[0]:	NULL or QAccessibleApplication::~~QAccessibleApplication()
vfunc[1]:	NULL or QAccessibleApplication::~~QAccessibleApplication()
vfunc[2]:	QAccessibleObject::isValid() const
vfunc[3]:	QAccessibleObject::object() const
vfunc[4]:	QAccessibleApplication::childCount() const
vfunc[5]:	QAccessibleApplication::indexOfChild(QAccessibleInterface const*) const
vfunc[6]:	QAccessibleApplication::relationTo(int, QAccessibleInterface const*, int) const
vfunc[7]:	QAccessibleApplication::childAt(int, int) const

vfunc[8]:	QAccessibleApplication::navigate(QAccessible::RelationFlag, int, QAccessibleInterface**) const
vfunc[9]:	QAccessibleApplication::text(QAccessible::Text, int) const
vfunc[10]:	QAccessibleObject::setText(QAccessible::Text, int, QString const&)
vfunc[11]:	QAccessibleObject::rect(int) const
vfunc[12]:	QAccessibleApplication::role(int) const
vfunc[13]:	QAccessibleApplication::state(int) const
vfunc[14]:	QAccessibleApplication::userActionCount(int) const
vfunc[15]:	QAccessibleApplication::actionText(int, QAccessible::Text, int) const
vfunc[16]:	QAccessibleApplication::doAction(int, int, QList<QVariant> const&)

The Run Time Type Information for the QAccessibleApplication class is described by [Table 17-175](#)

Table 17-175. typeinfo for QAccessibleApplication

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAccessibleApplication
basetype:	typeinfo for QAccessibleObject

17.5.6.6. Class data for QAccessibleWidget

The virtual table for the QAccessibleWidget class is described by [Table 17-176](#)

Table 17-176. Primary vtable for QAccessibleWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAccessibleWidget
vfunc[0]:	QAccessibleWidget::~~QAccessibleWidget()
vfunc[1]:	QAccessibleWidget::~~QAccessibleWidget()
vfunc[2]:	QAccessibleObject::isValid() const
vfunc[3]:	QAccessibleObject::object() const
vfunc[4]:	QAccessibleWidget::childCount() const
vfunc[5]:	QAccessibleWidget::indexOfChild(QAccessibleInterface const*) const
vfunc[6]:	QAccessibleWidget::relationTo(int, QAccessibleInterface const*, int) const
vfunc[7]:	QAccessibleWidget::childAt(int, int) const

vfunc[8]:	QAccessibleWidget::navigate(QAccessible::RelationFlag, int, QAccessibleInterface**) const
vfunc[9]:	QAccessibleWidget::text(QAccessible::Text, int) const
vfunc[10]:	QAccessibleObject::setText(QAccessible::Text, int, QString const&)
vfunc[11]:	QAccessibleWidget::rect(int) const
vfunc[12]:	QAccessibleWidget::role(int) const
vfunc[13]:	QAccessibleWidget::state(int) const
vfunc[14]:	QAccessibleObject::userActionCount(int) const
vfunc[15]:	QAccessibleWidget::actionText(int, QAccessible::Text, int) const
vfunc[16]:	QAccessibleWidget::doAction(int, int, QList<QVariant> const&)

The Run Time Type Information for the QAccessibleWidget class is described by [Table 17-177](#)

Table 17-177. typeinfo for QAccessibleWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAccessibleWidget
basetype:	typeinfo for QAccessibleObject

17.5.6.7. Class data for QAccessibleFactoryInterface

The virtual table for the QAccessibleFactoryInterface class is described by [Table 17-178](#)

Table 17-178. Primary vtable for QAccessibleFactoryInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAccessibleFactoryInterface
vfunc[0]:	NULL or QAccessibleFactoryInterface::~~QAccessibleFactoryInterface()
vfunc[1]:	NULL or QAccessibleFactoryInterface::~~QAccessibleFactoryInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QAccessibleFactoryInterface class is described by [Table 17-179](#)

Table 17-179. typeinfo for QAccessibleFactoryInterface

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info

Name	typeinfo name for QAccessibleFactoryInterface	
flags:	0	
basetype:	typeinfo for QAccessible	2
basetype:	typeinfo for QFactoryInterface	2

17.5.6.8. Class data for QAccessiblePlugin

The virtual table for the QAccessiblePlugin class is described by [Table 17-180](#)

Table 17-180. Primary vtable for QAccessiblePlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAccessiblePlugin
vfunc[0]:	QAccessiblePlugin::metaObject() const
vfunc[1]:	QAccessiblePlugin::qt_metacast(char const*)
vfunc[2]:	QAccessiblePlugin::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAccessiblePlugin::~QAccessiblePlugin()
vfunc[4]:	QAccessiblePlugin::~QAccessiblePlugin()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual

The Run Time Type Information for the QAccessiblePlugin class is described by [Table 17-181](#)

Table 17-181. typeinfo for QAccessiblePlugin

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info
Name	typeinfo name for QAccessiblePlugin
flags:	0

basetype:	typeinfo for QObject	2
basetype:	typeinfo for QAccessibleFactoryInterface	2050

17.5.6.9. Interfaces for Qt4 Accessibility

An LSB conforming implementation shall provide the generic functions for Qt4 Accessibility specified in [Table 17-182](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-182. libQtGui - Qt4 Accessibility Function Interfaces

_ZN11QAccessible10initializeEv [QtGui]	_ZN11QAccessible13removeFactory
_ZN11QAccessible13setRootObjectEP7QObject [QtGui]	_ZN11QAccessible14installFactory
_ZN11QAccessible19updateAccessibilityEP7QObjectiNS_5EventE [QtGui]	_ZN11QAccessible20installUpdate
_ZN11QAccessible24installRootObjectHandlerEPFvP7QObjectE [QtGui]	_ZN11QAccessible24queryAccessib
_ZN11QAccessible7cleanupEv [QtGui]	_ZN11QAccessible8isActiveEv [Qt
_ZN17QAccessibleObject7setTextEN11QAccessible4TextEiRK7QString [QtGui]	_ZN17QAccessibleObject8doAction
_ZN17QAccessibleObjectC1EP7QObject [QtGui]	_ZN17QAccessibleObjectC2EP7QC
_ZN17QAccessibleObjectD0Ev [QtGui]	_ZN17QAccessibleObjectD1Ev [Qt
_ZN17QAccessibleObjectD2Ev [QtGui]	_ZN17QAccessiblePlugin11qt_met
_ZN17QAccessiblePlugin11qt_metacastEPKc [QtGui]	_ZN17QAccessiblePluginC1EP7QC
_ZN17QAccessiblePluginC2EP7QObject [QtGui]	_ZN17QAccessiblePluginD0Ev [Qt
_ZN17QAccessiblePluginD1Ev [QtGui]	_ZN17QAccessiblePluginD2Ev [Qt
_ZN17QAccessibleWidget14setAcceleratorERK7QString [QtGui]	_ZN17QAccessibleWidget14setDes
_ZN17QAccessibleWidget20addControllingSignalERK7QString [QtGui]	_ZN17QAccessibleWidget7setHelp
_ZN17QAccessibleWidget8doActionEiiRK5QListI8QVariantE [QtGui]	_ZN17QAccessibleWidget8setValu
_ZN17QAccessibleWidgetC1EP7QWidgetN11QAccessible4RoleERK7QString [QtGui]	_ZN17QAccessibleWidgetC2EP7Q
_ZN17QAccessibleWidgetD0Ev [QtGui]	_ZN17QAccessibleWidgetD1Ev [Q
_ZN17QAccessibleWidgetD2Ev [QtGui]	_ZN20QAccessibleInterface12invol [QtXml]
_ZN22QAccessibleApplication8doActionEiiRK5QListI8QVariantE [QtGui]	_ZN22QAccessibleApplicationC1E
_ZN22QAccessibleApplicationC2Ev [QtGui]	_ZN23QAccessibleBridgePlugin11
_ZN23QAccessibleBridgePlugin11qt_metacastEPKc [QtGui]	_ZN23QAccessibleBridgePluginC1
_ZN23QAccessibleBridgePluginC2EP7QObject [QtGui]	_ZN23QAccessibleBridgePluginD0
_ZN23QAccessibleBridgePluginD1Ev [QtGui]	_ZN23QAccessibleBridgePluginD2

_ZNK17QAccessibleObject10actionTextEiN11QAccessible4TextEi [QtGui]	_ZNK17QAccessibleObject15userA
_ZNK17QAccessibleObject4rectEi [QtGui]	_ZNK17QAccessibleObject6objectI
_ZNK17QAccessibleObject7isValidEv [QtGui]	_ZNK17QAccessiblePlugin10metaO
_ZNK17QAccessibleWidget10actionTextEiN11QAccessible4TextEi [QtGui]	_ZNK17QAccessibleWidget10child
_ZNK17QAccessibleWidget10relationToEiPK20QAccessibleInterfacei [QtGui]	_ZNK17QAccessibleWidget12index
_ZNK17QAccessibleWidget12parentObjectEv [QtGui]	_ZNK17QAccessibleWidget4rectEi
_ZNK17QAccessibleWidget4roleEi [QtGui]	_ZNK17QAccessibleWidget4textEi
_ZNK17QAccessibleWidget5stateEi [QtGui]	_ZNK17QAccessibleWidget6widg
_ZNK17QAccessibleWidget7childAtEii [QtGui]	_ZNK17QAccessibleWidget8navig [QtGui]
_ZNK22QAccessibleApplication10actionTextEiN11QAccessible4TextEi [QtGui]	_ZNK22QAccessibleApplication10
_ZNK22QAccessibleApplication10relationToEiPK20QAccessibleInterfacei [QtGui]	_ZNK22QAccessibleApplication12
_ZNK22QAccessibleApplication15userActionCountEi [QtGui]	_ZNK22QAccessibleApplication4ro
_ZNK22QAccessibleApplication4textEN11QAccessible4TextEi [QtGui]	_ZNK22QAccessibleApplication5st
_ZNK22QAccessibleApplication7childAtEii [QtGui]	_ZNK22QAccessibleApplication8n [QtGui]
_ZNK23QAccessibleBridgePlugin10metaObjectEv [QtGui]	

17.5.7. Qt4 Validators

17.5.7.1. Class data for QValidator

The virtual table for the QValidator class is described by [Table 17-183](#)

Table 17-183. Primary vtable for QValidator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QValidator
vfunc[0]:	QValidator::metaObject() const
vfunc[1]:	QValidator::qt_metacast(char const*)
vfunc[2]:	QValidator::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QValidator::~~QValidator()
vfunc[4]:	QValidator::~~QValidator()

vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	QValidator::fixup(QString&) const

The Run Time Type Information for the QValidator class is described by [Table 17-184](#)

Table 17-184. typeinfo for QValidator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QValidator
basetype:	typeinfo for QObject

17.5.7.2. Class data for QIntValidator

The virtual table for the QIntValidator class is described by [Table 17-185](#)

Table 17-185. Primary vtable for QIntValidator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIntValidator
vfunc[0]:	QIntValidator::metaObject() const
vfunc[1]:	QIntValidator::qt_metacast(char const*)
vfunc[2]:	QIntValidator::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QIntValidator::~~QIntValidator()
vfunc[4]:	QIntValidator::~~QIntValidator()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)

vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QIntValidator::validate(QString&, int&) const
vfunc[13]:	QValidator::fixup(QString&) const
vfunc[14]:	QIntValidator::setRange(int, int)

The Run Time Type Information for the QIntValidator class is described by [Table 17-186](#)

Table 17-186. typeinfo for QIntValidator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIntValidator
basetype:	typeinfo for QValidator

17.5.7.3. Class data for QDoubleValidator

The virtual table for the QDoubleValidator class is described by [Table 17-187](#)

Table 17-187. Primary vtable for QDoubleValidator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDoubleValidator
vfunc[0]:	QDoubleValidator::metaObject() const
vfunc[1]:	QDoubleValidator::qt_metacast(char const*)
vfunc[2]:	QDoubleValidator::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QDoubleValidator::~~QDoubleValidator()
vfunc[4]:	QDoubleValidator::~~QDoubleValidator()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

vfunc[12]:	QDoubleValidator::validate(QString&, int&) const
vfunc[13]:	QValidator::fixup(QString&) const
vfunc[14]:	QDoubleValidator::setRange(double, double, int)

The Run Time Type Information for the QDoubleValidator class is described by [Table 17-188](#)

Table 17-188. typeinfo for QDoubleValidator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDoubleValidator
basetype:	typeinfo for QValidator

17.5.7.4. Class data for QRegExpValidator

The virtual table for the QRegExpValidator class is described by [Table 17-189](#)

Table 17-189. Primary vtable for QRegExpValidator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QRegExpValidator
vfunc[0]:	QRegExpValidator::metaObject() const
vfunc[1]:	QRegExpValidator::qt_metacast(char const*)
vfunc[2]:	QRegExpValidator::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QRegExpValidator::~~QRegExpValidator()
vfunc[4]:	QRegExpValidator::~~QRegExpValidator()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QRegExpValidator::validate(QString&, int&) const
vfunc[13]:	QValidator::fixup(QString&) const

The Run Time Type Information for the QRegExpValidator class is described by [Table 17-190](#)

Table 17-190. typeinfo for QRegExpValidator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QRegExpValidator
basetype:	typeinfo for QValidator

17.5.7.5. Interfaces for Qt4 Validators

An LSB conforming implementation shall provide the generic functions for Qt4 Validators specified in [Table 17-191](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-191. libQtGui - Qt4 Validators Function Interfaces

_ZN10QValidator11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN10QValidator11qt_metacastEPKc [QtGui]
_ZN10QValidatorC1EP7QObject [QtGui]	_ZN10QValidatorC1EP7QObjectPKc [QtGui]
_ZN10QValidatorC2EP7QObject [QtGui]	_ZN10QValidatorC2EP7QObjectPKc [QtGui]
_ZN10QValidatorD0Ev [QtGui]	_ZN10QValidatorD1Ev [QtGui]
_ZN10QValidatorD2Ev [QtGui]	_ZN13QIntValidator11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN13QIntValidator11qt_metacastEPKc [QtGui]	_ZN13QIntValidator6setTopEi [QtGui]
_ZN13QIntValidator8setRangeEii [QtGui]	_ZN13QIntValidator9setBottomEi [QtGui]
_ZN13QIntValidatorC1EP7QObject [QtGui]	_ZN13QIntValidatorC1EP7QObjectPKc [QtGui]
_ZN13QIntValidatorC1EiiP7QObject [QtGui]	_ZN13QIntValidatorC1EiiP7QObjectPKc [QtGui]
_ZN13QIntValidatorC2EP7QObject [QtGui]	_ZN13QIntValidatorC2EP7QObjectPKc [QtGui]
_ZN13QIntValidatorC2EiiP7QObject [QtGui]	_ZN13QIntValidatorC2EiiP7QObjectPKc [QtGui]
_ZN13QIntValidatorD0Ev [QtGui]	_ZN13QIntValidatorD1Ev [QtGui]
_ZN13QIntValidatorD2Ev [QtGui]	_ZN16QDoubleValidator11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN16QDoubleValidator11qt_metacastEPKc [QtGui]	_ZN16QDoubleValidator11setDecimalsEi [QtGui]
_ZN16QDoubleValidator6setTopEd [QtGui]	_ZN16QDoubleValidator8setRangeEddi [QtGui]
_ZN16QDoubleValidator9setBottomEd [QtGui]	_ZN16QDoubleValidatorC1EP7QObject [QtGui]
_ZN16QDoubleValidatorC1EP7QObjectPKc [QtGui]	_ZN16QDoubleValidatorC1EddiP7QObject [QtGui]
_ZN16QDoubleValidatorC1EddiP7QObjectPKc [QtGui]	_ZN16QDoubleValidatorC2EP7QObject [QtGui]
_ZN16QDoubleValidatorC2EP7QObjectPKc [QtGui]	_ZN16QDoubleValidatorC2EddiP7QObject [QtGui]
_ZN16QDoubleValidatorC2EddiP7QObjectPKc [QtGui]	_ZN16QDoubleValidatorD0Ev [QtGui]
_ZN16QDoubleValidatorD1Ev [QtGui]	_ZN16QDoubleValidatorD2Ev [QtGui]

_ZN16QRegExpValidator11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN16QRegExpValidator11qt_metacastEPKc [QtGui]
_ZN16QRegExpValidator9setRegExpERK7QRegExp [QtGui]	_ZN16QRegExpValidatorC1EP7QObject [QtGui]
_ZN16QRegExpValidatorC1EP7QObjectPKc [QtGui]	_ZN16QRegExpValidatorC1ERK7QRegExp [QtGui]
_ZN16QRegExpValidatorC1ERK7QRegExpP7QObjectPKc [QtGui]	_ZN16QRegExpValidatorC2EP7QObject [QtGui]
_ZN16QRegExpValidatorC2EP7QObjectPKc [QtGui]	_ZN16QRegExpValidatorC2ERK7QRegExp [QtGui]
_ZN16QRegExpValidatorC2ERK7QRegExpP7QObjectPKc [QtGui]	_ZN16QRegExpValidatorD0Ev [QtGui]
_ZN16QRegExpValidatorD1Ev [QtGui]	_ZN16QRegExpValidatorD2Ev [QtGui]
_ZNK10QValidator10metaObjectEv [QtGui]	_ZNK10QValidator5fixupER7QString [QtGui]
_ZNK13QIntValidator10metaObjectEv [QtGui]	_ZNK13QIntValidator8validateER7QString [QtGui]
_ZNK16QDoubleValidator10metaObjectEv [QtGui]	_ZNK16QDoubleValidator8validateER7QString [QtGui]
_ZNK16QRegExpValidator10metaObjectEv [QtGui]	_ZNK16QRegExpValidator8validateER7QString [QtGui]

17.5.8. Qt4 Plugins

17.5.8.1. Class data for QImageIOPlugin

The virtual table for the QImageIOPlugin class is described by [Table 17-192](#)

Table 17-192. Primary vtable for QImageIOPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QImageIOPlugin
vfunc[0]:	QImageIOPlugin::metaObject() const
vfunc[1]:	QImageIOPlugin::qt_metacast(char const*)
vfunc[2]:	QImageIOPlugin::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QImageIOPlugin::~~QImageIOPlugin()
vfunc[4]:	QImageIOPlugin::~~QImageIOPlugin()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)

vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual

The Run Time Type Information for the QImageIOPlugin class is described by [Table 17-193](#)

Table 17-193. typeinfo for QImageIOPlugin

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QImageIOPlugin	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QImageIOHandlerFactoryInterface	2050

17.5.8.2. Class data for QIconEnginePlugin

The virtual table for the QIconEnginePlugin class is described by [Table 17-194](#)

Table 17-194. Primary vtable for QIconEnginePlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIconEnginePlugin
vfunc[0]:	QIconEnginePlugin::metaObject() const
vfunc[1]:	QIconEnginePlugin::qt_metacast(char const*)
vfunc[2]:	QIconEnginePlugin::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QIconEnginePlugin::~~QIconEnginePlugin()
vfunc[4]:	QIconEnginePlugin::~~QIconEnginePlugin()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual

The Run Time Type Information for the QIconEnginePlugin class is described by [Table 17-195](#)

Table 17-195. typeinfo for QIconEnginePlugin

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QIconEnginePlugin	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QIconEngineFactoryInterface	2050

17.5.8.3. Class data for QPictureFormatPlugin

The virtual table for the QPictureFormatPlugin class is described by [Table 17-196](#)

Table 17-196. Primary vtable for QPictureFormatPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPictureFormatPlugin
vfunc[0]:	QPictureFormatPlugin::metaObject() const
vfunc[1]:	QPictureFormatPlugin::qt_metacast(char const*)
vfunc[2]:	QPictureFormatPlugin::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QPictureFormatPlugin::~~QPictureFormatPlugin()
vfunc[4]:	QPictureFormatPlugin::~~QPictureFormatPlugin()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	QPictureFormatPlugin::loadPicture(QString const&, QString const&, QPicture*)

vfunc[14]:	QPictureFormatPlugin::savePicture(QString const&, QString const&, QPicture const&)
vfunc[15]:	__cxa_pure_virtual

The Run Time Type Information for the QPictureFormatPlugin class is described by [Table 17-197](#)

Table 17-197. typeinfo for QPictureFormatPlugin

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QPictureFormatPlugin	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QPictureFormatInterface	2050

17.5.8.4. Class data for QStylePlugin

The virtual table for the QStylePlugin class is described by [Table 17-198](#)

Table 17-198. Primary vtable for QStylePlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStylePlugin
vfunc[0]:	QStylePlugin::metaObject() const
vfunc[1]:	QStylePlugin::qt_metacast(char const*)
vfunc[2]:	QStylePlugin::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QStylePlugin::~~QStylePlugin()
vfunc[4]:	QStylePlugin::~~QStylePlugin()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual

The Run Time Type Information for the QStylePlugin class is described by [Table 17-199](#)

Table 17-199. typeinfo for QStylePlugin

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QStylePlugin	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QStyleFactoryInterface	2050

17.5.8.5. Class data for QInputContextPlugin

The virtual table for the QInputContextPlugin class is described by [Table 17-200](#)

Table 17-200. Primary vtable for QInputContextPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QInputContextPlugin
vfunc[0]:	QInputContextPlugin::metaObject() const
vfunc[1]:	QInputContextPlugin::qt_metacast(char const*)
vfunc[2]:	QInputContextPlugin::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QInputContextPlugin::~QInputContextPlugin()
vfunc[4]:	QInputContextPlugin::~~QInputContextPlugin()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual

vfunc[16]:	__cxa_pure_virtual

The Run Time Type Information for the `QInputContextPlugin` class is described by [Table 17-201](#)

Table 17-201. typeinfo for `QInputContextPlugin`

Base Vtable	vtable for <code>__cxxabiv1::__vmi_class_type_info</code>	
Name	typeinfo name for <code>QInputContextPlugin</code>	
flags:	0	
basetype:	typeinfo for <code>QObject</code>	2
basetype:	typeinfo for <code>QInputContextFactoryInterface</code>	2050

17.5.8.6. Interfaces for Qt4 Plugins

An LSB conforming implementation shall provide the generic functions for Qt4 Plugins specified in [Table 17-202](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-202. `libQtGui` - Qt4 Plugins Function Interfaces

<code>_ZN12QStylePlugin11qt_metacallEN11QMetaObject4CallEiPPv</code> [QtGui]	<code>_ZN12QStylePlugin11qt_metacastEPKc</code> [QtGui]
<code>_ZN12QStylePluginC1EP7QObject</code> [QtGui]	<code>_ZN12QStylePluginC2EP7QObject</code> [QtGui]
<code>_ZN12QStylePluginD0Ev</code> [QtGui]	<code>_ZN12QStylePluginD1Ev</code> [QtGui]
<code>_ZN12QStylePluginD2Ev</code> [QtGui]	<code>_ZN14QImageIOPlugin11qt_metacallEN11QMetaObject4CallEiPPv</code> [QtGui]
<code>_ZN14QImageIOPlugin11qt_metacastEPKc</code> [QtGui]	<code>_ZN14QImageIOPluginC1EP7QObject</code> [QtGui]
<code>_ZN14QImageIOPluginC2EP7QObject</code> [QtGui]	<code>_ZN14QImageIOPluginD0Ev</code> [QtGui]
<code>_ZN14QImageIOPluginD1Ev</code> [QtGui]	<code>_ZN14QImageIOPluginD2Ev</code> [QtGui]
<code>_ZN17QIconEnginePlugin11qt_metacallEN11QMetaObject4CallEiPPv</code> [QtGui]	<code>_ZN17QIconEnginePlugin11qt_metacastEPKc</code> [QtGui]
<code>_ZN17QIconEnginePluginC1EP7QObject</code> [QtGui]	<code>_ZN17QIconEnginePluginC2EP7QObject</code> [QtGui]
<code>_ZN17QIconEnginePluginD0Ev</code> [QtGui]	<code>_ZN17QIconEnginePluginD1Ev</code> [QtGui]
<code>_ZN17QIconEnginePluginD2Ev</code> [QtGui]	<code>_ZN19QInputContextPlugin11qt_metacallEN11QMetaObject4CallEiPPv</code> [QtGui]
<code>_ZN19QInputContextPlugin11qt_metacastEPKc</code> [QtGui]	<code>_ZN19QInputContextPluginC1EP7QObject</code> [QtGui]
<code>_ZN19QInputContextPluginC2EP7QObject</code> [QtGui]	<code>_ZN19QInputContextPluginD0Ev</code> [QtGui]
<code>_ZN19QInputContextPluginD1Ev</code> [QtGui]	<code>_ZN19QInputContextPluginD2Ev</code> [QtGui]

_ZN20QPictureFormatPlugin11loadPictureERK7QStringS2_P8QPicture [QtGui]	_ZN20QPictureFormatPlugin11qt_metacall [QtGui]
_ZN20QPictureFormatPlugin11qt_metacastEPKc [QtGui]	_ZN20QPictureFormatPlugin11savePicture [QtGui]
_ZN20QPictureFormatPluginC1EP7QObject [QtGui]	_ZN20QPictureFormatPluginC2EP7QObject [QtGui]
_ZN20QPictureFormatPluginD0Ev [QtGui]	_ZN20QPictureFormatPluginD1Ev [QtGui]
_ZN20QPictureFormatPluginD2Ev [QtGui]	_ZNK12QStylePlugin10metaObjectEv [QtGui]
_ZNK14QImageIOPlugin10metaObjectEv [QtGui]	_ZNK17QIconEnginePlugin10metaObjectEv [QtGui]
_ZNK19QInputContextPlugin10metaObjectEv [QtGui]	_ZNK20QPictureFormatPlugin10metaObjectEv [QtGui]

17.5.9. Qt4 Models and Views

17.5.9.1. Class data for QAbstractTextDocumentLayout

The virtual table for the QAbstractTextDocumentLayout class is described by [Table 17-203](#)

Table 17-203. Primary vtable for QAbstractTextDocumentLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractTextDocumentLayout
vfunc[0]:	QAbstractTextDocumentLayout::metaObject() const
vfunc[1]:	QAbstractTextDocumentLayout::qt_metacast(char const*)
vfunc[2]:	QAbstractTextDocumentLayout::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractTextDocumentLayout::~QAbstractTextDocumentLayout()
vfunc[4]:	QAbstractTextDocumentLayout::~QAbstractTextDocumentLayout()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual

vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	__cxa_pure_virtual
vfunc[17]:	__cxa_pure_virtual
vfunc[18]:	__cxa_pure_virtual
vfunc[19]:	QAbstractTextDocumentLayout::resizeInlineObject(QTextInlineObject, int, QTextFormat const&)
vfunc[20]:	QAbstractTextDocumentLayout::positionInlineObject(QTextInlineObject, int, QTextFormat const&)
vfunc[21]:	QAbstractTextDocumentLayout::drawInlineObject(QPainter*, QRectF const&, QTextInlineObject, int, QTextFormat const&)

The Run Time Type Information for the QAbstractTextDocumentLayout class is described by [Table 17-204](#)

Table 17-204. typeinfo for QAbstractTextDocumentLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractTextDocumentLayout
basetype:	typeinfo for QObject

17.5.9.2. Class data for QAbstractPageSetupDialog

The virtual table for the QAbstractPageSetupDialog class is described by [Table 17-205](#)

Table 17-205. Primary vtable for QAbstractPageSetupDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractPageSetupDialog
vfunc[0]:	QDialog::metaObject() const
vfunc[1]:	QDialog::qt_metacast(char const*)
vfunc[2]:	QDialog::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QAbstractPageSetupDialog::~~QAbstractPageSetupDialog()
vfunc[4]:	NULL or QAbstractPageSetupDialog::~~QAbstractPageSetupDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)

vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)

vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()
vfunc[57]:	__cxa_pure_virtual

The Run Time Type Information for the QAbstractPageSetupDialog class is described by [Table 17-206](#)

Table 17-206. typeinfo for QAbstractPageSetupDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractPageSetupDialog
basetype:	typeinfo for QDialog

17.5.9.3. Class data for QAbstractPrintDialog

The virtual table for the QAbstractPrintDialog class is described by [Table 17-207](#)

Table 17-207. Primary vtable for QAbstractPrintDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractPrintDialog
vfunc[0]:	QDialog::metaObject() const

vfunc[1]:	QDialog::qt_metacast(char const*)
vfunc[2]:	QDialog::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QAbstractPrintDialog::~QAbstractPrintDialog()
vfunc[4]:	NULL or QAbstractPrintDialog::~QAbstractPrintDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)

vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()
vfunc[57]:	__cxa_pure_virtual

The Run Time Type Information for the QAbstractPrintDialog class is described by [Table 17-208](#)

Table 17-208. typeid for QAbstractPrintDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QAbstractPrintDialog
basetype:	typeid for QDialog

17.5.9.4. Class data for QItemSelectionModel

The virtual table for the QItemSelectionModel class is described by [Table 17-209](#)

Table 17-209. Primary vtable for QItemSelectionModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QItemSelectionModel
vfunc[0]:	QItemSelectionModel::metaObject() const
vfunc[1]:	QItemSelectionModel::qt_metacast(char const*)
vfunc[2]:	QItemSelectionModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QItemSelectionModel::~QItemSelectionModel()
vfunc[4]:	QItemSelectionModel::~QItemSelectionModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QItemSelectionModel::select(QModelIndex const&, QFlags<QItemSelectionModel::SelectionFlag>)
vfunc[13]:	QItemSelectionModel::select(QItemSelection const&, QFlags<QItemSelectionModel::SelectionFlag>)
vfunc[14]:	QItemSelectionModel::clear()
vfunc[15]:	QItemSelectionModel::reset()

The Run Time Type Information for the QItemSelectionModel class is described by [Table 17-210](#)

Table 17-210. typeinfo for QItemSelectionModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QItemSelectionModel
basetype:	typeinfo for QObject

17.5.9.5. Class data for QAbstractScrollArea

The virtual table for the QAbstractScrollArea class is described by [Table 17-211](#)

Table 17-211. Primary vtable for QAbstractScrollArea

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractScrollArea
vfunc[0]:	QAbstractScrollArea::metaObject() const
vfunc[1]:	QAbstractScrollArea::qt_metacast(char const*)
vfunc[2]:	QAbstractScrollArea::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractScrollArea::~QAbstractScrollArea()
vfunc[4]:	QAbstractScrollArea::~QAbstractScrollArea()
vfunc[5]:	QAbstractScrollArea::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractScrollArea::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractScrollArea::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QAbstractScrollArea::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractScrollArea::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractScrollArea::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)

vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QAbstractScrollArea::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractScrollArea::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractScrollArea::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QAbstractScrollArea::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QAbstractScrollArea::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QAbstractScrollArea::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractScrollArea::viewportEvent(QEvent*)
vfunc[55]:	QAbstractScrollArea::scrollContentsBy(int, int)

The Run Time Type Information for the QAbstractScrollArea class is described by [Table 17-212](#)

Table 17-212. typeinfo for QAbstractScrollArea

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractScrollArea
basetype:	typeinfo for QFrame

17.5.9.6. Class data for QAbstractSpinBox

The virtual table for the QAbstractSpinBox class is described by [Table 17-213](#)

Table 17-213. Primary vtable for QAbstractSpinBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractSpinBox
vfunc[0]:	QAbstractSpinBox::metaObject() const
vfunc[1]:	QAbstractSpinBox::qt_metacast(char const*)
vfunc[2]:	QAbstractSpinBox::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractSpinBox::~~QAbstractSpinBox()
vfunc[4]:	QAbstractSpinBox::~~QAbstractSpinBox()
vfunc[5]:	QAbstractSpinBox::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSpinBox::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractSpinBox::sizeHint() const
vfunc[15]:	QAbstractSpinBox::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractSpinBox::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractSpinBox::mouseReleaseEvent(QMouseEvent*)

vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractSpinBox::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractSpinBox::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractSpinBox::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractSpinBox::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractSpinBox::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractSpinBox::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QAbstractSpinBox::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractSpinBox::resizeEvent(QResizeEvent*)
vfunc[32]:	QAbstractSpinBox::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractSpinBox::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QAbstractSpinBox::showEvent(QShowEvent*)
vfunc[41]:	QAbstractSpinBox::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSpinBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)

vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractSpinBox::validate(QString&, int&) const
vfunc[55]:	QAbstractSpinBox::fixup(QString&) const
vfunc[56]:	QAbstractSpinBox::stepBy(int)
vfunc[57]:	QAbstractSpinBox::clear()
vfunc[58]:	QAbstractSpinBox::stepEnabled() const

The Run Time Type Information for the QAbstractSpinBox class is described by [Table 17-214](#)

Table 17-214. typeinfo for QAbstractSpinBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractSpinBox
basetype:	typeinfo for QWidget

17.5.9.7. Class data for QAbstractSlider

The virtual table for the QAbstractSlider class is described by [Table 17-215](#)

Table 17-215. Primary vtable for QAbstractSlider

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractSlider
vfunc[0]:	QAbstractSlider::metaObject() const
vfunc[1]:	QAbstractSlider::qt_metacast(char const*)
vfunc[2]:	QAbstractSlider::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractSlider::~~QAbstractSlider()
vfunc[4]:	QAbstractSlider::~~QAbstractSlider()
vfunc[5]:	QAbstractSlider::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSlider::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractSlider::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractSlider::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSlider::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const

vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractSlider::sliderChange(QAbstractSlider::SliderChange)

The Run Time Type Information for the QAbstractSlider class is described by [Table 17-216](#)

Table 17-216. typeinfo for QAbstractSlider

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractSlider
basetype:	typeinfo for QWidget

17.5.9.8. Class data for QAbstractItemDelegate

The virtual table for the QAbstractItemDelegate class is described by [Table 17-217](#)

Table 17-217. Primary vtable for QAbstractItemDelegate

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractItemDelegate
vfunc[0]:	QAbstractItemDelegate::metaObject() const
vfunc[1]:	QAbstractItemDelegate::qt_metacast(char const*)
vfunc[2]:	QAbstractItemDelegate::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractItemDelegate::~QAbstractItemDelegate()
vfunc[4]:	QAbstractItemDelegate::~QAbstractItemDelegate()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)

vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	QAbstractItemDelegate::createEditor(QWidget*, QStyleOptionViewItem const&, QModelIndex const&) const
vfunc[15]:	QAbstractItemDelegate::setEditorData(QWidget*, QModelIndex const&) const
vfunc[16]:	QAbstractItemDelegate::setModelData(QWidget*, QAbstractItemModel*, QModelIndex const&) const
vfunc[17]:	QAbstractItemDelegate::updateEditorGeometry(QWidget*, QStyleOptionViewItem const&, QModelIndex const&) const
vfunc[18]:	QAbstractItemDelegate::editorEvent(QEvent*, QAbstractItemModel*, QStyleOptionViewItem const&, QModelIndex const&)

The Run Time Type Information for the QAbstractItemDelegate class is described by [Table 17-218](#)

Table 17-218. typeinfo for QAbstractItemDelegate

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractItemDelegate
basetype:	typeinfo for QObject

17.5.9.9. Class data for QAbstractItemView

The virtual table for the QAbstractItemView class is described by [Table 17-219](#)

Table 17-219. Primary vtable for QAbstractItemView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractItemView
vfunc[0]:	QAbstractItemView::metaObject() const
vfunc[1]:	QAbstractItemView::qt_metacast(char const*)
vfunc[2]:	QAbstractItemView::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractItemView::~QAbstractItemView()

vfunc[4]:	QAbstractItemView::~QAbstractItemView()
vfunc[5]:	QAbstractItemView::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractItemView::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractItemView::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractItemView::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QAbstractItemView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractItemView::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractItemView::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractItemView::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractItemView::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QAbstractScrollArea::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractItemView::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractItemView::dragEnterEvent(QDragEnterEvent*)

vfunc[37]:	QAbstractItemView::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QAbstractItemView::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QAbstractItemView::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractItemView::viewportEvent(QEvent*)
vfunc[55]:	QAbstractScrollArea::scrollContentsBy(int, int)
vfunc[56]:	QAbstractItemView::setModel(QAbstractItemModel*)
vfunc[57]:	QAbstractItemView::setSelectionModel(QItemSelectionModel*)
vfunc[58]:	QAbstractItemView::keyboardSearch(QString const&)
vfunc[59]:	__cxa_pure_virtual
vfunc[60]:	__cxa_pure_virtual
vfunc[61]:	__cxa_pure_virtual
vfunc[62]:	QAbstractItemView::sizeHintForRow(int) const
vfunc[63]:	QAbstractItemView::sizeHintForColumn(int) const
vfunc[64]:	QAbstractItemView::reset()
vfunc[65]:	QAbstractItemView::setRootIndex(QModelIndex const&)
vfunc[66]:	QAbstractItemView::doItemsLayout()
vfunc[67]:	QAbstractItemView::selectAll()
vfunc[68]:	QAbstractItemView::dataChanged(QModelIndex const&, QModelIndex const&)
vfunc[69]:	QAbstractItemView::rowsInserted(QModelIndex const&, int, int)

vfunc[70]:	QAbstractItemView::rowsAboutToBeRemoved(QModelIndex const&, int, int)
vfunc[71]:	QAbstractItemView::selectionChanged(QItemSelection const&, QItemSelection const&)
vfunc[72]:	QAbstractItemView::currentChanged(QModelIndex const&, QModelIndex const&)
vfunc[73]:	QAbstractItemView::updateEditorData()
vfunc[74]:	QAbstractItemView::updateEditorGeometries()
vfunc[75]:	QAbstractItemView::updateGeometries()
vfunc[76]:	QAbstractItemView::verticalScrollbarAction(int)
vfunc[77]:	QAbstractItemView::horizontalScrollbarAction(int)
vfunc[78]:	QAbstractItemView::verticalScrollbarValueChanged(int)
vfunc[79]:	QAbstractItemView::horizontalScrollbarValueChanged(int)
vfunc[80]:	QAbstractItemView::closeEditor(QWidget*, QAbstractItemDelegate::EndEditHint)
vfunc[81]:	QAbstractItemView::commitData(QWidget*)
vfunc[82]:	QAbstractItemView::editorDestroyed(QObject*)
vfunc[83]:	__cxa_pure_virtual
vfunc[84]:	__cxa_pure_virtual
vfunc[85]:	__cxa_pure_virtual
vfunc[86]:	__cxa_pure_virtual
vfunc[87]:	__cxa_pure_virtual
vfunc[88]:	__cxa_pure_virtual
vfunc[89]:	QAbstractItemView::selectedIndexes() const
vfunc[90]:	QAbstractItemView::edit(QModelIndex const&, QAbstractItemView::EditTrigger, QEvent*)
vfunc[91]:	QAbstractItemView::selectionCommand(QModelIndex const&, QEvent const*) const
vfunc[92]:	QAbstractItemView::startDrag(QFlags<Qt::DropAction>)
vfunc[93]:	QAbstractItemView::viewOptions() const

The Run Time Type Information for the QAbstractItemView class is described by [Table 17-220](#)

Table 17-220. typeid for QAbstractItemView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QAbstractItemView
basetype:	typeid for QAbstractScrollArea

17.5.9.10. Class data for QStringListModel

The virtual table for the QStringListModel class is described by [Table 17-221](#)

Table 17-221. Primary vtable for QStringListModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStringListModel
vfunc[0]:	QStringListModel::metaObject() const
vfunc[1]:	QStringListModel::qt_metacast(char const*)
vfunc[2]:	QStringListModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QStringListModel::~~QStringListModel()
vfunc[4]:	NULL or QStringListModel::~~QStringListModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QAbstractListModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QAbstractListModel::parent(QModelIndex const&) const
vfunc[14]:	QStringListModel::rowCount(QModelIndex const&) const
vfunc[15]:	QAbstractListModel::columnCount(QModelIndex const&) const
vfunc[16]:	QAbstractListModel::hasChildren(QModelIndex const&) const
vfunc[17]:	QStringListModel::data(QModelIndex const&, int) const
vfunc[18]:	QStringListModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QAbstractItemModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QAbstractItemModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QAbstractItemModel::mimeData(QList<QModelIndex> const&) const

vfunc[25]:	QAbstractListModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QStringListModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QAbstractItemModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QStringListModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QAbstractItemModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QAbstractItemModel::fetchMore(QModelIndex const&)
vfunc[32]:	QAbstractItemModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QStringListModel::flags(QModelIndex const&) const
vfunc[34]:	QStringListModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QAbstractItemModel::submit()
vfunc[39]:	QAbstractItemModel::revert()

The Run Time Type Information for the QStringListModel class is described by [Table 17-222](#)

Table 17-222. typeinfo for QStringListModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStringListModel
basetype:	typeinfo for QAbstractListModel

17.5.9.11. Class data for QDirModel

The virtual table for the QDirModel class is described by [Table 17-223](#)

Table 17-223. Primary vtable for QDirModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDirModel
vfunc[0]:	QDirModel::metaObject() const

vfunc[1]:	QDirModel::qt_metacast(char const*)
vfunc[2]:	QDirModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QDirModel::~~QDirModel()
vfunc[4]:	QDirModel::~~QDirModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QDirModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QDirModel::parent(QModelIndex const&) const
vfunc[14]:	QDirModel::rowCount(QModelIndex const&) const
vfunc[15]:	QDirModel::columnCount(QModelIndex const&) const
vfunc[16]:	QDirModel::hasChildren(QModelIndex const&) const
vfunc[17]:	QDirModel::data(QModelIndex const&, int) const
vfunc[18]:	QDirModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QDirModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QAbstractItemModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QDirModel::mimeTypes() const
vfunc[24]:	QDirModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QDirModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QDirModel::supportedDropActions() const
vfunc[27]:	QAbstractItemModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QAbstractItemModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QAbstractItemModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QAbstractItemModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QAbstractItemModel::fetchMore(QModelIndex const&)
vfunc[32]:	QAbstractItemModel::canFetchMore(QModelIndex const&) const

vfunc[33]:	QDirModel::flags(QModelIndex const&) const
vfunc[34]:	QDirModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QAbstractItemModel::submit()
vfunc[39]:	QAbstractItemModel::revert()

The Run Time Type Information for the QDirModel class is described by [Table 17-224](#)

Table 17-224. typeinfo for QDirModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDirModel
basetype:	typeinfo for QAbstractItemModel

17.5.9.12. Class data for QStandardItemModel

The virtual table for the QStandardItemModel class is described by [Table 17-225](#)

Table 17-225. Primary vtable for QStandardItemModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStandardItemModel
vfunc[0]:	QStandardItemModel::metaObject() const
vfunc[1]:	QStandardItemModel::qt_metacast(char const*)
vfunc[2]:	QStandardItemModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QStandardItemModel::~QStandardItemModel()
vfunc[4]:	QStandardItemModel::~QStandardItemModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)

vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QStandardItemModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QStandardItemModel::parent(QModelIndex const&) const
vfunc[14]:	QStandardItemModel::rowCount(QModelIndex const&) const
vfunc[15]:	QStandardItemModel::columnCount(QModelIndex const&) const
vfunc[16]:	QStandardItemModel::hasChildren(QModelIndex const&) const
vfunc[17]:	QStandardItemModel::data(QModelIndex const&, int) const
vfunc[18]:	QStandardItemModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QStandardItemModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QStandardItemModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QAbstractItemModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QAbstractItemModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QStandardItemModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QStandardItemModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QStandardItemModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QStandardItemModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QAbstractItemModel::fetchMore(QModelIndex const&)
vfunc[32]:	QAbstractItemModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QStandardItemModel::flags(QModelIndex const&) const
vfunc[34]:	QAbstractItemModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QAbstractItemModel::submit()
vfunc[39]:	QAbstractItemModel::revert()

The Run Time Type Information for the QStandardItemModel class is described by [Table 17-226](#)

Table 17-226. typeinfo for QStandardItemModel

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for QStandardItemModel
basetype:	typeinfo for QAbstractItemModel

17.5.9.13. Class data for QAbstractProxyModel

The virtual table for the QAbstractProxyModel class is described by [Table 17-227](#)

Table 17-227. Primary vtable for QAbstractProxyModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractProxyModel
vfunc[0]:	QAbstractProxyModel::metaObject() const
vfunc[1]:	QAbstractProxyModel::qt_metacast(char const*)
vfunc[2]:	QAbstractProxyModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractProxyModel::~QAbstractProxyModel()
vfunc[4]:	QAbstractProxyModel::~~QAbstractProxyModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	<code>__cxa_pure_virtual</code>
vfunc[13]:	<code>__cxa_pure_virtual</code>
vfunc[14]:	<code>__cxa_pure_virtual</code>
vfunc[15]:	<code>__cxa_pure_virtual</code>
vfunc[16]:	QAbstractItemModel::hasChildren(QModelIndex const&) const
vfunc[17]:	<code>__cxa_pure_virtual</code>
vfunc[18]:	QAbstractItemModel::setData(QModelIndex const&, QVariant const&, int)

vfunc[19]:	QAbstractItemModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QAbstractItemModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QAbstractItemModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QAbstractItemModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QAbstractItemModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QAbstractItemModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QAbstractItemModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QAbstractItemModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QAbstractItemModel::fetchMore(QModelIndex const&)
vfunc[32]:	QAbstractItemModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QAbstractItemModel::flags(QModelIndex const&) const
vfunc[34]:	QAbstractItemModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QAbstractProxyModel::submit()
vfunc[39]:	QAbstractProxyModel::revert()
vfunc[40]:	QAbstractProxyModel::setSourceModel(QAbstractItemModel*)
vfunc[41]:	__cxa_pure_virtual
vfunc[42]:	__cxa_pure_virtual
vfunc[43]:	QAbstractProxyModel::mapSelectionToSource(QItemSelection const&) const
vfunc[44]:	QAbstractProxyModel::mapSelectionFromSource(QItemSelection const&) const

The Run Time Type Information for the QAbstractProxyModel class is described by [Table 17-228](#)

Table 17-228. typeid for QAbstractProxyModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QAbstractProxyModel

basetype:	typeinfo for QAbstractItemModel

17.5.9.14. Class data for QSortFilterProxyModel

The virtual table for the QSortFilterProxyModel class is described by [Table 17-229](#)

Table 17-229. Primary vtable for QSortFilterProxyModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSortFilterProxyModel
vfunc[0]:	QSortFilterProxyModel::metaObject() const
vfunc[1]:	QSortFilterProxyModel::qt_metacast(char const*)
vfunc[2]:	QSortFilterProxyModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSortFilterProxyModel::~QSortFilterProxyModel()
vfunc[4]:	QSortFilterProxyModel::~QSortFilterProxyModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QSortFilterProxyModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QSortFilterProxyModel::parent(QModelIndex const&) const
vfunc[14]:	QSortFilterProxyModel::rowCount(QModelIndex const&) const
vfunc[15]:	QSortFilterProxyModel::columnCount(QModelIndex const&) const
vfunc[16]:	QSortFilterProxyModel::hasChildren(QModelIndex const&) const
vfunc[17]:	QSortFilterProxyModel::data(QModelIndex const&, int) const
vfunc[18]:	QSortFilterProxyModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QSortFilterProxyModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QSortFilterProxyModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)

vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QSortFilterProxyModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QSortFilterProxyModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QSortFilterProxyModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QSortFilterProxyModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QSortFilterProxyModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QSortFilterProxyModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QSortFilterProxyModel::fetchMore(QModelIndex const&)
vfunc[32]:	QSortFilterProxyModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QSortFilterProxyModel::flags(QModelIndex const&) const
vfunc[34]:	QSortFilterProxyModel::sort(int, Qt::SortOrder)
vfunc[35]:	QSortFilterProxyModel::buddy(QModelIndex const&) const
vfunc[36]:	QSortFilterProxyModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QSortFilterProxyModel::span(QModelIndex const&) const
vfunc[38]:	QAbstractProxyModel::submit()
vfunc[39]:	QAbstractProxyModel::revert()
vfunc[40]:	QSortFilterProxyModel::setSourceModel(QAbstractItemModel*)
vfunc[41]:	QSortFilterProxyModel::mapToSource(QModelIndex const&) const
vfunc[42]:	QSortFilterProxyModel::mapFromSource(QModelIndex const&) const
vfunc[43]:	QSortFilterProxyModel::mapSelectionToSource(QItemSelection const&) const
vfunc[44]:	QSortFilterProxyModel::mapSelectionFromSource(QItemSelection const&) const
vfunc[45]:	QSortFilterProxyModel::filterAcceptsRow(int, QModelIndex const&) const
vfunc[46]:	QSortFilterProxyModel::filterAcceptsColumn(int, QModelIndex const&) const
vfunc[47]:	QSortFilterProxyModel::lessThan(QModelIndex const&, QModelIndex const&) const

The Run Time Type Information for the QSortFilterProxyModel class is described by [Table 17-230](#)

Table 17-230. typeid for QSortFilterProxyModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QSortFilterProxyModel
basetype:	typeid for QAbstractProxyModel

17.5.9.15. Class data for QItemDelegate

The virtual table for the QItemDelegate class is described by [Table 17-231](#)

Table 17-231. Primary vtable for QItemDelegate

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QItemDelegate
vfunc[0]:	QItemDelegate::metaObject() const
vfunc[1]:	QItemDelegate::qt_metacast(char const*)
vfunc[2]:	QItemDelegate::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QItemDelegate::~~QItemDelegate()
vfunc[4]:	QItemDelegate::~~QItemDelegate()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QItemDelegate::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QItemDelegate::paint(QPainter*, QStyleOptionViewItem const&, QModelIndex const&) const
vfunc[13]:	QItemDelegate::sizeHint(QStyleOptionViewItem const&, QModelIndex const&) const
vfunc[14]:	QItemDelegate::createEditor(QWidget*, QStyleOptionViewItem const&, QModelIndex const&) const
vfunc[15]:	QItemDelegate::setEditorData(QWidget*, QModelIndex const&) const
vfunc[16]:	QItemDelegate::setModelData(QWidget*, QAbstractItemModel*, QModelIndex const&) const
vfunc[17]:	QItemDelegate::updateEditorGeometry(QWidget*, QStyleOptionViewItem const&, QModelIndex const&) const
vfunc[18]:	QItemDelegate::editorEvent(QEvent*, QAbstractItemModel*, QStyleOptionViewItem const&, QModelIndex const&)
vfunc[19]:	QItemDelegate::drawDisplay(QPainter*, QStyleOptionViewItem const&, QRect const&, QString const&) const

vfunc[20]:	QItemDelegate::drawDecoration(QPainter*, QStyleOptionViewItem const&, QRect const&, QPixmap const&) const
vfunc[21]:	QItemDelegate::drawFocus(QPainter*, QStyleOptionViewItem const&, QRect const&) const
vfunc[22]:	QItemDelegate::drawCheck(QPainter*, QStyleOptionViewItem const&, QRect const&, Qt::CheckState) const

The Run Time Type Information for the QItemDelegate class is described by [Table 17-232](#)

Table 17-232. typeinfo for QItemDelegate

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QItemDelegate
basetype:	typeinfo for QAbstractItemDelegate

17.5.9.16. Class data for QTableView

The virtual table for the QTableView class is described by [Table 17-233](#)

Table 17-233. Primary vtable for QTableView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTableView
vfunc[0]:	QTableView::metaObject() const
vfunc[1]:	QTableView::qt_metacast(char const*)
vfunc[2]:	QTableView::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTableView::~QTableView()
vfunc[4]:	QTableView::~QTableView()
vfunc[5]:	QAbstractItemView::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QTableView::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const

vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractItemView::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractItemView::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QAbstractItemView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractItemView::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractItemView::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractItemView::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractItemView::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QTableView::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractItemView::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractItemView::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QAbstractItemView::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QAbstractItemView::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QAbstractItemView::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)

vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractItemView::viewportEvent(QEvent*)
vfunc[55]:	QTableView::scrollContentsBy(int, int)
vfunc[56]:	QTableView::setModel(QAbstractItemModel*)
vfunc[57]:	QTableView::setSelectionModel(QItemSelectionModel*)
vfunc[58]:	QAbstractItemView::keyboardSearch(QString const&)
vfunc[59]:	QTableView::visualRect(QModelIndex const&) const
vfunc[60]:	QTableView::scrollTo(QModelIndex const&, QAbstractItemView::ScrollHint)
vfunc[61]:	QTableView::indexAt(QPoint const&) const
vfunc[62]:	QTableView::sizeHintForRow(int) const
vfunc[63]:	QTableView::sizeHintForColumn(int) const
vfunc[64]:	QAbstractItemView::reset()
vfunc[65]:	QTableView::setRootIndex(QModelIndex const&)
vfunc[66]:	QAbstractItemView::doItemsLayout()
vfunc[67]:	QAbstractItemView::selectAll()
vfunc[68]:	QAbstractItemView::dataChanged(QModelIndex const&, QModelIndex const&)
vfunc[69]:	QAbstractItemView::rowsInserted(QModelIndex const&, int, int)
vfunc[70]:	QAbstractItemView::rowsAboutToBeRemoved(QModelIndex const&, int, int)
vfunc[71]:	QAbstractItemView::selectionChanged(QItemSelection const&, QItemSelection const&)
vfunc[72]:	QAbstractItemView::currentChanged(QModelIndex const&, QModelIndex const&)
vfunc[73]:	QAbstractItemView::updateEditorData()
vfunc[74]:	QAbstractItemView::updateEditorGeometries()
vfunc[75]:	QTableView::updateGeometries()
vfunc[76]:	QTableView::verticalScrollbarAction(int)
vfunc[77]:	QTableView::horizontalScrollbarAction(int)
vfunc[78]:	QAbstractItemView::verticalScrollbarValueChanged(int)

vfunc[79]:	QAbstractItemView::horizontalScrollbarValueChanged(int)
vfunc[80]:	QAbstractItemView::closeEditor(QWidget*, QAbstractItemDelegate::EndEditHint)
vfunc[81]:	QAbstractItemView::commitData(QWidget*)
vfunc[82]:	QAbstractItemView::editorDestroyed(QObject*)
vfunc[83]:	QTableView::moveCursor(QAbstractItemView::CursorAction, QFlags<Qt::KeyboardModifier>)
vfunc[84]:	QTableView::horizontalOffset() const
vfunc[85]:	QTableView::verticalOffset() const
vfunc[86]:	QTableView::isIndexHidden(QModelIndex const&) const
vfunc[87]:	QTableView::setSelection(QRect const&, QFlags<QItemSelectionModel::SelectionFlag>)
vfunc[88]:	QTableView::visualRegionForSelection(QItemSelection const&) const
vfunc[89]:	QTableView::selectedIndexes() const
vfunc[90]:	QAbstractItemView::edit(QModelIndex const&, QAbstractItemView::EditTrigger, QEvent*)
vfunc[91]:	QAbstractItemView::selectionCommand(QModelIndex const&, QEvent const*) const
vfunc[92]:	QAbstractItemView::startDrag(QFlags<Qt::DropAction>)
vfunc[93]:	QTableView::viewOptions() const

The Run Time Type Information for the QTableView class is described by [Table 17-234](#)

Table 17-234. typeinfo for QTableView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTableView
basetype:	typeinfo for QAbstractItemView

17.5.9.17. Class data for QTableWidgetItem

The virtual table for the QTableWidgetItem class is described by [Table 17-235](#)

Table 17-235. Primary vtable for QTableWidgetItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTableWidgetItem
vfunc[0]:	QTableWidgetItem::~~QTableWidgetItem()

vfunc[1]:	QTableWidgetItem::~~QTableWidgetItem()
vfunc[2]:	QTableWidgetItem::clone() const
vfunc[3]:	QTableWidgetItem::data(int) const
vfunc[4]:	QTableWidgetItem::setData(int, QVariant const&)
vfunc[5]:	QTableWidgetItem::operator<(QTableWidgetItem const&) const
vfunc[6]:	QTableWidgetItem::read(QDataStream&)
vfunc[7]:	QTableWidgetItem::write(QDataStream&) const

The Run Time Type Information for the QTableWidgetItem class is described by [Table 17-236](#)

Table 17-236. typeid for QTableWidgetItem

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QTableWidgetItem

17.5.9.18. Class data for QTableWidgetItem

The virtual table for the QTableWidgetItem class is described by [Table 17-237](#)

Table 17-237. Primary vtable for QTableWidgetItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QTableWidgetItem
vfunc[0]:	QTableWidgetItem::metaObject() const
vfunc[1]:	QTableWidgetItem::qt_metacast(char const*)
vfunc[2]:	QTableWidgetItem::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTableWidgetItem::~~QTableWidgetItem()
vfunc[4]:	QTableWidgetItem::~~QTableWidgetItem()
vfunc[5]:	QTableWidgetItem::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QTableView::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractItemView::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractItemView::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QAbstractItemView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractItemView::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractItemView::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractItemView::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractItemView::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QTableView::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractItemView::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractItemView::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QAbstractItemView::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QAbstractItemView::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QAbstractItemView::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const

vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractItemView::viewportEvent(QEvent*)
vfunc[55]:	QTableView::scrollContentsBy(int, int)
vfunc[56]:	QTableWidget::setModel(QAbstractItemModel*)
vfunc[57]:	QTableView::setSelectionModel(QItemSelectionModel*)
vfunc[58]:	QAbstractItemView::keyboardSearch(QString const&)
vfunc[59]:	QTableView::visualRect(QModelIndex const&) const
vfunc[60]:	QTableView::scrollTo(QModelIndex const&, QAbstractItemView::ScrollHint)
vfunc[61]:	QTableView::indexAt(QPoint const&) const
vfunc[62]:	QTableView::sizeHintForRow(int) const
vfunc[63]:	QTableView::sizeHintForColumn(int) const
vfunc[64]:	QAbstractItemView::reset()
vfunc[65]:	QTableView::setRootIndex(QModelIndex const&)
vfunc[66]:	QAbstractItemView::doItemsLayout()
vfunc[67]:	QAbstractItemView::selectAll()
vfunc[68]:	QAbstractItemView::dataChanged(QModelIndex const&, QModelIndex const&)
vfunc[69]:	QAbstractItemView::rowsInserted(QModelIndex const&, int, int)
vfunc[70]:	QAbstractItemView::rowsAboutToBeRemoved(QModelIndex const&, int, int)
vfunc[71]:	QAbstractItemView::selectionChanged(QItemSelection const&, QItemSelection const&)
vfunc[72]:	QAbstractItemView::currentChanged(QModelIndex const&, QModelIndex const&)
vfunc[73]:	QAbstractItemView::updateEditorData()
vfunc[74]:	QAbstractItemView::updateEditorGeometries()
vfunc[75]:	QTableView::updateGeometries()
vfunc[76]:	QTableView::verticalScrollbarAction(int)
vfunc[77]:	QTableView::horizontalScrollbarAction(int)

vfunc[78]:	QAbstractItemView::verticalScrollbarValueChanged(int)
vfunc[79]:	QAbstractItemView::horizontalScrollbarValueChanged(int)
vfunc[80]:	QAbstractItemView::closeEditor(QWidget*, QAbstractItemDelegate::EndEditHint)
vfunc[81]:	QAbstractItemView::commitData(QWidget*)
vfunc[82]:	QAbstractItemView::editorDestroyed(QObject*)
vfunc[83]:	QTableView::moveCursor(QAbstractItemView::CursorAction, QFlags<Qt::KeyboardModifier>)
vfunc[84]:	QTableView::horizontalOffset() const
vfunc[85]:	QTableView::verticalOffset() const
vfunc[86]:	QTableView::isIndexHidden(QModelIndex const&) const
vfunc[87]:	QTableView::setSelection(QRect const&, QFlags<QItemSelectionModel::SelectionFlag>)
vfunc[88]:	QTableView::visualRegionForSelection(QItemSelection const&) const
vfunc[89]:	QTableView::selectedIndexes() const
vfunc[90]:	QAbstractItemView::edit(QModelIndex const&, QAbstractItemView::EditTrigger, QEvent*)
vfunc[91]:	QAbstractItemView::selectionCommand(QModelIndex const&, QEvent const*) const
vfunc[92]:	QAbstractItemView::startDrag(QFlags<Qt::DropAction>)
vfunc[93]:	QTableView::viewOptions() const
vfunc[94]:	QTableWidget::mimeTypes() const
vfunc[95]:	QTableWidget::mimeData(QList<QTableWidgetItem*>) const
vfunc[96]:	QTableWidget::dropMimeData(int, int, QMimeData const*, Qt::DropAction)
vfunc[97]:	QTableWidget::supportedDropActions() const

The Run Time Type Information for the QTableWidget class is described by [Table 17-238](#)

Table 17-238. typeinfo for QTableWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTableWidget
basetype:	typeinfo for QTableView

17.5.9.19. Class data for QTreeView

The virtual table for the QTreeView class is described by [Table 17-239](#)

Table 17-239. Primary vtable for QTreeView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTreeView
vfunc[0]:	QTreeView::metaObject() const
vfunc[1]:	QTreeView::qt_metacast(char const*)
vfunc[2]:	QTreeView::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTreeView::~~QTreeView()
vfunc[4]:	QTreeView::~~QTreeView()
vfunc[5]:	QAbstractItemView::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QTreeView::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QTreeView::mousePressEvent(QMouseEvent*)
vfunc[19]:	QTreeView::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QTreeView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractItemView::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractItemView::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractItemView::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractItemView::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)

vfunc[29]:	QTreeView::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractItemView::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractItemView::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QAbstractItemView::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QAbstractItemView::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QAbstractItemView::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractItemView::viewportEvent(QEvent*)
vfunc[55]:	QTreeView::scrollContentsBy(int, int)
vfunc[56]:	QTreeView::setModel(QAbstractItemModel*)
vfunc[57]:	QTreeView::setSelectionModel(QItemSelectionModel*)
vfunc[58]:	QTreeView::keyboardSearch(QString const&)
vfunc[59]:	QTreeView::visualRect(QModelIndex const&) const
vfunc[60]:	QTreeView::scrollTo(QModelIndex const&, QAbstractItemView::ScrollHint)
vfunc[61]:	QTreeView::indexAt(QPoint const&) const

vfunc[62]:	QAbstractItemView::sizeHintForRow(int) const
vfunc[63]:	QTreeView::sizeHintForColumn(int) const
vfunc[64]:	QTreeView::reset()
vfunc[65]:	QTreeView::setRootIndex(QModelIndex const&)
vfunc[66]:	QTreeView::doItemsLayout()
vfunc[67]:	QTreeView::selectAll()
vfunc[68]:	QTreeView::dataChanged(QModelIndex const&, QModelIndex const&)
vfunc[69]:	QTreeView::rowsInserted(QModelIndex const&, int, int)
vfunc[70]:	QTreeView::rowsAboutToBeRemoved(QModelIndex const&, int, int)
vfunc[71]:	QAbstractItemView::selectionChanged(QItemSelection const&, QItemSelection const&)
vfunc[72]:	QAbstractItemView::currentChanged(QModelIndex const&, QModelIndex const&)
vfunc[73]:	QAbstractItemView::updateEditorData()
vfunc[74]:	QAbstractItemView::updateEditorGeometries()
vfunc[75]:	QTreeView::updateGeometries()
vfunc[76]:	QAbstractItemView::verticalScrollbarAction(int)
vfunc[77]:	QTreeView::horizontalScrollbarAction(int)
vfunc[78]:	QAbstractItemView::verticalScrollbarValueChanged(int)
vfunc[79]:	QAbstractItemView::horizontalScrollbarValueChanged(int)
vfunc[80]:	QAbstractItemView::closeEditor(QWidget*, QAbstractItemDelegate::EndEditHint)
vfunc[81]:	QAbstractItemView::commitData(QWidget*)
vfunc[82]:	QAbstractItemView::editorDestroyed(QObject*)
vfunc[83]:	QTreeView::moveCursor(QAbstractItemView::CursorAction, QFlags<Qt::KeyboardModifier>)
vfunc[84]:	QTreeView::horizontalOffset() const
vfunc[85]:	QTreeView::verticalOffset() const
vfunc[86]:	QTreeView::isIndexHidden(QModelIndex const&) const
vfunc[87]:	QTreeView::setSelection(QRect const&, QFlags<QItemSelectionModel::SelectionFlag>)
vfunc[88]:	QTreeView::visualRegionForSelection(QItemSelection const&) const
vfunc[89]:	QTreeView::selectedIndexes() const
vfunc[90]:	QAbstractItemView::edit(QModelIndex const&, QAbstractItemView::EditTrigger, QEvent*)
vfunc[91]:	QAbstractItemView::selectionCommand(QModelIndex const&, QEvent const*) const
vfunc[92]:	QAbstractItemView::startDrag(QFlags<Qt::DropAction>)

vfunc[93]:	QAbstractItemView::viewOptions() const
vfunc[94]:	QTreeView::drawRow(QPainter*, QStyleOptionViewItem const&, QModelIndex const&) const
vfunc[95]:	QTreeView::drawBranches(QPainter*, QRect const&, QModelIndex const&) const

The Run Time Type Information for the QTreeView class is described by [Table 17-240](#)

Table 17-240. typeinfo for QTreeView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTreeView
basetype:	typeinfo for QAbstractItemView

17.5.9.20. Class data for QProxyModel

The virtual table for the QProxyModel class is described by [Table 17-241](#)

Table 17-241. Primary vtable for QProxyModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QProxyModel
vfunc[0]:	QProxyModel::metaObject() const
vfunc[1]:	QProxyModel::qt_metacast(char const*)
vfunc[2]:	QProxyModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QProxyModel::~~QProxyModel()
vfunc[4]:	QProxyModel::~~QProxyModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QProxyModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QProxyModel::parent(QModelIndex const&) const

vfunc[14]:	QProxyModel::rowCount(QModelIndex const&) const
vfunc[15]:	QProxyModel::columnCount(QModelIndex const&) const
vfunc[16]:	QProxyModel::hasChildren(QModelIndex const&) const
vfunc[17]:	QProxyModel::data(QModelIndex const&, int) const
vfunc[18]:	QProxyModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QProxyModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QProxyModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QProxyModel::mimeTypes() const
vfunc[24]:	QProxyModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QProxyModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QProxyModel::supportedDropActions() const
vfunc[27]:	QProxyModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QProxyModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QAbstractItemModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QAbstractItemModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QProxyModel::fetchMore(QModelIndex const&)
vfunc[32]:	QAbstractItemModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QProxyModel::flags(QModelIndex const&) const
vfunc[34]:	QProxyModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QProxyModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QProxyModel::span(QModelIndex const&) const
vfunc[38]:	QProxyModel::submit()
vfunc[39]:	QProxyModel::revert()
vfunc[40]:	QProxyModel::setModel(QAbstractItemModel*)

The Run Time Type Information for the QProxyModel class is described by [Table 17-242](#)

Table 17-242. typeinfo for QProxyModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info

Name	typeinfo name for QProxyModel
basetype:	typeinfo for QAbstractItemModel

17.5.9.21. Class data for QHeaderView

The virtual table for the QHeaderView class is described by [Table 17-243](#)

Table 17-243. Primary vtable for QHeaderView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHeaderView
vfunc[0]:	QHeaderView::metaObject() const
vfunc[1]:	QHeaderView::qt_metacast(char const*)
vfunc[2]:	QHeaderView::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QHeaderView::~~QHeaderView()
vfunc[4]:	QHeaderView::~~QHeaderView()
vfunc[5]:	QHeaderView::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractItemView::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QHeaderView::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QHeaderView::mousePressEvent(QMouseEvent*)
vfunc[19]:	QHeaderView::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QHeaderView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QHeaderView::mouseMoveEvent(QMouseEvent*)

vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractItemView::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractItemView::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractItemView::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QHeaderView::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractItemView::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractItemView::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QAbstractItemView::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QAbstractItemView::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QAbstractItemView::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QHeaderView::viewportEvent(QEvent*)

vfunc[55]:	QHeaderView::scrollContentsBy(int, int)
vfunc[56]:	QHeaderView::setModel(QAbstractItemModel*)
vfunc[57]:	QAbstractItemView::setSelectionModel(QItemSelectionModel*)
vfunc[58]:	QAbstractItemView::keyboardSearch(QString const&)
vfunc[59]:	QHeaderView::visualRect(QModelIndex const&) const
vfunc[60]:	QHeaderView::scrollTo(QModelIndex const&, QAbstractItemView::ScrollHint)
vfunc[61]:	QHeaderView::indexAt(QPoint const&) const
vfunc[62]:	QAbstractItemView::sizeHintForRow(int) const
vfunc[63]:	QAbstractItemView::sizeHintForColumn(int) const
vfunc[64]:	QAbstractItemView::reset()
vfunc[65]:	QAbstractItemView::setRootIndex(QModelIndex const&)
vfunc[66]:	QHeaderView::doItemsLayout()
vfunc[67]:	QAbstractItemView::selectAll()
vfunc[68]:	QHeaderView::dataChanged(QModelIndex const&, QModelIndex const&)
vfunc[69]:	QHeaderView::rowsInserted(QModelIndex const&, int, int)
vfunc[70]:	QAbstractItemView::rowsAboutToBeRemoved(QModelIndex const&, int, int)
vfunc[71]:	QAbstractItemView::selectionChanged(QItemSelection const&, QItemSelection const&)
vfunc[72]:	QHeaderView::currentChanged(QModelIndex const&, QModelIndex const&)
vfunc[73]:	QAbstractItemView::updateEditorData()
vfunc[74]:	QAbstractItemView::updateEditorGeometries()
vfunc[75]:	QHeaderView::updateGeometries()
vfunc[76]:	QAbstractItemView::verticalScrollbarAction(int)
vfunc[77]:	QAbstractItemView::horizontalScrollbarAction(int)
vfunc[78]:	QAbstractItemView::verticalScrollbarValueChanged(int)
vfunc[79]:	QAbstractItemView::horizontalScrollbarValueChanged(int)
vfunc[80]:	QAbstractItemView::closeEditor(QWidget*, QAbstractItemDelegate::EndEditHint)
vfunc[81]:	QAbstractItemView::commitData(QWidget*)
vfunc[82]:	QAbstractItemView::editorDestroyed(QObject*)
vfunc[83]:	QHeaderView::moveCursor(QAbstractItemView::CursorAction, QFlags<Qt::KeyboardModifier>)
vfunc[84]:	QHeaderView::horizontalOffset() const
vfunc[85]:	QHeaderView::verticalOffset() const
vfunc[86]:	QHeaderView::isIndexHidden(QModelIndex const&) const

vfunc[87]:	QHeaderView::setSelection(QRect const&, QFlags<QItemSelectionModel::SelectionFlag>)
vfunc[88]:	QHeaderView::visualRegionForSelection(QItemSelection const&) const
vfunc[89]:	QAbstractItemView::selectedIndexes() const
vfunc[90]:	QAbstractItemView::edit(QModelIndex const&, QAbstractItemView::EditTrigger, QEvent*)
vfunc[91]:	QAbstractItemView::selectionCommand(QModelIndex const&, QEvent const*) const
vfunc[92]:	QAbstractItemView::startDrag(QFlags<Qt::DropAction>)
vfunc[93]:	QAbstractItemView::viewOptions() const
vfunc[94]:	QHeaderView::paintSection(QPainter*, QRect const&, int) const
vfunc[95]:	QHeaderView::sectionSizeFromContents(int) const

The Run Time Type Information for the QHeaderView class is described by [Table 17-244](#)

Table 17-244. typeinfo for QHeaderView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHeaderView
basetype:	typeinfo for QAbstractItemView

17.5.9.22. Class data for QItemEditorFactory

The virtual table for the QItemEditorFactory class is described by [Table 17-245](#)

Table 17-245. Primary vtable for QItemEditorFactory

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QItemEditorFactory
vfunc[0]:	QItemEditorFactory::~~QItemEditorFactory()
vfunc[1]:	QItemEditorFactory::~~QItemEditorFactory()
vfunc[2]:	QItemEditorFactory::createEditor(QVariant::Type, QWidget*) const
vfunc[3]:	QItemEditorFactory::valuePropertyName(QVariant::Type) const

The Run Time Type Information for the QItemEditorFactory class is described by [Table 17-246](#)

Table 17-246. typeinfo for QItemEditorFactory

Base Vtable	vtable for __cxxabiv1::__class_type_info

Name	typeinfo name for QItemEditorFactory

17.5.9.23. Class data for QTreeWidgetItem

The virtual table for the QTreeWidgetItem class is described by [Table 17-247](#)

Table 17-247. Primary vtable for QTreeWidgetItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTreeWidgetItem
vfunc[0]:	QTreeWidgetItem::~~QTreeWidgetItem()
vfunc[1]:	QTreeWidgetItem::~~QTreeWidgetItem()
vfunc[2]:	QTreeWidgetItem::clone() const
vfunc[3]:	QTreeWidgetItem::data(int, int) const
vfunc[4]:	QTreeWidgetItem::setData(int, int, QVariant const&)
vfunc[5]:	QTreeWidgetItem::operator<(QTreeWidgetItem const&) const
vfunc[6]:	QTreeWidgetItem::read(QDataStream&)
vfunc[7]:	QTreeWidgetItem::write(QDataStream&) const

The Run Time Type Information for the QTreeWidgetItem class is described by [Table 17-248](#)

Table 17-248. typeinfo for QTreeWidgetItem

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QTreeWidgetItem

17.5.9.24. Class data for QTreeWidget

The virtual table for the QTreeWidget class is described by [Table 17-249](#)

Table 17-249. Primary vtable for QTreeWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTreeWidget
vfunc[0]:	QTreeWidget::metaObject() const

vfunc[1]:	QTreeWidgetItem::qt_metacast(char const*)
vfunc[2]:	QTreeWidgetItem::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTreeWidgetItem::~~QTreeWidgetItem()
vfunc[4]:	QTreeWidgetItem::~~QTreeWidgetItem()
vfunc[5]:	QTreeWidgetItem::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QTreeView::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QTreeView::mousePressEvent(QMouseEvent*)
vfunc[19]:	QTreeView::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QTreeView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractItemView::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractItemView::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractItemView::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractItemView::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QTreeView::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractItemView::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)

vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractItemView::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QAbstractItemView::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QAbstractItemView::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QAbstractItemView::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractItemView::viewportEvent(QEvent*)
vfunc[55]:	QTreeView::scrollContentsBy(int, int)
vfunc[56]:	QTreeWidget::setModel(QAbstractItemModel*)
vfunc[57]:	QTreeView::setSelectionModel(QItemSelectionModel*)
vfunc[58]:	QTreeView::keyboardSearch(QString const&)
vfunc[59]:	QTreeView::visualRect(QModelIndex const&) const
vfunc[60]:	QTreeView::scrollTo(QModelIndex const&, QAbstractItemView::ScrollHint)
vfunc[61]:	QTreeView::indexAt(QPoint const&) const
vfunc[62]:	QAbstractItemView::sizeHintForRow(int) const
vfunc[63]:	QTreeView::sizeHintForColumn(int) const
vfunc[64]:	QTreeView::reset()
vfunc[65]:	QTreeView::setRootIndex(QModelIndex const&)
vfunc[66]:	QTreeView::doItemsLayout()

vfunc[67]:	QTreeView::selectAll()
vfunc[68]:	QTreeView::dataChanged(QModelIndex const&, QModelIndex const&)
vfunc[69]:	QTreeView::rowsInserted(QModelIndex const&, int, int)
vfunc[70]:	QTreeView::rowsAboutToBeRemoved(QModelIndex const&, int, int)
vfunc[71]:	QAbstractItemView::selectionChanged(QItemSelection const&, QItemSelection const&)
vfunc[72]:	QAbstractItemView::currentChanged(QModelIndex const&, QModelIndex const&)
vfunc[73]:	QAbstractItemView::updateEditorData()
vfunc[74]:	QAbstractItemView::updateEditorGeometries()
vfunc[75]:	QTreeView::updateGeometries()
vfunc[76]:	QAbstractItemView::verticalScrollbarAction(int)
vfunc[77]:	QTreeView::horizontalScrollbarAction(int)
vfunc[78]:	QAbstractItemView::verticalScrollbarValueChanged(int)
vfunc[79]:	QAbstractItemView::horizontalScrollbarValueChanged(int)
vfunc[80]:	QAbstractItemView::closeEditor(QWidget*, QAbstractItemDelegate::EndEditHint)
vfunc[81]:	QAbstractItemView::commitData(QWidget*)
vfunc[82]:	QAbstractItemView::editorDestroyed(QObject*)
vfunc[83]:	QTreeView::moveCursor(QAbstractItemView::CursorAction, QFlags<Qt::KeyboardModifier>)
vfunc[84]:	QTreeView::horizontalOffset() const
vfunc[85]:	QTreeView::verticalOffset() const
vfunc[86]:	QTreeView::isIndexHidden(QModelIndex const&) const
vfunc[87]:	QTreeView::setSelection(QRect const&, QFlags<QItemSelectionModel::SelectionFlag>)
vfunc[88]:	QTreeView::visualRegionForSelection(QItemSelection const&) const
vfunc[89]:	QTreeView::selectedIndexes() const
vfunc[90]:	QAbstractItemView::edit(QModelIndex const&, QAbstractItemView::EditTrigger, QEvent*)
vfunc[91]:	QAbstractItemView::selectionCommand(QModelIndex const&, QEvent const*) const
vfunc[92]:	QAbstractItemView::startDrag(QFlags<Qt::DropAction>)
vfunc[93]:	QAbstractItemView::viewOptions() const
vfunc[94]:	QTreeView::drawRow(QPainter*, QStyleOptionViewItem const&, QModelIndex const&) const
vfunc[95]:	QTreeView::drawBranches(QPainter*, QRect const&, QModelIndex const&) const
vfunc[96]:	QTreeWidget::mimeTypes() const

vfunc[97]:	QTreeWidgetItem::mimeData(QList<QTreeWidgetItem*>) const
vfunc[98]:	QTreeWidgetItem::dropMimeData(QTreeWidgetItem*, int, QMimeData const*, Qt::DropAction)
vfunc[99]:	QTreeWidgetItem::supportedDropActions() const

The Run Time Type Information for the QTreeWidgetItem class is described by [Table 17-250](#)

Table 17-250. typeinfo for QTreeWidgetItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTreeWidgetItem
basetype:	typeinfo for QTreeView

17.5.9.25. Class data for QAbstractButton

The virtual table for the QAbstractButton class is described by [Table 17-251](#)

Table 17-251. Primary vtable for QAbstractButton

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractButton
vfunc[0]:	QAbstractButton::metaObject() const
vfunc[1]:	QAbstractButton::qt_metacast(char const*)
vfunc[2]:	QAbstractButton::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractButton::~~QAbstractButton()
vfunc[4]:	QAbstractButton::~~QAbstractButton()
vfunc[5]:	QAbstractButton::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractButton::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const

vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractButton::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractButton::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractButton::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractButton::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractButton::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractButton::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractButton::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	__cxa_pure_virtual
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractButton::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)

vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractButton::hitButton(QPoint const&) const
vfunc[55]:	QAbstractButton::checkStateSet()
vfunc[56]:	QAbstractButton::nextCheckState()

The Run Time Type Information for the QAbstractButton class is described by [Table 17-252](#)

Table 17-252. typeinfo for QAbstractButton

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractButton
basetype:	typeinfo for QWidget

17.5.9.26. Class data for QAbstractGraphicsShapeItem

The virtual table for the QAbstractGraphicsShapeItem class is described by [Table 17-253](#)

Table 17-253. Primary vtable for QAbstractGraphicsShapeItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractGraphicsShapeItem
vfunc[0]:	QAbstractGraphicsShapeItem::~~QAbstractGraphicsShapeItem()
vfunc[1]:	QAbstractGraphicsShapeItem::~~QAbstractGraphicsShapeItem()
vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	QGraphicsItem::shape() const
vfunc[5]:	QGraphicsItem::contains(QPointF const&) const
vfunc[6]:	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const

vfunc[8]:	QAbstractGraphicsShapeItem::isObscuredBy(QGraphicsItem const*) const
vfunc[9]:	QAbstractGraphicsShapeItem::opaqueArea() const
vfunc[10]:	__cxa_pure_virtual
vfunc[11]:	QGraphicsItem::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)
vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)
vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)
vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)
vfunc[34]:	QGraphicsItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsItem::extension(QVariant const&) const

17.5.9.27. Class data for QCompleter

The virtual table for the QCompleter class is described by [Table 17-254](#)

Table 17-254. Primary vtable for QCompleter

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCompleter
vfunc[0]:	QCompleter::metaObject() const
vfunc[1]:	QCompleter::qt_metacast(char const*)
vfunc[2]:	QCompleter::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QCompleter::~~QCompleter()
vfunc[4]:	QCompleter::~~QCompleter()
vfunc[5]:	QCompleter::event(QEvent*)
vfunc[6]:	QCompleter::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QCompleter::pathFromIndex(QModelIndex const&) const
vfunc[13]:	QCompleter::splitPath(QString const&) const

17.5.9.28. Class data for QDataWidgetMapper

The virtual table for the QDataWidgetMapper class is described by [Table 17-255](#)

Table 17-255. Primary vtable for QDataWidgetMapper

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDataWidgetMapper
vfunc[0]:	QDataWidgetMapper::metaObject() const
vfunc[1]:	QDataWidgetMapper::qt_metacast(char const*)
vfunc[2]:	QDataWidgetMapper::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QDataWidgetMapper::~~QDataWidgetMapper()
vfunc[4]:	QDataWidgetMapper::~~QDataWidgetMapper()
vfunc[5]:	QObject::event(QEvent*)

vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QDataWidgetMapper::setCurrentIndex(int)

17.5.9.29. Class data for QStandardItem

The virtual table for the QStandardItem class is described by [Table 17-256](#)

Table 17-256. Primary vtable for QStandardItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QStandardItem
vfunc[0]:	QStandardItem::~~QStandardItem()
vfunc[1]:	QStandardItem::~~QStandardItem()
vfunc[2]:	QStandardItem::data(int) const
vfunc[3]:	QStandardItem::setData(QVariant const&, int)
vfunc[4]:	QStandardItem::clone() const
vfunc[5]:	QStandardItem::type() const
vfunc[6]:	QStandardItem::read(QDataStream&)
vfunc[7]:	QStandardItem::write(QDataStream&) const
vfunc[8]:	QStandardItem::operator<(QStandardItem const&) const

17.5.9.30. Interfaces for Qt4 Models and Views

An LSB conforming implementation shall provide the generic functions for Qt4 Models and Views specified in [Table 17-257](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-257. libQtGui - Qt4 Models and Views Function Interfaces

<code>_ZN10QCompleter11eventFilterEP7QObjectP6QEvent</code> [QtXml]
<code>_ZN10QCompleter11highlightedERK7QString</code> [QtXml]

_ZN10QCompleter11qt_metacastEPKc [QtXml]
_ZN10QCompleter15setModelSortingENS_12ModelSortingE [QtXml]
_ZN10QCompleter17setCompletionRoleEi [QtXml]
_ZN10QCompleter19setCompletionColumnEi [QtXml]
_ZN10QCompleter5eventEP6QEvent [QtXml]
_ZN10QCompleter8setModelEP18QAbstractItemModel [QtXml]
_ZN10QCompleter9activatedERK11QModelIndex [QtXml]
_ZN10QCompleter9setWidgetEP7QWidget [QtXml]
_ZN10QCompleterC1EP7QObject [QtXml]
_ZN10QCompleterC2EP18QAbstractItemModelP7QObject [QtXml]
_ZN10QCompleterC2ERK11QStringListP7QObject [QtXml]
_ZN10QCompleterD1Ev [QtXml]
_ZN10QTableView10hideColumnEi [QtGui]
_ZN10QTableView10paintEventEP11QPaintEvent [QtGui]
_ZN10QTableView10showColumnEi [QtGui]
_ZN10QTableView11columnMovedEiii [QtGui]
_ZN10QTableView11qt_metacastEPKc [QtGui]
_ZN10QTableView12selectColumnEi [QtGui]
_ZN10QTableView12setRootIndexERK11QModelIndex [QtGui]
_ZN10QTableView12setRowHiddenEib [QtGui]
_ZN10QTableView12sortByColumnEi [QtGui]
_ZN10QTableView13columnResizedEiii [QtGui]
_ZN10QTableView15rowCountChangedEii [QtGui]
_ZN10QTableView16scrollContentsByEii [QtGui]
_ZN10QTableView17setSelectionModeEP19QItemSelectionModel [QtGui]
_ZN10QTableView17setVerticalHeaderEP11QHeaderView [QtGui]
_ZN10QTableView19resizeRowToContentsEi [QtGui]
_ZN10QTableView20resizeRowsToContentsEv [QtGui]
_ZN10QTableView23resizeColumnsToContentsEv [QtGui]
_ZN10QTableView25horizontalScrollbarActionEi [QtGui]
_ZN10QTableView7setSpanEiiii [QtXml]
_ZN10QTableView8rowMovedEiii [QtGui]
_ZN10QTableView8setModelEP18QAbstractItemModel [QtGui]

_ZN10QTableViewC1EP7QWidget [QtGui]
_ZN10QTableViewD0Ev [QtGui]
_ZN10QTableViewD2Ev [QtGui]
_ZN11QHeaderView10moveCursorEN17QAbstractItemView12CursorActionE6QFlagsIN2Qt16KeyboardModifierE [QtGui]
_ZN11QHeaderView10setMovableEb [QtGui]
_ZN11QHeaderView11moveSectionEii [QtGui]
_ZN11QHeaderView11qt_metacastEPKc [QtGui]
_ZN11QHeaderView12sectionMovedEiii [QtGui]
_ZN11QHeaderView12setSelectionERK5QRect6QFlagsIN19QItemSelectionModel13SelectionFlagEE [QtGui]
_ZN11QHeaderView13doItemsLayoutEv [QtGui]
_ZN11QHeaderView13setResizeModeENS_10ResizeModeE [QtGui]
_ZN11QHeaderView13updateSectionEi [LSB]
ZN11QHeaderView14currentChangedERK11QModelIndexS2 [QtGui]
_ZN11QHeaderView14resizeSectionsENS_10ResizeModeE [QtGui]
_ZN11QHeaderView14sectionClickedEi [QtGui]
_ZN11QHeaderView14sectionResizedEiii [QtGui]
_ZN11QHeaderView16scrollContentsByEii [QtGui]
_ZN11QHeaderView16setSectionHiddenEib [QtGui]
_ZN11QHeaderView16updateGeometriesEv [QtGui]
_ZN11QHeaderView17headerDataChangedEN2Qt11OrientationEii [QtGui]
_ZN11QHeaderView17sectionAutoResizeEiNS_10ResizeModeE [QtGui]
_ZN11QHeaderView18initializeSectionsEv [QtGui]
_ZN11QHeaderView19setDefaultAlignmentE6QFlagsIN2Qt13AlignmentFlagEE [QtGui]
_ZN11QHeaderView20setHighlightSectionsEb [QtGui]
_ZN11QHeaderView21setDefaultSectionSizeEi [QtGui]
_ZN11QHeaderView21setSortIndicatorShownEb [QtGui]
_ZN11QHeaderView24sectionsAboutToBeRemovedERK11QModelIndexii [QtGui]
_ZN11QHeaderView26setCascadingSectionResizesEb [QtXml]
_ZN11QHeaderView5eventEP6QEvent [QtGui]
_ZN11QHeaderView8setModelEP18QAbstractItemModel [QtGui]
_ZN11QHeaderViewC1EN2Qt11OrientationEP7QWidget [QtGui]
_ZN11QHeaderViewD0Ev [QtGui]

_ZN11QHeaderViewD2Ev [QtGui]
_ZN11QProxyModel11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN11QProxyModel12dropMimeTypeDataEPK9QMimeTypeDataN2Qt10DropActionEiiRK11QModelIndex [QtGui]
_ZN11QProxyModel13setHeaderDataEiN2Qt11OrientationERK8QVarianti [QtGui]
_ZN11QProxyModel6revertEv [QtGui]
_ZN11QProxyModel7setDataERK11QModelIndexRK8QVarianti [QtGui]
_ZN11QProxyModel9fetchMoreERK11QModelIndex [QtGui]
_ZN11QProxyModelC2EP7QObject [QtGui]
_ZN11QProxyModelD1Ev [QtGui]
_ZN11QTreeWidget10expandItemEPK15QTreeWidgetItem [QtGui]
_ZN11QTreeWidget11itemClickedEP15QTreeWidgetItem [QtGui]
_ZN11QTreeWidget11itemPressedEP15QTreeWidgetItem [QtGui]
_ZN11QTreeWidget11qt_metacastEPKc [QtGui]
_ZN11QTreeWidget12dropMimeTypeDataEP15QTreeWidgetItemPK9QMimeTypeDataN2Qt10DropActionE [QtGui]
_ZN11QTreeWidget12scrollToItemEPK15QTreeWidgetItemN17QAbstractItemView10ScrollHintE [QtGui]
_ZN11QTreeWidget13itemCollapsedEP15QTreeWidgetItem [QtGui]
_ZN11QTreeWidget13setItemHiddenEPK15QTreeWidgetItemb [QtGui]
_ZN11QTreeWidget14setColumnCountEi [QtGui]
_ZN11QTreeWidget14setCurrentItemEP15QTreeWidgetItem [QtGui]
_ZN11QTreeWidget15setHeaderLabelsERK11QStringList [QtGui]
_ZN11QTreeWidget15setItemSelectedEPK15QTreeWidgetItemb [QtGui]
_ZN11QTreeWidget16takeTopLevelItemEi [QtGui]
_ZN11QTreeWidget17setSortingEnabledEb [QtGui]
_ZN11QTreeWidget18insertTopLevelItemEiP15QTreeWidgetItem [QtGui]
_ZN11QTreeWidget19insertTopLevelItemsEiRK5QListIP15QTreeWidgetItemE [QtGui]
_ZN11QTreeWidget20openPersistentEditorEP15QTreeWidgetItem [QtGui]
_ZN11QTreeWidget5clearEv [QtGui]
_ZN11QTreeWidget8editItemEP15QTreeWidgetItem [QtGui]
_ZN11QTreeWidget9dropEventEP10QDropEvent [QtXml]
_ZN11QTreeWidgetC1EP7QWidget [QtGui]
_ZN11QTreeWidgetD0Ev [QtGui]
_ZN11QTreeWidgetD2Ev [QtGui]
_ZN12QTableWidget11cellClickedEii [QtGui]

_ZN12QTableWidget11cellPressedEii [QtGui]
_ZN12QTableWidget11itemClickedEP16QTableWidgetItem [QtGui]
_ZN12QTableWidget11itemPressedEP16QTableWidgetItem [QtGui]
_ZN12QTableWidget11qt_metacastEPKc [QtGui]
_ZN12QTableWidget12dropMimeDataEiiPK9QMimeDataN2Qt10DropActionE [QtGui]
_ZN12QTableWidget12removeColumnEi [QtGui]
_ZN12QTableWidget13cellActivatedEii [QtGui]
_ZN12QTableWidget13itemActivatedEP16QTableWidgetItem [QtGui]
_ZN12QTableWidget13setCellWidgetEiiP7QWidget [QtGui]
_ZN12QTableWidget14setCurrentCellEii [QtGui]
_ZN12QTableWidget15setItemSelectedEPK16QTableWidgetItemb [QtGui]
_ZN12QTableWidget16setRangeSelectedERK26QTableWidgetSelectionRangeb [QtGui]
_ZN12QTableWidget17itemDoubleClickedEP16QTableWidgetItem [QtGui]
_ZN12QTableWidget18currentCellChangedEiiii [QtGui]
_ZN12QTableWidget20itemSelectionChangedEv [QtGui]
_ZN12QTableWidget21closePersistentEditorEP16QTableWidgetItem [QtGui]
_ZN12QTableWidget22takeVerticalHeaderItemEi [QtGui]
_ZN12QTableWidget23setVerticalHeaderLabelsERK11QStringList [QtGui]
_ZN12QTableWidget25setHorizontalHeaderLabelsERK11QStringList [QtGui]
_ZN12QTableWidget5eventEP6QEvent [QtGui]
_ZN12QTableWidget8editItemEP16QTableWidgetItem [QtGui]
_ZN12QTableWidget8takeItemEii [QtGui]
_ZN12QTableWidget9insertRowEi [QtGui]
_ZN12QTableWidget9sortItemsEiN2Qt9SortOrderE [QtGui]
_ZN12QTableWidgetC1EiiP7QWidget [QtGui]
_ZN12QTableWidgetC2EiiP7QWidget [QtGui]
_ZN12QTableWidgetD1Ev [QtGui]
_ZN13QItemDelegate11editorEventEP6QEventP18QAbstractItemModelRK20QStyleOptionViewItemRK11QModelIndex [QtGui]
_ZN13QItemDelegate11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN13QItemDelegate11setClippingEb [QtXml]
_ZN13QItemDelegateC1EP7QObject [QtGui]
_ZN13QItemDelegateD0Ev [QtGui]

_ZN13QItemDelegateD2Ev [QtGui]
_ZN13QStandardItem10removeRowsEii [QtXml]
_ZN13QStandardItem10takeColumnEi [QtXml]
_ZN13QStandardItem11setRowCountEi [QtXml]
_ZN13QStandardItem12insertColumnEiRK5QListIPS_E [QtXml]
_ZN13QStandardItem12setCheckableEb [QtXml]
_ZN13QStandardItem13insertColumnsEii [QtXml]
_ZN13QStandardItem13setSelectableEb [QtXml]
_ZN13QStandardItem14setDragEnabledEb [QtXml]
_ZN13QStandardItem4readER11QDataStream [QtXml]
_ZN13QStandardItem7takeRowEi [QtXml]
_ZN13QStandardItem8setFlagsE6QFlagsIN2Qt8ItemFlagEE [QtXml]
_ZN13QStandardItem9removeRowEi [QtXml]
_ZN13QStandardItemC1ERK5QIconRK7QString [QtXml]
ZN13QStandardItemC1ERKS [QtXml]
_ZN13QStandardItemC1Ev [QtXml]
_ZN13QStandardItemC2ERK7QString [QtXml]
_ZN13QStandardItemC2Eii [QtXml]
_ZN13QStandardItemD0Ev [QtXml]
_ZN13QStandardItemD2Ev [QtXml]
_ZN14QItemSelection5mergeERKS_6QFlagsIN19QItemSelectionModel13SelectionFlagEE [QtGui]
ZN14QItemSelection6selectERK11QModelIndexS2 [QtGui]
ZN14QItemSelectionC2ERK11QModelIndexS2 [QtGui]
_ZN15QAbstractButton10timerEventEP11QTimerEvent [QtGui]
_ZN15QAbstractButton11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN15QAbstractButton11setIconSizeERK5QSize [QtGui]
_ZN15QAbstractButton12animateClickEi [QtGui]
_ZN15QAbstractButton12setCheckableEb [QtGui]
_ZN15QAbstractButton13focusOutEventEP11QFocusEvent [QtGui]
_ZN15QAbstractButton13setAutoRepeatEb [QtGui]
_ZN15QAbstractButton14nextCheckStateEv [QtGui]
_ZN15QAbstractButton15mousePressEventEP11QMouseEvent [QtGui]
_ZN15QAbstractButton17mouseReleaseEventEP11QMouseEvent [QtGui]

<u>_ZN15QAbstractButton21setAutoRepeatIntervalEi [QtXml]</u>
<u>_ZN15QAbstractButton5eventEP6QEvent [QtGui]</u>
<u>_ZN15QAbstractButton7clickedEb [QtGui]</u>
<u>_ZN15QAbstractButton7setDownEb [QtGui]</u>
<u>_ZN15QAbstractButton7setTextERK7QString [QtGui]</u>
<u>_ZN15QAbstractButton8releasedEv [QtGui]</u>
<u>_ZN15QAbstractButtonC1EP7QWidgetPKc6QFlagsIN2Qt10WindowTypeEE [QtGui]</u>
<u>_ZN15QAbstractButtonC2EP7QWidgetPKc6QFlagsIN2Qt10WindowTypeEE [QtGui]</u>
<u>_ZN15QAbstractButtonD1Ev [QtGui]</u>
<u>_ZN15QAbstractSlider10setMaximumEi [QtGui]</u>
<u>_ZN15QAbstractSlider10timerEventEP11QTimerEvent [QtGui]</u>
<u>_ZN15QAbstractSlider11changeEventEP6QEvent [QtGui]</u>
<u>_ZN15QAbstractSlider11qt_metacastEPKc [QtGui]</u>
<u>_ZN15QAbstractSlider11setTrackingEb [QtGui]</u>
<u>_ZN15QAbstractSlider12rangeChangedEii [QtGui]</u>
<u>_ZN15QAbstractSlider12valueChangedEi [QtGui]</u>
<u>_ZN15QAbstractSlider13setSingleStepEi [QtGui]</u>
<u>_ZN15QAbstractSlider13sliderPressedEv [QtGui]</u>
<u>_ZN15QAbstractSlider14setOrientationEN2Qt11OrientationE [QtGui]</u>
<u>_ZN15QAbstractSlider15actionTriggeredEi [QtGui]</u>
<u>_ZN15QAbstractSlider17setSliderPositionEi [QtGui]</u>
<u>_ZN15QAbstractSlider21setInvertedAppearanceEb [QtGui]</u>
<u>_ZN15QAbstractSlider8setRangeEii [QtGui]</u>
<u>_ZN15QAbstractSliderC1EP7QWidget [QtGui]</u>
<u>_ZN15QAbstractSliderD0Ev [QtGui]</u>
<u>_ZN15QAbstractSliderD2Ev [QtGui]</u>
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<u>_ZN15QTreeWidgetItem12takeChildrenEv [QtGui]</u>
<u>_ZN15QTreeWidgetItem4readER11QDataStream [QtGui]</u>
<u>_ZN15QTreeWidgetItem8addChildEPS_ [QtGui]</u>
<u>_ZN15QTreeWidgetItemC1EP11QTreeWidgetItemPS_i [QtGui]</u>
<u>_ZN15QTreeWidgetItemC1EP11QTreeWidgetItemi [QtGui]</u>
<u>_ZN15QTreeWidgetItemC1EPS_S0_i [QtGui]</u>

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_ZN15QTreeWidgetItemC1Ei [QtGui]
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_ZN15QTreeWidgetItemD2Ev [QtGui]
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_ZN16QAbstractSpinBox11setWrappingEb [QtGui]
_ZN16QAbstractSpinBox12setAlignmentE6QFlagsIN2Qt13AlignmentFlagEE [QtGui]
_ZN16QAbstractSpinBox13interpretTextEv [QtGui]
_ZN16QAbstractSpinBox14mouseMoveEventEP11QMouseEvent [QtGui]
_ZN16QAbstractSpinBox15editingFinishedEv [QtGui]
_ZN16QAbstractSpinBox15mousePressEventEP11QMouseEvent [QtGui]
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_ZN16QAbstractSpinBox6stepByEi [QtGui]
_ZN16QAbstractSpinBox8 setFrameEb [QtGui]
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_ZN16QAbstractSpinBox9showEventEP10QShowEvent [QtGui]
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_ZN16QAbstractSpinBoxD1Ev [QtGui]
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_ZN16QStringListModel7setDataERK11QModelIndexRK8QVarianti [QtGui]
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_ZN17QAbstractItemView13doubleClickedERK11QModelIndex [QtGui]
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_ZN17QAbstractItemView14clearSelectionEv [QtGui]
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_ZN17QAbstractItemView14scrollToBottomEv [QtGui]
_ZN17QAbstractItemView14setDragEnabledEb [QtGui]
_ZN17QAbstractItemView14stopAutoScrollEv [QtGui]
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_ZN17QAbstractItemView17scrollDirtyRegionEii [QtGui]
_ZN17QAbstractItemView18focusNextPrevChildEb [QtXml]

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_ZN17QAbstractItemView25horizontalScrollbarActionEi [LSB]
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_ZN17QAbstractItemView31horizontalScrollbarValueChangedEi [QtGui]
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_ZN17QAbstractItemView7enteredERK11QModelIndex [QtGui]
_ZN17QAbstractItemView8setModelEP18QAbstractItemModel [QtGui]
_ZN17QAbstractItemView9activatedERK11QModelIndex [QtGui]
_ZN17QAbstractItemView9selectAllEv [QtGui]
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_ZN17QAbstractItemViewD0Ev [QtGui]
_ZN17QAbstractItemViewD2Ev [QtGui]
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_ZN17QDataWidgetMapper6revertEv [QtXml]
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_ZN19QAbstractScrollArea21mouseDoubleClickEventEP11QMouseEvent [QtGui]
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_ZN21QSortFilterProxyModel18setFilterKeyColumnEi [QtGui]
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_ZN26QAbstractGraphicsShapeItemD2Ev [QtXml]
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<u>_ZNK11QHeaderView18sortIndicatorOrderEv [QtGui]</u>
<u>_ZNK11QHeaderView19stretchSectionCountEv [QtGui]</u>
<u>_ZNK11QHeaderView20sortIndicatorSectionEv [QtGui]</u>
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<u>_ZNK11QHeaderView6lengthEv [QtGui]</u>
<u>_ZNK11QHeaderView7indexAtERK6QPoint [QtGui]</u>
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<u>_ZNK11QProxyModel19disconnectFromModelEPK18QAbstractItemModel [LSB]</u>
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<u>_ZNK11QProxyModel5flagsERK11QModelIndex [QtGui]</u>
<u>_ZNK11QProxyModel5matchERK11QModelIndexiRK8QVarianti6QFlagsIN2Qt9MatchFlagEE [QtGui]</u>
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<u>_ZNK11QProxyModel8rowCountERK11QModelIndex [QtGui]</u>
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<u>_ZNK11QTreeWidget10metaObjectEv [QtGui]</u>
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<u>_ZNK11QTreeWidget13currentColumnEv [QtGui]</u>

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_ZNK13QStandardItem6columnEv [QtXml]
_ZNK13QStandardItem8rowCountEv [QtXml]
_ZNK14QItemSelection7indexesEv [QtGui]
_ZNK15QAbstractButton10autoRepeatEv [QtGui]
_ZNK15QAbstractButton11isCheckableEv [QtGui]
_ZNK15QAbstractButton15autoRepeatDelayEv [QtXml]
_ZNK15QAbstractButton4iconEv [QtGui]
_ZNK15QAbstractButton5groupEv [QtGui]
_ZNK15QAbstractButton7iconSetEv [QtGui]
_ZNK15QAbstractButton8shortcutEv [QtGui]
_ZNK15QAbstractButton9isCheckedEv [QtGui]
_ZNK15QAbstractSlider10singleStepEv [QtGui]
_ZNK15QAbstractSlider11orientationEv [QtGui]
_ZNK15QAbstractSlider12repeatActionEv [QtGui]
_ZNK15QAbstractSlider16invertedControlsEv [QtGui]
_ZNK15QAbstractSlider5valueEv [QtGui]
_ZNK15QAbstractSlider7minimumEv [QtGui]
_ZNK15QTreeWidgetItem4dataEii [QtGui]
_ZNK15QTreeWidgetItem5writeER11QDataStream [QtGui]
_ZNK16QAbstractSpinBox10isReadOnlyEv [QtGui]
_ZNK16QAbstractSpinBox11stepEnabledEv [QtGui]
_ZNK16QAbstractSpinBox13isAcceleratedEv [QtXml]
_ZNK16QAbstractSpinBox15minimumSizeHintEv [QtGui]
_ZNK16QAbstractSpinBox18hasAcceptableInputEv [QtXml]
_ZNK16QAbstractSpinBox5fixupER7QString [QtGui]
_ZNK16QAbstractSpinBox8lineEditEv [QtGui]
_ZNK16QAbstractSpinBox8validateER7QStringRi [QtGui]
_ZNK16QAbstractSpinBox9alignmentEv [QtGui]
_ZNK16QStringListModel10stringListEv [QtGui]

_ZNK16QStringListModel5flagsERK11QModelIndex [QtGui]
_ZNK16QTableWidgetItem4dataEi [QtGui]
_ZNK16QTableWidgetItem5writeER11QDataStream [QtGui]
_ZNK17QAbstractItemView10metaObjectEv [QtGui]
_ZNK17QAbstractItemView11indexWidgetERK11QModelIndex [QtGui]
_ZNK17QAbstractItemView12currentIndexEv [QtGui]
_ZNK17QAbstractItemView12editTriggersEv [QtGui]
_ZNK17QAbstractItemView12itemDelegateEv [QtGui]
_ZNK17QAbstractItemView13selectionModeEv [QtGui]
_ZNK17QAbstractItemView14selectionModelEv [QtGui]
_ZNK17QAbstractItemView15selectedIndexesEv [QtGui]
_ZNK17QAbstractItemView16selectionCommandERK11QModelIndexPK6QEvent [QtGui]
_ZNK17QAbstractItemView16tabKeyNavigationEv [QtGui]
_ZNK17QAbstractItemView17selectionBehaviorEv [QtGui]
_ZNK17QAbstractItemView17sizeHintForColumnEi [QtGui]
_ZNK17QAbstractItemView18verticalScrollModeEv [QtXml]
_ZNK17QAbstractItemView20horizontalScrollModeEv [QtXml]
_ZNK17QAbstractItemView21dragDropOverwriteModeEv [QtXml]
_ZNK17QAbstractItemView21itemDelegateForColumnEi [QtXml]
_ZNK17QAbstractItemView5modelEv [QtGui]
_ZNK17QAbstractItemView8iconSizeEv [QtGui]
_ZNK17QDataWidgetMapper10metaObjectEv [QtXml]
_ZNK17QDataWidgetMapper12currentIndexEv [QtXml]
_ZNK17QDataWidgetMapper12submitPolicyEv [QtXml]
_ZNK17QDataWidgetMapper14mappedWidgetAtEi [QtXml]
_ZNK17QDataWidgetMapper9rootIndexEv [QtXml]
_ZNK18QItemEditorFactory17valuePropertyNameEN8QVariant4TypeE [QtGui]
_ZNK18QStandardItemModel10metaObjectEv [QtGui]
_ZNK18QStandardItemModel11hasChildrenERK11QModelIndex [QtGui]
_ZNK18QStandardItemModel13itemFromIndexERK11QModelIndex [QtXml]
_ZNK18QStandardItemModel17invisibleRootItemEv [QtXml]
_ZNK18QStandardItemModel20horizontalHeaderItemEi [QtXml]
_ZNK18QStandardItemModel4dataERK11QModelIndexi [QtGui]

_ZNK18QStandardItemModel5flagsERK11QModelIndex [QtGui]
_ZNK18QStandardItemModel6parentERK11QModelIndex [QtGui]
_ZNK18QStandardItemModel8rowCountERK11QModelIndex [QtGui]
_ZNK18QStandardItemModel9findItemsERK7QString6QFlagsIN2Qt9MatchFlagEEi [QtXml]
_ZNK19QAbstractProxyModel10metaObjectEv [QtGui]
_ZNK19QAbstractProxyModel20mapSelectionToSourceERK14QItemSelection [QtGui]
_ZNK19QAbstractProxyModel4dataERK11QModelIndexi [QtXml]
_ZNK19QAbstractScrollArea10metaObjectEv [QtGui]
_ZNK19QAbstractScrollArea15minimumSizeHintEv [QtGui]
_ZNK19QAbstractScrollArea19horizontalScrollBarEv [QtGui]
_ZNK19QAbstractScrollArea23verticalScrollBarPolicyEv [QtGui]
_ZNK19QAbstractScrollArea8sizeHintEv [QtGui]
_ZNK19QItemSelectionModel10isSelectedERK11QModelIndex [QtGui]
_ZNK19QItemSelectionModel12currentIndexEv [QtGui]
_ZNK19QItemSelectionModel12selectedRowsEi [QtXml]
_ZNK19QItemSelectionModel15selectedColumnsEi [QtXml]
_ZNK19QItemSelectionModel16isColumnSelectedEiRK11QModelIndex [QtGui]
_ZNK19QItemSelectionModel25columnIntersectsSelectionEiRK11QModelIndex [QtGui]
_ZNK19QItemSelectionModel9selectionEv [QtGui]
_ZNK19QItemSelectionRange7indexesEv [QtGui]
_ZNK20QAbstractPrintDialog10metaObjectEv [QtXml]
_ZNK20QAbstractPrintDialog14enabledOptionsEv [QtGui]
_ZNK20QAbstractPrintDialog6toPageEv [QtGui]
_ZNK20QAbstractPrintDialog7minPageEv [QtGui]
_ZNK20QAbstractPrintDialog8fromPageEv [QtGui]
_ZNK21QAbstractItemDelegate12createEditorEP7QWidgetRK20QStyleOptionViewItemRK11QModelIndex [QtGui]
_ZNK21QAbstractItemDelegate13setEditorDataEP7QWidgetRK11QModelIndex [QtGui]
_ZNK21QSortFilterProxyModel10filterRoleEv [QtXml]
_ZNK21QSortFilterProxyModel10metaObjectEv [QtGui]
_ZNK21QSortFilterProxyModel11hasChildrenERK11QModelIndex [QtGui]
_ZNK21QSortFilterProxyModel12canFetchMoreERK11QModelIndex [QtGui]
_ZNK21QSortFilterProxyModel13mapFromSourceERK11QModelIndex [QtGui]
_ZNK21QSortFilterProxyModel16filterAcceptsRowEiRK11QModelIndex [QtGui]

_ZNK21QSortFilterProxyModel19filterAcceptsColumnEiRK11QModelIndex	[QtGui]
_ZNK21QSortFilterProxyModel20mapSelectionToSourceERK14QItemSelection	[QtGui]
_ZNK21QSortFilterProxyModel21filterCaseSensitivityEv	[QtGui]
_ZNK21QSortFilterProxyModel4dataERK11QModelIndexi	[QtGui]
_ZNK21QSortFilterProxyModel5buddyERK11QModelIndex	[QtGui]
_ZNK21QSortFilterProxyModel5indexEiiRK11QModelIndex	[QtGui]
_ZNK21QSortFilterProxyModel6parentERK11QModelIndex	[QtGui]
_ZNK21QSortFilterProxyModel8mimeDataERK5QListI11QModelIndexE	[QtGui]
_ZNK21QSortFilterProxyModel8sortRoleEv	[QtXml]
_ZNK24QAbstractPageSetupDialog10metaObjectEv	[QtXml]
_ZNK26QAbstractGraphicsShapeItem12isObscuredByEPK13QGraphicsItem	[QtXml]
_ZNK26QAbstractGraphicsShapeItem5brushEv	[QtXml]
_ZNK27QAbstractTextDocumentLayout11paintDeviceEv	[QtGui]
_ZNK27QAbstractTextDocumentLayout8anchorAtERK7QPointF	[QtGui]
_ZNK9QDirModel10headerDataEiN2Qt11OrientationEi	[QtGui]
_ZNK9QDirModel10metaObjectEv	[QtGui]
_ZNK9QDirModel11hasChildrenERK11QModelIndex	[QtGui]
_ZNK9QDirModel12iconProviderEv	[QtGui]
_ZNK9QDirModel15resolveSymlinksEv	[QtGui]
_ZNK9QDirModel4dataERK11QModelIndexi	[QtGui]
_ZNK9QDirModel5indexERK7QStringi	[QtGui]
_ZNK9QDirModel5isDirERK11QModelIndex	[QtGui]
_ZNK9QDirModel6parentERK11QModelIndex	[QtGui]
_ZNK9QDirModel8fileIconERK11QModelIndex	[QtGui]
_ZNK9QDirModel8fileNameERK11QModelIndex	[QtGui]
_ZNK9QDirModel8mimeDataERK5QListI11QModelIndexE	[QtGui]
_ZNK9QDirModel9mimeTypesEv	[QtGui]
_ZNK9QTreeView10indexBelowERK11QModelIndex	[QtGui]
_ZNK9QTreeView10isExpandedERK11QModelIndex	[QtGui]
_ZNK9QTreeView10visualRectERK11QModelIndex	[QtGui]
_ZNK9QTreeView11indentationEv	[QtGui]
_ZNK9QTreeView12drawBranchesEP8QPainterRK5QRectRK11QModelIndex	[QtGui]
_ZNK9QTreeView14isColumnHiddenEi	[QtGui]

_ZNK9QTreeView15itemsExpandableEv [QtGui]
_ZNK9QTreeView15selectedIndexesEv [QtGui]
_ZNK9QTreeView16indexRowSizeHintERK11QModelIndex [QtGui]
_ZNK9QTreeView17sizeHintForColumnEi [QtGui]
_ZNK9QTreeView19allColumnsShowFocusEv [QtXml]
_ZNK9QTreeView24visualRegionForSelectionERK14QItemSelection [QtGui]
_ZNK9QTreeView7drawRowEP8QPainterRK20QStyleOptionViewItemRK11QModelIndex [QtGui]
_ZNK9QTreeView8columnAtEi [QtGui]
_Zls6QDebugRK19QItemSelectionRange [QtGui]
_ZlsR11QDataStreamRK15QTreeWidgetItem [QtGui]
_ZrsR11QDataStreamR13QStandardItem [QtXml]
_ZrsR11QDataStreamR16QTableWidgetItem [QtGui]

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Models and Views specified in [Table 17-258](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-258. libQtGui - Qt4 Models and Views Deprecated Function Interfaces

_ZN21QAbstractItemDelegate10elidedTextERK12QFontMetricsiN2Qt13TextElideModeERK7QString [QtGui]	_ZNK11QText [QtGui]

17.5.10. Qt4 Dialogs

17.5.10.1. Class data for QDialog

The virtual table for the QDialog class is described by [Table 17-259](#)

Table 17-259. Primary vtable for QDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDialog
vfunc[0]:	QDialog::metaObject() const
vfunc[1]:	QDialog::qt_metacast(char const*)
vfunc[2]:	QDialog::qt_metacall(QMetaObject::Call, int, void**)

vfunc[3]:	QDialog::~QDialog()
vfunc[4]:	QDialog::~QDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)

vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()

The Run Time Type Information for the QDialog class is described by [Table 17-260](#)

Table 17-260. typeinfo for QDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDialog
basetype:	typeinfo for QWidget

17.5.10.2. Class data for QColorDialog

The virtual table for the QColorDialog class is described by [Table 17-261](#)

Table 17-261. Primary vtable for QColorDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QColorDialog
vfunc[0]:	QColorDialog::metaObject() const
vfunc[1]:	QColorDialog::qt_metacast(char const*)
vfunc[2]:	QColorDialog::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QColorDialog::~~QColorDialog()
vfunc[4]:	QColorDialog::~QColorDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)

vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()

The Run Time Type Information for the QColorDialog class is described by [Table 17-262](#)

Table 17-262. typeid for QColorDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QColorDialog

basetype:	typeinfo for QDialog

17.5.10.3. Class data for QFontDialog

The virtual table for the QFontDialog class is described by [Table 17-263](#)

Table 17-263. Primary vtable for QFontDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFontDialog
vfunc[0]:	QFontDialog::metaObject() const
vfunc[1]:	QFontDialog::qt_metacast(char const*)
vfunc[2]:	QFontDialog::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QFontDialog::~~QFontDialog()
vfunc[4]:	QFontDialog::~QFontDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QFontDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)

vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()

vfunc[56]:	QDialog::reject()

The Run Time Type Information for the QFontDialog class is described by [Table 17-264](#)

Table 17-264. typeinfo for QFontDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFontDialog
basetype:	typeinfo for QDialog

17.5.10.4. Class data for QMessageBox

The virtual table for the QMessageBox class is described by [Table 17-265](#)

Table 17-265. Primary vtable for QMessageBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMessageBox
vfunc[0]:	QMessageBox::metaObject() const
vfunc[1]:	QMessageBox::qt_metacast(char const*)
vfunc[2]:	QMessageBox::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QMessageBox::~QMessageBox()
vfunc[4]:	QMessageBox::~~QMessageBox()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QMessageBox::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const

vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QMessageBox::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QMessageBox::resizeEvent(QResizeEvent*)
vfunc[32]:	QMessageBox::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QMessageBox::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QMessageBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)

vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()

The Run Time Type Information for the QMessageBox class is described by [Table 17-266](#)

Table 17-266. typeinfo for QMessageBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMessageBox
basetype:	typeinfo for QDialog

17.5.10.5. Class data for QProgressDialog

The virtual table for the QProgressDialog class is described by [Table 17-267](#)

Table 17-267. Primary vtable for QProgressDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QProgressDialog
vfunc[0]:	QProgressDialog::metaObject() const
vfunc[1]:	QProgressDialog::qt_metacast(char const*)
vfunc[2]:	QProgressDialog::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QProgressDialog::~QProgressDialog()
vfunc[4]:	QProgressDialog::~QProgressDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)

vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QProgressDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QProgressDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QProgressDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QProgressDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QProgressDialog::changeEvent(QEvent*)

vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()

The Run Time Type Information for the QProgressDialog class is described by [Table 17-268](#)

Table 17-268. typeinfo for QProgressDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QProgressDialog
basetype:	typeinfo for QDialog

17.5.10.6. Class data for QErrorMessage

The virtual table for the QErrorMessage class is described by [Table 17-269](#)

Table 17-269. Primary vtable for QErrorMessage

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QErrorMessage
vfunc[0]:	QErrorMessage::metaObject() const
vfunc[1]:	QErrorMessage::qt_metacast(char const*)
vfunc[2]:	QErrorMessage::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QErrorMessage::~QErrorMessage()
vfunc[4]:	QErrorMessage::~QErrorMessage()

vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QErrorMessage::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()

The Run Time Type Information for the QErrorMessage class is described by [Table 17-270](#)

Table 17-270. typeinfo for QErrorMessage

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QErrorMessage
basetype:	typeinfo for QDialog

17.5.10.7. Class data for QFileDialog

The virtual table for the QFileDialog class is described by [Table 17-271](#)

Table 17-271. Primary vtable for QFileDialog

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QDialog
vfunc[0]:	QFileDialog::metaObject() const
vfunc[1]:	QFileDialog::qt_metacast(char const*)
vfunc[2]:	QFileDialog::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QFileDialog::~~QFileDialog()
vfunc[4]:	QFileDialog::~QFileDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)

vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QFileDialog::done(int)
vfunc[55]:	QFileDialog::accept()
vfunc[56]:	QDialog::reject()

The Run Time Type Information for the QFileDialog class is described by [Table 17-272](#)

Table 17-272. typeid for QFileDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QFileDialog
basetype:	typeid for QDialog

17.5.10.8. Class data for QPrintDialog

The virtual table for the QPrintDialog class is described by [Table 17-273](#)

Table 17-273. Primary vtable for QPrintDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPrintDialog
vfunc[0]:	QPrintDialog::metaObject() const
vfunc[1]:	QPrintDialog::qt_metacast(char const*)
vfunc[2]:	QPrintDialog::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QPrintDialog::~~QPrintDialog()
vfunc[4]:	QPrintDialog::~QPrintDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)

vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()
vfunc[57]:	QPrintDialog::exec()

The Run Time Type Information for the QPrintDialog class is described by [Table 17-274](#)

Table 17-274. typeinfo for QPrintDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPrintDialog
basetype:	typeinfo for QAbstractPrintDialog

17.5.10.9. Class data for QPageSetupDialog

The virtual table for the QPageSetupDialog class is described by [Table 17-275](#)

Table 17-275. Primary vtable for QPageSetupDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPageSetupDialog
vfunc[0]:	QDialog::metaObject() const
vfunc[1]:	QDialog::qt_metacast(char const*)
vfunc[2]:	QDialog::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QPageSetupDialog::~~QPageSetupDialog()
vfunc[4]:	NULL or QPageSetupDialog::~~QPageSetupDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const

vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)

vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()
vfunc[57]:	QPageSetupDialog::exec()

The Run Time Type Information for the QPageSetupDialog class is described by [Table 17-276](#)

Table 17-276. typeinfo for QPageSetupDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPageSetupDialog
basetype:	typeinfo for QAbstractPageSetupDialog

17.5.10.10. Class data for QInputDialog

The virtual table for the QInputDialog class is described by [Table 17-277](#)

Table 17-277. Primary vtable for QInputDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QInputDialog
vfunc[0]:	QInputDialog::metaObject() const
vfunc[1]:	QInputDialog::qt_metacast(char const*)
vfunc[2]:	QInputDialog::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QInputDialog::~~QInputDialog()
vfunc[4]:	QInputDialog::~QInputDialog()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)

vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QDialog::setVisible(bool)
vfunc[14]:	QDialog::sizeHint() const
vfunc[15]:	QDialog::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[32]:	QDialog::closeEvent(QCloseEvent*)
vfunc[33]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QDialog::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)

vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDialog::done(int)
vfunc[55]:	QDialog::accept()
vfunc[56]:	QDialog::reject()

The Run Time Type Information for the QDialog class is described by [Table 17-278](#)

Table 17-278. typeinfo for QDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDialog
basetype:	typeinfo for QDialog

17.5.10.11. Class data for QFileIconProvider

The virtual table for the QFileIconProvider class is described by [Table 17-279](#)

Table 17-279. Primary vtable for QFileIconProvider

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFileIconProvider
vfunc[0]:	QFileIconProvider::~~QFileIconProvider()
vfunc[1]:	QFileIconProvider::~~QFileIconProvider()
vfunc[2]:	QFileIconProvider::icon(QFileIconProvider::IconType) const
vfunc[3]:	QFileIconProvider::icon(QFileInfo const&) const
vfunc[4]:	QFileIconProvider::type(QFileInfo const&) const

The Run Time Type Information for the QFileIconProvider class is described by [Table 17-280](#)

Table 17-280. typeinfo for QFileIconProvider

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QFileIconProvider

17.5.10.12. Interfaces for Qt4 Dialogs

An LSB conforming implementation shall provide the generic functions for Qt4 Dialogs specified in [Table 17-281](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-281. libQtGui - Qt4 Dialogs Function Interfaces

_ZN11QFileDialog10selectFileERK7QString [QtGui]
_ZN11QFileDialog10setHistoryERK11QStringList [QtGui]
_ZN11QFileDialog11qt_metacastEPKc [QtGui]
_ZN11QFileDialog11setReadOnlyEb [QtGui]
_ZN11QFileDialog12selectFilterERK7QString [QtGui]
_ZN11QFileDialog12setLabelTextENS_11DialogLabelERK7QString [QtGui]
_ZN11QFileDialog13setAcceptModeENS_10AcceptModeE [QtGui]
_ZN11QFileDialog15getOpenFileNameEP7QWidgetRK7QStringS4_S4_PS2_6QFlagsINS_6OptionEE [QtGui]
_ZN11QFileDialog15setIconProviderEP17QFileIconProvider [QtGui]
_ZN11QFileDialog16getOpenFileNamesEP7QWidgetRK7QStringS4_S4_PS2_6QFlagsINS_6OptionEE [QtGui]
_ZN11QFileDialog18setResolveSymlinksEb [QtGui]
_ZN11QFileDialog20getExistingDirectoryEP7QWidgetRK7QStringS4_6QFlagsINS_6OptionEE [QtGui]
_ZN11QFileDialog6acceptEv [QtGui]
_ZN11QFileDialogC1EP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]
_ZN11QFileDialogC1ERK15QFileDialogArgs [QtGui]
_ZN11QFileDialogC2EP7QWidgetRK7QStringS4_S4_ [QtGui]
_ZN11QFileDialogD0Ev [QtGui]
_ZN11QFileDialogD2Ev [QtGui]
_ZN11QFontDialog7getFontEPbP7QWidget [QtGui]
_ZN11QFontDialog7getFontEPbRK5QFontP7QWidgetRK7QString [QtXml]
_ZN11QFontDialogD1Ev [QtGui]
_ZN11QMessageBox10closeEventEP11QCloseEvent [QtGui]
_ZN11QMessageBox11informationEP7QWidgetRK7QStringS4_6QFlagsINS_14StandardButtonEES6_ [QtXml]

_ZN11QMessageBox11informationEP7QWidgetRK7QStringS4_iii [QtGui]
_ZN11QMessageBox11qt_metacastEPKc [QtGui]
_ZN11QMessageBox12removeButtonEP15QAbstractButton [QtXml]
_ZN11QMessageBox12standardIconENS_4IconEN2Qt8GUIStyleE [QtGui]
_ZN11QMessageBox13setButtonTextEiRK7QString [QtGui]
_ZN11QMessageBox13setTextFormatEN2Qt10TextFormatE [QtGui]
_ZN11QMessageBox15setDetailedTextERK7QString [QtXml]
_ZN11QMessageBox16setDefaultButtonEP11QPushButton [QtXml]
_ZN11QMessageBox18setInformativeTextERK7QString [QtXml]
ZN11QMessageBox5aboutEP7QWidgetRK7QStringS4 [QtGui]
_ZN11QMessageBox7setIconENS_4IconE [QtGui]
_ZN11QMessageBox7warningEP7QWidgetRK7QStringS4_6QFlagsINS_14StandardButtonEES6_ [QtXml]
_ZN11QMessageBox7warningEP7QWidgetRK7QStringS4_iii [QtGui]
_ZN11QMessageBox8criticalEP7QWidgetRK7QStringS4_S4_S4_ii [QtGui]
_ZN11QMessageBox8questionEP7QWidgetRK7QStringS4_6QFlagsINS_14StandardButtonEES6_ [QtXml]
_ZN11QMessageBox8questionEP7QWidgetRK7QStringS4_iii [QtGui]
_ZN11QMessageBox9addButtonEP15QAbstractButtonNS_10ButtonRoleE [QtXml]
_ZN11QMessageBox9showEventEP10QShowEvent [QtGui]
_ZN11QMessageBoxC1EP7QWidget [QtGui]
_ZN11QMessageBoxC1ERK7QStringS2_NS_4IconEiiiP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]
_ZN11QMessageBoxC2ENS_4IconERK7QStringS3_6QFlagsINS_14StandardButtonEEP7QWidgetS4_IN2Qt10WindowTypeEE [QtXml]
_ZN11QMessageBoxC2EP7QWidgetPKc [QtGui]
_ZN11QMessageBoxC2ERK7QStringS2_NS_4IconEiiiP7QWidgetPKc6QFlagsIN2Qt10WindowTypeEE [QtGui]
_ZN11QMessageBoxD1Ev [QtGui]
_ZN12QColorDialog11customColorEi [QtGui]
_ZN12QColorDialog14setCustomColorEij [QtGui]
_ZN12QColorDialog7getRgbEjPbP7QWidget [QtGui]
_ZN12QColorDialogD0Ev [QtGui]
_ZN12QColorDialogD2Ev [QtGui]
_ZN12QInputDialog7getItemEP7QWidgetRK7QStringS4_RK11QStringListibPb6QFlagsIN2Qt10WindowTypeEE [QtGui]
_ZN12QInputDialog9getDoubleEP7QWidgetRK7QStringS4_dddiPb6QFlagsIN2Qt10WindowTypeEE [QtGui]

<u>_ZN12QInputDialogD1Ev [QtGui]</u>
<u>_ZN12QPrintDialog10setPrinterEP8QPrinterb [QtGui]</u>
<u>_ZN12QPrintDialog11qt_metacastEPKc [QtGui]</u>
<u>_ZN12QPrintDialog9addButtonEP11QPushButton [QtGui]</u>
<u>_ZN12QPrintDialogC2EP8QPrinterP7QWidget [QtGui]</u>
<u>_ZN12QPrintDialogD1Ev [QtGui]</u>
<u>_ZN13QErrorMessage11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]</u>
<u>_ZN13QErrorMessage11showMessageERK7QString [QtGui]</u>
<u>_ZN13QErrorMessage9qtHandlerEv [QtGui]</u>
<u>_ZN13QErrorMessageC2EP7QWidget [QtGui]</u>
<u>_ZN13QErrorMessageD1Ev [QtGui]</u>
<u>_ZN15QProgressDialog10closeEventEP11QCloseEvent [QtGui]</u>
<u>_ZN15QProgressDialog10setMinimumEi [QtGui]</u>
<u>_ZN15QProgressDialog11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]</u>
<u>_ZN15QProgressDialog11resizeEventEP12QResizeEvent [QtGui]</u>
<u>_ZN15QProgressDialog12setAutoResetEb [QtGui]</u>
<u>_ZN15QProgressDialog15setCancelButtonEP11QPushButton [QtGui]</u>
<u>_ZN15QProgressDialog19setCancelButtonTextERK7QString [QtGui]</u>
<u>_ZN15QProgressDialog6cancelEv [QtGui]</u>
<u>_ZN15QProgressDialog8canceledEv [QtGui]</u>
<u>_ZN15QProgressDialog8setRangeEii [QtGui]</u>
<u>_ZN15QProgressDialog9forceShowEv [QtGui]</u>
<u>_ZN15QProgressDialogC1EP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]</u>
<u>_ZN15QProgressDialogC2EP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]</u>
<u>_ZN15QProgressDialogD0Ev [QtGui]</u>
<u>_ZN15QProgressDialogD2Ev [QtGui]</u>
<u>_ZN16QPageSetupDialog11qt_metacastEPKc [QtXml]</u>
<u>_ZN16QPageSetupDialogC1EP8QPrinterP7QWidget [QtGui]</u>
<u>_ZN17QFileIconProviderC1Ev [QtGui]</u>
<u>_ZN17QFileIconProviderD0Ev [QtGui]</u>
<u>_ZN17QFileIconProviderD2Ev [QtGui]</u>
<u>_ZN7QDialog10setVisibleEb [QtGui]</u>
<u>_ZN7QDialog11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]</u>

<u>_ZN7QDialog11resizeEventEP12QResizeEvent [QtGui]</u>
<u>_ZN7QDialog13keyPressEventEP9QKeyEvent [QtGui]</u>
<u>_ZN7QDialog14adjustPositionEP7QWidget [QtGui]</u>
<u>_ZN7QDialog16contextMenuEventEP17QContextMenuEvent [QtGui]</u>
<u>_ZN7QDialog4doneEi [QtGui]</u>
<u>_ZN7QDialog6acceptEv [QtGui]</u>
<u>_ZN7QDialog8acceptedEv [QtGui]</u>
<u>_ZN7QDialog8rejectedEv [QtGui]</u>
<u>_ZN7QDialog9setResultEi [QtGui]</u>
<u>_ZN7QDialogC1EP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]</u>
<u>_ZN7QDialogC2EP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]</u>
<u>_ZN7QDialogD0Ev [QtGui]</u>
<u>_ZN7QDialogD2Ev [QtGui]</u>
<u>_ZNK11QFileDialog10isReadOnlyEv [QtGui]</u>
<u>_ZNK11QFileDialog12iconProviderEv [QtGui]</u>
<u>_ZNK11QFileDialog12selectedFileEv [QtGui]</u>
<u>_ZNK11QFileDialog13selectedFilesEv [QtGui]</u>
<u>_ZNK11QFileDialog15resolveSymlinksEv [QtGui]</u>
<u>_ZNK11QFileDialog7filtersEv [QtGui]</u>
<u>_ZNK11QFileDialog8fileModeEv [QtGui]</u>
<u>_ZNK11QFileDialog9directoryEv [QtGui]</u>
<u>_ZNK11QMessageBox10buttonTextEi [QtGui]</u>
<u>_ZNK11QMessageBox10metaObjectEv [QtGui]</u>
<u>_ZNK11QMessageBox12detailedTextEv [QtXml]</u>
<u>_ZNK11QMessageBox13clickedButtonEv [QtXml]</u>
<u>_ZNK11QMessageBox14standardButtonEP15QAbstractButton [QtXml]</u>
<u>_ZNK11QMessageBox15standardButtonsEv [QtXml]</u>
<u>_ZNK11QMessageBox4textEv [QtGui]</u>
<u>_ZNK11QMessageBox8sizeHintEv [QtGui]</u>
<u>_ZNK12QPrintDialog7printerEv [QtGui]</u>
<u>_ZNK15QProgressDialog10metaObjectEv [QtGui]</u>
<u>_ZNK15QProgressDialog15minimumDurationEv [QtGui]</u>
<u>_ZNK15QProgressDialog7maximumEv [QtGui]</u>

_ZNK15QProgressDialog8sizeHintEv [QtGui]
_ZNK15QProgressDialog9autoResetEv [QtGui]
_ZNK16QPageSetupDialog10metaObjectEv [QtXml]
_ZNK17QFileIconProvider4iconERK9QFileInfo [QtGui]
_ZNK7QDialog10metaObjectEv [QtGui]
_ZNK7QDialog15minimumSizeHintEv [QtGui]
_ZNK7QDialog6resultEv [QtGui]
_ZNK7QDialog9extensionEv [QtGui]

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Dialogs specified in [Table 17-282](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-282. libQtGui - Qt4 Dialogs Deprecated Function Interfaces

_ZN11QMessageBox13setButtonTextEiRK7QString [QtGui]	_ZN7QDialog12setExtensionEP7QWidget [QtGui]
_ZN7QDialog13showExtensionEb [QtGui]	_ZN7QDialog14setOrientationEN2Qt11OrientationE [QtGui]
_ZNK11QMessageBox10buttonTextEi [QtGui]	_ZNK7QDialog11orientationEv [QtGui]
_ZNK7QDialog9extensionEv [QtGui]	

17.5.11. Qt4 Date and Time

17.5.11.1. Class data for QDateTimeEdit

The virtual table for the QDateTimeEdit class is described by [Table 17-283](#)

Table 17-283. Primary vtable for QDateTimeEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDateTimeEdit
vfunc[0]:	QDateTimeEdit::metaObject() const
vfunc[1]:	QDateTimeEdit::qt_metacast(char const*)
vfunc[2]:	QDateTimeEdit::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QDateTimeEdit::~~QDateTimeEdit()

vfunc[4]:	NULL or QDateTimeEdit::~QDateTimeEdit()
vfunc[5]:	QDateTimeEdit::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSpinBox::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QDateTimeEdit::sizeHint() const
vfunc[15]:	QAbstractSpinBox::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractSpinBox::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractSpinBox::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractSpinBox::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QDateTimeEdit::wheelEvent(QWheelEvent*)
vfunc[23]:	QDateTimeEdit::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractSpinBox::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QDateTimeEdit::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractSpinBox::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QAbstractSpinBox::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractSpinBox::resizeEvent(QResizeEvent*)
vfunc[32]:	QAbstractSpinBox::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractSpinBox::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)

vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QAbstractSpinBox::showEvent(QShowEvent*)
vfunc[41]:	QAbstractSpinBox::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSpinBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QDateTimeEdit::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDateTimeEdit::validate(QString&, int&) const
vfunc[55]:	QDateTimeEdit::fixup(QString&) const
vfunc[56]:	QDateTimeEdit::stepBy(int)
vfunc[57]:	QDateTimeEdit::clear()
vfunc[58]:	QDateTimeEdit::stepEnabled() const
vfunc[59]:	QDateTimeEdit::dateTimeFromText(QString const&) const
vfunc[60]:	QDateTimeEdit::textFromDateTime(QDateTime const&) const

The Run Time Type Information for the QDateTimeEdit class is described by [Table 17-284](#)

Table 17-284. typeinfo for QDateTimeEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDateTimeEdit
basetype:	typeinfo for QAbstractSpinBox

17.5.11.2. Class data for QTimeEdit

The virtual table for the QTimeEdit class is described by [Table 17-285](#)

Table 17-285. Primary vtable for QTimeEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTimeEdit
vfunc[0]:	QTimeEdit::metaObject() const
vfunc[1]:	QTimeEdit::qt_metacast(char const*)
vfunc[2]:	QTimeEdit::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QTimeEdit::~~QTimeEdit()
vfunc[4]:	NULL or QTimeEdit::~~QTimeEdit()
vfunc[5]:	QDateTimeEdit::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSpinBox::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QDateTimeEdit::sizeHint() const
vfunc[15]:	QAbstractSpinBox::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractSpinBox::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractSpinBox::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractSpinBox::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QDateTimeEdit::wheelEvent(QWheelEvent*)
vfunc[23]:	QDateTimeEdit::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractSpinBox::keyReleaseEvent(QKeyEvent*)

vfunc[25]:	QDateTimeEdit::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractSpinBox::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QAbstractSpinBox::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractSpinBox::resizeEvent(QResizeEvent*)
vfunc[32]:	QAbstractSpinBox::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractSpinBox::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QAbstractSpinBox::showEvent(QShowEvent*)
vfunc[41]:	QAbstractSpinBox::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSpinBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QDateTimeEdit::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDateTimeEdit::validate(QString&, int&) const
vfunc[55]:	QDateTimeEdit::fixup(QString&) const
vfunc[56]:	QDateTimeEdit::stepBy(int)
vfunc[57]:	QDateTimeEdit::clear()

vfunc[58]:	QDateTimeEdit::stepEnabled() const
vfunc[59]:	QDateTimeEdit::dateTimeFromText(QString const&) const
vfunc[60]:	QDateTimeEdit::textFromDateTime(QDateTime const&) const

The Run Time Type Information for the QDateTimeEdit class is described by [Table 17-286](#)

Table 17-286. typeinfo for QDateTimeEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDateTimeEdit
basetype:	typeinfo for QDateTimeEdit

17.5.11.3. Class data for QDateTimeEdit

The virtual table for the QDateTimeEdit class is described by [Table 17-287](#)

Table 17-287. Primary vtable for QDateTimeEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDateTimeEdit
vfunc[0]:	QDateTimeEdit::metaObject() const
vfunc[1]:	QDateTimeEdit::qt_metacast(char const*)
vfunc[2]:	QDateTimeEdit::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QDateTimeEdit::~~QDateTimeEdit()
vfunc[4]:	NULL or QDateTimeEdit::~~QDateTimeEdit()
vfunc[5]:	QDateTimeEdit::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSpinBox::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QDateTimeEdit::sizeHint() const

vfunc[15]:	QAbstractSpinBox::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractSpinBox::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractSpinBox::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractSpinBox::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QDateTimeEdit::wheelEvent(QWheelEvent*)
vfunc[23]:	QDateTimeEdit::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractSpinBox::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QDateTimeEdit::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractSpinBox::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QAbstractSpinBox::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractSpinBox::resizeEvent(QResizeEvent*)
vfunc[32]:	QAbstractSpinBox::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractSpinBox::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QAbstractSpinBox::showEvent(QShowEvent*)
vfunc[41]:	QAbstractSpinBox::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSpinBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QDateTimeEdit::focusNextPrevChild(bool)

vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDateTimeEdit::validate(QString&, int&) const
vfunc[55]:	QDateTimeEdit::fixup(QString&) const
vfunc[56]:	QDateTimeEdit::stepBy(int)
vfunc[57]:	QDateTimeEdit::clear()
vfunc[58]:	QDateTimeEdit::stepEnabled() const
vfunc[59]:	QDateTimeEdit::dateTimeFromText(QString const&) const
vfunc[60]:	QDateTimeEdit::textFromDateTime(QDateTime const&) const

The Run Time Type Information for the QDateTimeEdit class is described by [Table 17-288](#)

Table 17-288. typeinfo for QDateTimeEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDateTimeEdit
basetype:	typeinfo for QDateTimeEdit

17.5.11.4. Interfaces for Qt4 Date and Time

An LSB conforming implementation shall provide the generic functions for Qt4 Date and Time specified in [Table 17-289](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-289. libQtGui - Qt4 Date and Time Function Interfaces

_ZN13QDateTimeEdit10paintEventEP11QPaintEvent [QtXml]	_ZN13QDateTimeEdit10wheelEventEP11QWheelEvent [QtGui]
_ZN13QDateTimeEdit11dateChangedERK5QDate [QtGui]	_ZN13QDateTimeEdit11qt_metacallEN11QMetaObjectI10QDate [QtGui]
_ZN13QDateTimeEdit11qt_metacastEPKc [QtGui]	_ZN13QDateTimeEdit11setDateTimeERK9QDate [QtGui]
_ZN13QDateTimeEdit11timeChangedERK5QTime [QtGui]	_ZN13QDateTimeEdit12focusInEventEP11QFocusEvent [QtGui]
ZN13QDateTimeEdit12setDateRangeERK5QDateS2 [QtGui]	_ZN13QDateTimeEdit12setTimeRangeERK5QTimeS2_ [QtGui]
_ZN13QDateTimeEdit13keyPressEventEP9QKeyEvent [QtGui]	_ZN13QDateTimeEdit14setMaximumDateERK5QDate [QtGui]

_ZN13QDateTimeEdit14setMaximumTimeERK5QTime [QtGui]	_ZN13QDateTimeEdit14setMinimumDateERK5QTime [QtGui]
_ZN13QDateTimeEdit14setMinimumTimeERK5QTime [QtGui]	_ZN13QDateTimeEdit15dateTimeChangedERK9QDate [QtGui]
_ZN13QDateTimeEdit15mousePressEventEP11QMouseEvent [QtXml]	_ZN13QDateTimeEdit16clearMaximumDateEv [QtGui]
_ZN13QDateTimeEdit16clearMaximumTimeEv [QtGui]	_ZN13QDateTimeEdit16clearMinimumDateEv [QtGui]
_ZN13QDateTimeEdit16clearMinimumTimeEv [QtGui]	_ZN13QDateTimeEdit16setCalendarPopupEb [QtGui]
_ZN13QDateTimeEdit16setDisplayFormatERK7QString [QtGui]	_ZN13QDateTimeEdit17setCurrentSectionENS_7SectionE [QtGui]
_ZN13QDateTimeEdit18focusNextPrevChildEb [QtGui]	_ZN13QDateTimeEdit18setSelectedSectionENS_7SectionE [QtGui]
_ZN13QDateTimeEdit5clearEv [QtGui]	_ZN13QDateTimeEdit5eventEP6QEvent [QtGui]
_ZN13QDateTimeEdit6stepByEi [QtGui]	_ZN13QDateTimeEdit7setDateERK5QDate [QtGui]
_ZN13QDateTimeEdit7setTimeERK5QTime [QtGui]	_ZN13QDateTimeEditC1EP7QWidget [QtGui]
_ZN13QDateTimeEditC1ERK5QDateP7QWidget [QtGui]	_ZN13QDateTimeEditC1ERK5QTimeP7QWidget [QtGui]
_ZN13QDateTimeEditC1ERK9QDateTimeP7QWidget [QtGui]	_ZN13QDateTimeEditC2EP7QWidget [QtGui]
_ZN13QDateTimeEditC2ERK5QDateP7QWidget [QtGui]	_ZN13QDateTimeEditC2ERK5QTimeP7QWidget [QtGui]
_ZN13QDateTimeEditC2ERK9QDateTimeP7QWidget [QtGui]	_ZN9QDateEdit11qt_metacallEN11QMetaObject4int [QtGui]
_ZN9QDateEdit11qt_metacastEPKc [QtGui]	_ZN9QDateEditC1EP7QWidget [QtGui]
_ZN9QDateEditC1ERK5QDateP7QWidget [QtGui]	_ZN9QDateEditC2EP7QWidget [QtGui]
_ZN9QDateEditC2ERK5QDateP7QWidget [QtGui]	_ZN9QTimeEdit11qt_metacallEN11QMetaObject4int [QtGui]
_ZN9QTimeEdit11qt_metacastEPKc [QtGui]	_ZN9QTimeEditC1EP7QWidget [QtGui]
_ZN9QTimeEditC1ERK5QTimeP7QWidget [QtGui]	_ZN9QTimeEditC2EP7QWidget [QtGui]
_ZN9QTimeEditC2ERK5QTimeP7QWidget [QtGui]	_ZNK13QDateTimeEdit10metaObjectEv [QtGui]
_ZNK13QDateTimeEdit11maximumDateEv [QtGui]	_ZNK13QDateTimeEdit11maximumTimeEv [QtGui]
_ZNK13QDateTimeEdit11minimumDateEv [QtGui]	_ZNK13QDateTimeEdit11minimumTimeEv [QtGui]
_ZNK13QDateTimeEdit11sectionTextENS_7SectionE [QtGui]	_ZNK13QDateTimeEdit11stepEnabledEv [QtGui]
_ZNK13QDateTimeEdit13calendarPopupEv [QtGui]	_ZNK13QDateTimeEdit13displayFormatEv [QtGui]
_ZNK13QDateTimeEdit14currentSectionEv [QtGui]	_ZNK13QDateTimeEdit16dateTimeFromTextERK9QDate [QtGui]
_ZNK13QDateTimeEdit16textFromDateERK9QDate [QtGui]	_ZNK13QDateTimeEdit17displayedSectionsEv [QtGui]
_ZNK13QDateTimeEdit4dateEv [QtGui]	_ZNK13QDateTimeEdit4timeEv [QtGui]

_ZNK13QDateTimeEdit5fixupER7QString [QtGui]	_ZNK13QDateTimeEdit8dateTimeEv [QtGui]
_ZNK13QDateTimeEdit8sizeHintEv [QtGui]	_ZNK13QDateTimeEdit8validateER7QStringRi [QtGui]
_ZNK9QDateEdit10metaObjectEv [QtGui]	_ZNK9QTimeEdit10metaObjectEv [QtGui]

17.5.12. Qt4 Miscellaneous

17.5.12.1. Class data for QRubberBand

The virtual table for the QRubberBand class is described by [Table 17-290](#)

Table 17-290. Primary vtable for QRubberBand

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QRubberBand
vfunc[0]:	QRubberBand::metaObject() const
vfunc[1]:	QRubberBand::qt_metacast(char const*)
vfunc[2]:	QRubberBand::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QRubberBand::~~QRubberBand()
vfunc[4]:	QRubberBand::~~QRubberBand()
vfunc[5]:	QRubberBand::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)

vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QRubberBand::paintEvent(QPaintEvent*)
vfunc[30]:	QRubberBand::moveEvent(QMoveEvent*)
vfunc[31]:	QRubberBand::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QRubberBand::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QRubberBand::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)

vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QRubberBand class is described by [Table 17-291](#)

Table 17-291. typeinfo for QRubberBand

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QRubberBand
basetype:	typeinfo for QWidget

17.5.12.2. Class data for QShortcut

The virtual table for the QShortcut class is described by [Table 17-292](#)

Table 17-292. Primary vtable for QShortcut

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QShortcut
vfunc[0]:	QShortcut::metaObject() const
vfunc[1]:	QShortcut::qt_metacast(char const*)
vfunc[2]:	QShortcut::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QShortcut::~QShortcut()
vfunc[4]:	QShortcut::~QShortcut()
vfunc[5]:	QShortcut::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QShortcut class is described by [Table 17-293](#)

Table 17-293. typeinfo for QShortcut

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QShortcut

basetype:	typeinfo for QObject

17.5.12.3. Class data for QSplashScreen

The virtual table for the QSplashScreen class is described by [Table 17-294](#)

Table 17-294. Primary vtable for QSplashScreen

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSplashScreen
vfunc[0]:	QSplashScreen::metaObject() const
vfunc[1]:	QSplashScreen::qt_metacast(char const*)
vfunc[2]:	QSplashScreen::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSplashScreen::~~QSplashScreen()
vfunc[4]:	QSplashScreen::~~QSplashScreen()
vfunc[5]:	QSplashScreen::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QSplashScreen::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)

vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QSplashScreen::drawContents(QPainter*)

The Run Time Type Information for the QSplashScreen class is described by [Table 17-295](#)

Table 17-295. typeinfo for QSplashScreen

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSplashScreen
basetype:	typeinfo for QWidget

17.5.12.4. Class data for QUndoCommand

The virtual table for the QUndoCommand class is described by [Table 17-296](#)

Table 17-296. Primary vtable for QUndoCommand

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QUndoCommand
vfunc[0]:	QUndoCommand::~~QUndoCommand()
vfunc[1]:	QUndoCommand::~~QUndoCommand()
vfunc[2]:	QUndoCommand::undo()
vfunc[3]:	QUndoCommand::redo()
vfunc[4]:	QUndoCommand::id() const
vfunc[5]:	QUndoCommand::mergeWith(QUndoCommand const*)

17.5.12.5. Class data for QUndoStack

The virtual table for the QUndoStack class is described by [Table 17-297](#)

Table 17-297. Primary vtable for QUndoStack

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QUndoStack
vfunc[0]:	QUndoStack::metaObject() const
vfunc[1]:	QUndoStack::qt_metacast(char const*)
vfunc[2]:	QUndoStack::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QUndoStack::~~QUndoStack()
vfunc[4]:	QUndoStack::~~QUndoStack()
vfunc[5]:	QObject::event(QEvent*)

vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

17.5.12.6. Interfaces for Qt4 Miscellaneous

An LSB conforming implementation shall provide the generic functions for Qt4 Miscellaneous specified in [Table 17-298](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-298. libQtGui - Qt4 Miscellaneous Function Interfaces

_ZN10QUndoGroup11qt_metacallEN11QMetaObject4CallEiPPv [QtXml]	_ZN10QUndoGroup11qt_m
_ZN10QUndoGroup11removeStackEP10QUndoStack [QtXml]	_ZN10QUndoGroup12clean
_ZN10QUndoGroup12indexChangedEi [QtXml]	_ZN10QUndoGroup14canR
_ZN10QUndoGroup14canUndoChangedEb [QtXml]	_ZN10QUndoGroup14setAc
_ZN10QUndoGroup15redoTextChangedERK7QString [QtXml]	_ZN10QUndoGroup15undo
_ZN10QUndoGroup18activeStackChangedEP10QUndoStack [QtXml]	_ZN10QUndoGroup4redoEv
_ZN10QUndoGroup4undoEv [QtXml]	_ZN10QUndoGroup8addSta
_ZN10QUndoGroupC1EP7QObject [QtXml]	_ZN10QUndoGroupC2EP7Q
_ZN10QUndoStack10beginMacroERK7QString [QtXml]	_ZN10QUndoStack11qt_me
_ZN10QUndoStack11qt_metacastEPKc [QtXml]	_ZN10QUndoStack12clean
_ZN10QUndoStack12indexChangedEi [QtXml]	_ZN10QUndoStack14canRe
_ZN10QUndoStack14canUndoChangedEb [QtXml]	_ZN10QUndoStack15redoT
_ZN10QUndoStack15undoTextChangedERK7QString [QtXml]	_ZN10QUndoStack4pushEP
_ZN10QUndoStack4redoEv [QtXml]	_ZN10QUndoStack4undoEv
_ZN10QUndoStack5clearEv [QtXml]	_ZN10QUndoStack8endMa
_ZN10QUndoStack8setCleanEv [QtXml]	_ZN10QUndoStack8setInde
_ZN10QUndoStack9setActiveEb [QtXml]	_ZN10QUndoStackC1EP7Q
_ZN10QUndoStackC2EP7QObject [QtXml]	_ZN10QUndoStackD0Ev [C
_ZN10QUndoStackD1Ev [QtXml]	_ZN10QUndoStackD2Ev [C
_ZN11QRubberBand10paintEventEP11QPaintEvent [QtGui]	_ZN11QRubberBand11chan
_ZN11QRubberBand11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN11QRubberBand11qt_n

_ZN11QRubberBand11resizeEventEP12QResizeEvent [QtGui]	_ZN11QRubberBand11setG
_ZN11QRubberBand5eventEP6QEvent [QtGui]	_ZN11QRubberBand9move
_ZN11QRubberBand9showEventEP10QShowEvent [QtGui]	_ZN11QRubberBandC1ENS
_ZN11QRubberBandC2ENS_5ShapeEP7QWidget [QtGui]	_ZN11QRubberBandD0Ev
_ZN11QRubberBandD1Ev [QtGui]	_ZN11QRubberBandD2Ev
_ZN12QKeySequence10fromStringERK7QStringNS_14SequenceFormatE [QtGui]	_ZN12QKeySequence11key
_ZN12QKeySequence8mnemonicERK7QString [QtGui]	_ZN12QKeySequenceC1EN
_ZN12QKeySequenceC1ERK7QString [QtGui]	_ZN12QKeySequenceC1ER
_ZN12QKeySequenceC1Eiiii [QtGui]	_ZN12QKeySequenceC1Ev
_ZN12QKeySequenceC2ENS_11StandardKeyE [QtXml]	_ZN12QKeySequenceC2ER
ZN12QKeySequenceC2ERKS [QtGui]	_ZN12QKeySequenceC2Eii
_ZN12QKeySequenceC2Ev [QtGui]	_ZN12QKeySequenceD1Ev
_ZN12QKeySequenceD2Ev [QtGui]	_ZN12QKeySequenceaSER
_ZN12QUndoCommand4redoEv [QtXml]	_ZN12QUndoCommand4un
_ZN12QUndoCommand7setTextERK7QString [QtXml]	_ZN12QUndoCommand9m
ZN12QUndoCommandC1EPS [QtXml]	_ZN12QUndoCommandC1E
ZN12QUndoCommandC2EPS [QtXml]	_ZN12QUndoCommandC2E
_ZN12QUndoCommandD0Ev [QtXml]	_ZN12QUndoCommandD1E
_ZN12QUndoCommandD2Ev [QtXml]	_ZN13QSplashScreen11qt_ [QtGui]
_ZN13QSplashScreen11qt_metacastEPKc [QtGui]	_ZN13QSplashScreen11sho
_ZN13QSplashScreen12clearMessageEv [QtGui]	_ZN13QSplashScreen12dra
_ZN13QSplashScreen14messageChangedERK7QString [QtGui]	_ZN13QSplashScreen15mo
_ZN13QSplashScreen5eventEP6QEvent [QtGui]	_ZN13QSplashScreen6finis
_ZN13QSplashScreen7repaintEv [QtGui]	_ZN13QSplashScreen9setPi
_ZN13QSplashScreenC1EP7QWidgetRK7QPixmap6QFlagsIN2Qt10WindowTypeEE [QtGui]	_ZN13QSplashScreenC1ER [QtGui]
_ZN13QSplashScreenC2EP7QWidgetRK7QPixmap6QFlagsIN2Qt10WindowTypeEE [QtGui]	_ZN13QSplashScreenC2ER [QtGui]
_ZN13QSplashScreenD0Ev [QtGui]	_ZN13QSplashScreenD1Ev
_ZN13QSplashScreenD2Ev [QtGui]	_ZN7QCursor3posEv [QtGu
_ZN7QCursor6setPosEii [QtGui]	_ZN7QCursor8setShapeEN2
_ZN7QCursor9x11ScreenEv [QtGui]	_ZN7QCursorC1EN2Qt11C
_ZN7QCursorC1ERK7QBitmapS2_ii [QtGui]	_ZN7QCursorC1ERK7QPix

ZN7QCursorC1ERKS [QtGui]	_ZN7QCursorC1Em [QtGui]
_ZN7QCursorC1Ev [QtGui]	_ZN7QCursorC2EN2Qt11C
_ZN7QCursorC2ERK7QBitmapS2_ii [QtGui]	_ZN7QCursorC2ERK7QPix
ZN7QCursorC2ERKS [QtGui]	_ZN7QCursorC2Em [QtGui]
_ZN7QCursorC2Ev [QtGui]	_ZN7QCursorD1Ev [QtGui]
_ZN7QCursorD2Ev [QtGui]	_ZN7QCursorSERKS_ [QtGui]
_ZN9QShortcut10setContextEN2Qt15ShortcutContextE [QtGui]	_ZN9QShortcut10setEnabled
_ZN9QShortcut11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN9QShortcut11qt_metaca
_ZN9QShortcut12setWhatsThisERK7QString [QtGui]	_ZN9QShortcut13setAutoRe
_ZN9QShortcut20activatedAmbiguouslyEv [QtGui]	_ZN9QShortcut5eventEP6Q
_ZN9QShortcut6setKeyERK12QKeySequence [QtGui]	_ZN9QShortcut7contextEv [QtGui]
_ZN9QShortcut9activatedEv [QtGui]	_ZN9QShortcutC1EP7QWid
_ZN9QShortcutC1ERK12QKeySequenceP7QWidgetPKcS6_N2Qt15ShortcutContextE [QtGui]	_ZN9QShortcutC2EP7QWid
_ZN9QShortcutC2ERK12QKeySequenceP7QWidgetPKcS6_N2Qt15ShortcutContextE [QtGui]	_ZN9QShortcutD0Ev [QtGui]
_ZN9QShortcutD1Ev [QtGui]	_ZN9QShortcutD2Ev [QtGui]
_ZN9QUndoView11qt_metacallEN11QMetaObject4CallEiPPv [QtXml]	_ZN9QUndoView11qt_metc
_ZN9QUndoView12setCleanIconERK5QIcon [QtXml]	_ZN9QUndoView13setEmp
_ZN9QUndoView8setGroupEP10QUndoGroup [QtXml]	_ZN9QUndoView8setStack
_ZN9QUndoViewC1EP10QUndoGroupP7QWidget [QtXml]	_ZN9QUndoViewC1EP10Q
_ZN9QUndoViewC1EP7QWidget [QtXml]	_ZN9QUndoViewC2EP10Q
_ZN9QUndoViewC2EP10QUndoStackP7QWidget [QtXml]	_ZN9QUndoViewC2EP7QV
_ZN9QUndoViewD0Ev [QtXml]	_ZN9QUndoViewD1Ev [Qt
_ZN9QUndoViewD2Ev [QtXml]	_ZNK10QUndoGroup10me
_ZNK10QUndoGroup11activeStackEv [QtXml]	_ZNK10QUndoGroup16cre [QtXml]
_ZNK10QUndoGroup16createUndoActionEP7QObjectRK7QString [QtXml]	_ZNK10QUndoGroup6stack
_ZNK10QUndoGroup7canRedoEv [QtXml]	_ZNK10QUndoGroup7canU
_ZNK10QUndoGroup7isCleanEv [QtXml]	_ZNK10QUndoGroup8redo
_ZNK10QUndoGroup8undoTextEv [QtXml]	_ZNK10QUndoStack10clea
_ZNK10QUndoStack10metaObjectEv [QtXml]	_ZNK10QUndoStack16cre [QtXml]
_ZNK10QUndoStack16createUndoActionEP7QObjectRK7QString [QtXml]	_ZNK10QUndoStack4textE

_ZNK10QUndoStack5countEv [QtXml]	_ZNK10QUndoStack5index
_ZNK10QUndoStack7canRedoEv [QtXml]	_ZNK10QUndoStack7canU
_ZNK10QUndoStack7isCleanEv [QtXml]	_ZNK10QUndoStack8isAct
_ZNK10QUndoStack8redoTextEv [QtXml]	_ZNK10QUndoStack8undo
_ZNK11QRubberBand10metaObjectEv [QtGui]	_ZNK11QRubberBand5shap
_ZNK12QKeySequence10isDetachedEv [QtGui]	_ZNK12QKeySequence5cor
_ZNK12QKeySequence7isEmptyEv [QtGui]	_ZNK12QKeySequence7ma
_ZNK12QKeySequence8toStringENS_14SequenceFormatE [QtGui]	_ZNK12QKeySequencecv7
_ZNK12QKeySequencecv8QVariantEv [QtGui]	_ZNK12QKeySequencecviE
ZNK12QKeySequenceeqERKS [QtGui]	_ZNK12QKeySequenceixEj
ZNK12QKeySequenceltERKS [QtGui]	_ZNK12QUndoCommand2
_ZNK12QUndoCommand4textEv [QtXml]	_ZNK13QSplashScreen10m
_ZNK13QSplashScreen6pixmapEv [QtGui]	_ZNK7QCursor4maskEv [Q
_ZNK7QCursor5shapeEv [QtGui]	_ZNK7QCursor6bitmapEv [
_ZNK7QCursor6handleEv [QtGui]	_ZNK7QCursor6pixmapEv
_ZNK7QCursor7hotSpotEv [QtGui]	_ZNK7QCursorcv8QVari
_ZNK9QShortcut10autoRepeatEv [QtXml]	_ZNK9QShortcut10metaOb
_ZNK9QShortcut2idEv [QtGui]	_ZNK9QShortcut3keyEv [Q
_ZNK9QShortcut9isEnabledEv [QtGui]	_ZNK9QShortcut9whatsThi
_ZNK9QUndoView10emptyLabelEv [QtXml]	_ZNK9QUndoView10metaO
_ZNK9QUndoView5groupEv [QtXml]	_ZNK9QUndoView5stackE
_ZNK9QUndoView9cleanIconEv [QtXml]	_Zls6QDebugRK12QKeySe
_ZlsR11QDataStreamRK12QKeySequence [QtGui]	_ZlsR11QDataStreamRK7Q
_ZrsR11QDataStreamR12QKeySequence [QtGui]	_ZrsR11QDataStreamR7QC

17.5.13. Qt4 Paint Device

17.5.13.1. Class data for QPaintDevice

The virtual table for the QPaintDevice class is described by [Table 17-299](#)

Table 17-299. Primary vtable for QPaintDevice

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QPaintDevice
vfunc[0]:	QPaintDevice::~~QPaintDevice()
vfunc[1]:	QPaintDevice::~~QPaintDevice()
vfunc[2]:	NULL or QPaintDevice::devType() const
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	QPaintDevice::metric(QPaintDevice::PaintDeviceMetric) const

The Run Time Type Information for the QPaintDevice class is described by [Table 17-300](#)

Table 17-300. typeinfo for QPaintDevice

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QPaintDevice

17.5.13.2. Class data for QPixmap

The virtual table for the QPixmap class is described by [Table 17-301](#)

Table 17-301. Primary vtable for QPixmap

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPixmap
vfunc[0]:	QPixmap::~~QPixmap()
vfunc[1]:	QPixmap::~~QPixmap()
vfunc[2]:	QPixmap::devType() const
vfunc[3]:	QPixmap::paintEngine() const
vfunc[4]:	QPixmap::metric(QPaintDevice::PaintDeviceMetric) const

The Run Time Type Information for the QPixmap class is described by [Table 17-302](#)

Table 17-302. typeinfo for QPixmap

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPixmap
basetype:	typeinfo for QPaintDevice

17.5.13.3. Class data for QPixmap

The virtual table for the QPixmap class is described by [Table 17-303](#)

Table 17-303. Primary vtable for QPixmap

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPixmap
vfunc[0]:	QPixmap::~~QPixmap()
vfunc[1]:	QPixmap::~~QPixmap()
vfunc[2]:	QPixmap::devType() const
vfunc[3]:	QPixmap::paintEngine() const
vfunc[4]:	QPixmap::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[5]:	QPixmap::setData(char const*, unsigned int)

The Run Time Type Information for the QPixmap class is described by [Table 17-304](#)

Table 17-304. typeinfo for QPixmap

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPixmap
basetype:	typeinfo for QPaintDevice

17.5.13.4. Class data for QBitmap

The virtual table for the QBitmap class is described by [Table 17-305](#)

Table 17-305. Primary vtable for QBitmap

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QBitmap
vfunc[0]:	QBitmap::~~QBitmap()
vfunc[1]:	QBitmap::~~QBitmap()
vfunc[2]:	QPixmap::devType() const
vfunc[3]:	QPixmap::paintEngine() const
vfunc[4]:	QPixmap::metric(QPaintDevice::PaintDeviceMetric) const

The Run Time Type Information for the QBitmap class is described by [Table 17-306](#)

Table 17-306. typeinfo for QBitmap

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QBitmap
basetype:	typeinfo for QPixmap

17.5.13.5. Class data for QPictureFormatInterface

The virtual table for the QPictureFormatInterface class is described by [Table 17-307](#)

Table 17-307. Primary vtable for QPictureFormatInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPictureFormatInterface
vfunc[0]:	NULL or QPictureFormatInterface::~~QPictureFormatInterface()
vfunc[1]:	NULL or QPictureFormatInterface::~~QPictureFormatInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual

The Run Time Type Information for the QPictureFormatInterface class is described by [Table 17-308](#)

Table 17-308. typeinfo for QPictureFormatInterface

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPictureFormatInterface
basetype:	typeinfo for QFactoryInterface

17.5.13.6. Class data for QPainter

The virtual table for the QPainter class is described by [Table 17-309](#)

Table 17-309. Primary vtable for QPainter

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QPrinter
vfunc[0]:	QPrinter::~~QPrinter()
vfunc[1]:	QPrinter::~~QPrinter()
vfunc[2]:	QPrinter::devType() const
vfunc[3]:	QPrinter::paintEngine() const
vfunc[4]:	QPrinter::metric(QPaintDevice::PaintDeviceMetric) const

The Run Time Type Information for the QPrinter class is described by [Table 17-310](#)

Table 17-310. typeinfo for QPrinter

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPrinter
basetype:	typeinfo for QPaintDevice

17.5.13.7. Class data for QPrintEngine

The virtual table for the QPrintEngine class is described by [Table 17-311](#)

Table 17-311. Primary vtable for QPrintEngine

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPrintEngine
vfunc[0]:	NULL or QPrintEngine::~~QPrintEngine()
vfunc[1]:	NULL or QPrintEngine::~~QPrintEngine()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	__cxa_pure_virtual

The Run Time Type Information for the QPrintEngine class is described by [Table 17-312](#)

Table 17-312. typeinfo for QPrintEngine

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QPrintEngine

17.5.13.8. Interfaces for Qt4 Paint Device

An LSB conforming implementation shall provide the generic functions for Qt4 Paint Device specified in [Table 17-313](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-313. libQtGui - Qt4 Paint Device Function Interfaces

_ZN10QPictureIO10setPictureERK8QPicture [QtGui]	_ZN10QPictureIO10setPictureERK8QPicture [QtGui]
_ZN10QPictureIO11setFileNameERK7QString [QtGui]	_ZN10QPictureIO11setFileNameERK7QString [QtGui]
_ZN10QPictureIO12inputFormatsEv [QtGui]	_ZN10QPictureIO12inputFormatsEv [QtGui]
_ZN10QPictureIO13pictureFormatEP9QIODevice [QtGui]	_ZN10QPictureIO13pictureFormatEP9QIODevice [QtGui]
_ZN10QPictureIO13setParametersEPKc [QtGui]	_ZN10QPictureIO13setParametersEPKc [QtGui]
_ZN10QPictureIO15defineIOHandlerEPKcS1_S1_PfVPS_ES4_ [QtGui]	_ZN10QPictureIO15defineIOHandlerEPKcS1_S1_PfVPS_ES4_ [QtGui]
_ZN10QPictureIO5writeEv [QtGui]	_ZN10QPictureIO5writeEv [QtGui]
_ZN10QPictureIO9setFormatEPKc [QtGui]	_ZN10QPictureIO9setFormatEPKc [QtGui]
_ZN10QPictureIOC1EP9QIODevicePKc [QtGui]	_ZN10QPictureIOC1EP9QIODevicePKc [QtGui]
_ZN10QPictureIOC1Ev [QtGui]	_ZN10QPictureIOC1Ev [QtGui]
_ZN10QPictureIOC2ERK7QStringPKc [QtGui]	_ZN10QPictureIOC2ERK7QStringPKc [QtGui]
_ZN10QPictureIOD1Ev [QtGui]	_ZN10QPictureIOD1Ev [QtGui]
_ZN12QPaintDevice10x11AppDpiXEi [QtGui]	_ZN12QPaintDevice10x11AppDpiXEi [QtGui]
_ZN12QPaintDevice11x11AppCellsEi [QtGui]	_ZN12QPaintDevice11x11AppCellsEi [QtGui]
_ZN12QPaintDevice12x11AppScreenEv [QtGui]	_ZN12QPaintDevice12x11AppScreenEv [QtGui]
_ZN12QPaintDevice13x11AppDisplayEv [QtGui]	_ZN12QPaintDevice13x11AppDisplayEv [QtGui]
_ZN12QPaintDevice13x11SetAppDpiYEii [QtGui]	_ZN12QPaintDevice13x11SetAppDpiYEii [QtGui]
_ZN12QPaintDevice16x11AppRootWindowEi [QtGui]	_ZN12QPaintDevice16x11AppRootWindowEi [QtGui]
_ZN12QPaintDevice21x11AppDefaultColormapEi [QtGui]	_ZN12QPaintDevice21x11AppDefaultColormapEi [QtGui]
_ZN12QPaintDeviceC2Ev [QtGui]	_ZN12QPaintDeviceC2Ev [QtGui]
_ZN12QPaintDeviceD1Ev [QtGui]	_ZN12QPaintDeviceD1Ev [QtGui]
_ZN12QPixmapCache10cacheLimitEv [LSB]	_ZN12QPixmapCache10cacheLimitEv [LSB]
_ZN12QPixmapCache4findERK7QString [QtGui]	_ZN12QPixmapCache4findERK7QString [QtGui]
_ZN12QPixmapCache5clearEv [QtGui]	_ZN12QPixmapCache5clearEv [QtGui]
_ZN12QPixmapCache6removeERK7QString [QtGui]	_ZN12QPixmapCache6removeERK7QString [QtGui]
_ZN7QBitmap8fromImageEP12QPaintDevice [QtGui]	_ZN7QBitmap8fromImageEP12QPaintDevice [QtGui]

_ZN7QBitmap9fromImageERK6QImage6QFlagsIN2Qt19ImageConversionFlagEE [QtGui]	_ZN7QBitmapC1ERK6QImage6QFlagsIN2Qt19ImageConversionFlagEE [QtGui]
_ZN7QBitmapC1ERK5QSizePKhb [QtGui]	_ZN7QBitmapC1ERK5QSizePKhb [QtGui]
_ZN7QBitmapC1ERK7QStringPKc [QtGui]	_ZN7QBitmapC1ERK7QStringPKc [QtGui]
_ZN7QBitmapC1EiiPKhb [QtGui]	_ZN7QBitmapC1EiiPKhb [QtGui]
_ZN7QBitmapC2ERK5QSize [QtGui]	_ZN7QBitmapC2ERK5QSize [QtGui]
_ZN7QBitmapC2ERK7QPixmap [QtGui]	_ZN7QBitmapC2ERK7QPixmap [QtGui]
_ZN7QBitmapC2Eii [QtGui]	_ZN7QBitmapC2Eii [QtGui]
_ZN7QBitmapC2Ev [QtGui]	_ZN7QBitmapD0Ev [QtGui]
_ZN7QBitmapD1Ev [QtGui]	_ZN7QBitmapD2Ev [QtGui]
_ZN7QBitmapaSERK7QPixmap [QtGui]	_ZN7QPixmap10grabWindowEmiiii [QtGui]
_ZN7QPixmap10grabWindowEmiiii [QtGui]	_ZN7QPixmap10grabWindowEmiiii [QtGui]
_ZN7QPixmap12defaultDepthEv [QtGui]	_ZN7QPixmap12loadFromDataEPKhjPKcNS_9ColorModeE [QtGui]
_ZN7QPixmap12loadFromDataEPKhjPKcNS_9ColorModeE [QtGui]	_ZN7QPixmap12loadFromDataEPKhjPKcNS_9ColorModeE [QtGui]
ZN7QPixmap15setAlphaChannelERKS [QtGui]	_ZN7QPixmap16convertFromImageERK6QImage6QFlagsIN2Qt19ImageConversionFlagEE [QtGui]
_ZN7QPixmap19x11SetDefaultScreenEi [LSB]	_ZN7QPixmap4fillERK6QColor [QtGui]
_ZN7QPixmap4fillERK6QColor [QtGui]	_ZN7QPixmap4loadERK7QStringPKcNS_9ColorModeE [QtGui]
_ZN7QPixmap4loadERK7QStringPKcNS_9ColorModeE [QtGui]	_ZN7QPixmap6detailERK6QImage6QFlagsIN2Qt19ImageConversionFlagEE [QtGui]
_ZN7QPixmap7setMaskERK7QBitmap [QtGui]	_ZN7QPixmap9fromImageERK6QImage6QFlagsIN2Qt19ImageConversionFlagEE [QtGui]
_ZN7QPixmapC1EPKPKc [QtGui]	_ZN7QPixmapC1ERK6QImage [QtGui]
_ZN7QPixmapC1ERK6QImage [QtGui]	_ZN7QPixmapC1ERK7QStringPKcNS_9ColorModeE [QtGui]
_ZN7QPixmapC1ERK7QStringPKcNS_9ColorModeE [QtGui]	_ZN7QPixmapC1Eii [QtGui]
_ZN7QPixmapC1Eii [QtGui]	_ZN7QPixmapC1Ev [QtGui]
_ZN7QPixmapC2EPKPKc [QtGui]	_ZN7QPixmapC2ERK6QImage [QtGui]
_ZN7QPixmapC2ERK6QImage [QtGui]	_ZN7QPixmapC2ERK7QStringPKcNS_9ColorModeE [QtGui]
_ZN7QPixmapC2ERK7QStringPKcNS_9ColorModeE [QtGui]	_ZN7QPixmapC2Eii [QtGui]
_ZN7QPixmapC2Eii [QtGui]	_ZN7QPixmapC2Ev [QtGui]
_ZN7QPixmapD0Ev [QtGui]	_ZN7QPixmapD1Ev [QtGui]
_ZN7QPixmapD2Ev [QtGui]	_ZN7QPixmapaSERK7QPixmap [QtGui]
ZN7QPixmapaSERKS [QtGui]	_ZN8QPicture12inplace [QtGui]

_ZN8QPicture13outputFormatsEv [QtGui]	_ZN8QPicture13pic
_ZN8QPicture15inputFormatListEv [QtGui]	_ZN8QPicture15setI
_ZN8QPicture16outputFormatListEv [QtGui]	_ZN8QPicture4loadI
_ZN8QPicture4loadERK7QStringPKc [QtGui]	_ZN8QPicture4playI
_ZN8QPicture4saveEP9QIODevicePKc [QtGui]	_ZN8QPicture4saveI
_ZN8QPicture6detachEv [QtGui]	_ZN8QPicture7setD
ZN8QPictureC1ERKS [QtGui]	_ZN8QPictureC1Ei
ZN8QPictureC2ERKS [QtGui]	_ZN8QPictureC2Ei
_ZN8QPictureD0Ev [QtGui]	_ZN8QPictureD1Ev
_ZN8QPictureD2Ev [QtGui]	_ZN8QPictureaSER
_ZN8QPrinter10setCreatorERK7QString [QtGui]	_ZN8QPrinter10setI
_ZN8QPrinter10setEnginesEP12QPrintEngineP12QPaintEngine [QtGui]	_ZN8QPrinter11setF
_ZN8QPrinter11setPageSizeENS_8PageSizeE [QtGui]	_ZN8QPrinter12setC
_ZN8QPrinter12setNumCopiesEi [QtGui]	_ZN8QPrinter12setF
_ZN8QPrinter13setPrintRangeENS_10PrintRangeE [QtGui]	_ZN8QPrinter13setF
_ZN8QPrinter14setOrientationENS_11OrientationE [QtGui]	_ZN8QPrinter14setF
_ZN8QPrinter14setPrinterNameERK7QString [QtGui]	_ZN8QPrinter15setC
_ZN8QPrinter15setOutputToFileEb [QtGui]	_ZN8QPrinter15setF
_ZN8QPrinter16setCollateCopiesEb [QtGui]	_ZN8QPrinter16setC
_ZN8QPrinter17setOutputFileNameERK7QString [QtGui]	_ZN8QPrinter22setI
_ZN8QPrinter23setCollateCopiesEnabledEb [QtGui]	_ZN8QPrinter23setF
_ZN8QPrinter25setPrinterSelectionOptionERK7QString [QtGui]	_ZN8QPrinter5abort
_ZN8QPrinter5setupEP7QWidget [QtGui]	_ZN8QPrinter7newF
_ZN8QPrinter9setFromToEii [QtGui]	_ZN8QPrinter9setM
_ZN8QPrinterC1ENS_11PrinterModeE [QtGui]	_ZN8QPrinterC2EN
_ZN8QPrinterD0Ev [QtGui]	_ZN8QPrinterD1Ev
_ZN8QPrinterD2Ev [QtGui]	_ZNK10QPictureIO
_ZNK10QPictureIO11descriptionEv [QtGui]	_ZNK10QPictureIO
_ZNK10QPictureIO6formatEv [QtGui]	_ZNK10QPictureIO
_ZNK10QPictureIO7pictureEv [QtGui]	_ZNK10QPictureIO
_ZNK10QPictureIO8fileNameEv [QtGui]	_ZNK10QPictureIO
_ZNK12QPaintDevice10x11DisplayEv [QtGui]	_ZNK12QPaintDevi
_ZNK12QPaintDevice16x11DefaultVisualEv [QtGui]	_ZNK12QPaintDevi

_ZNK12QPaintDevice6metricENS_17PaintDeviceMetricE [QtGui]	_ZNK12QPaintDevi
_ZNK12QPaintDevice8x11DepthEv [QtGui]	_ZNK12QPaintDevi
_ZNK12QPaintDevice9x11VisualEv [QtGui]	_ZNK7QBitmap11tr
_ZNK7QBitmapcv8QVariantEv [QtGui]	_ZNK7QPixmap10is
_ZNK7QPixmap11paintEngineEv [QtGui]	_ZNK7QPixmap11tr [QtGui]
_ZNK7QPixmap12alphaChannelEv [QtGui]	_ZNK7QPixmap12s
_ZNK7QPixmap13scaledToWidthEiN2Qt18TransformationModeE [QtGui]	_ZNK7QPixmap14s
_ZNK7QPixmap15hasAlphaChannelEv [QtGui]	_ZNK7QPixmap16x
_ZNK7QPixmap19createHeuristicMaskEb [QtGui]	_ZNK7QPixmap19c
_ZNK7QPixmap4copyERK5QRect [QtGui]	_ZNK7QPixmap4ma
_ZNK7QPixmap4rectEv [QtGui]	_ZNK7QPixmap4sa
_ZNK7QPixmap4saveERK7QStringPKci [QtGui]	_ZNK7QPixmap4siz
_ZNK7QPixmap5depthEv [QtGui]	_ZNK7QPixmap5wi
_ZNK7QPixmap6handleEv [QtGui]	_ZNK7QPixmap6he
_ZNK7QPixmap6isNullEv [QtGui]	_ZNK7QPixmap6m
_ZNK7QPixmap6scaledERK5QSizeN2Qt15AspectRatioModeENS3_18TransformationModeE [QtGui]	_ZNK7QPixmap7de
_ZNK7QPixmap7toImageEv [QtGui]	_ZNK7QPixmap7x1
_ZNK7QPixmap8hasAlphaEv [QtGui]	_ZNK7QPixmapcv8
_ZNK8QPicture10isDetachedEv [QtGui]	_ZNK8QPicture11p
_ZNK8QPicture12boundingRectEv [QtGui]	_ZNK8QPicture4dat
_ZNK8QPicture4sizeEv [QtGui]	_ZNK8QPicture6isN
_ZNK8QPicture6metricEN12QPaintDevice17PaintDeviceMetricE [QtGui]	_ZNK8QPicture7dev
_ZNK8QPrinter10printRangeEv [QtGui]	_ZNK8QPrinter10re
_ZNK8QPrinter11orientationEv [QtGui]	_ZNK8QPrinter11pa
_ZNK8QPrinter11paperSourceEv [QtGui]	_ZNK8QPrinter11pr
_ZNK8QPrinter11printerNameEv [QtGui]	_ZNK8QPrinter12ou
_ZNK8QPrinter12printProgramEv [QtGui]	_ZNK8QPrinter12pr
_ZNK8QPrinter13collateCopiesEv [QtGui]	_ZNK8QPrinter14ou
_ZNK8QPrinter15isOptionEnabledENS_13PrinterOptionE [QtGui]	_ZNK8QPrinter19dc
_ZNK8QPrinter20collateCopiesEnabledEv [QtGui]	_ZNK8QPrinter20fo
_ZNK8QPrinter20supportedResolutionsEv [QtGui]	_ZNK8QPrinter22pr

<code>_ZNK8QPrinter6metricEN12QPaintDevice17PaintDeviceMetricE [QtGui]</code>	<code>_ZNK8QPrinter6toP</code>
<code>_ZNK8QPrinter7creatorEv [QtGui]</code>	<code>_ZNK8QPrinter7dev</code>
<code>_ZNK8QPrinter7docNameEv [QtGui]</code>	<code>_ZNK8QPrinter7ma</code>
<code>_ZNK8QPrinter7minPageEv [QtGui]</code>	<code>_ZNK8QPrinter8fro</code>
<code>_ZNK8QPrinter8fullPageEv [QtGui]</code>	<code>_ZNK8QPrinter8pag</code>
<code>_ZNK8QPrinter8pageSizeEv [QtGui]</code>	<code>_ZNK8QPrinter9col</code>
<code>_ZNK8QPrinter9numCopiesEv [QtGui]</code>	<code>_ZNK8QPrinter9pag</code>
<code>_ZNK8QPrinter9paperRectEv [QtGui]</code>	<code>_ZlsR11QDataStrea</code>
<code>_ZlsR11QDataStreamRK8QPicture [QtGui]</code>	<code>_ZrsR11QDataStrea</code>
<code>_ZrsR11QDataStreamR8QPicture [QtGui]</code>	

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Paint Device specified in [Table 17-314](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-314. libQtGui - Qt4 Paint Device Deprecated Function Interfaces

<code>_ZN12QPixmapCache4findERK7QString [QtGui]</code>	

17.5.14. Qt4 Multimedia

17.5.14.1. Class data for QImage

The virtual table for the QImage class is described by [Table 17-315](#)

Table 17-315. Primary vtable for QImage

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QImage
vfunc[0]:	<code>QImage::~~QImage()</code>
vfunc[1]:	<code>QImage::~~QImage()</code>
vfunc[2]:	<code>QImage::devType() const</code>
vfunc[3]:	<code>QImage::paintEngine() const</code>
vfunc[4]:	<code>QImage::metric(QPaintDevice::PaintDeviceMetric) const</code>

The Run Time Type Information for the QImage class is described by [Table 17-316](#)

Table 17-316. typeinfo for QImage

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for QImage
basetype:	typeinfo for QPainterDevice

17.5.14.2. Class data for QImageIOHandler

The virtual table for the QImageIOHandler class is described by [Table 17-317](#)

Table 17-317. Primary vtable for QImageIOHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QImageIOHandler
vfunc[0]:	QImageIOHandler::~~QImageIOHandler()
vfunc[1]:	QImageIOHandler::~~QImageIOHandler()
vfunc[2]:	QImageIOHandler::name() const
vfunc[3]:	<code>__cxa_pure_virtual</code>
vfunc[4]:	<code>__cxa_pure_virtual</code>
vfunc[5]:	QImageIOHandler::write(QImage const&)
vfunc[6]:	QImageIOHandler::option(QImageIOHandler::ImageOption) const
vfunc[7]:	QImageIOHandler::setOption(QImageIOHandler::ImageOption, QVariant const&)
vfunc[8]:	QImageIOHandler::supportsOption(QImageIOHandler::ImageOption) const
vfunc[9]:	QImageIOHandler::jumpToNextImage()
vfunc[10]:	QImageIOHandler::jumpToImage(int)
vfunc[11]:	QImageIOHandler::loopCount() const
vfunc[12]:	QImageIOHandler::imageCount() const
vfunc[13]:	QImageIOHandler::nextImageDelay() const
vfunc[14]:	QImageIOHandler::currentImageNumber() const
vfunc[15]:	QImageIOHandler::currentImageRect() const

The Run Time Type Information for the QImageIOHandler class is described by [Table 17-318](#)

Table 17-318. typeinfo for QImageIOHandler

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>

Name	typeinfo name for QImageIOHandler

17.5.14.3. Class data for QImageIOHandlerFactoryInterface

The virtual table for the QImageIOHandlerFactoryInterface class is described by [Table 17-319](#)

Table 17-319. Primary vtable for QImageIOHandlerFactoryInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QImageIOHandlerFactoryInterface
vfunc[0]:	NULL or QImageIOHandlerFactoryInterface::~~QImageIOHandlerFactoryInterface()
vfunc[1]:	NULL or QImageIOHandlerFactoryInterface::~~QImageIOHandlerFactoryInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QImageIOHandlerFactoryInterface class is described by [Table 17-320](#)

Table 17-320. typeinfo for QImageIOHandlerFactoryInterface

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QImageIOHandlerFactoryInterface
basetype:	typeinfo for QFactoryInterface

17.5.14.4. Class data for QMovie

The virtual table for the QMovie class is described by [Table 17-321](#)

Table 17-321. Primary vtable for QMovie

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMovie
vfunc[0]:	QMovie::metaObject() const
vfunc[1]:	QMovie::qt_metacast(char const*)
vfunc[2]:	QMovie::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QMovie::~~QMovie()

vfunc[4]:	QMovie::~~QMovie()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QMovie class is described by [Table 17-322](#)

Table 17-322. typeinfo for QMovie

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMovie
basetype:	typeinfo for QObject

17.5.14.5. Class data for QSound

The virtual table for the QSound class is described by [Table 17-323](#)

Table 17-323. Primary vtable for QSound

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSound
vfunc[0]:	QSound::metaObject() const
vfunc[1]:	QSound::qt_metacast(char const*)
vfunc[2]:	QSound::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSound::~~QSound()
vfunc[4]:	QSound::~~QSound()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)

vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QSound class is described by [Table 17-324](#)

Table 17-324. typeinfo for QSound

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSound
basetype:	typeinfo for QObject

17.5.14.6. Interfaces for Qt4 Multimedia

An LSB conforming implementation shall provide the generic functions for Qt4 Multimedia specified in [Table 17-325](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-325. libQtGui - Qt4 Multimedia Function Interfaces

_ZN12QImageReader10setQualityEi [QtXml]	_ZN12QImageReader
_ZN12QImageReader11imageFormatERK7QString [QtGui]	_ZN12QImageReader
_ZN12QImageReader11setClipRectERK5QRect [QtGui]	_ZN12QImageReader
_ZN12QImageReader13setScaledSizeERK5QSize [QtGui]	_ZN12QImageReader
_ZN12QImageReader17setScaledClipRectERK5QRect [QtGui]	_ZN12QImageReader
_ZN12QImageReader21supportedImageFormatsEv [QtGui]	_ZN12QImageReader
_ZN12QImageReader4readEv [QtGui]	_ZN12QImageReader
_ZN12QImageReader9setFormatERK10QByteArray [QtGui]	_ZN12QImageReader
_ZN12QImageReaderC1ERK7QStringRK10QByteArray [QtGui]	_ZN12QImageReader
_ZN12QImageReaderC2EP9QIODeviceRK10QByteArray [QtGui]	_ZN12QImageReader
_ZN12QImageReaderC2Ev [QtGui]	_ZN12QImageReader
_ZN12QImageReaderD2Ev [QtGui]	_ZN12QImageWriter
_ZN12QImageWriter11setFileNameERK7QString [QtGui]	_ZN12QImageWriter
_ZN12QImageWriter21supportedImageFormatsEv [QtGui]	_ZN12QImageWriter
ZN12QImageWriter7setTextERK7QStringS2 [QtGui]	_ZN12QImageWriter
_ZN12QImageWriter9setDeviceEP9QIODevice [QtGui]	_ZN12QImageWriter
_ZN12QImageWriterC1EP9QIODeviceRK10QByteArray [QtGui]	_ZN12QImageWriter
_ZN12QImageWriterC1Ev [QtGui]	_ZN12QImageWriter
_ZN12QImageWriterC2ERK7QStringRK10QByteArray [QtGui]	_ZN12QImageWriter

<u>_ZN12QImageWriterD1Ev [QtGui]</u>	<u>_ZN12QImageWriterD1Ev [QtGui]</u>
<u>_ZN15QImageIOHandler11jumpToImageEi [QtGui]</u>	<u>_ZN15QImageIOHandler11jumpToImageEi [QtGui]</u>
<u>_ZN15QImageIOHandler5writeERK6QImage [QtGui]</u>	<u>_ZN15QImageIOHandler5writeERK6QImage [QtGui]</u>
<u>_ZN15QImageIOHandler9setFormatERK10QByteArray [QtGui]</u>	<u>_ZN15QImageIOHandler9setFormatERK10QByteArray [QtGui]</u>
<u>_ZN15QImageIOHandlerC1Ev [QtGui]</u>	<u>_ZN15QImageIOHandlerC1Ev [QtGui]</u>
<u>_ZN15QImageIOHandlerD0Ev [QtGui]</u>	<u>_ZN15QImageIOHandlerD0Ev [QtGui]</u>
<u>_ZN15QImageIOHandlerD2Ev [QtGui]</u>	<u>_ZN15QImageIOHandlerD2Ev [QtGui]</u>
<u>_ZN6QImage12invertPixelsENS_10InvertModeE [QtGui]</u>	<u>_ZN6QImage12invertPixelsENS_10InvertModeE [QtGui]</u>
<u>_ZN6QImage12setNumColorsEi [QtGui]</u>	<u>_ZN6QImage12setNumColorsEi [QtGui]</u>
<u>_ZN6QImage14setAlphaBufferEb [QtGui]</u>	<u>_ZN6QImage14setAlphaBufferEb [QtGui]</u>
<u>_ZN6QImage16setDotsPerMeterXEi [QtGui]</u>	<u>_ZN6QImage16setDotsPerMeterXEi [QtGui]</u>
<u>_ZN6QImage4bitsEv [QtGui]</u>	<u>_ZN6QImage4bitsEv [QtGui]</u>
<u>_ZN6QImage4loadEP9QIODevicePKc [QtGui]</u>	<u>_ZN6QImage4loadEP9QIODevicePKc [QtGui]</u>
<u>_ZN6QImage6createERK5QSizeiiNS_6EndianE [QtGui]</u>	<u>_ZN6QImage6createERK5QSizeiiNS_6EndianE [QtGui]</u>
<u>_ZN6QImage6detachEv [QtGui]</u>	<u>_ZN6QImage6detachEv [QtGui]</u>
<u>_ZN6QImage7setTextERK7QStringS2_ [QtGui]</u>	<u>_ZN6QImage7setTextERK7QStringS2_ [QtGui]</u>
<u>_ZN6QImage8scanLineEi [QtGui]</u>	<u>_ZN6QImage8scanLineEi [QtGui]</u>
<u>_ZN6QImage8setPixelEij [QtGui]</u>	<u>_ZN6QImage8setPixelEij [QtGui]</u>
<u>_ZN6QImage9setOffsetERK6QPoint [QtGui]</u>	<u>_ZN6QImage9setOffsetERK6QPoint [QtGui]</u>
<u>_ZN6QImageC1EPKcS1_ [QtGui]</u>	<u>_ZN6QImageC1EPKcS1_ [QtGui]</u>
<u>_ZN6QImageC1EPhiiNS_6FormatE [QtGui]</u>	<u>_ZN6QImageC1EPhiiNS_6FormatE [QtGui]</u>
<u>_ZN6QImageC1ERK5QSizeNS_6FormatE [QtGui]</u>	<u>_ZN6QImageC1ERK5QSizeNS_6FormatE [QtGui]</u>
<u>_ZN6QImageC1ERK7QStringPKc [QtGui]</u>	<u>_ZN6QImageC1ERK7QStringPKc [QtGui]</u>
<u>_ZN6QImageC1EiiNS_6FormatE [QtGui]</u>	<u>_ZN6QImageC1EiiNS_6FormatE [QtGui]</u>
<u>_ZN6QImageC1Ev [QtGui]</u>	<u>_ZN6QImageC1Ev [QtGui]</u>
<u>_ZN6QImageC2EPKcS1_ [QtGui]</u>	<u>_ZN6QImageC2EPKcS1_ [QtGui]</u>
<u>_ZN6QImageC2EPhiiNS_6FormatE [QtGui]</u>	<u>_ZN6QImageC2EPhiiNS_6FormatE [QtGui]</u>
<u>_ZN6QImageC2ERK5QSizeNS_6FormatE [QtGui]</u>	<u>_ZN6QImageC2ERK5QSizeNS_6FormatE [QtGui]</u>
<u>_ZN6QImageC2ERK7QStringPKc [QtGui]</u>	<u>_ZN6QImageC2ERK7QStringPKc [QtGui]</u>
<u>_ZN6QImageC2EiiNS_6FormatE [QtGui]</u>	<u>_ZN6QImageC2EiiNS_6FormatE [QtGui]</u>
<u>_ZN6QImageC2Ev [QtGui]</u>	<u>_ZN6QImageC2Ev [QtGui]</u>
<u>_ZN6QImageD1Ev [QtGui]</u>	<u>_ZN6QImageD1Ev [QtGui]</u>
<u>_ZN6QImageD2Ev [QtGui]</u>	<u>_ZN6QImageD2Ev [QtGui]</u>
<u>_ZN6QImageaSERKS_ [QtGui]</u>	<u>_ZN6QImageaSERKS_ [QtGui]</u>
<u>_ZN6QMovie10scaled [QtGui]</u>	<u>_ZN6QMovie10scaled [QtGui]</u>

_ZN6QMovie11jumpToFrameEi [QtGui]	_ZN6QMovie11qt_me
_ZN6QMovie11qt_metacastEPKc [QtGui]	_ZN6QMovie11setFil
_ZN6QMovie12frameChangedEi [QtGui]	_ZN6QMovie12setCa
_ZN6QMovie12stateChangedENS_10MovieStateE [QtGui]	_ZN6QMovie13setSc
_ZN6QMovie15jumpToNextFrameEv [QtGui]	_ZN6QMovie16suppo
_ZN6QMovie18setBackgroundColorsERK6QColor [QtGui]	_ZN6QMovie4stopEv
_ZN6QMovie5errorEN12QImageReader16ImageReaderErrorE [QtGui]	_ZN6QMovie5startEv
_ZN6QMovie7resizedERK5QSize [QtGui]	_ZN6QMovie7started
_ZN6QMovie7updatedERK5QRect [QtGui]	_ZN6QMovie8finishe
_ZN6QMovie8setSpeedEi [QtGui]	_ZN6QMovie9cacheM
_ZN6QMovie9setDeviceEP9QIODevice [QtGui]	_ZN6QMovie9setFor
_ZN6QMovie9setPausedEb [QtGui]	_ZN6QMovieC1EP7Q
_ZN6QMovieC1EP9QIODeviceRK10QByteArrayP7QObject [QtGui]	_ZN6QMovieC1ERK
_ZN6QMovieC2EP7QObject [QtGui]	_ZN6QMovieC2EP9Q
_ZN6QMovieC2ERK7QStringRK10QByteArrayP7QObject [QtGui]	_ZN6QMovieD0Ev [Q
_ZN6QMovieD1Ev [QtGui]	_ZN6QMovieD2Ev [Q
_ZN6QSound11isAvailableEv [QtGui]	_ZN6QSound11qt_me
_ZN6QSound11qt_metacastEPKc [QtGui]	_ZN6QSound4playER
_ZN6QSound4playEv [QtGui]	_ZN6QSound4stopEv
_ZN6QSound8setLoopsEi [QtGui]	_ZN6QSoundC1ERK
_ZN6QSoundC1ERK7QStringP7QObjectPKc [QtGui]	_ZN6QSoundC2ERK
_ZN6QSoundC2ERK7QStringP7QObjectPKc [QtGui]	_ZN6QSoundD0Ev [Q
_ZN6QSoundD1Ev [QtGui]	_ZN6QSoundD2Ev [Q
_ZNK12QImageReader10imageCountEv [QtGui]	_ZNK12QImageRead
_ZNK12QImageReader11errorStringEv [QtGui]	_ZNK12QImageRead
_ZNK12QImageReader14scaledClipRectEv [QtGui]	_ZNK12QImageRead
_ZNK12QImageReader15backgroundColorEv [QtGui]	_ZNK12QImageRead
_ZNK12QImageReader17supportsAnimationEv [QtGui]	_ZNK12QImageRead
_ZNK12QImageReader4sizeEv [QtGui]	_ZNK12QImageRead
_ZNK12QImageReader5errorEv [QtGui]	_ZNK12QImageRead
_ZNK12QImageReader6formatEv [QtGui]	_ZNK12QImageRead
_ZNK12QImageReader7qualityEv [QtXml]	_ZNK12QImageRead
_ZNK12QImageReader8fileNameEv [QtGui]	_ZNK12QImageRead

_ZNK12QImageReader9loopCountEv [QtGui]	_ZNK12QImageWrite
_ZNK12QImageWriter11errorStringEv [QtGui]	_ZNK12QImageWrite
_ZNK12QImageWriter5errorEv [QtGui]	_ZNK12QImageWrite
_ZNK12QImageWriter6deviceEv [QtGui]	_ZNK12QImageWrite
_ZNK12QImageWriter7qualityEv [QtGui]	_ZNK12QImageWrite
_ZNK12QImageWriter8fileNameEv [QtGui]	_ZNK15QImageIOHa
_ZNK15QImageIOHandler14nextImageDelayEv [QtGui]	_ZNK15QImageIOHa
_ZNK15QImageIOHandler16currentImageRectEv [QtGui]	_ZNK15QImageIOHa
_ZNK15QImageIOHandler4nameEv [QtGui]	_ZNK15QImageIOHa
_ZNK15QImageIOHandler6formatEv [QtGui]	_ZNK15QImageIOHa
_ZNK15QImageIOHandler9loopCountEv [QtGui]	_ZNK15QImageIOHa
_ZNK6QImage10colorTableEv [QtGui]	_ZNK6QImage10isDe
_ZNK6QImage10pixelIndexEii [QtGui]	_ZNK6QImage10rgb5
_ZNK6QImage11isGrayscaleEv [QtGui]	_ZNK6QImage11pain
_ZNK6QImage11transformedERK7QMatrixN2Qt18TransformationModeE [QtGui]	_ZNK6QImage12alph
_ZNK6QImage12bytesPerLineEv [QtGui]	_ZNK6QImage12conv
_ZNK6QImage12serialNumberEv [QtGui]	_ZNK6QImage13dots
_ZNK6QImage13dotsPerMeterYEv [QtGui]	_ZNK6QImage13scal
_ZNK6QImage13textLanguagesEv [QtGui]	_ZNK6QImage14hasA
_ZNK6QImage14scaledToHeightEiN2Qt18TransformationModeE [QtGui]	_ZNK6QImage15conv
_ZNK6QImage15convertToFormatENS_6FormatE6QFlagsIN2Qt19ImageConversionFlagEE [QtGui]	_ZNK6QImage15conv [QtGui]
_ZNK6QImage15createAlphaMaskE6QFlagsIN2Qt19ImageConversionFlagEE [QtGui]	_ZNK6QImage15hasA
_ZNK6QImage19createHeuristicMaskEb [QtGui]	_ZNK6QImage23conv
_ZNK6QImage4bitsEv [QtGui]	_ZNK6QImage4copy
_ZNK6QImage4rectEv [QtGui]	_ZNK6QImage4saveE
_ZNK6QImage4saveERK7QStringPKci [QtGui]	_ZNK6QImage4sizeE
ZNK6QImage4textEPKcS1 [QtGui]	_ZNK6QImage4textE
_ZNK6QImage4textERK7QString [QtGui]	_ZNK6QImage5color
_ZNK6QImage5depthEv [QtGui]	_ZNK6QImage5pixel
_ZNK6QImage5validEii [QtGui]	_ZNK6QImage5width
_ZNK6QImage6formatEv [QtGui]	_ZNK6QImage6heigh
_ZNK6QImage6isNullEv [QtGui]	_ZNK6QImage6metri

_ZNK6QImage6offsetEv [QtGui]	_ZNK6QImage6scale
_ZNK6QImage7allGrayEv [QtGui]	_ZNK6QImage7devT
_ZNK6QImage8mirroredEbb [QtGui]	_ZNK6QImage8numE
_ZNK6QImage8scanLineEi [QtGui]	_ZNK6QImage8textK
_ZNK6QImage8textListEv [QtGui]	_ZNK6QImage9jump
_ZNK6QImage9numColorsEv [QtGui]	_ZNK6QImagecv8QV
ZNK6QImageeqERKS [QtGui]	_ZNK6QImageeneERK
_ZNK6QMovie10frameCountEv [QtGui]	_ZNK6QMovie10met
_ZNK6QMovie12currentImageEv [QtGui]	_ZNK6QMovie13curr
_ZNK6QMovie14nextFrameDelayEv [QtGui]	_ZNK6QMovie15bac
_ZNK6QMovie18currentFrameNumberEv [QtGui]	_ZNK6QMovie5speed
_ZNK6QMovie5stateEv [QtGui]	_ZNK6QMovie6devic
_ZNK6QMovie6formatEv [QtGui]	_ZNK6QMovie7isVal
_ZNK6QMovie8fileNameEv [QtGui]	_ZNK6QMovie9cache
_ZNK6QMovie9frameRectEv [QtGui]	_ZNK6QMovie9loop
_ZNK6QSound10isFinishedEv [QtGui]	_ZNK6QSound10met
_ZNK6QSound14loopsRemainingEv [QtGui]	_ZNK6QSound5loops
_ZNK6QSound8fileNameEv [QtGui]	_ZlsR11QDataStream
_ZrsR11QDataStreamR6QImage [QtGui]	

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Multimedia specified in [Table 17-326](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-326. libQtGui - Qt4 Multimedia Deprecated Function Interfaces

_ZN12QImageWriter14setDescriptionERK7QString [QtGui]	_ZN6QImage7setTextEPKcS1_RK7QString [QtGui]
_ZNK12QImageWriter11descriptionEv [QtGui]	_ZNK15QImageIOHandler4nameEv [QtGui]
ZNK6QImage4textEPKcS1 [QtGui]	_ZNK6QImage4textERK17QImageTextKeyLang [QtGui]
_ZNK6QImage8textListEv [QtGui]	

17.5.15. Qt4 Layouts

17.5.15.1. Class data for QLayoutItem

The virtual table for the QLayoutItem class is described by [Table 17-327](#)

Table 17-327. Primary vtable for QLayoutItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLayoutItem
vfunc[0]:	QLayoutItem::~~QLayoutItem()
vfunc[1]:	QLayoutItem::~~QLayoutItem()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	QLayoutItem::hasHeightForWidth() const
vfunc[10]:	QLayoutItem::heightForWidth(int) const
vfunc[11]:	QLayoutItem::minimumHeightForWidth(int) const
vfunc[12]:	QLayoutItem::invalidate()
vfunc[13]:	QLayoutItem::widget()
vfunc[14]:	QLayoutItem::layout()
vfunc[15]:	QLayoutItem::spacerItem()

The Run Time Type Information for the QLayoutItem class is described by [Table 17-328](#)

Table 17-328. typeinfo for QLayoutItem

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QLayoutItem

17.5.15.2. Class data for QSpacerItem

The virtual table for the QSpacerItem class is described by [Table 17-329](#)

Table 17-329. Primary vtable for QSpacerItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSpacerItem
vfunc[0]:	NULL or QSpacerItem::~~QSpacerItem()
vfunc[1]:	NULL or QSpacerItem::~~QSpacerItem()
vfunc[2]:	QSpacerItem::sizeHint() const
vfunc[3]:	QSpacerItem::minimumSize() const
vfunc[4]:	QSpacerItem::maximumSize() const
vfunc[5]:	QSpacerItem::expandingDirections() const
vfunc[6]:	QSpacerItem::setGeometry(QRect const&)
vfunc[7]:	QSpacerItem::geometry() const
vfunc[8]:	QSpacerItem::isEmpty() const
vfunc[9]:	QLayoutItem::hasHeightForWidth() const
vfunc[10]:	QLayoutItem::heightForWidth(int) const
vfunc[11]:	QLayoutItem::minimumHeightForWidth(int) const
vfunc[12]:	QLayoutItem::invalidate()
vfunc[13]:	QLayoutItem::widget()
vfunc[14]:	QLayoutItem::layout()
vfunc[15]:	QSpacerItem::spacerItem()

The Run Time Type Information for the QSpacerItem class is described by [Table 17-330](#)

Table 17-330. typeinfo for QSpacerItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSpacerItem
basetype:	typeinfo for QLayoutItem

17.5.15.3. Class data for QWidgetItem

The virtual table for the QWidgetItem class is described by [Table 17-331](#)

Table 17-331. Primary vtable for QWidgetItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWidgetItem
vfunc[0]:	NULL or QWidgetItem::~~QWidgetItem()
vfunc[1]:	NULL or QWidgetItem::~~QWidgetItem()
vfunc[2]:	QWidgetItem::sizeHint() const
vfunc[3]:	QWidgetItem::minimumSize() const
vfunc[4]:	QWidgetItem::maximumSize() const
vfunc[5]:	QWidgetItem::expandingDirections() const
vfunc[6]:	QWidgetItem::setGeometry(QRect const&)
vfunc[7]:	QWidgetItem::geometry() const
vfunc[8]:	QWidgetItem::isEmpty() const
vfunc[9]:	QWidgetItem::hasHeightForWidth() const
vfunc[10]:	QWidgetItem::heightForWidth(int) const
vfunc[11]:	QLayoutItem::minimumHeightForWidth(int) const
vfunc[12]:	QLayoutItem::invalidate()
vfunc[13]:	QWidgetItem::widget()
vfunc[14]:	QLayoutItem::layout()
vfunc[15]:	QLayoutItem::spacerItem()

The Run Time Type Information for the QWidgetItem class is described by [Table 17-332](#)

Table 17-332. typeinfo for QWidgetItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWidgetItem
basetype:	typeinfo for QLayoutItem

17.5.15.4. Class data for QLayout

The virtual table for the QLayout class is described by [Table 17-333](#)

Table 17-333. Primary vtable for QLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLayout
vfunc[0]:	QLayout::metaObject() const
vfunc[1]:	QLayout::qt_metacast(char const*)
vfunc[2]:	QLayout::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QLayout::~~QLayout()
vfunc[4]:	QLayout::~~QLayout()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QLayout::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QLayout::invalidate()
vfunc[13]:	QLayout::geometry() const
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	QLayout::expandingDirections() const
vfunc[16]:	QLayout::minimumSize() const
vfunc[17]:	QLayout::maximumSize() const
vfunc[18]:	__cxa_pure_virtual
vfunc[19]:	__cxa_pure_virtual
vfunc[20]:	__cxa_pure_virtual
vfunc[21]:	QLayout::indexOf(QWidget*) const
vfunc[22]:	__cxa_pure_virtual
vfunc[23]:	QLayout::isEmpty() const
vfunc[24]:	QLayout::layout()

The Run Time Type Information for the QLayout class is described by [Table 17-334](#)

Table 17-334. typeinfo for QLayout

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QLayout	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QLayoutItem	2050

17.5.15.5. Class data for QGridLayout

The virtual table for the QGridLayout class is described by [Table 17-335](#)

Table 17-335. Primary vtable for QGridLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGridLayout
vfunc[0]:	QGridLayout::metaObject() const
vfunc[1]:	QGridLayout::qt_metacast(char const*)
vfunc[2]:	QGridLayout::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QGridLayout::~~QGridLayout()
vfunc[4]:	QGridLayout::~~QGridLayout()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QLayout::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QGridLayout::invalidate()
vfunc[13]:	QLayout::geometry() const
vfunc[14]:	QGridLayout::addItem(QLayoutItem*)
vfunc[15]:	QGridLayout::expandingDirections() const
vfunc[16]:	QGridLayout::minimumSize() const
vfunc[17]:	QGridLayout::maximumSize() const

vfunc[18]:	QGridLayout::setGeometry(QRect const&)
vfunc[19]:	QGridLayout::itemAt(int) const
vfunc[20]:	QGridLayout::takeAt(int)
vfunc[21]:	QLayout::indexOf(QWidget*) const
vfunc[22]:	QGridLayout::count() const
vfunc[23]:	QLayout::isEmpty() const
vfunc[24]:	QLayout::layout()
vfunc[25]:	QGridLayout::sizeHint() const
vfunc[26]:	QGridLayout::hasHeightForWidth() const
vfunc[27]:	QGridLayout::heightForWidth(int) const
vfunc[28]:	QGridLayout::minimumHeightForWidth(int) const

The Run Time Type Information for the QGridLayout class is described by [Table 17-336](#)

Table 17-336. typeinfo for QGridLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGridLayout
basetype:	typeinfo for QLayout

17.5.15.6. Class data for QBoxLayout

The virtual table for the QBoxLayout class is described by [Table 17-337](#)

Table 17-337. Primary vtable for QBoxLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QBoxLayout
vfunc[0]:	QBoxLayout::metaObject() const
vfunc[1]:	QBoxLayout::qt_metacast(char const*)
vfunc[2]:	QBoxLayout::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QBoxLayout::~~QBoxLayout()
vfunc[4]:	QBoxLayout::~QBoxLayout()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)

vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QLayout::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QBoxLayout::invalidate()
vfunc[13]:	QLayout::geometry() const
vfunc[14]:	QBoxLayout::addItem(QLayoutItem*)
vfunc[15]:	QBoxLayout::expandingDirections() const
vfunc[16]:	QBoxLayout::minimumSize() const
vfunc[17]:	QBoxLayout::maximumSize() const
vfunc[18]:	QBoxLayout::setGeometry(QRect const&)
vfunc[19]:	QBoxLayout::itemAt(int) const
vfunc[20]:	QBoxLayout::takeAt(int)
vfunc[21]:	QLayout::indexOf(QWidget*) const
vfunc[22]:	QBoxLayout::count() const
vfunc[23]:	QLayout::isEmpty() const
vfunc[24]:	QLayout::layout()
vfunc[25]:	QBoxLayout::sizeHint() const
vfunc[26]:	QBoxLayout::hasHeightForWidth() const
vfunc[27]:	QBoxLayout::heightForWidth(int) const
vfunc[28]:	QBoxLayout::minimumHeightForWidth(int) const

The Run Time Type Information for the QBoxLayout class is described by [Table 17-338](#)

Table 17-338. typeinfo for QBoxLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QBoxLayout
basetype:	typeinfo for QLayout

17.5.15.7. Class data for QHBoxLayout

The virtual table for the QHBoxLayout class is described by [Table 17-339](#)

Table 17-339. Primary vtable for QHBoxLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHBoxLayout
vfunc[0]:	QHBoxLayout::metaObject() const
vfunc[1]:	QHBoxLayout::qt_metacast(char const*)
vfunc[2]:	QHBoxLayout::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QHBoxLayout::~~QHBoxLayout()
vfunc[4]:	QHBoxLayout::~~QHBoxLayout()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QLayout::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QBoxLayout::invalidate()
vfunc[13]:	QLayout::geometry() const
vfunc[14]:	QBoxLayout::addItem(QLayoutItem*)
vfunc[15]:	QBoxLayout::expandingDirections() const
vfunc[16]:	QBoxLayout::minimumSize() const
vfunc[17]:	QBoxLayout::maximumSize() const
vfunc[18]:	QBoxLayout::setGeometry(QRect const&)
vfunc[19]:	QBoxLayout::itemAt(int) const
vfunc[20]:	QBoxLayout::takeAt(int)
vfunc[21]:	QLayout::indexOf(QWidget*) const
vfunc[22]:	QBoxLayout::count() const
vfunc[23]:	QLayout::isEmpty() const
vfunc[24]:	QLayout::layout()
vfunc[25]:	QBoxLayout::sizeHint() const
vfunc[26]:	QBoxLayout::hasHeightForWidth() const
vfunc[27]:	QBoxLayout::heightForWidth(int) const
vfunc[28]:	QBoxLayout::minimumHeightForWidth(int) const

The Run Time Type Information for the QHBoxLayout class is described by [Table 17-340](#)

Table 17-340. typeinfo for QHBoxLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHBoxLayout
basetype:	typeinfo for QBoxLayout

17.5.15.8. Class data for QVBoxLayout

The virtual table for the QVBoxLayout class is described by [Table 17-341](#)

Table 17-341. Primary vtable for QVBoxLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QVBoxLayout
vfunc[0]:	QVBoxLayout::metaObject() const
vfunc[1]:	QVBoxLayout::qt_metacast(char const*)
vfunc[2]:	QVBoxLayout::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QVBoxLayout::~~VBoxLayout()
vfunc[4]:	QVBoxLayout::~~VBoxLayout()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QLayout::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QBoxLayout::invalidate()
vfunc[13]:	QLayout::geometry() const
vfunc[14]:	QBoxLayout::addItem(QLayoutItem*)
vfunc[15]:	QBoxLayout::expandingDirections() const
vfunc[16]:	QBoxLayout::minimumSize() const
vfunc[17]:	QBoxLayout::maximumSize() const
vfunc[18]:	QBoxLayout::setGeometry(QRect const&)
vfunc[19]:	QBoxLayout::itemAt(int) const

vfunc[20]:	QBoxLayout::takeAt(int)
vfunc[21]:	QLayout::indexOf(QWidget*) const
vfunc[22]:	QBoxLayout::count() const
vfunc[23]:	QLayout::isEmpty() const
vfunc[24]:	QLayout::layout()
vfunc[25]:	QBoxLayout::sizeHint() const
vfunc[26]:	QBoxLayout::hasHeightForWidth() const
vfunc[27]:	QBoxLayout::heightForWidth(int) const
vfunc[28]:	QBoxLayout::minimumHeightForWidth(int) const

The Run Time Type Information for the QVBoxLayout class is described by [Table 17-342](#)

Table 17-342. typeinfo for QVBoxLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QVBoxLayout
basetype:	typeinfo for QBoxLayout

17.5.15.9. Class data for QStackedLayout

The virtual table for the QStackedLayout class is described by [Table 17-343](#)

Table 17-343. Primary vtable for QStackedLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStackedLayout
vfunc[0]:	QStackedLayout::metaObject() const
vfunc[1]:	QStackedLayout::qt_metacast(char const*)
vfunc[2]:	QStackedLayout::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QStackedLayout::~~QStackedLayout()
vfunc[4]:	QStackedLayout::~~QStackedLayout()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QLayout::childEvent(QChildEvent*)

vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QLayout::invalidate()
vfunc[13]:	QLayout::geometry() const
vfunc[14]:	QStackedLayout::addItem(QLayoutItem*)
vfunc[15]:	QLayout::expandingDirections() const
vfunc[16]:	QStackedLayout::minimumSize() const
vfunc[17]:	QLayout::maximumSize() const
vfunc[18]:	QStackedLayout::setGeometry(QRect const&)
vfunc[19]:	QStackedLayout::itemAt(int) const
vfunc[20]:	QStackedLayout::takeAt(int)
vfunc[21]:	QLayout::indexOf(QWidget*) const
vfunc[22]:	QStackedLayout::count() const
vfunc[23]:	QLayout::isEmpty() const
vfunc[24]:	QLayout::layout()
vfunc[25]:	QStackedLayout::sizeHint() const

The Run Time Type Information for the QStackedLayout class is described by [Table 17-344](#)

Table 17-344. typeinfo for QStackedLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStackedLayout
basetype:	typeinfo for QLayout

17.5.15.10. Interfaces for Qt4 Layouts

An LSB conforming implementation shall provide the generic functions for Qt4 Layouts specified in [Table 17-345](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-345. libQtGui - Qt4 Layouts Function Interfaces

_ZN10QBoxLayout10addSpacingEi [QtGui]	_ZN10QBoxLayout10addStretchEi [QtGui]
_ZN10QBoxLayout10insertItemEiP11QLayoutItem [QtGui]	_ZN10QBoxLayout10invalidate [QtGui]
_ZN10QBoxLayout11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN10QBoxLayout11qt_metacastPv [QtGui]
_ZN10QBoxLayout11setGeometryERK5QRect [QtGui]	_ZN10QBoxLayout12insertLayoutEiP11QLayoutItem [QtGui]

<u>_ZN10QBoxLayout12insertWidgetEP7QWidgeti6QFlagsIN2Qt13AlignmentFlagEE [QtGui]</u>	<u>_ZN10QBoxLayout12setDirec</u>
<u>_ZN10QBoxLayout13insertSpacingEii [QtGui]</u>	<u>_ZN10QBoxLayout13insertStr</u>
<u>_ZN10QBoxLayout16setStretchFactorEP7QLayouti [QtGui]</u>	<u>_ZN10QBoxLayout16setStretc</u>
<u>_ZN10QBoxLayout6takeAtEi [QtGui]</u>	<u>_ZN10QBoxLayout7addItemE</u>
<u>_ZN10QBoxLayout8addStrutEi [QtGui]</u>	<u>_ZN10QBoxLayout9addLayo</u>
<u>_ZN10QBoxLayout9addWidgetEP7QWidgeti6QFlagsIN2Qt13AlignmentFlagEE [QtGui]</u>	<u>_ZN10QBoxLayoutC1ENS_9</u>
<u>_ZN10QBoxLayoutC1ENS_9DirectionEiPKc [QtGui]</u>	<u>_ZN10QBoxLayoutC1EP7QL</u>
<u>_ZN10QBoxLayoutC1EP7QWidgetNS_9DirectionEiiPKc [QtGui]</u>	<u>_ZN10QBoxLayoutC2ENS_9</u>
<u>_ZN10QBoxLayoutC2ENS_9DirectionEiPKc [QtGui]</u>	<u>_ZN10QBoxLayoutC2EP7QL</u>
<u>_ZN10QBoxLayoutC2EP7QWidgetNS_9DirectionEiiPKc [QtGui]</u>	<u>_ZN10QBoxLayoutD0Ev [Qt</u>
<u>_ZN10QBoxLayoutD1Ev [QtGui]</u>	<u>_ZN10QBoxLayoutD2Ev [Qt</u>
<u>_ZN11QGridLayout10findWidgetEP7QWidgetPiS2_ [QtGui]</u>	<u>_ZN11QGridLayout10invalida</u>
<u>_ZN11QGridLayout11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]</u>	<u>_ZN11QGridLayout11qt_meta</u>
<u>_ZN11QGridLayout11setGeometryERK5QRect [QtGui]</u>	<u>_ZN11QGridLayout13setRow</u>
<u>_ZN11QGridLayout15getItemPositionEiPiS0_S0_S0_ [QtGui]</u>	<u>_ZN11QGridLayout15setOrig</u>
<u>_ZN11QGridLayout16setColumnStretchEii [QtGui]</u>	<u>_ZN11QGridLayout19setRow</u>
<u>_ZN11QGridLayout21setColumnMinimumWidthEii [QtGui]</u>	<u>_ZN11QGridLayout21setDefa</u>
<u>_ZN11QGridLayout6expandEii [QtGui]</u>	<u>_ZN11QGridLayout6takeAtEi</u>
<u>_ZN11QGridLayout7addItemEP11QLayoutItem [QtGui]</u>	<u>_ZN11QGridLayout7addItem [QtGui]</u>
<u>_ZN11QGridLayout9addLayoutEP7QLayoutii6QFlagsIN2Qt13AlignmentFlagEE [QtGui]</u>	<u>_ZN11QGridLayout9addLayo [QtGui]</u>
<u>_ZN11QGridLayout9addWidgetEP7QWidgetii6QFlagsIN2Qt13AlignmentFlagEE [QtGui]</u>	<u>_ZN11QGridLayout9addWidge [QtGui]</u>
<u>_ZN11QGridLayoutC1EP7QLayoutiiiPKc [QtGui]</u>	<u>_ZN11QGridLayoutC1EP7QV</u>
<u>_ZN11QGridLayoutC1EP7QWidgetiiiiPKc [QtGui]</u>	<u>_ZN11QGridLayoutC1EiiiPKc</u>
<u>_ZN11QGridLayoutC1Ev [QtGui]</u>	<u>_ZN11QGridLayoutC2EP7QL</u>
<u>_ZN11QGridLayoutC2EP7QWidget [QtGui]</u>	<u>_ZN11QGridLayoutC2EP7QV</u>
<u>_ZN11QGridLayoutC2EiiiPKc [QtGui]</u>	<u>_ZN11QGridLayoutC2Ev [Qt</u>
<u>_ZN11QGridLayoutD0Ev [QtGui]</u>	<u>_ZN11QGridLayoutD1Ev [Qt</u>
<u>_ZN11QGridLayoutD2Ev [QtGui]</u>	<u>_ZN11QHBoxLayout11qt_me</u>
<u>_ZN11QHBoxLayout11qt_metacastEPKc [QtGui]</u>	<u>_ZN11QHBoxLayoutC1EP7Q</u>

_ZN11QHBoxLayoutC1EP7QWidget [QtGui]	_ZN11QHBoxLayoutC1EP7Q
_ZN11QHBoxLayoutC1EiPKc [QtGui]	_ZN11QHBoxLayoutC1Ev [Q
_ZN11QHBoxLayoutC2EP7QLayoutiPKc [QtGui]	_ZN11QHBoxLayoutC2EP7Q
_ZN11QHBoxLayoutC2EP7QWidgetiiPKc [QtGui]	_ZN11QHBoxLayoutC2EiPK
_ZN11QHBoxLayoutC2Ev [QtGui]	_ZN11QHBoxLayoutD0Ev [Q
_ZN11QHBoxLayoutD1Ev [QtGui]	_ZN11QHBoxLayoutD2Ev [Q
_ZN11QLayoutItem10invalidateEv [QtGui]	_ZN11QLayoutItem10spacerI
_ZN11QLayoutItem12setAlignmentE6QFlagsIN2Qt13AlignmentFlagEE [QtGui]	_ZN11QLayoutItem6layoutEv
_ZN11QLayoutItem6widgetEv [QtGui]	_ZN11QLayoutItemD0Ev [Qt
_ZN11QLayoutItemD1Ev [QtGui]	_ZN11QLayoutItemD2Ev [Qt
ZN11QSpacerItem10changeSizeEiiN11QSizePolicy6PolicyES1 [QtGui]	_ZN11QSpacerItem10spacerIt
_ZN11QSpacerItem11setGeometryERK5QRect [QtGui]	_ZN11QVBoxLayout11qt_me
_ZN11QVBoxLayout11qt_metacastEPKc [QtGui]	_ZN11QVBoxLayoutC1EP7Q
_ZN11QVBoxLayoutC1EP7QWidget [QtGui]	_ZN11QVBoxLayoutC1EP7Q
_ZN11QVBoxLayoutC1EiPKc [QtGui]	_ZN11QVBoxLayoutC1Ev [Q
_ZN11QVBoxLayoutC2EP7QLayoutiPKc [QtGui]	_ZN11QVBoxLayoutC2EP7Q
_ZN11QVBoxLayoutC2EP7QWidgetiiPKc [QtGui]	_ZN11QVBoxLayoutC2EiPK
_ZN11QVBoxLayoutC2Ev [QtGui]	_ZN11QVBoxLayoutD0Ev [Q
_ZN11QVBoxLayoutD1Ev [QtGui]	_ZN11QVBoxLayoutD2Ev [Q
_ZN11QWidgetItem11setGeometryERK5QRect [QtGui]	_ZN11QWidgetItem6widgetE
_ZN14QStackedLayout11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN14QStackedLayout11qt_n
_ZN14QStackedLayout11setGeometryERK5QRect [QtGui]	_ZN14QStackedLayout12inser
_ZN14QStackedLayout13widgetRemovedEi [QtGui]	_ZN14QStackedLayout14curre
_ZN14QStackedLayout15setCurrentIndexEi [QtGui]	_ZN14QStackedLayout16setC
_ZN14QStackedLayout6takeAtEi [QtGui]	_ZN14QStackedLayout7addIt
_ZN14QStackedLayout9addWidgetEP7QWidget [QtGui]	_ZN14QStackedLayoutC1EP7
_ZN14QStackedLayoutC1EP7QWidget [QtGui]	_ZN14QStackedLayoutC1Ev]
_ZN14QStackedLayoutC2EP7QLayout [QtGui]	_ZN14QStackedLayoutC2EP7
_ZN14QStackedLayoutC2Ev [QtGui]	_ZN14QStackedLayoutD0Ev]
_ZN14QStackedLayoutD1Ev [QtGui]	_ZN14QStackedLayoutD2Ev]
_ZN7QLayout10childEventEP11QChildEvent [QtGui]	_ZN7QLayout10invalidateEv
_ZN7QLayout10removeItemEP11QLayoutItem [QtGui]	_ZN7QLayout10setAutoAddE
_ZN7QLayout10setEnabledEb [QtGui]	_ZN7QLayout10setMenuBarE

_ZN7QLayout10setSpacingEi [QtGui]	_ZN7QLayout11qt_metacallE
_ZN7QLayout11qt_metacastEPKc [QtGui]	_ZN7QLayout11setGeometryI
_ZN7QLayout11widgetEventEP6QEvent [LSB]	_ZN7QLayout12removeWidge
_ZN7QLayout12setAlignmentEP7QWidget6QFlagsIN2Qt13AlignmentFlagEE [QtGui]	_ZN7QLayout12setAlignment
ZN7QLayout14addChildLayoutEPS [QtGui]	_ZN7QLayout14addChildWid
_ZN7QLayout14deleteAllItemsEv [QtGui]	_ZN7QLayout17setSizeConstr
_ZN7QLayout21closestAcceptableSizeEPK7QWidgetRK5QSize [QtGui]	_ZN7QLayout6freezeEii [QtG
_ZN7QLayout6layoutEv [QtGui]	_ZN7QLayout6updateEv [QtC
_ZN7QLayout8activateEv [QtGui]	_ZN7QLayout9addWidgetEP7
_ZN7QLayout9setMarginEi [QtGui]	_ZN7QLayoutC1EP7QWidge
_ZN7QLayoutC1EP7QWidgeiiPKc [QtGui]	_ZN7QLayoutC1EPS_iPKc [C
_ZN7QLayoutC1EiPKc [QtGui]	_ZN7QLayoutC1Ev [QtGui]
_ZN7QLayoutC2EP7QWidge [QtGui]	_ZN7QLayoutC2EP7QWidge
_ZN7QLayoutC2EPS_iPKc [QtGui]	_ZN7QLayoutC2EiPKc [QtGu
_ZN7QLayoutC2Ev [QtGui]	_ZN7QLayoutD0Ev [QtGui]
_ZN7QLayoutD1Ev [QtGui]	_ZN7QLayoutD2Ev [QtGui]
_ZNK10QBoxLayout10metaObjectEv [QtGui]	_ZNK10QBoxLayout11maxim
_ZNK10QBoxLayout11minimumSizeEv [QtGui]	_ZNK10QBoxLayout14height
_ZNK10QBoxLayout17hasHeightForWidthEv [QtGui]	_ZNK10QBoxLayout19expand
_ZNK10QBoxLayout21minimumHeightForWidthEi [QtGui]	_ZNK10QBoxLayout5countEv
_ZNK10QBoxLayout6itemAtEi [QtGui]	_ZNK10QBoxLayout8sizeHin
_ZNK10QBoxLayout9directionEv [QtGui]	_ZNK11QGridLayout10metaC
_ZNK11QGridLayout10rowStretchEi [QtGui]	_ZNK11QGridLayout11column
_ZNK11QGridLayout11maximumSizeEv [QtGui]	_ZNK11QGridLayout11minim
_ZNK11QGridLayout12originCornerEv [QtGui]	_ZNK11QGridLayout13column
_ZNK11QGridLayout14heightForWidthEi [QtGui]	_ZNK11QGridLayout16rowM
_ZNK11QGridLayout17hasHeightForWidthEv [QtGui]	_ZNK11QGridLayout18column
_ZNK11QGridLayout19expandingDirectionsEv [QtGui]	_ZNK11QGridLayout21minim
_ZNK11QGridLayout5countEv [QtGui]	_ZNK11QGridLayout6itemAt
_ZNK11QGridLayout8cellRectEii [QtGui]	_ZNK11QGridLayout8rowCo
_ZNK11QGridLayout8sizeHintEv [QtGui]	_ZNK11QHBoxLayout10meta
_ZNK11QLayoutItem14heightForWidthEi [QtGui]	_ZNK11QLayoutItem17hasHe

_ZNK11QLayoutItem21minimumHeightForWidthEi [QtGui]	_ZNK11QSizePolicycv8QVar
_ZNK11QSpacerItem11maximumSizeEv [QtGui]	_ZNK11QSpacerItem11minim
_ZNK11QSpacerItem19expandingDirectionsEv [QtGui]	_ZNK11QSpacerItem7isEmpty
_ZNK11QSpacerItem8geometryEv [QtGui]	_ZNK11QSpacerItem8sizeHin
_ZNK11QVBoxLayout10metaObjectEv [QtGui]	_ZNK11QWidgetItem11maxim
_ZNK11QWidgetItem11minimumSizeEv [QtGui]	_ZNK11QWidgetItem14heigh
_ZNK11QWidgetItem17hasHeightForWidthEv [QtGui]	_ZNK11QWidgetItem19expar
_ZNK11QWidgetItem7isEmptyEv [QtGui]	_ZNK11QWidgetItem8geome
_ZNK11QWidgetItem8sizeHintEv [QtGui]	_ZNK14QStackedLayout10me
_ZNK14QStackedLayout11minimumSizeEv [QtGui]	_ZNK14QStackedLayout12cu
_ZNK14QStackedLayout13currentWidgetEv [QtGui]	_ZNK14QStackedLayout5cou
_ZNK14QStackedLayout6itemAtEi [QtGui]	_ZNK14QStackedLayout6wid
_ZNK14QStackedLayout8sizeHintEv [QtGui]	_ZNK7QLayout10isTopLevel
_ZNK7QLayout10metaObjectEv [QtGui]	_ZNK7QLayout11maximumS
_ZNK7QLayout11minimumSizeEv [QtGui]	_ZNK7QLayout12parentWidg
_ZNK7QLayout13alignmentRectERK5QRect [QtGui]	_ZNK7QLayout13totalSizeHin
_ZNK7QLayout14sizeConstraintEv [QtGui]	_ZNK7QLayout16totalMaxim
_ZNK7QLayout16totalMinimumSizeEv [LSB]	_ZNK7QLayout19expandingD
_ZNK7QLayout19totalHeightForWidthEi [LSB]	_ZNK7QLayout6marginEv [Q
_ZNK7QLayout7autoAddEv [QtGui]	_ZNK7QLayout7indexOfEP7Q
_ZNK7QLayout7isEmptyEv [QtGui]	_ZNK7QLayout7menuBarEv [
_ZNK7QLayout7spacingEv [QtGui]	_ZNK7QLayout8geometryEv
_ZNK7QLayout9isEnabledEv [QtGui]	_ZlsR11QDataStreamRK11QS
_ZrsR11QDataStreamR11QSizePolicy [QtXml]	

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Layouts specified in [Table 17-346](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-346. libQtGui - Qt4 Layouts Deprecated Function Interfaces

_ZN7QLayout9setMarginEi [QtGui]	

17.5.16. Qt4 Style

17.5.16.1. Class data for QStyle

The virtual table for the QStyle class is described by [Table 17-347](#)

Table 17-347. Primary vtable for QStyle

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStyle
vfunc[0]:	QStyle::metaObject() const
vfunc[1]:	QStyle::qt_metacast(char const*)
vfunc[2]:	QStyle::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QStyle::~~QStyle()
vfunc[4]:	QStyle::~~QStyle()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QStyle::polish(QWidget*)
vfunc[13]:	QStyle::unpolish(QWidget*)
vfunc[14]:	QStyle::polish(QApplication*)
vfunc[15]:	QStyle::unpolish(QApplication*)
vfunc[16]:	QStyle::polish(QPalette&)
vfunc[17]:	QStyle::itemTextRect(QFontMetrics const&, QRect const&, int, bool, QString const&) const
vfunc[18]:	QStyle::itemPixmapRect(QRect const&, int, QPixmap const&) const
vfunc[19]:	QStyle::drawItemText(QPainter*, QRect const&, int, QPalette const&, bool, QString const&, QPalette::ColorRole) const
vfunc[20]:	QStyle::drawItemPixmap(QPainter*, QRect const&, int, QPixmap const&) const
vfunc[21]:	QStyle::standardPalette() const

vfunc[22]:	__cxa_pure_virtual
vfunc[23]:	__cxa_pure_virtual
vfunc[24]:	__cxa_pure_virtual
vfunc[25]:	__cxa_pure_virtual
vfunc[26]:	__cxa_pure_virtual
vfunc[27]:	__cxa_pure_virtual
vfunc[28]:	__cxa_pure_virtual
vfunc[29]:	__cxa_pure_virtual
vfunc[30]:	__cxa_pure_virtual
vfunc[31]:	__cxa_pure_virtual
vfunc[32]:	__cxa_pure_virtual

The Run Time Type Information for the QStyle class is described by [Table 17-348](#)

Table 17-348. typeinfo for QStyle

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStyle
basetype:	typeinfo for QObject

17.5.16.2. Class data for QCommonStyle

The virtual table for the QCommonStyle class is described by [Table 17-349](#)

Table 17-349. Primary vtable for QCommonStyle

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCommonStyle
vfunc[0]:	QCommonStyle::metaObject() const
vfunc[1]:	QCommonStyle::qt_metacast(char const*)
vfunc[2]:	QCommonStyle::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QCommonStyle::~QCommonStyle()
vfunc[4]:	QCommonStyle::~~QCommonStyle()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)

vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QStyle::polish(QWidget*)
vfunc[13]:	QStyle::unpolish(QWidget*)
vfunc[14]:	QStyle::polish(QApplication*)
vfunc[15]:	QStyle::unpolish(QApplication*)
vfunc[16]:	QStyle::polish(QPalette&)
vfunc[17]:	QStyle::itemTextRect(QFontMetrics const&, QRect const&, int, bool, QString const&) const
vfunc[18]:	QStyle::itemPixmapRect(QRect const&, int, QPixmap const&) const
vfunc[19]:	QStyle::drawItemText(QPainter*, QRect const&, int, QPalette const&, bool, QString const&, QPalette::ColorRole) const
vfunc[20]:	QStyle::drawItemPixmap(QPainter*, QRect const&, int, QPixmap const&) const
vfunc[21]:	QStyle::standardPalette() const
vfunc[22]:	QCommonStyle::drawPrimitive(QStyle::PrimitiveElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[23]:	QCommonStyle::drawControl(QStyle::ControlElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[24]:	QCommonStyle::subElementRect(QStyle::SubElement, QStyleOption const*, QWidget const*) const
vfunc[25]:	QCommonStyle::drawComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPainter*, QWidget const*) const
vfunc[26]:	QCommonStyle::hitTestComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPoint const&, QWidget const*) const
vfunc[27]:	QCommonStyle::subControlRect(QStyle::ComplexControl, QStyleOptionComplex const*, QStyle::SubControl, QWidget const*) const
vfunc[28]:	QCommonStyle::pixelMetric(QStyle::PixelMetric, QStyleOption const*, QWidget const*) const
vfunc[29]:	QCommonStyle::sizeFromContents(QStyle::ContentsType, QStyleOption const*, QSize const&, QWidget const*) const
vfunc[30]:	QCommonStyle::styleHint(QStyle::StyleHint, QStyleOption const*, QWidget const*, QStyleHintReturn*) const
vfunc[31]:	QCommonStyle::standardPixmap(QStyle::StandardPixmap, QStyleOption const*, QWidget const*) const

vfunc[32]:	QCommonStyle::generatedIconPixmap(QIcon::Mode, QPixmap const&, QStyleOption const*) const

The Run Time Type Information for the QCommonStyle class is described by [Table 17-350](#)

Table 17-350. typeinfo for QCommonStyle

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCommonStyle
basetype:	typeinfo for QStyle

17.5.16.3. Class data for QMotifStyle

The virtual table for the QMotifStyle class is described by [Table 17-351](#)

Table 17-351. Primary vtable for QMotifStyle

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMotifStyle
vfunc[0]:	QMotifStyle::metaObject() const
vfunc[1]:	QMotifStyle::qt_metacast(char const*)
vfunc[2]:	QMotifStyle::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QMotifStyle::~~QMotifStyle()
vfunc[4]:	QMotifStyle::~~QMotifStyle()
vfunc[5]:	QMotifStyle::event(QEvent*)
vfunc[6]:	QMotifStyle::eventFilter(QObject*, QEvent*)
vfunc[7]:	QMotifStyle::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QMotifStyle::polish(QWidget*)
vfunc[13]:	QMotifStyle::unpolish(QWidget*)
vfunc[14]:	QMotifStyle::polish(QApplication*)
vfunc[15]:	QMotifStyle::unpolish(QApplication*)

vfunc[16]:	QMotifStyle::polish(QPalette&)
vfunc[17]:	QStyle::itemTextRect(QFontMetrics const&, QRect const&, int, bool, QString const&) const
vfunc[18]:	QStyle::itemPixmapRect(QRect const&, int, QPixmap const&) const
vfunc[19]:	QStyle::drawItemText(QPainter*, QRect const&, int, QPalette const&, bool, QString const&, QPalette::ColorRole) const
vfunc[20]:	QStyle::drawItemPixmap(QPainter*, QRect const&, int, QPixmap const&) const
vfunc[21]:	QMotifStyle::standardPalette() const
vfunc[22]:	QMotifStyle::drawPrimitive(QStyle::PrimitiveElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[23]:	QMotifStyle::drawControl(QStyle::ControlElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[24]:	QMotifStyle::subElementRect(QStyle::SubElement, QStyleOption const*, QWidget const*) const
vfunc[25]:	QMotifStyle::drawComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPainter*, QWidget const*) const
vfunc[26]:	QCommonStyle::hitTestComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPoint const&, QWidget const*) const
vfunc[27]:	QMotifStyle::subControlRect(QStyle::ComplexControl, QStyleOptionComplex const*, QStyle::SubControl, QWidget const*) const
vfunc[28]:	QMotifStyle::pixelMetric(QStyle::PixelMetric, QStyleOption const*, QWidget const*) const
vfunc[29]:	QMotifStyle::sizeFromContents(QStyle::ContentsType, QStyleOption const*, QSize const&, QWidget const*) const
vfunc[30]:	QMotifStyle::styleHint(QStyle::StyleHint, QStyleOption const*, QWidget const*, QStyleHintReturn*) const
vfunc[31]:	QMotifStyle::standardPixmap(QStyle::StandardPixmap, QStyleOption const*, QWidget const*) const
vfunc[32]:	QCommonStyle::generatedIconPixmap(QIcon::Mode, QPixmap const&, QStyleOption const*) const

The Run Time Type Information for the QMotifStyle class is described by [Table 17-352](#)

Table 17-352. typeinfo for QMotifStyle

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMotifStyle
basetype:	typeinfo for QCommonStyle

17.5.16.4. Class data for QStyleFactoryInterface

The virtual table for the QStyleFactoryInterface class is described by [Table 17-353](#)

Table 17-353. Primary vtable for QStyleFactoryInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStyleFactoryInterface
vfunc[0]:	NULL or QStyleFactoryInterface::~~QStyleFactoryInterface()
vfunc[1]:	NULL or QStyleFactoryInterface::~~QStyleFactoryInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QStyleFactoryInterface class is described by [Table 17-354](#)

Table 17-354. typeinfo for QStyleFactoryInterface

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStyleFactoryInterface
basetype:	typeinfo for QFactoryInterface

17.5.16.5. Class data for QWindowsStyle

The virtual table for the QWindowsStyle class is described by [Table 17-355](#)

Table 17-355. Primary vtable for QWindowsStyle

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWindowsStyle
vfunc[0]:	QWindowsStyle::metaObject() const
vfunc[1]:	QWindowsStyle::qt_metacast(char const*)
vfunc[2]:	QWindowsStyle::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QWindowsStyle::~~QWindowsStyle()
vfunc[4]:	QWindowsStyle::~~QWindowsStyle()
vfunc[5]:	QObject::event(QEvent*)

vfunc[6]:	QWindowsStyle::eventFilter(QObject*, QEvent*)
vfunc[7]:	QWindowsStyle::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWindowsStyle::polish(QWidget*)
vfunc[13]:	QWindowsStyle::unpolish(QWidget*)
vfunc[14]:	QWindowsStyle::polish(QApplication*)
vfunc[15]:	QWindowsStyle::unpolish(QApplication*)
vfunc[16]:	QWindowsStyle::polish(QPalette&)
vfunc[17]:	QStyle::itemTextRect(QFontMetrics const&, QRect const&, int, bool, QString const&) const
vfunc[18]:	QStyle::itemPixmapRect(QRect const&, int, QPixmap const&) const
vfunc[19]:	QStyle::drawItemText(QPainter*, QRect const&, int, QPalette const&, bool, QString const&, QPalette::ColorRole) const
vfunc[20]:	QStyle::drawItemPixmap(QPainter*, QRect const&, int, QPixmap const&) const
vfunc[21]:	QStyle::standardPalette() const
vfunc[22]:	QWindowsStyle::drawPrimitive(QStyle::PrimitiveElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[23]:	QWindowsStyle::drawControl(QStyle::ControlElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[24]:	QWindowsStyle::subElementRect(QStyle::SubElement, QStyleOption const*, QWidget const*) const
vfunc[25]:	QWindowsStyle::drawComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPainter*, QWidget const*) const
vfunc[26]:	QCommonStyle::hitTestComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPoint const&, QWidget const*) const
vfunc[27]:	QCommonStyle::subControlRect(QStyle::ComplexControl, QStyleOptionComplex const*, QStyle::SubControl, QWidget const*) const
vfunc[28]:	QWindowsStyle::pixelMetric(QStyle::PixelMetric, QStyleOption const*, QWidget const*) const
vfunc[29]:	QWindowsStyle::sizeFromContents(QStyle::ContentsType, QStyleOption const*, QSize const&, QWidget const*) const
vfunc[30]:	QWindowsStyle::styleHint(QStyle::StyleHint, QStyleOption const*, QWidget const*, QStyleHintReturn*) const
vfunc[31]:	

	QWindowsStyle::standardPixmap(QStyle::StandardPixmap, QStyleOption const*, QWidget const*) const
vfunc[32]:	QCommonStyle::generatedIconPixmap(QIcon::Mode, QPixmap const&, QStyleOption const*) const

The Run Time Type Information for the QWindowsStyle class is described by [Table 17-356](#)

Table 17-356. typeinfo for QWindowsStyle

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWindowsStyle
basetype:	typeinfo for QCommonStyle

17.5.16.6. Class data for QCDEStyle

The virtual table for the QCDEStyle class is described by [Table 17-357](#)

Table 17-357. Primary vtable for QCDEStyle

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCDEStyle
vfunc[0]:	QCDEStyle::metaObject() const
vfunc[1]:	QCDEStyle::qt_metacast(char const*)
vfunc[2]:	QCDEStyle::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QCDEStyle::~~QCDEStyle()
vfunc[4]:	QCDEStyle::~~QCDEStyle()
vfunc[5]:	QMotifStyle::event(QEvent*)
vfunc[6]:	QMotifStyle::eventFilter(QObject*, QEvent*)
vfunc[7]:	QMotifStyle::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QMotifStyle::polish(QWidget*)
vfunc[13]:	QMotifStyle::unpolish(QWidget*)

vfunc[14]:	QMotifStyle::polish(QApplication*)
vfunc[15]:	QMotifStyle::unpolish(QApplication*)
vfunc[16]:	QMotifStyle::polish(QPalette&)
vfunc[17]:	QStyle::itemTextRect(QFontMetrics const&, QRect const&, int, bool, QString const&) const
vfunc[18]:	QStyle::itemPixmapRect(QRect const&, int, QPixmap const&) const
vfunc[19]:	QStyle::drawItemText(QPainter*, QRect const&, int, QPalette const&, bool, QString const&, QPalette::ColorRole) const
vfunc[20]:	QStyle::drawItemPixmap(QPainter*, QRect const&, int, QPixmap const&) const
vfunc[21]:	QCDEStyle::standardPalette() const
vfunc[22]:	QCDEStyle::drawPrimitive(QStyle::PrimitiveElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[23]:	QCDEStyle::drawControl(QStyle::ControlElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[24]:	QMotifStyle::subElementRect(QStyle::SubElement, QStyleOption const*, QWidget const*) const
vfunc[25]:	QMotifStyle::drawComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPainter*, QWidget const*) const
vfunc[26]:	QCommonStyle::hitTestComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPoint const&, QWidget const*) const
vfunc[27]:	QMotifStyle::subControlRect(QStyle::ComplexControl, QStyleOptionComplex const*, QStyle::SubControl, QWidget const*) const
vfunc[28]:	QCDEStyle::pixelMetric(QStyle::PixelMetric, QStyleOption const*, QWidget const*) const
vfunc[29]:	QMotifStyle::sizeFromContents(QStyle::ContentsType, QStyleOption const*, QSize const&, QWidget const*) const
vfunc[30]:	QMotifStyle::styleHint(QStyle::StyleHint, QStyleOption const*, QWidget const*, QStyleHintReturn*) const
vfunc[31]:	QMotifStyle::standardPixmap(QStyle::StandardPixmap, QStyleOption const*, QWidget const*) const
vfunc[32]:	QCommonStyle::generatedIconPixmap(QIcon::Mode, QPixmap const&, QStyleOption const*) const

The Run Time Type Information for the QCDEStyle class is described by [Table 17-358](#)

Table 17-358. typeinfo for QCDEStyle

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCDEStyle
basetype:	typeinfo for QMotifStyle

17.5.16.7. Class data for QPlastiqueStyle

The virtual table for the QPlastiqueStyle class is described by [Table 17-359](#)

Table 17-359. Primary vtable for QPlastiqueStyle

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPlastiqueStyle
vfunc[0]:	QPlastiqueStyle::metaObject() const
vfunc[1]:	QPlastiqueStyle::qt_metacast(char const*)
vfunc[2]:	QPlastiqueStyle::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QPlastiqueStyle::~~QPlastiqueStyle()
vfunc[4]:	QPlastiqueStyle::~~QPlastiqueStyle()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QPlastiqueStyle::eventFilter(QObject*, QEvent*)
vfunc[7]:	QPlastiqueStyle::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QPlastiqueStyle::polish(QWidget*)
vfunc[13]:	QPlastiqueStyle::unpolish(QWidget*)
vfunc[14]:	QPlastiqueStyle::polish(QApplication*)
vfunc[15]:	QPlastiqueStyle::unpolish(QApplication*)
vfunc[16]:	QPlastiqueStyle::polish(QPalette&)
vfunc[17]:	QStyle::itemTextRect(QFontMetrics const&, QRect const&, int, bool, QString const&) const
vfunc[18]:	QStyle::itemPixmapRect(QRect const&, int, QPixmap const&) const
vfunc[19]:	QStyle::drawItemText(QPainter*, QRect const&, int, QPalette const&, bool, QString const&, QPalette::ColorRole) const
vfunc[20]:	QStyle::drawItemPixmap(QPainter*, QRect const&, int, QPixmap const&) const
vfunc[21]:	QPlastiqueStyle::standardPalette() const

vfunc[22]:	QPlastiqueStyle::drawPrimitive(QStyle::PrimitiveElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[23]:	QPlastiqueStyle::drawControl(QStyle::ControlElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[24]:	QPlastiqueStyle::subElementRect(QStyle::SubElement, QStyleOption const*, QWidget const*) const
vfunc[25]:	QPlastiqueStyle::drawComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPainter*, QWidget const*) const
vfunc[26]:	QPlastiqueStyle::hitTestComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPoint const&, QWidget const*) const
vfunc[27]:	QPlastiqueStyle::subControlRect(QStyle::ComplexControl, QStyleOptionComplex const*, QStyle::SubControl, QWidget const*) const
vfunc[28]:	QPlastiqueStyle::pixelMetric(QStyle::PixelMetric, QStyleOption const*, QWidget const*) const
vfunc[29]:	QPlastiqueStyle::sizeFromContents(QStyle::ContentsType, QStyleOption const*, QSize const&, QWidget const*) const
vfunc[30]:	QPlastiqueStyle::styleHint(QStyle::StyleHint, QStyleOption const*, QWidget const*, QStyleHintReturn*) const
vfunc[31]:	QWindowsStyle::standardPixmap(QStyle::StandardPixmap, QStyleOption const*, QWidget const*) const
vfunc[32]:	QCommonStyle::generatedIconPixmap(QIcon::Mode, QPixmap const&, QStyleOption const*) const

The Run Time Type Information for the QPlastiqueStyle class is described by [Table 17-360](#)

Table 17-360. typeid for QPlastiqueStyle

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QPlastiqueStyle
basetype:	typeid for QWindowsStyle

17.5.16.8. Class data for QCleanlooksStyle

The virtual table for the QCleanlooksStyle class is described by [Table 17-361](#)

Table 17-361. Primary vtable for QCleanlooksStyle

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QCleanlooksStyle
vfunc[0]:	QCleanlooksStyle::metaObject() const
vfunc[1]:	QCleanlooksStyle::qt_metacast(char const*)
vfunc[2]:	QCleanlooksStyle::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QCleanlooksStyle::~~QCleanlooksStyle()
vfunc[4]:	QCleanlooksStyle::~~QCleanlooksStyle()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QWindowsStyle::eventFilter(QObject*, QEvent*)
vfunc[7]:	QWindowsStyle::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QCleanlooksStyle::polish(QWidget*)
vfunc[13]:	QCleanlooksStyle::unpolish(QWidget*)
vfunc[14]:	QCleanlooksStyle::polish(QApplication*)
vfunc[15]:	QCleanlooksStyle::unpolish(QApplication*)
vfunc[16]:	QCleanlooksStyle::polish(QPalette&)
vfunc[17]:	QStyle::itemTextRect(QFontMetrics const&, QRect const&, int, bool, QString const&) const
vfunc[18]:	QCleanlooksStyle::itemPixmapRect(QRect const&, int, QPixmap const&) const
vfunc[19]:	QCleanlooksStyle::drawItemText(QPainter*, QRect const&, int, QPalette const&, bool, QString const&, QPalette::ColorRole) const
vfunc[20]:	QCleanlooksStyle::drawItemPixmap(QPainter*, QRect const&, int, QPixmap const&) const
vfunc[21]:	QCleanlooksStyle::standardPalette() const
vfunc[22]:	QCleanlooksStyle::drawPrimitive(QStyle::PrimitiveElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[23]:	QCleanlooksStyle::drawControl(QStyle::ControlElement, QStyleOption const*, QPainter*, QWidget const*) const
vfunc[24]:	QCleanlooksStyle::subElementRect(QStyle::SubElement, QStyleOption const*, QWidget const*) const
vfunc[25]:	QCleanlooksStyle::drawComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPainter*, QWidget const*) const
vfunc[26]:	QCleanlooksStyle::hitTestComplexControl(QStyle::ComplexControl, QStyleOptionComplex const*, QPoint const&, QWidget const*) const
vfunc[27]:	

	QCleanlooksStyle::subControlRect(QStyle::ComplexControl, QStyleOptionComplex const*, QStyle::SubControl, QWidget const*) const
vfunc[28]:	QCleanlooksStyle::pixelMetric(QStyle::PixelMetric, QStyleOption const*, QWidget const*) const
vfunc[29]:	QCleanlooksStyle::sizeFromContents(QStyle::ContentsType, QStyleOption const*, QSize const&, QWidget const*) const
vfunc[30]:	QCleanlooksStyle::styleHint(QStyle::StyleHint, QStyleOption const*, QWidget const*, QStyleHintReturn*) const
vfunc[31]:	QCleanlooksStyle::standardPixmap(QStyle::StandardPixmap, QStyleOption const*, QWidget const*) const
vfunc[32]:	QCleanlooksStyle::generatedIconPixmap(QIcon::Mode, QPixmap const&, QStyleOption const*) const

17.5.16.9. Interfaces for Qt4 Style

An LSB conforming implementation shall provide the generic functions for Qt4 Style specified in [Table 17-362](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-362. libQtGui - Qt4 Style Function Interfaces

_ZN11QMotifStyle10timerEventEP11QTimerEvent [QtGui]
_ZN11QMotifStyle11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN11QMotifStyle21setUseHighlightColorsEb [QtGui]
_ZN11QMotifStyle6polishEP12QApplication [QtGui]
_ZN11QMotifStyle6polishER8QPalette [QtGui]
_ZN11QMotifStyle8unpolishEP7QWidget [QtGui]
_ZN11QMotifStyleC2Eb [QtGui]
_ZN11QMotifStyleD1Ev [QtGui]
_ZN12QCommonStyle11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN12QCommonStyleC1Ev [QtGui]
_ZN12QCommonStyleD0Ev [QtGui]
_ZN12QCommonStyleD2Ev [QtGui]
ZN12QStyleOptionC1ERKS [QtGui]
ZN12QStyleOptionC2ERKS [QtGui]
_ZN12QStyleOptionD1Ev [QtGui]
ZN12QStyleOptionaSERKS [QtGui]
_ZN13QStyleFactory6createERK7QString [QtGui]

<u>_ZN13QWindowsStyle11eventFilterEP7QObjectP6QEvent [QtGui]</u>
<u>_ZN13QWindowsStyle11qt_metacastEPKc [QtGui]</u>
<u>_ZN13QWindowsStyle6polishEP7QWidget [QtGui]</u>
<u>_ZN13QWindowsStyle8unpolishEP12QApplication [QtGui]</u>
<u>_ZN13QWindowsStyleC1Ev [QtGui]</u>
<u>_ZN13QWindowsStyleD0Ev [QtGui]</u>
<u>_ZN13QWindowsStyleD2Ev [QtGui]</u>
<u>_ZN15QPlastiqueStyle11eventFilterEP7QObjectP6QEvent [QtGui]</u>
<u>_ZN15QPlastiqueStyle11qt_metacastEPKc [QtGui]</u>
<u>_ZN15QPlastiqueStyle6polishEP7QWidget [QtGui]</u>
<u>_ZN15QPlastiqueStyle8unpolishEP12QApplication [QtGui]</u>
<u>_ZN15QPlastiqueStyleC1Ev [QtGui]</u>
<u>_ZN15QPlastiqueStyleD0Ev [QtGui]</u>
<u>_ZN15QPlastiqueStyleD2Ev [QtGui]</u>
<u>_ZN15QStyleOptionTabC1Ev [QtGui]</u>
<u>_ZN15QStyleOptionTabC2Ev [QtGui]</u>
<u>_ZN16QCleanlooksStyle11qt_metacastEPKc [QtXml]</u>
<u>_ZN16QCleanlooksStyle6polishEP7QWidget [QtXml]</u>
<u>_ZN16QCleanlooksStyle8unpolishEP12QApplication [QtXml]</u>
<u>_ZN16QCleanlooksStyleC1Ev [QtXml]</u>
<u>_ZN16QCleanlooksStyleD0Ev [QtXml]</u>
<u>_ZN16QCleanlooksStyleD2Ev [QtXml]</u>
<u>_ZN16QStyleHintReturnC2Eii [QtGui]</u>
<u>_ZN16QStyleHintReturnD2Ev [QtGui]</u>
<u>_ZN17QStyleOptionFrameC1Ev [QtGui]</u>
<u>_ZN17QStyleOptionFrameC2Ev [QtGui]</u>
<u>_ZN17QStyleOptionTabV2C1Ei [QtGui]</u>
<u>_ZN17QStyleOptionTabV2C2ERK15QStyleOptionTab [QtGui]</u>
<u>_ZN17QStyleOptionTabV2C2Ev [QtGui]</u>
<u>_ZN18QStyleOptionButtonC1Ei [QtGui]</u>
<u>_ZN18QStyleOptionButtonC2Ei [QtGui]</u>
<u>_ZN18QStyleOptionHeaderC1Ei [QtGui]</u>
<u>_ZN18QStyleOptionHeaderC2Ei [QtGui]</u>

_ZN18QStyleOptionSliderC1Ei [QtGui]
_ZN18QStyleOptionSliderC2Ei [QtGui]
_ZN19QStyleOptionComplexC1Eii [QtGui]
_ZN19QStyleOptionFrameV2C1ERK17QStyleOptionFrame [QtGui]
_ZN19QStyleOptionFrameV2C1Ev [QtGui]
_ZN19QStyleOptionFrameV2C2Ei [QtGui]
_ZN19QStyleOptionFrameV2aSERK17QStyleOptionFrame [QtGui]
_ZN19QStyleOptionSpinBoxC1Ev [QtGui]
_ZN19QStyleOptionSpinBoxC2Ev [QtGui]
_ZN19QStyleOptionToolBarC1Ev [QtGui]
_ZN19QStyleOptionToolBarC2Ev [QtGui]
_ZN19QStyleOptionToolBoxC1Ev [QtGui]
_ZN19QStyleOptionToolBoxC2Ev [QtGui]
_ZN20QStyleHintReturnMaskC2Ev [QtGui]
_ZN20QStyleOptionComboBoxC1Ev [QtGui]
_ZN20QStyleOptionComboBoxC2Ev [QtGui]
_ZN20QStyleOptionGroupBoxC1Ev [QtGui]
_ZN20QStyleOptionGroupBoxC2Ev [QtGui]
_ZN20QStyleOptionMenuItemC1Ev [QtGui]
_ZN20QStyleOptionMenuItemC2Ev [QtGui]
_ZN20QStyleOptionTitleBarC1Ev [QtGui]
_ZN20QStyleOptionTitleBarC2Ev [QtGui]
_ZN20QStyleOptionViewItemC1Ev [QtGui]
_ZN20QStyleOptionViewItemC2Ev [QtGui]
_ZN21QStyleOptionFocusRectC1Ev [QtGui]
_ZN21QStyleOptionFocusRectC2Ev [QtGui]
_ZN22QStyleOptionDockWidgetC1Ev [QtGui]
_ZN22QStyleOptionDockWidgetC2Ev [QtGui]
_ZN22QStyleOptionQ3ListViewC1Ev [QtGui]
_ZN22QStyleOptionQ3ListViewC2Ev [QtGui]
_ZN22QStyleOptionRubberBandC1Ev [QtGui]
_ZN22QStyleOptionRubberBandC2Ev [QtGui]
_ZN22QStyleOptionTabBarBaseC1Ev [QtGui]

_ZN22QStyleOptionTabBarBaseC2Ev [QtGui]
_ZN22QStyleOptionToolButtonC1Ev [QtGui]
_ZN22QStyleOptionToolButtonC2Ev [QtGui]
_ZN22QStyleOptionViewItemV2C1Ei [QtXml]
_ZN22QStyleOptionViewItemV2C2ERK20QStyleOptionViewItem [QtXml]
_ZN22QStyleOptionViewItemV2C2Ev [QtXml]
_ZN23QStyleOptionProgressBarC1Ei [QtGui]
_ZN23QStyleOptionProgressBarC2Ei [QtGui]
_ZN24QStyleOptionGraphicsItemC1Ei [QtXml]
_ZN24QStyleOptionGraphicsItemC2Ei [QtXml]
_ZN24QStyleOptionQ3DockWindowC1Ei [QtGui]
_ZN24QStyleOptionQ3DockWindowC2Ei [QtGui]
_ZN25QStyleOptionProgressBarV2C1ERK23QStyleOptionProgressBar [QtGui]
_ZN25QStyleOptionProgressBarV2C1Ei [QtGui]
_ZN25QStyleOptionProgressBarV2C2ERK23QStyleOptionProgressBar [QtGui]
_ZN25QStyleOptionProgressBarV2C2Ei [QtGui]
_ZN25QStyleOptionProgressBarV2aSERK23QStyleOptionProgressBar [QtGui]
_ZN26QStyleOptionQ3ListViewItemC1Ev [QtGui]
_ZN26QStyleOptionQ3ListViewItemC2Ev [QtGui]
_ZN26QStyleOptionTabWidgetFrameC1Ev [QtGui]
_ZN26QStyleOptionTabWidgetFrameC2Ev [QtGui]
_ZN6QStyle11alignedRectEN2Qt15LayoutDirectionE6QFlagsINS0_13AlignmentFlagEERK5QSizeRK5QRect [QtG
_ZN6QStyle11qt_metacastEPKc [QtGui]
_ZN6QStyle23sliderPositionFromValueEiiiiib [QtGui]
_ZN6QStyle6polishEP12QApplication [QtGui]
_ZN6QStyle6polishER8QPalette [QtGui]
_ZN6QStyle8unpolishEP7QWidget [QtGui]
_ZN6QStyleC1Ev [QtGui]
_ZN6QStyleD0Ev [QtGui]
_ZN6QStyleD2Ev [QtGui]
_ZN9QCDEStyle11qt_metacastEPKc [QtGui]
_ZN9QCDEStyleC2Eb [QtGui]
_ZN9QCDEStyleD1Ev [QtGui]

_ZNK11QMotifStyle10metaObjectEv [QtGui]
_ZNK11QMotifStyle11pixelMetricEN6QStyle11PixelMetricEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK11QMotifStyle14standardPixmapEN6QStyle14StandardPixmapEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK11QMotifStyle14subElementRectEN6QStyle10SubElementEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK11QMotifStyle16sizeFromContentsEN6QStyle12ContentsTypeEPK12QStyleOptionRK5QSizePK7QWidget [QtGui]
_ZNK11QMotifStyle18useHighlightColorsEv [QtGui]
_ZNK11QMotifStyle9styleHintEN6QStyle9StyleHintEPK12QStyleOptionPK7QWidgetP16QStyleHintReturn [QtGui]
_ZNK12QCommonStyle11drawControlEN6QStyle14ControlElementEPK12QStyleOptionP8QPainterPK7QWidget [QtGui]
_ZNK12QCommonStyle13drawPrimitiveEN6QStyle16PrimitiveElementEPK12QStyleOptionP8QPainterPK7QWidget [QtGui]
_ZNK12QCommonStyle14subControlRectEN6QStyle14ComplexControlEPK19QStyleOptionComplexNS0_10SubControl [QtGui]
_ZNK12QCommonStyle16sizeFromContentsEN6QStyle12ContentsTypeEPK12QStyleOptionRK5QSizePK7QWidget [QtGui]
_ZNK12QCommonStyle19generatedIconPixmapEN5QIcon4ModeERK7QPixmapPK12QStyleOption [QtGui]
_ZNK12QCommonStyle26standardIconImplementationEN6QStyle14StandardPixmapEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK13QWindowsStyle10metaObjectEv [QtGui]
_ZNK13QWindowsStyle11pixelMetricEN6QStyle11PixelMetricEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK13QWindowsStyle14standardPixmapEN6QStyle14StandardPixmapEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK13QWindowsStyle16sizeFromContentsEN6QStyle12ContentsTypeEPK12QStyleOptionRK5QSizePK7QWidget [QtGui]
_ZNK13QWindowsStyle26standardIconImplementationEN6QStyle14StandardPixmapEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK15QPlastiqueStyle10metaObjectEv [QtGui]
_ZNK15QPlastiqueStyle11pixelMetricEN6QStyle11PixelMetricEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK15QPlastiqueStyle14standardPixmapEN6QStyle14StandardPixmapEPK12QStyleOptionPK7QWidget [QtXml]
_ZNK15QPlastiqueStyle14subElementRectEN6QStyle10SubElementEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK15QPlastiqueStyle16sizeFromContentsEN6QStyle12ContentsTypeEPK12QStyleOptionRK5QSizePK7QWidget [QtGui]
_ZNK15QPlastiqueStyle21hitTestComplexControlEN6QStyle14ComplexControlEPK19QStyleOptionComplexRK6QPainter [QtGui]
_ZNK15QPlastiqueStyle9styleHintEN6QStyle9StyleHintEPK12QStyleOptionPK7QWidgetP16QStyleHintReturn [QtGui]
_ZNK16QCleanlooksStyle11drawControlEN6QStyle14ControlElementEPK12QStyleOptionP8QPainterPK7QWidget [QtGui]
_ZNK16QCleanlooksStyle12drawItemTextEP8QPainterRK5QRectiRK8QPalettebRK7QStringNS5_9ColorRoleE [QtGui]
_ZNK16QCleanlooksStyle14drawItemPixmapEP8QPainterRK5QRectiRK7QPixmap [QtXml]

_ZNK16QCleanlooksStyle14standardPixmapEN6QStyle14StandardPixmapEPK12QStyleOptionPK7QWidget [QtXm]
_ZNK16QCleanlooksStyle14subElementRectEN6QStyle10SubElementEPK12QStyleOptionPK7QWidget [QtXm]
_ZNK16QCleanlooksStyle16sizeFromContentsEN6QStyle12ContentsTypeEPK12QStyleOptionRK5QSizePK7QWidget [QtXm]
_ZNK16QCleanlooksStyle19generatedIconPixmapEN5QIcon4ModeERK7QPixmapPK12QStyleOption [QtXm]
_ZNK16QCleanlooksStyle26standardIconImplementationEN6QStyle14StandardPixmapEPK12QStyleOptionPK7QWidget [QtXm]
_ZNK6QStyle10metaObjectEv [QtGui]
_ZNK6QStyle12itemTextRectERK12QFontMetricsRK5QRectibRK7QString [QtGui]
_ZNK6QStyle14drawItemPixmapEP8QPainterRK5QRectiRK7QPixmap [QtGui]
_ZNK6QStyle15standardPaletteEv [QtGui]
_ZNK9QCDEStyle10metaObjectEv [QtGui]
_ZNK9QCDEStyle11pixelMetricEN6QStyle11PixelMetricEPK12QStyleOptionPK7QWidget [QtGui]
_ZNK9QCDEStyle15standardPaletteEv [QtGui]

17.5.17. Qt4 Text

17.5.17.1. Class data for QTextObject

The virtual table for the QTextObject class is described by [Table 17-363](#)

Table 17-363. Primary vtable for QTextObject

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextObject
vfunc[0]:	QTextObject::metaObject() const
vfunc[1]:	QTextObject::qt_metacast(char const*)
vfunc[2]:	QTextObject::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTextObject::~~QTextObject()
vfunc[4]:	QTextObject::~QTextObject()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)

vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QTextObject class is described by [Table 17-364](#)

Table 17-364. typeinfo for QTextObject

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextObject
basetype:	typeinfo for QObject

17.5.17.2. Class data for QTextBlockGroup

The virtual table for the QTextBlockGroup class is described by [Table 17-365](#)

Table 17-365. Primary vtable for QTextBlockGroup

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextBlockGroup
vfunc[0]:	QTextBlockGroup::metaObject() const
vfunc[1]:	QTextBlockGroup::qt_metacast(char const*)
vfunc[2]:	QTextBlockGroup::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTextBlockGroup::~~QTextBlockGroup()
vfunc[4]:	QTextBlockGroup::~~QTextBlockGroup()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QTextBlockGroup::blockInserted(QTextBlock const&)
vfunc[13]:	QTextBlockGroup::blockRemoved(QTextBlock const&)
vfunc[14]:	QTextBlockGroup::blockFormatChanged(QTextBlock const&)

The Run Time Type Information for the QTextBlockGroup class is described by [Table 17-366](#)

Table 17-366. typeinfo for QTextBlockGroup

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextBlockGroup
basetype:	typeinfo for QTextObject

17.5.17.3. Class data for QTextFrameLayoutData

The virtual table for the QTextFrameLayoutData class is described by [Table 17-367](#)

Table 17-367. Primary vtable for QTextFrameLayoutData

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextFrameLayoutData
vfunc[0]:	QTextFrameLayoutData::~~QTextFrameLayoutData()
vfunc[1]:	QTextFrameLayoutData::~~QTextFrameLayoutData()

The Run Time Type Information for the QTextFrameLayoutData class is described by [Table 17-368](#)

Table 17-368. typeinfo for QTextFrameLayoutData

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QTextFrameLayoutData

17.5.17.4. Class data for QTextFrame

The virtual table for the QTextFrame class is described by [Table 17-369](#)

Table 17-369. Primary vtable for QTextFrame

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextFrame
vfunc[0]:	QTextFrame::metaObject() const
vfunc[1]:	QTextFrame::qt_metacast(char const*)
vfunc[2]:	QTextFrame::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTextFrame::~~QTextFrame()
vfunc[4]:	QTextFrame::~~QTextFrame()

vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QTextFrame class is described by [Table 17-370](#)

Table 17-370. typeinfo for QTextFrame

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextFrame
basetype:	typeinfo for QTextObject

17.5.17.5. Class data for QTextBlockUserData

The virtual table for the QTextBlockUserData class is described by [Table 17-371](#)

Table 17-371. Primary vtable for QTextBlockUserData

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextBlockUserData
vfunc[0]:	QTextBlockUserData::~~QTextBlockUserData()
vfunc[1]:	QTextBlockUserData::~~QTextBlockUserData()

The Run Time Type Information for the QTextBlockUserData class is described by [Table 17-372](#)

Table 17-372. typeinfo for QTextBlockUserData

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QTextBlockUserData

17.5.17.6. Class data for QTextDocument

The virtual table for the QTextDocument class is described by [Table 17-373](#)

Table 17-373. Primary vtable for QTextDocument

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextDocument
vfunc[0]:	QTextDocument::metaObject() const
vfunc[1]:	QTextDocument::qt_metacast(char const*)
vfunc[2]:	QTextDocument::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTextDocument::~~QTextDocument()
vfunc[4]:	QTextDocument::~~QTextDocument()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QTextDocument::clear()
vfunc[13]:	QTextDocument::createObject(QTextFormat const&)
vfunc[14]:	QTextDocument::loadResource(int, QUrl const&)

The Run Time Type Information for the QTextDocument class is described by [Table 17-374](#)

Table 17-374. typeinfo for QTextDocument

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextDocument
basetype:	typeinfo for QObject

17.5.17.7. Class data for QTextTable

The virtual table for the QTextTable class is described by [Table 17-375](#)

Table 17-375. Primary vtable for QTextTable

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QTextTable
vfunc[0]:	QTextTable::metaObject() const
vfunc[1]:	QTextTable::qt_metacast(char const*)
vfunc[2]:	QTextTable::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTextTable::~~QTextTable()
vfunc[4]:	QTextTable::~~QTextTable()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QTextTable class is described by [Table 17-376](#)

Table 17-376. typeinfo for QTextTable

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextTable
basetype:	typeinfo for QTextFrame

17.5.17.8. Class data for QTextList

The virtual table for the QTextList class is described by [Table 17-377](#)

Table 17-377. Primary vtable for QTextList

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextList
vfunc[0]:	QTextList::metaObject() const
vfunc[1]:	QTextList::qt_metacast(char const*)
vfunc[2]:	QTextList::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTextList::~~QTextList()
vfunc[4]:	QTextList::~~QTextList()

vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QTextBlockGroup::blockInserted(QTextBlock const&)
vfunc[13]:	QTextBlockGroup::blockRemoved(QTextBlock const&)
vfunc[14]:	QTextBlockGroup::blockFormatChanged(QTextBlock const&)

The Run Time Type Information for the QTextList class is described by [Table 17-378](#)

Table 17-378. typeinfo for QTextList

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextList
basetype:	typeinfo for QTextBlockGroup

17.5.17.9. Class data for QTextObjectInterface

The virtual table for the QTextObjectInterface class is described by [Table 17-379](#)

Table 17-379. Primary vtable for QTextObjectInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextObjectInterface
vfunc[0]:	NULL or QTextObjectInterface::~~QTextObjectInterface()
vfunc[1]:	NULL or QTextObjectInterface::~~QTextObjectInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QTextObjectInterface class is described by [Table 17-380](#)

Table 17-380. typeinfo for QTextObjectInterface

Base Vtable	vtable for __cxxabiv1::__class_type_info

Name	typeinfo name for QTextObjectInterface

17.5.17.10. Class data for QSyntaxHighlighter

The virtual table for the QSyntaxHighlighter class is described by [Table 17-381](#)

Table 17-381. Primary vtable for QSyntaxHighlighter

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSyntaxHighlighter
vfunc[0]:	QSyntaxHighlighter::metaObject() const
vfunc[1]:	QSyntaxHighlighter::qt_metacast(char const*)
vfunc[2]:	QSyntaxHighlighter::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSyntaxHighlighter::~QSyntaxHighlighter()
vfunc[4]:	QSyntaxHighlighter::~QSyntaxHighlighter()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual

The Run Time Type Information for the QSyntaxHighlighter class is described by [Table 17-382](#)

Table 17-382. typeinfo for QSyntaxHighlighter

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSyntaxHighlighter
basetype:	typeinfo for QObject

17.5.17.11. Interfaces for Qt4 Text

An LSB conforming implementation shall provide the generic functions for Qt4 Text specified in [Table 17-383](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-383. libQtGui - Qt4 Text Function Interfaces

<code>_ZN10QTextBlock11setUserDataEP18QTextBlockUserData</code> [QtGui]	<code>_ZN10QTextBlock</code>
<code>_ZN10QTextFrame11qt_metacallEN11QMetaObject4CallEiPPv</code> [QtGui]	<code>_ZN10QTextFrame</code>
<code>_ZN10QTextFrame13setLayoutDataEP20QTextFrameLayoutData</code> [QtGui]	<code>_ZN10QTextFrame</code>
<code>_ZN10QTextFrame8iteratorC1Ev</code> [QtGui]	<code>_ZN10QTextFrame</code>
<code>_ZN10QTextFrame8iteratorC2Ev</code> [QtGui]	<code>_ZN10QTextFrame</code>
<code>_ZN10QTextFrameC2EP13QTextDocument</code> [QtGui]	<code>_ZN10QTextFrame</code>
<code>_ZN10QTextFrameD1Ev</code> [QtGui]	<code>_ZN10QTextFrame</code>
<code>_ZN10QTextTable10insertRowsEii</code> [QtGui]	<code>_ZN10QTextTable</code>
<code>_ZN10QTextTable10mergeCellsEiii</code> [QtGui]	<code>_ZN10QTextTable</code>
<code>_ZN10QTextTable11qt_metacallEN11QMetaObject4CallEiPPv</code> [QtGui]	<code>_ZN10QTextTable</code>
<code>_ZN10QTextTable13insertColumnsEii</code> [QtGui]	<code>_ZN10QTextTable</code>
<code>_ZN10QTextTable6resizeEii</code> [QtGui]	<code>_ZN10QTextTable</code>
<code>_ZN10QTextTableC1EP13QTextDocument</code> [QtGui]	<code>_ZN10QTextTable</code>
<code>_ZN10QTextTableD0Ev</code> [QtGui]	<code>_ZN10QTextTable</code>
<code>_ZN10QTextTableD2Ev</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor10createListERK15QTextListFormat</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor10insertHtmlERK7QString</code> [QtXml]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor10insertListERK15QTextListFormat</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor10insertTextERK7QStringRK15QTextCharFormat</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor11insertBlockERK16QTextBlockFormatRK15QTextCharFormat</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor11insertFrameERK16QTextFrameFormat</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor11insertImageERK16QTextImageFormatN16QTextFrameFormat8PositionE</code> [QtXml]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor11insertTableEii</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor11setPositionEiNS_8MoveModeE</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor12movePositionENS_13MoveOperationENS_8MoveModeEi</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor14beginEditBlockEv</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor14insertFragmentERK21QTextDocumentFragment</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor15mergeCharFormatERK15QTextCharFormat</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor18deletePreviousCharEv</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor18setBlockCharFormatERK15QTextCharFormat</code> [QtGui]	<code>_ZN11QTextCursor</code>
<code>_ZN11QTextCursor21joinPreviousEditBlockEv</code> [QtGui]	<code>_ZN11QTextCursor</code>

_ZN11QTextCursorC1EP10QTextFrame [QtGui]	_ZN11QTextCursorC1EP10QTextFrame [QtGui]
_ZN11QTextCursorC1ERK10QTextBlock [QtGui]	_ZN11QTextCursorC1ERK10QTextBlock [QtGui]
_ZN11QTextCursorC1Ev [QtGui]	_ZN11QTextCursorC1Ev [QtGui]
_ZN11QTextCursorC2EP13QTextDocument [QtGui]	_ZN11QTextCursorC2EP13QTextDocument [QtGui]
ZN11QTextCursorC2ERKS [QtGui]	_ZN11QTextCursorC2ERKS_ [QtGui]
_ZN11QTextCursorD1Ev [QtGui]	_ZN11QTextCursorD1Ev [QtGui]
ZN11QTextCursoraSERKS [QtGui]	_ZN11QTextCursoraSERKS_ [QtGui]
_ZN11QTextFormat11setPropertyEiRK8QVariant [QtGui]	_ZN11QTextFormat11setPropertyEiRK8QVariant [QtGui]
_ZN11QTextFormat14setObjectIndexEi [QtGui]	_ZN11QTextFormat14setObjectIndexEi [QtGui]
ZN11QTextFormatC1ERKS [QtGui]	_ZN11QTextFormatC1ERKS_ [QtGui]
_ZN11QTextFormatC1Ev [QtGui]	_ZN11QTextFormatC1Ev [QtGui]
_ZN11QTextFormatC2Ei [QtGui]	_ZN11QTextFormatC2Ei [QtGui]
_ZN11QTextFormatD1Ev [QtGui]	_ZN11QTextFormatD1Ev [QtGui]
ZN11QTextFormataSERKS [QtGui]	_ZN11QTextFormataSERKS_ [QtGui]
_ZN11QTextLayout11beginLayoutEv [QtGui]	_ZN11QTextLayout11beginLayoutEv [QtGui]
_ZN11QTextLayout13setTextOptionERK11QTextOption [QtGui]	_ZN11QTextLayout13setTextOptionERK11QTextOption [QtGui]
_ZN11QTextLayout15setCacheEnabledEb [QtGui]	_ZN11QTextLayout15setCacheEnabledEb [QtGui]
_ZN11QTextLayout22clearAdditionalFormatsEv [QtGui]	_ZN11QTextLayout22clearAdditionalFormatsEv [QtGui]
_ZN11QTextLayout7setTextERK7QString [QtGui]	_ZN11QTextLayout7setTextERK7QString [QtGui]
_ZN11QTextLayoutC1ERK10QTextBlock [QtGui]	_ZN11QTextLayoutC1ERK10QTextBlock [QtGui]
_ZN11QTextLayoutC1ERK7QStringRK5QFontP12QPaintDevice [QtGui]	_ZN11QTextLayoutC1ERK7QStringRK5QFontP12QPaintDevice [QtGui]
_ZN11QTextLayoutC2ERK10QTextBlock [QtGui]	_ZN11QTextLayoutC2ERK10QTextBlock [QtGui]
_ZN11QTextLayoutC2ERK7QStringRK5QFontP12QPaintDevice [QtGui]	_ZN11QTextLayoutC2ERK7QStringRK5QFontP12QPaintDevice [QtGui]
_ZN11QTextLayoutD1Ev [QtGui]	_ZN11QTextLayoutD1Ev [QtGui]
_ZN11QTextObject11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN11QTextObject11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN11QTextObject9setFormatERK11QTextFormat [QtGui]	_ZN11QTextObject9setFormatERK11QTextFormat [QtGui]
_ZN11QTextObjectC2EP13QTextDocument [QtGui]	_ZN11QTextObjectC2EP13QTextDocument [QtGui]
_ZN11QTextObjectD1Ev [QtGui]	_ZN11QTextObjectD1Ev [QtGui]
_ZN11QTextOption11setTabArrayE5QListIdE [QtGui]	_ZN11QTextOption11setTabArrayE5QListIdE [QtGui]
ZN11QTextOptionC1ERKS [QtGui]	_ZN11QTextOptionC1ERKS_ [QtGui]
_ZN11QTextOptionC2E6QFlagsIN2Qt13AlignmentFlagEE [QtGui]	_ZN11QTextOptionC2E6QFlagsIN2Qt13AlignmentFlagEE [QtGui]
_ZN11QTextOptionC2Ev [QtGui]	_ZN11QTextOptionC2Ev [QtGui]
_ZN11QTextOptionD2Ev [QtGui]	_ZN11QTextOptionD2Ev [QtGui]

_ZN13QTextDocument10adjustSizeEv [QtXml]	_ZN13QTextDocum
_ZN13QTextDocument11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument11setModifiedEb [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument12createObjectERK11QTextFormat [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument12loadResourceEiRK4QUrl [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument12setTextWidthEd [QtXml]	_ZN13QTextDocum
_ZN13QTextDocument13undoAvailableEb [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument14contentsChangeEiii [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument15contentsChangedEv [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument17setDocumentLayoutEP27QAbstractTextDocumentLayout [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument18setUndoRedoEnabledEb [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument19setUseDesignMetricsEb [QtGui]	_ZN13QTextDocum
_ZN13QTextDocument20setMaximumBlockCountEi [QtXml]	_ZN13QTextDocum
_ZN13QTextDocument4redoEP11QTextCursor [QtXml]	_ZN13QTextDocum
_ZN13QTextDocument4undoEP11QTextCursor [QtXml]	_ZN13QTextDocum
_ZN13QTextDocument5clearEv [QtGui]	_ZN13QTextDocum
_ZN13QTextDocumentC1EP7QObject [QtGui]	_ZN13QTextDocum
_ZN13QTextDocumentC2EP7QObject [QtGui]	_ZN13QTextDocum
_ZN13QTextDocumentD0Ev [QtGui]	_ZN13QTextDocum
_ZN13QTextDocumentD2Ev [QtGui]	_ZN14QTextTable
_ZN15QTextBlockGroup11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN15QTextBlock
_ZN15QTextBlockGroup12blockRemovedERK10QTextBlock [QtGui]	_ZN15QTextBlock
_ZN15QTextBlockGroup18blockFormatChangedERK10QTextBlock [QtGui]	_ZN15QTextBlock
_ZN15QTextBlockGroupC2EP13QTextDocument [QtGui]	_ZN15QTextBlock
_ZN15QTextBlockGroupD1Ev [QtGui]	_ZN15QTextBlock
_ZN15QTextCharFormat17setUnderlineStyleENS_14UnderlineStyleE [QtXml]	_ZN15QTextCharF
_ZN15QTextCharFormatC1Ev [QtGui]	_ZN15QTextCharF
_ZN15QTextListFormatC1Ev [QtGui]	_ZN15QTextListF
_ZN16QTextBlockFormatC1Ev [QtGui]	_ZN16QTextBlock
_ZN16QTextFrameFormatC1Ev [QtGui]	_ZN16QTextFrame
_ZN16QTextImageFormatC1Ev [QtGui]	_ZN16QTextImage
_ZN16QTextTableFormatC1Ev [QtGui]	_ZN16QTextTable
_ZN17QTextInlineObject10setDescentEd [QtGui]	_ZN17QTextInline

_ZN17QTextInlineObject9setAscentEd [QtGui]	_ZN18QSyntaxHig
_ZN18QSyntaxHighlighter11qt_metacastEPKc [QtGui]	_ZN18QSyntaxHig
_ZN18QSyntaxHighlighter11setDocumentEP13QTextDocument [QtGui]	_ZN18QSyntaxHig
_ZN18QSyntaxHighlighter23setCurrentBlockUserDataEP18QTextBlockUserData [QtGui]	_ZN18QSyntaxHig
_ZN18QSyntaxHighlighter9setFormatEiiRK5QFont [QtGui]	_ZN18QSyntaxHig
_ZN18QSyntaxHighlighterC1EP13QTextDocument [QtGui]	_ZN18QSyntaxHig
_ZN18QSyntaxHighlighterC1EP9QTextEdit [QtGui]	_ZN18QSyntaxHig
_ZN18QSyntaxHighlighterC2EP7QObject [QtGui]	_ZN18QSyntaxHig
_ZN18QSyntaxHighlighterD0Ev [QtGui]	_ZN18QSyntaxHig
_ZN18QSyntaxHighlighterD2Ev [QtGui]	_ZN18QTextBlock
_ZN18QTextBlockUserDataD1Ev [QtGui]	_ZN18QTextBlock
_ZN20QTextFrameLayoutDataD0Ev [QtGui]	_ZN20QTextFrame
_ZN20QTextFrameLayoutDataD2Ev [QtGui]	_ZN21QTextDocum
_ZN21QTextDocumentFragment8fromHtmlERK7QString [QtGui]	_ZN21QTextDocum
_ZN21QTextDocumentFragmentC1EPK13QTextDocument [QtGui]	_ZN21QTextDocum
ZN21QTextDocumentFragmentC1ERKS [QtGui]	_ZN21QTextDocum
_ZN21QTextDocumentFragmentC2EPK13QTextDocument [QtGui]	_ZN21QTextDocum
ZN21QTextDocumentFragmentC2ERKS [QtGui]	_ZN21QTextDocum
_ZN21QTextDocumentFragmentD1Ev [QtGui]	_ZN21QTextDocum
ZN21QTextDocumentFragmentaSERKS [QtGui]	_ZN9QTextLine11
_ZN9QTextLine12setLineWidthEd [QtGui]	_ZN9QTextLine13
_ZN9QTextList10removeItemEi [QtGui]	_ZN9QTextList11
_ZN9QTextList11qt_metacastEPKc [QtGui]	_ZN9QTextList3ac
_ZN9QTextList6removeERK10QTextBlock [QtGui]	_ZN9QTextListC1
_ZN9QTextListC2EP13QTextDocument [QtGui]	_ZN9QTextListD0
_ZN9QTextListD1Ev [QtGui]	_ZN9QTextListD2
_ZNK10QTextBlock10charFormatEv [QtGui]	_ZNK10QTextBlo
_ZNK10QTextBlock15charFormatIndexEv [QtGui]	_ZNK10QTextBlo
_ZNK10QTextBlock3endEv [QtGui]	_ZNK10QTextBlo
_ZNK10QTextBlock4textEv [QtGui]	_ZNK10QTextBlo
_ZNK10QTextBlock6layoutEv [QtGui]	_ZNK10QTextBlo
_ZNK10QTextBlock8containsEi [QtGui]	_ZNK10QTextBlo
_ZNK10QTextBlock8positionEv [QtGui]	_ZNK10QTextBlo

_ZNK10QTextBlock8textListEv [QtGui]	_ZNK10QTextBlock8textListEv [QtGui]
_ZNK10QTextBlock9userStateEv [QtGui]	_ZNK10QTextBlock9userStateEv [QtGui]
_ZNK10QTextFrame10metaObjectEv [QtGui]	_ZNK10QTextFrame10metaObjectEv [QtGui]
_ZNK10QTextFrame11parentFrameEv [QtGui]	_ZNK10QTextFrame11parentFrameEv [QtGui]
_ZNK10QTextFrame13firstPositionEv [QtGui]	_ZNK10QTextFrame13firstPositionEv [QtGui]
_ZNK10QTextFrame19firstCursorPositionEv [QtGui]	_ZNK10QTextFrame19firstCursorPositionEv [QtGui]
_ZNK10QTextFrame5beginEv [QtGui]	_ZNK10QTextFrame5beginEv [QtGui]
_ZNK10QTextTable4rowsEv [QtGui]	_ZNK10QTextTable4rowsEv [QtGui]
_ZNK10QTextTable6cellAtEi [QtGui]	_ZNK10QTextTable6cellAtEi [QtGui]
_ZNK10QTextTable6rowEndERK11QTextCursor [QtGui]	_ZNK10QTextTable6rowEndERK11QTextCursor [QtGui]
_ZNK10QTextTable8rowStartERK11QTextCursor [QtGui]	_ZNK10QTextTable8rowStartERK11QTextCursor [QtGui]
_ZNK11QTextCursor10charFormatEv [QtGui]	_ZNK11QTextCursor10charFormatEv [QtGui]
_ZNK11QTextCursor11blockNumberEv [QtXml]	_ZNK11QTextCursor11blockNumberEv [QtXml]
_ZNK11QTextCursor12atBlockStartEv [QtGui]	_ZNK11QTextCursor12atBlockStartEv [QtGui]
_ZNK11QTextCursor12currentFrameEv [QtGui]	_ZNK11QTextCursor12currentFrameEv [QtGui]
_ZNK11QTextCursor12hasSelectionEv [QtGui]	_ZNK11QTextCursor12hasSelectionEv [QtGui]
_ZNK11QTextCursor12selectionEndEv [QtGui]	_ZNK11QTextCursor12selectionEndEv [QtGui]
_ZNK11QTextCursor15blockCharFormatEv [QtGui]	_ZNK11QTextCursor15blockCharFormatEv [QtGui]
_ZNK11QTextCursor19hasComplexSelectionEv [QtGui]	_ZNK11QTextCursor19hasComplexSelectionEv [QtGui]
_ZNK11QTextCursor5blockEv [QtGui]	_ZNK11QTextCursor5blockEv [QtGui]
_ZNK11QTextCursor6isNullEv [QtGui]	_ZNK11QTextCursor6isNullEv [QtGui]
ZNK11QTextCursor8isCopyOfERKS [QtGui]	_ZNK11QTextCursor8isCopyOfERKS_ [QtGui]
_ZNK11QTextCursor9selectionEv [QtGui]	_ZNK11QTextCursor9selectionEv [QtGui]
ZNK11QTextCursorgeERKS [QtGui]	_ZNK11QTextCursorgeERKS_ [QtGui]
ZNK11QTextCursorleERKS [QtGui]	_ZNK11QTextCursorleERKS_ [QtGui]
ZNK11QTextCursorneERKS [QtGui]	_ZNK11QTextCursorneERKS_ [QtGui]
_ZNK11QTextFormat11hasPropertyEi [QtGui]	_ZNK11QTextFormat11hasPropertyEi [QtGui]
_ZNK11QTextFormat11objectIndexEv [QtGui]	_ZNK11QTextFormat11objectIndexEv [QtGui]
_ZNK11QTextFormat12boolPropertyEi [QtGui]	_ZNK11QTextFormat12boolPropertyEi [QtGui]
_ZNK11QTextFormat12toListFormatEv [QtGui]	_ZNK11QTextFormat12toListFormatEv [QtGui]
_ZNK11QTextFormat13colorPropertyEi [QtGui]	_ZNK11QTextFormat13colorPropertyEi [QtGui]
_ZNK11QTextFormat13toFrameFormatEv [QtGui]	_ZNK11QTextFormat13toFrameFormatEv [QtGui]
_ZNK11QTextFormat13toTableFormatEv [QtGui]	_ZNK11QTextFormat13toTableFormatEv [QtGui]

_ZNK11QTextFormat14lengthPropertyEi [QtGui]	_ZNK11QTextForm
_ZNK11QTextFormat20lengthVectorPropertyEi [QtGui]	_ZNK11QTextForm
_ZNK11QTextFormat8propertyEi [QtGui]	_ZNK11QTextForm
ZNK11QTextFormateqERKS [QtGui]	_ZNK11QTextLay
_ZNK11QTextLayout10drawCursorEP8QPainterRK7QPointFii [QtXml]	_ZNK11QTextLay
_ZNK11QTextLayout12boundingRectEv [QtGui]	_ZNK11QTextLay
_ZNK11QTextLayout12maximumWidthEv [QtGui]	_ZNK11QTextLay
_ZNK11QTextLayout15preeditAreaTextEv [QtGui]	_ZNK11QTextLay
_ZNK11QTextLayout18nextCursorPositionEiNS_10CursorModeE [QtGui]	_ZNK11QTextLay
_ZNK11QTextLayout19preeditAreaPositionEv [QtGui]	_ZNK11QTextLay
_ZNK11QTextLayout22previousCursorPositionEiNS_10CursorModeE [QtGui]	_ZNK11QTextLay [QtGui]
_ZNK11QTextLayout4fontEv [QtGui]	_ZNK11QTextLay
_ZNK11QTextLayout6lineAtEi [QtGui]	_ZNK11QTextLay
_ZNK11QTextLayout9lineCountEv [QtGui]	_ZNK11QTextLen
_ZNK11QTextObject10metaObjectEv [QtGui]	_ZNK11QTextObj
_ZNK11QTextObject11objectIndexEv [QtGui]	_ZNK11QTextObj
_ZNK11QTextObject8documentEv [QtGui]	_ZNK11QTextObj
_ZNK11QTextOption8tabArrayEv [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument10blockCountEv [QtXml]	_ZNK13QTextDoc
_ZNK13QTextDocument10isModifiedEv [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument11defaultFontEv [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument14documentLayoutEv [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument15isUndoAvailableEv [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument15objectForFormatERK11QTextFormat [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument17defaultStyleSheetEv [QtXml]	_ZNK13QTextDoc
_ZNK13QTextDocument17maximumBlockCountEv [QtXml]	_ZNK13QTextDoc
_ZNK13QTextDocument4findERK7QRegExpRK11QTextCursor6QFlagsINS_8FindFlagEE [QtXml]	_ZNK13QTextDoc
_ZNK13QTextDocument4findERK7QStringRK11QTextCursor6QFlagsINS_8FindFlagEE [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument4sizeEv [QtXml]	_ZNK13QTextDoc
_ZNK13QTextDocument5cloneEP7QObject [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument6objectEi [QtGui]	_ZNK13QTextDoc

_ZNK13QTextDocument7frameAtEi [LSB]	_ZNK13QTextDoc
_ZNK13QTextDocument8pageSizeEv [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument9docHandleEv [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument9pageCountEv [QtGui]	_ZNK13QTextDoc
_ZNK13QTextDocument9textWidthEv [QtXml]	_ZNK13QTextFrag
_ZNK13QTextFragment15charFormatIndexEv [QtGui]	_ZNK13QTextFrag
_ZNK13QTextFragment6lengthEv [QtGui]	_ZNK13QTextFrag
_ZNK13QTextFragment8positionEv [QtGui]	_ZNK14QTextTab
_ZNK14QTextTableCell12lastPositionEv [LSB]	_ZNK14QTextTab
_ZNK14QTextTableCell18lastCursorPositionEv [QtGui]	_ZNK14QTextTab
_ZNK14QTextTableCell3endEv [QtGui]	_ZNK14QTextTab
_ZNK14QTextTableCell5beginEv [QtGui]	_ZNK14QTextTab
_ZNK14QTextTableCell6formatEv [QtGui]	_ZNK14QTextTab
_ZNK15QTextBlockGroup10metaObjectEv [QtGui]	_ZNK15QTextBlo
_ZNK15QTextCharFormat13fontUnderlineEv [QtXml]	_ZNK15QTextCha
_ZNK17QTextInlineObject11formatIndexEv [QtGui]	_ZNK17QTextInlin
_ZNK17QTextInlineObject13textDirectionEv [QtGui]	_ZNK17QTextInlin
_ZNK17QTextInlineObject5widthEv [QtGui]	_ZNK17QTextInlin
_ZNK17QTextInlineObject6formatEv [QtGui]	_ZNK17QTextInlin
_ZNK17QTextInlineObject7descentEv [QtGui]	_ZNK18QSyntaxH
_ZNK18QSyntaxHighlighter17currentBlockStateEv [QtGui]	_ZNK18QSyntaxH
_ZNK18QSyntaxHighlighter20currentBlockUserDataEv [QtGui]	_ZNK18QSyntaxH
_ZNK18QSyntaxHighlighter8documentEv [QtGui]	_ZNK21QTextDoc
_ZNK21QTextDocumentFragment6toHtmlERK10QByteArray [QtXml]	_ZNK21QTextDoc
_ZNK21QTextDocumentFragment7isEmptyEv [QtGui]	_ZNK9QTextItem1
_ZNK9QTextItem4fontEv [QtGui]	_ZNK9QTextItem4
_ZNK9QTextItem5widthEv [QtGui]	_ZNK9QTextItem6
_ZNK9QTextItem7descentEv [QtGui]	_ZNK9QTextLine1
_ZNK9QTextLine15naturalTextRectEv [QtGui]	_ZNK9QTextLine1
_ZNK9QTextLine1xEv [QtGui]	_ZNK9QTextLine1
_ZNK9QTextLine4drawEP8QPainterRK7QPointFPKN11QTextLayout11FormatRangeE [QtGui]	_ZNK9QTextLine4
_ZNK9QTextLine5widthEv [QtGui]	_ZNK9QTextLine6

_ZNK9QTextLine6heightEv [QtGui]	_ZNK9QTextLine7
_ZNK9QTextLine8positionEv [QtXml]	_ZNK9QTextLine9
_ZNK9QTextLine9textStartEv [QtGui]	_ZNK9QTextLine9
_ZNK9QTextList10itemNumberERK10QTextBlock [QtGui]	_ZNK9QTextList1
_ZNK9QTextList4itemEi [QtGui]	_ZNK9QTextList5
_ZNK9QTextList8itemTextERK10QTextBlock [QtGui]	_ZlsR11QDataStre
_ZlsR11QDataStreamRK11QTextLength [QtGui]	_ZrsR11QDataStre
_ZrsR11QDataStreamR11QTextLength [QtGui]	

17.5.18. Qt4 Main Window and Application

17.5.18.1. Class data for QClipboard

The virtual table for the QClipboard class is described by [Table 17-384](#)

Table 17-384. Primary vtable for QClipboard

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QClipboard
vfunc[0]:	QClipboard::metaObject() const
vfunc[1]:	QClipboard::qt_metacast(char const*)
vfunc[2]:	QClipboard::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QClipboard::~~QClipboard()
vfunc[4]:	QClipboard::~~QClipboard()
vfunc[5]:	QClipboard::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QClipboard::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QClipboard class is described by [Table 17-385](#)

Table 17-385. typeinfo for QClipboard

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QClipboard
basetype:	typeinfo for QObject

17.5.18.2. Class data for QSessionManager

The virtual table for the QSessionManager class is described by [Table 17-386](#)

Table 17-386. Primary vtable for QSessionManager

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSessionManager
vfunc[0]:	QSessionManager::metaObject() const
vfunc[1]:	QSessionManager::qt_metacast(char const*)
vfunc[2]:	QSessionManager::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSessionManager::~QSessionManager()
vfunc[4]:	QSessionManager::~QSessionManager()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QSessionManager class is described by [Table 17-387](#)

Table 17-387. typeinfo for QSessionManager

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSessionManager
basetype:	typeinfo for QObject

17.5.18.3. Class data for QApplication

The virtual table for the QApplication class is described by [Table 17-388](#)

Table 17-388. Primary vtable for QApplication

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QApplication
vfunc[0]:	QApplication::metaObject() const
vfunc[1]:	QApplication::qt_metacast(char const*)
vfunc[2]:	QApplication::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QApplication::~~QApplication()
vfunc[4]:	QApplication::~~QApplication()
vfunc[5]:	QApplication::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QApplication::notify(QObject*, QEvent*)
vfunc[13]:	QApplication::compressEvent(QEvent*, QObject*, QPostEventList*)
vfunc[14]:	QApplication::x11EventFilter(_XEvent*)
vfunc[15]:	QApplication::x11ClientMessage(QWidget*, _XEvent*, bool)
vfunc[16]:	QApplication::commitData(QSessionManager&)
vfunc[17]:	QApplication::saveState(QSessionManager&)

The Run Time Type Information for the QApplication class is described by [Table 17-389](#)

Table 17-389. typeinfo for QApplication

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QApplication
basetype:	typeinfo for QCoreApplication

17.5.18.4. Class data for QAction

The virtual table for the QAction class is described by [Table 17-390](#)

Table 17-390. Primary vtable for QAction

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAction
vfunc[0]:	QAction::metaObject() const
vfunc[1]:	QAction::qt_metacast(char const*)
vfunc[2]:	QAction::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAction::~QAction()
vfunc[4]:	QAction::~QAction()
vfunc[5]:	QAction::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QAction class is described by [Table 17-391](#)

Table 17-391. typeinfo for QAction

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAction
basetype:	typeinfo for QObject

17.5.18.5. Class data for QActionGroup

The virtual table for the QActionGroup class is described by [Table 17-392](#)

Table 17-392. Primary vtable for QActionGroup

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QActionGroup
vfunc[0]:	QActionGroup::metaObject() const
vfunc[1]:	QActionGroup::qt_metacast(char const*)
vfunc[2]:	QActionGroup::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QActionGroup::~~QActionGroup()
vfunc[4]:	QActionGroup::~~QActionGroup()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QActionGroup class is described by [Table 17-393](#)

Table 17-393. typeinfo for QActionGroup

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QActionGroup
basetype:	typeinfo for QObject

17.5.18.6. Class data for QWorkspace

The virtual table for the QWorkspace class is described by [Table 17-394](#)

Table 17-394. Primary vtable for QWorkspace

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWorkspace
vfunc[0]:	QWorkspace::metaObject() const
vfunc[1]:	QWorkspace::qt_metacast(char const*)
vfunc[2]:	QWorkspace::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QWorkspace::~~QWorkspace()
vfunc[4]:	QWorkspace::~~QWorkspace()

vfunc[5]:	QWorkspace::event(QEvent*)
vfunc[6]:	QWorkspace::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QWorkspace::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWorkspace::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWorkspace::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWorkspace::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWorkspace::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWorkspace::showEvent(QShowEvent*)
vfunc[41]:	QWorkspace::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWorkspace::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QWorkspace class is described by [Table 17-395](#)

Table 17-395. typeinfo for QWorkspace

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWorkspace
basetype:	typeinfo for QWidget

17.5.18.7. Class data for QSizeGrip

The virtual table for the QSizeGrip class is described by [Table 17-396](#)

Table 17-396. Primary vtable for QSizeGrip

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSizeGrip
vfunc[0]:	QSizeGrip::metaObject() const
vfunc[1]:	QSizeGrip::qt_metacast(char const*)

vfunc[2]:	QSizeGrip::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSizeGrip::~~QSizeGrip()
vfunc[4]:	QSizeGrip::~~QSizeGrip()
vfunc[5]:	QSizeGrip::event(QEvent*)
vfunc[6]:	QSizeGrip::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QSizeGrip::setVisible(bool)
vfunc[14]:	QSizeGrip::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QSizeGrip::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QSizeGrip::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QSizeGrip::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)

vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QSizeGrip class is described by [Table 17-397](#)

Table 17-397. typeinfo for QSizeGrip

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSizeGrip
basetype:	typeinfo for QWidget

17.5.18.8. Class data for QStatusBar

The virtual table for the QStatusBar class is described by [Table 17-398](#)

Table 17-398. Primary vtable for QStatusBar

Base Offset	0
Virtual Base Offset	0

RTTI	typeid for QStatusBar
vfunc[0]:	QStatusBar::metaObject() const
vfunc[1]:	QStatusBar::qt_metacast(char const*)
vfunc[2]:	QStatusBar::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QStatusBar::~~QStatusBar()
vfunc[4]:	QStatusBar::~~QStatusBar()
vfunc[5]:	QStatusBar::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QStatusBar::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QStatusBar::resizeEvent(QResizeEvent*)

vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QStatusBar class is described by [Table 17-399](#)

Table 17-399. typeinfo for QStatusBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStatusBar
basetype:	typeinfo for QWidget

17.5.18.9. Class data for QToolBar

The virtual table for the QToolBar class is described by [Table 17-400](#)

Table 17-400. Primary vtable for QToolBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QToolBar
vfunc[0]:	QToolBar::metaObject() const
vfunc[1]:	QToolBar::qt_metacast(char const*)
vfunc[2]:	QToolBar::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QToolBar::~QToolBar()
vfunc[4]:	QToolBar::~QToolBar()
vfunc[5]:	QToolBar::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QToolBar::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QToolBar::paintEvent(QPaintEvent*)

vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QToolBar::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QToolBar::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QToolBar::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QToolBar class is described by [Table 17-401](#)

Table 17-401. typeid for QToolBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QToolBar
basetype:	typeid for QWidget

17.5.18.10. Class data for QWidgetAction

The virtual table for the QWidgetAction class is described by [Table 17-402](#)

Table 17-402. Primary vtable for QWidgetAction

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWidgetAction
vfunc[0]:	QWidgetAction::metaObject() const
vfunc[1]:	QWidgetAction::qt_metacast(char const*)
vfunc[2]:	QWidgetAction::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QWidgetAction::~~QWidgetAction()
vfunc[4]:	QWidgetAction::~~QWidgetAction()
vfunc[5]:	QWidgetAction::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidgetAction::createWidget(QWidget*)
vfunc[13]:	QWidgetAction::deleteWidget(QWidget*)

The Run Time Type Information for the QWidgetAction class is described by [Table 17-403](#)

Table 17-403. typeinfo for QWidgetAction

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWidgetAction
basetype:	typeinfo for QAction

17.5.18.11. Interfaces for Qt4 Main Window and Application

An LSB conforming implementation shall provide the generic functions for Qt4 Main Window and Application specified in [Table 17-404](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-404. libQtGui - Qt4 Main Window and Application Function Interfaces

_ZN10QClipboard11dataChangedEv [QtGui]	_ZN10QClipboard11qt_metacallEN
_ZN10QClipboard11qt_metacastEPKc [QtGui]	_ZN10QClipboard11setMimeDataE
_ZN10QClipboard13connectNotifyEPKc [QtGui]	_ZN10QClipboard16selectionChan
_ZN10QClipboard17findBufferChangedEv [QtXml]	_ZN10QClipboard5clearENS_4Mo
_ZN10QClipboard5eventEP6QEvent [QtGui]	_ZN10QClipboard7changedENS_4
_ZN10QClipboard7setDataEP11QMimeSourceNS_4ModeE [QtGui]	_ZN10QClipboard7setTextERK7Q
_ZN10QClipboard8setImageERK6QImageNS_4ModeE [QtGui]	_ZN10QClipboard9setPixmapERK
_ZN10QClipboardD0Ev [QtGui]	_ZN10QClipboardD1Ev [QtGui]
_ZN10QClipboardD2Ev [QtGui]	_ZN10QStatusBar10hideOrShowE
_ZN10QStatusBar10paintEventEP11QPaintEvent [QtGui]	_ZN10QStatusBar11qt_metacallEN
_ZN10QStatusBar11qt_metacastEPKc [QtGui]	_ZN10QStatusBar11resizeEventE
_ZN10QStatusBar11showMessageERK7QStringi [QtGui]	_ZN10QStatusBar12clearMessageE
_ZN10QStatusBar12insertWidgetEiP7QWidgeti [QtXml]	_ZN10QStatusBar12removeWidge
_ZN10QStatusBar14messageChangedERK7QString [QtGui]	_ZN10QStatusBar18addPermanent
_ZN10QStatusBar18setSizeGripEnabledEb [QtGui]	_ZN10QStatusBar21insertPermane
_ZN10QStatusBar5eventEP6QEvent [QtGui]	_ZN10QStatusBar8reformatEv [Qt
_ZN10QStatusBar9addWidgetEP7QWidgeti [QtGui]	_ZN10QStatusBarC1EP7QWidget
_ZN10QStatusBarC1EP7QWidgetPKc [QtGui]	_ZN10QStatusBarC2EP7QWidget
_ZN10QStatusBarC2EP7QWidgetPKc [QtGui]	_ZN10QStatusBarD0Ev [QtGui]
_ZN10QStatusBarD1Ev [QtGui]	_ZN10QStatusBarD2Ev [QtGui]
_ZN10QWorkspace10childEventEP11QChildEvent [QtGui]	_ZN10QWorkspace10paintEventE
_ZN10QWorkspace10wheelEventEP11QWheelEvent [QtGui]	_ZN10QWorkspace11changeEvent
_ZN10QWorkspace11eventFilterEP7QObjectP6QEvent [QtGui]	_ZN10QWorkspace11qt_metacallE
_ZN10QWorkspace11qt_metacastEPKc [QtGui]	_ZN10QWorkspace11resizeEventE
_ZN10QWorkspace12arrangeIconsEv [QtGui]	_ZN10QWorkspace13setBackground
_ZN10QWorkspace15closeAllWindowsEv [QtGui]	_ZN10QWorkspace15setActiveWi
_ZN10QWorkspace15windowActivatedEP7QWidget [QtGui]	_ZN10QWorkspace17closeActiveV
_ZN10QWorkspace18activateNextWindowEv [QtGui]	_ZN10QWorkspace20setScrollBars
_ZN10QWorkspace22activatePreviousWindowEv [QtGui]	_ZN10QWorkspace25setPaletteBac
_ZN10QWorkspace26setPaletteBackgroundPixmapERK7QPixmap [QtGui]	_ZN10QWorkspace4tileEv [QtGui]
_ZN10QWorkspace5eventEP6QEvent [QtGui]	_ZN10QWorkspace7cascadeEv [Q

_ZN10QWorkspace9addWindowEP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]	_ZN10QWorkspace9hideEventEP1
_ZN10QWorkspace9showEventEP10QShowEvent [QtGui]	_ZN10QWorkspaceC1EP7QWidge
_ZN10QWorkspaceC1EP7QWidgetPKc [QtGui]	_ZN10QWorkspaceC2EP7QWidge
_ZN10QWorkspaceC2EP7QWidgetPKc [QtGui]	_ZN10QWorkspaceD0Ev [QtGui]
_ZN10QWorkspaceD1Ev [QtGui]	_ZN10QWorkspaceD2Ev [QtGui]
_ZN12QActionGroup10setEnabledEb [QtGui]	_ZN12QActionGroup10setVisibleE
_ZN12QActionGroup11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN12QActionGroup11qt_metacas
_ZN12QActionGroup12removeActionEP7QAction [QtGui]	_ZN12QActionGroup12setExclusiv
_ZN12QActionGroup7hoveredEP7QAction [QtGui]	_ZN12QActionGroup8selectedEP7
_ZN12QActionGroup9addActionEP7QAction [QtGui]	_ZN12QActionGroup9addActionE
_ZN12QActionGroup9addActionERK7QString [QtGui]	_ZN12QActionGroup9triggeredEP
_ZN12QActionGroupC1EP7QObject [QtGui]	_ZN12QActionGroupC2EP7QObje
_ZN12QActionGroupD0Ev [QtGui]	_ZN12QActionGroupD1Ev [QtGui]
_ZN12QActionGroupD2Ev [QtGui]	_ZN12QApplication10allWidgetsE
_ZN12QApplication10commitDataER15QSessionManager [QtGui]	_ZN12QApplication10mainWidget
_ZN12QApplication10setPaletteERK8QPalettePKc [QtGui]	_ZN12QApplication10topLevelAtE
_ZN12QApplication10windowIconEv [QtGui]	_ZN12QApplication11focusWidge
_ZN12QApplication11fontMetricsEv [QtGui]	_ZN12QApplication11globalStrutE
_ZN12QApplication11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN12QApplication11qt_metacast
_ZN12QApplication12activeWindowEv [QtGui]	_ZN12QApplication12focusChang
_ZN12QApplication12mouseButtonsEv [QtGui]	_ZN12QApplication12setColorSpe
_ZN12QApplication13compressEventEP6QEventP7QObjectP14QPostEventList [QtGui]	_ZN12QApplication13setMainWid
_ZN12QApplication13setStyleSheetERK7QString [QtXml]	_ZN12QApplication13setWindowI
_ZN12QApplication13startDragTimeEv [QtGui]	_ZN12QApplication14overrideCur
_ZN12QApplication14setGlobalStrutERK5QSize [QtGui]	_ZN12QApplication14x11EventFil
_ZN12QApplication15closeAllWindowsEv [QtGui]	_ZN12QApplication15cursorFlash
_ZN12QApplication15isEffectEnabledEN2Qt8UIEffectE [QtGui]	_ZN12QApplication15layoutDirect
_ZN12QApplication15setActiveWindowEP7QWidget [QtGui]	_ZN12QApplication15setInputCon
_ZN12QApplication15stopLevelWidgetsEv [QtGui]	_ZN12QApplication15x11ProcessE
_ZN12QApplication16lastWindowClosedEv [QtGui]	_ZN12QApplication16saveStateRe
_ZN12QApplication16setEffectEnabledEN2Qt8UIEffectEb [QtGui]	_ZN12QApplication16setStartDrag

_ZN12QApplication16wheelScrollLinesEv [QtGui]	_ZN12QApplication16x11ClientM
_ZN12QApplication17activeModalWidgetEv [QtGui]	_ZN12QApplication17activePopu
_ZN12QApplication17commitDataRequestER15QSessionManager [QtXml]	_ZN12QApplication17keyboardMo
_ZN12QApplication17setOverrideCursorERK7QCursor [QtGui]	_ZN12QApplication17startDragDis
_ZN12QApplication18setCursorFlashTimeEi [QtGui]	_ZN12QApplication18setLayoutDi
_ZN12QApplication19doubleClickIntervalEv [QtGui]	_ZN12QApplication19horizontalA [QtGui]
_ZN12QApplication19keyboardInputLocaleEv [QtXml]	_ZN12QApplication19setWheelScr
_ZN12QApplication20changeOverrideCursorERK7QCursor [QtGui]	_ZN12QApplication20desktopSetti
_ZN12QApplication20setStartDragDistanceEi [QtGui]	_ZN12QApplication21keyboardInp
_ZN12QApplication21restoreOverrideCursorEv [QtGui]	_ZN12QApplication22keyboardInp
_ZN12QApplication22quitOnLastWindowClosedEv [QtGui]	_ZN12QApplication22setDoubleCl
_ZN12QApplication23setDesktopSettingsAwareEb [QtGui]	_ZN12QApplication24setKeyboar
_ZN12QApplication25setQuitOnLastWindowClosedEb [QtGui]	_ZN12QApplication4beepEv [QtG
_ZN12QApplication4execEv [QtGui]	_ZN12QApplication4fontEPK7QW
_ZN12QApplication4fontEPKc [QtXml]	_ZN12QApplication4fontEv [QtXr
_ZN12QApplication4typeEv [QtGui]	_ZN12QApplication5eventEP6QE
_ZN12QApplication5styleEv [QtGui]	_ZN12QApplication5syncXEv [Qt
_ZN12QApplication6notifyEP7QObjectP6QEvent [QtGui]	_ZN12QApplication7aboutQtEv [C
_ZN12QApplication7desktopEv [QtGui]	_ZN12QApplication7paletteEPK7Q
_ZN12QApplication7paletteEPKc [QtGui]	_ZN12QApplication7paletteEv [Qt
_ZN12QApplication7setFontERK5QFontPKc [QtGui]	_ZN12QApplication8setStyleEP6Q
_ZN12QApplication8setStyleERK7QString [QtGui]	_ZN12QApplication8widgetAtERK
_ZN12QApplication9clipboardEv [QtGui]	_ZN12QApplication9colorSpecEv
_ZN12QApplication9saveStateER15QSessionManager [QtGui]	_ZN12QApplicationC1EP9_XDisp
_ZN12QApplicationC1EP9_XDisplayRiPPcmmi [QtXml]	_ZN12QApplicationC1EP9_XDisp
_ZN12QApplicationC1EP9_XDisplaymmi [QtXml]	_ZN12QApplicationC1ERiPPc [Qt
_ZN12QApplicationC1ERiPPcNS_4TypeE [QtGui]	_ZN12QApplicationC1ERiPPcNS_
_ZN12QApplicationC1ERiPPcb [QtGui]	_ZN12QApplicationC1ERiPPcbi [Q
_ZN12QApplicationC1ERiPPci [QtXml]	_ZN12QApplicationC2EP9_XDisp
_ZN12QApplicationC2EP9_XDisplayRiPPcmmi [QtXml]	_ZN12QApplicationC2EP9_XDisp
_ZN12QApplicationC2EP9_XDisplaymmi [QtXml]	_ZN12QApplicationC2ERiPPc [Qt
_ZN12QApplicationC2ERiPPcNS_4TypeE [QtGui]	_ZN12QApplicationC2ERiPPcNS_

_ZN12QApplicationC2ERiPPcb [QtGui]	_ZN12QApplicationC2ERiPPcbi [QtGui]
_ZN12QApplicationC2ERiPPci [QtXml]	_ZN12QApplicationD0Ev [QtGui]
_ZN12QApplicationD1Ev [QtGui]	_ZN12QApplicationD2Ev [QtGui]
_ZN13QWidgetAction11qt_metacallEN11QMetaObject4CallEiPPv [QtXml]	_ZN13QWidgetAction11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN13QWidgetAction12createWidgetEP7QWidget [QtXml]	_ZN13QWidgetAction12deleteWidgetEP7QWidget [QtGui]
_ZN13QWidgetAction13releaseWidgetEP7QWidget [QtXml]	_ZN13QWidgetAction13requestWidgetEP7QWidget [QtGui]
_ZN13QWidgetAction16setDefaultWidgetEP7QWidget [QtXml]	_ZN13QWidgetAction5eventEP6QEvent [QtGui]
_ZN13QWidgetActionC1EP7QObject [QtXml]	_ZN13QWidgetActionC2EP7QObject [QtGui]
_ZN13QWidgetActionD0Ev [QtXml]	_ZN13QWidgetActionD1Ev [QtGui]
_ZN13QWidgetActionD2Ev [QtXml]	_ZN15QSessionManager11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN15QSessionManager11qt_metacastEPKc [QtGui]	_ZN15QSessionManager13requestWidgetEP7QWidget [QtGui]
_ZN15QSessionManager14setRestartHintENS_11RestartHintE [QtGui]	_ZN15QSessionManager17allowsErrorInteractionEv [QtGui]
_ZN15QSessionManager17setDiscardCommandERK11QStringList [QtGui]	_ZN15QSessionManager17setRestartHintENS_11RestartHintE [QtGui]
_ZN15QSessionManager18setManagerPropertyERK7QStringRK11QStringList [QtGui]	_ZN15QSessionManager18setManagerPropertyERK7QStringRK11QStringList [QtGui]
_ZN15QSessionManager22allowsErrorInteractionEv [QtGui]	_ZN15QSessionManager6cancelEv [QtGui]
_ZN15QSessionManager7releaseEv [QtGui]	_ZN15QSessionManagerD0Ev [QtGui]
_ZN15QSessionManagerD1Ev [QtGui]	_ZN15QSessionManagerD2Ev [QtGui]
_ZN7QAction10setCheckedEb [QtGui]	_ZN7QAction10setEnabledEb [QtGui]
_ZN7QAction10setToolTipERK7QString [QtGui]	_ZN7QAction10setVisibleEb [QtGui]
_ZN7QAction11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN7QAction11qt_metacastEPKc [QtGui]
_ZN7QAction11setIconTextERK7QString [QtGui]	_ZN7QAction11setMenuRoleENS_11MenuRoleE [QtGui]
_ZN7QAction11setShortcutERK12QKeySequence [QtGui]	_ZN7QAction12setCheckableEb [QtGui]
_ZN7QAction12setSeparatorEb [QtGui]	_ZN7QAction12setShortcutsEN12QKeySequenceE [QtGui]
_ZN7QAction12setShortcutsERK5QListI12QKeySequenceE [QtXml]	_ZN7QAction12setStatusTipERK7QString [QtGui]
_ZN7QAction12setWhatsThisERK7QString [QtGui]	_ZN7QAction13setAutoRepeatEb [QtGui]
_ZN7QAction14setActionGroupEP12QActionGroup [QtGui]	_ZN7QAction14showStatusTextEP7QWidget [QtGui]
_ZN7QAction18setShortcutContextEN2Qt15ShortcutContextE [QtGui]	_ZN7QAction5eventEP6QEvent [QtGui]
_ZN7QAction6toggleEv [QtGui]	_ZN7QAction7changedEv [QtGui]
_ZN7QAction7hoveredEv [QtGui]	_ZN7QAction7setDataERK8QVariant [QtGui]
_ZN7QAction7setFontERK5QFont [QtGui]	_ZN7QAction7setIconERK5QIcon [QtGui]
_ZN7QAction7setMenuEP5QMenu [QtGui]	_ZN7QAction7setTextERK7QString [QtGui]
_ZN7QAction7toggledEb [QtGui]	_ZN7QAction8activateENS_11ActivateHintE [QtGui]

_ZN7QAction9activatedEi [QtGui]	_ZN7QAction9triggeredEb [QtGui]
_ZN7QActionC1EP7QObject [QtGui]	_ZN7QActionC1EP7QObjectPKc [QtGui]
_ZN7QActionC1ERK5QIconRK7QStringP7QObject [QtGui]	_ZN7QActionC1ERK5QIconRK7QStringP7QObject [QtGui]
_ZN7QActionC1ERK7QStringP7QObject [QtGui]	_ZN7QActionC1ERK7QStringRK7QString [QtGui]
_ZN7QActionC2EP7QObject [QtGui]	_ZN7QActionC2EP7QObjectPKc [QtGui]
_ZN7QActionC2ERK5QIconRK7QStringP7QObject [QtGui]	_ZN7QActionC2ERK5QIconRK7QStringP7QObject [QtGui]
_ZN7QActionC2ERK7QStringP7QObject [QtGui]	_ZN7QActionC2ERK7QStringRK7QString [QtGui]
_ZN7QActionD0Ev [QtGui]	_ZN7QActionD1Ev [QtGui]
_ZN7QActionD2Ev [QtGui]	_ZN8QToolBar10childEventEP11QPaintEvent [QtGui]
_ZN8QToolBar10paintEventEP11QPaintEvent [QtGui]	_ZN8QToolBar10setMovableEb [QtGui]
_ZN8QToolBar11actionEventEP12QActionEvent [QtGui]	_ZN8QToolBar11changeEventEP6QEvent [QtGui]
_ZN8QToolBar11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN8QToolBar11qt_metacastEPKc [QtGui]
_ZN8QToolBar11resizeEventEP12QResizeEvent [QtGui]	_ZN8QToolBar11setIconSizeERK5QIcon [QtGui]
_ZN8QToolBar12addSeparatorEv [QtGui]	_ZN8QToolBar12insertWidgetEP7QWidget [QtGui]
_ZN8QToolBar14movableChangedEb [QtGui]	_ZN8QToolBar14setOrientationEN2Qt11OrientationE [QtGui]
_ZN8QToolBar15actionTriggeredEP7QAction [QtGui]	_ZN8QToolBar15iconSizeChangedEP5QIcon [QtGui]
_ZN8QToolBar15insertSeparatorEP7QAction [QtGui]	_ZN8QToolBar15setAllowedAreasE6QFlagsIN2Qt11ToolBarAreaE [QtGui]
_ZN8QToolBar18orientationChangedEN2Qt11OrientationE [QtGui]	_ZN8QToolBar18setToolButtonStyleEN2Qt11ToolButtonStyleE [QtGui]
_ZN8QToolBar19allowedAreasChangedE6QFlagsIN2Qt11ToolBarAreaE [QtGui]	_ZN8QToolBar22toolButtonStyleChangedEP5QIcon [QtGui]
_ZN8QToolBar5clearEv [QtGui]	_ZN8QToolBar5eventEP6QEvent [QtGui]
_ZN8QToolBar9addActionERK5QIconRK7QString [QtGui]	_ZN8QToolBar9addActionERK5QIconRK7QString [QtGui]
_ZN8QToolBar9addActionERK7QString [QtGui]	_ZN8QToolBar9addActionERK7QString [QtGui]
_ZN8QToolBar9addWidgetEP7QWidget [QtGui]	_ZN8QToolBarC1EP7QWidget [QtGui]
_ZN8QToolBarC1EP7QWidgetPKc [QtGui]	_ZN8QToolBarC1ERK7QStringP7QWidget [QtGui]
_ZN8QToolBarC2EP7QWidget [QtGui]	_ZN8QToolBarC2EP7QWidgetPKc [QtGui]
_ZN8QToolBarC2ERK7QStringP7QWidget [QtGui]	_ZN8QToolBarD0Ev [QtGui]
_ZN8QToolBarD1Ev [QtGui]	_ZN8QToolBarD2Ev [QtGui]
_ZN9QSizeGrip10paintEventEP11QPaintEvent [QtGui]	_ZN9QSizeGrip10setVisibleEb [QtGui]
_ZN9QSizeGrip11eventFilterEP7QObjectP6QEvent [QtGui]	_ZN9QSizeGrip11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN9QSizeGrip11qt_metacastEPKc [QtGui]	_ZN9QSizeGrip14mouseMoveEventEP11QMouseEvent [QtGui]
_ZN9QSizeGrip15mousePressEventEP11QMouseEvent [QtGui]	_ZN9QSizeGrip5eventEP6QEvent [QtGui]

_ZN9QSizeGripC1EP7QWidget [QtGui]	_ZN9QSizeGripC1EP7QWidgetPK
_ZN9QSizeGripC2EP7QWidget [QtGui]	_ZN9QSizeGripC2EP7QWidgetPK
_ZN9QSizeGripD0Ev [QtGui]	_ZN9QSizeGripD1Ev [QtGui]
_ZN9QSizeGripD2Ev [QtGui]	_ZNK10QClipboard10metaObject
_ZNK10QClipboard13ownsClipboardEv [QtGui]	_ZNK10QClipboard13ownsSelecti
_ZNK10QClipboard14ownsFindBufferEv [QtXml]	_ZNK10QClipboard17supportsSel
_ZNK10QClipboard18supportsFindBufferEv [QtXml]	_ZNK10QClipboard4dataENS_4M
_ZNK10QClipboard4textENS_4ModeE [QtGui]	_ZNK10QClipboard4textER7QStri
_ZNK10QClipboard5imageENS_4ModeE [QtGui]	_ZNK10QClipboard6pixmapENS_
_ZNK10QClipboard8mimeDataENS_4ModeE [QtGui]	_ZNK10QStatusBar10metaObject
_ZNK10QStatusBar14currentMessageEv [QtGui]	_ZNK10QStatusBar17isSizeGripE
_ZNK10QWorkspace10backgroundEv [QtGui]	_ZNK10QWorkspace10metaObjec
_ZNK10QWorkspace10windowListENS_11WindowOrderE [QtGui]	_ZNK10QWorkspace12activeWind
_ZNK10QWorkspace17scrollBarsEnabledEv [QtGui]	_ZNK10QWorkspace8sizeHintEv]
_ZNK12QActionGroup10metaObjectEv [QtGui]	_ZNK12QActionGroup11isExclusi
_ZNK12QActionGroup13checkedActionEv [QtGui]	_ZNK12QActionGroup7actionsEv
_ZNK12QActionGroup9isEnabledEv [QtGui]	_ZNK12QActionGroup9isVisibleE
_ZNK12QApplication10metaObjectEv [QtGui]	_ZNK12QApplication10sessionKe
_ZNK12QApplication10styleSheetEv [QtXml]	_ZNK12QApplication12inputCont
_ZNK12QApplication17isSessionRestoredEv [QtGui]	_ZNK12QApplication9sessionIdE
_ZNK13QWidgetAction10metaObjectEv [QtXml]	_ZNK13QWidgetAction13defaultV
_ZNK13QWidgetAction14createdWidgetsEv [QtXml]	_ZNK15QSessionManager10metaC
_ZNK15QSessionManager10sessionKeyEv [QtGui]	_ZNK15QSessionManager11restar
_ZNK15QSessionManager14discardCommandEv [QtGui]	_ZNK15QSessionManager14restar
_ZNK15QSessionManager6handleEv [QtGui]	_ZNK15QSessionManager8isPhas
_ZNK15QSessionManager9sessionIdEv [QtGui]	_ZNK7QAction10autoRepeatEv [C
_ZNK7QAction10metaObjectEv [QtGui]	_ZNK7QAction11actionGroupEv [
_ZNK7QAction11isCheckableEv [QtGui]	_ZNK7QAction11isSeparatorEv [C
_ZNK7QAction12parentWidgetEv [QtGui]	_ZNK7QAction15shortcutContext
_ZNK7QAction17associatedWidgetsEv [QtXml]	_ZNK7QAction4dataEv [QtGui]
_ZNK7QAction4fontEv [QtGui]	_ZNK7QAction4iconEv [QtGui]
_ZNK7QAction4menuEv [QtGui]	_ZNK7QAction4textEv [QtGui]
_ZNK7QAction7toolTipEv [QtGui]	_ZNK7QAction8iconTextEv [QtG

_ZNK7QAction8menuRoleEv [QtXml]	_ZNK7QAction8shortcutEv [QtGui]
_ZNK7QAction9isCheckedEv [QtGui]	_ZNK7QAction9isEnabledEv [QtGui]
_ZNK7QAction9isVisibleEv [QtGui]	_ZNK7QAction9shortcutsEv [QtGui]
_ZNK7QAction9statusTipEv [QtGui]	_ZNK7QAction9whatsThisEv [QtGui]
_ZNK8QToolBar10metaObjectEv [QtGui]	_ZNK8QToolBar11orientationEv [QtGui]
_ZNK8QToolBar12allowedAreasEv [QtGui]	_ZNK8QToolBar14actionGeometryEv [QtGui]
_ZNK8QToolBar15toolButtonStyleEv [QtGui]	_ZNK8QToolBar15widgetForActionEv [QtGui]
_ZNK8QToolBar16toggleViewActionEv [QtGui]	_ZNK8QToolBar8actionAtERK6QActionEv [QtGui]
_ZNK8QToolBar8iconSizeEv [QtGui]	_ZNK8QToolBar9isMovableEv [QtGui]
_ZNK9QSizeGrip10metaObjectEv [QtGui]	_ZNK9QSizeGrip8sizeHintEv [QtGui]

17.5.19. Qt4 Menus

17.5.19.1. Class data for QMenu

The virtual table for the QMenu class is described by [Table 17-405](#)

Table 17-405. Primary vtable for QMenu

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMenu
vfunc[0]:	QMenu::metaObject() const
vfunc[1]:	QMenu::qt_metacast(char const*)
vfunc[2]:	QMenu::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QMenu::~~QMenu()
vfunc[4]:	QMenu::~~QMenu()
vfunc[5]:	QMenu::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QMenu::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const

vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QMenu::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QMenu::mousePressEvent(QMouseEvent*)
vfunc[19]:	QMenu::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QMenu::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QMenu::wheelEvent(QWheelEvent*)
vfunc[23]:	QMenu::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QMenu::enterEvent(QEvent*)
vfunc[28]:	QMenu::leaveEvent(QEvent*)
vfunc[29]:	QMenu::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QMenu::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QMenu::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QMenu::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)

vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QMenu class is described by [Table 17-406](#)

Table 17-406. typeinfo for QMenu

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMenu
basetype:	typeinfo for QWidget

17.5.19.2. Class data for QMenuItem

The virtual table for the QMenuItem class is described by [Table 17-407](#)

Table 17-407. Primary vtable for QMenuItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMenuItem
vfunc[0]:	QAction::metaObject() const
vfunc[1]:	QAction::qt_metacast(char const*)
vfunc[2]:	QAction::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QMenuItem::~~QMenuItem()
vfunc[4]:	NULL or QMenuItem::~~QMenuItem()
vfunc[5]:	QAction::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)

vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QAction class is described by [Table 17-408](#)

Table 17-408. typeinfo for QAction

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAction
basetype:	typeinfo for QAction

17.5.19.3. Class data for QMenuBar

The virtual table for the QMenuBar class is described by [Table 17-409](#)

Table 17-409. Primary vtable for QMenuBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMenuBar
vfunc[0]:	QMenuBar::metaObject() const
vfunc[1]:	QMenuBar::qt_metacast(char const*)
vfunc[2]:	QMenuBar::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QMenuBar::~~QMenuBar()
vfunc[4]:	QMenuBar::~QMenuBar()
vfunc[5]:	QMenuBar::event(QEvent*)
vfunc[6]:	QMenuBar::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QMenuBar::sizeHint() const
vfunc[15]:	QMenuBar::minimumSizeHint() const

vfunc[16]:	QMenuBar::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QMenuBar::mousePressEvent(QMouseEvent*)
vfunc[19]:	QMenuBar::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QMenuBar::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QMenuBar::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QMenuBar::focusInEvent(QFocusEvent*)
vfunc[26]:	QMenuBar::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QMenuBar::leaveEvent(QEvent*)
vfunc[29]:	QMenuBar::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QMenuBar::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QMenuBar::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QMenuBar::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)

vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QMenuBar class is described by [Table 17-410](#)

Table 17-410. typeinfo for QMenuBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMenuBar
basetype:	typeinfo for QWidget

17.5.19.4. Interfaces for Qt4 Menus

An LSB conforming implementation shall provide the generic functions for Qt4 Menus specified in [Table 17-411](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-411. libQtGui - Qt4 Menus Function Interfaces

_ZN5QMenu10enterEventEP6QEvent [QtGui]	_ZN5QMenu10insertItemE
ZN5QMenu10insertMenuEP7QActionPS [QtGui]	_ZN5QMenu10leaveEvent
_ZN5QMenu10paintEventEP11QPaintEvent [QtGui]	_ZN5QMenu10timerEvent
_ZN5QMenu10wheelEventEP11QWheelEvent [QtGui]	_ZN5QMenu11aboutToShow
_ZN5QMenu11aboutToShowEv [QtGui]	_ZN5QMenu11actionEvent
_ZN5QMenu11changeEventEP6QEvent [QtGui]	_ZN5QMenu11highlighted
_ZN5QMenu11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_ZN5QMenu11qt_metacast
_ZN5QMenu12addSeparatorEv [QtGui]	_ZN5QMenu13keyPressEvent
_ZN5QMenu14mouseMoveEventEP11QMouseEvent [QtGui]	_ZN5QMenu14setNoReplac
_ZN5QMenu15hideTearOffMenuEv [QtGui]	_ZN5QMenu15insertSepar
_ZN5QMenu15insertSeparatorEi [QtGui]	_ZN5QMenu15mousePress
_ZN5QMenu15setActiveActionEP7QAction [QtGui]	_ZN5QMenu16setDefaultA
_ZN5QMenu16setItemParameterEii [QtGui]	_ZN5QMenu17mouseRelea
_ZN5QMenu17setTearOffEnabledEb [QtGui]	_ZN5QMenu18focusNextP
_ZN5QMenu24setSeparatorsCollapsibleEb [QtXml]	_ZN5QMenu4execE5QList
_ZN5QMenu4execERK6QPointP7QAction [QtGui]	_ZN5QMenu4execEv [QtG

_ZN5QMenu5clearEv [QtGui]	_ZN5QMenu5eventEP6QE
_ZN5QMenu5popupERK6QPointP7QAction [QtGui]	_ZN5QMenu5setIdEii [QtGui]
ZN5QMenu7addMenuEPS [QtGui]	_ZN5QMenu7addMenuER
_ZN5QMenu7addMenuERK7QString [QtGui]	_ZN5QMenu7hoveredEP7Q
_ZN5QMenu7setIconERK5QIcon [QtGui]	_ZN5QMenu8setTitleERK7
_ZN5QMenu9activatedEi [QtGui]	_ZN5QMenu9addActionEF
_ZN5QMenu9addActionERK5QIconRK7QStringPK7QObjectPKcRK12QKeySequence [QtGui]	_ZN5QMenu9addActionEF
_ZN5QMenu9addActionERK7QStringPK7QObjectPKcRK12QKeySequence [QtGui]	_ZN5QMenu9findPopupEF
_ZN5QMenu9hideEventEP10QHideEvent [QtGui]	_ZN5QMenu9insertAnyEP7Q [QtGui]
_ZN5QMenu9triggeredEP7QAction [QtGui]	_ZN5QMenuC1EP7QWidg
_ZN5QMenuC1ERK7QStringP7QWidget [QtGui]	_ZN5QMenuC2EP7QWidg
_ZN5QMenuC2ERK7QStringP7QWidget [QtGui]	_ZN5QMenuD0Ev [QtGui]
_ZN5QMenuD1Ev [QtGui]	_ZN5QMenuD2Ev [QtGui]
_ZN8QMenuBar10insertMenuEP7QActionP5QMenu [QtGui]	_ZN8QMenuBar10leaveEv
_ZN8QMenuBar10paintEventEP11QPaintEvent [QtGui]	_ZN8QMenuBar11actionE
_ZN8QMenuBar11changeEventEP6QEvent [QtGui]	_ZN8QMenuBar11eventFil
_ZN8QMenuBar11highlightedEi [QtGui]	_ZN8QMenuBar11qt_meta
_ZN8QMenuBar11qt_metacastEPKc [QtGui]	_ZN8QMenuBar11resizeE
_ZN8QMenuBar12addSeparatorEv [QtGui]	_ZN8QMenuBar12focusIn
_ZN8QMenuBar12setDefaultUpEb [QtGui]	_ZN8QMenuBar13focusOu
_ZN8QMenuBar13keyPressEventEP9QKeyEvent [QtGui]	_ZN8QMenuBar14mouseM
_ZN8QMenuBar15insertSeparatorEP7QAction [QtGui]	_ZN8QMenuBar15insertSe
_ZN8QMenuBar15mousePressEventEP11QMouseEvent [QtGui]	_ZN8QMenuBar15setActiv
_ZN8QMenuBar15setAutoGeometryEb [QtGui]	_ZN8QMenuBar15setCorn
_ZN8QMenuBar16setItemParameterEii [QtGui]	_ZN8QMenuBar17mouseR
_ZN8QMenuBar5clearEv [QtGui]	_ZN8QMenuBar5eventEP6
_ZN8QMenuBar7addMenuEP5QMenu [QtGui]	_ZN8QMenuBar7addMenu
_ZN8QMenuBar7addMenuERK7QString [QtGui]	_ZN8QMenuBar7hoveredE
_ZN8QMenuBar9activatedEi [QtGui]	_ZN8QMenuBar9addActio
_ZN8QMenuBar9addActionERK7QStringPK7QObjectPKc [QtGui]	_ZN8QMenuBar9triggered
_ZN8QMenuBarC1EP7QWidget [QtGui]	_ZN8QMenuBarC1EP7QW

_ZN8QMenuBarC2EP7QWidget [QtGui]	_ZN8QMenuBarC2EP7QWidget [QtGui]
_ZN8QMenuBarD0Ev [QtGui]	_ZN8QMenuBarD1Ev [QtGui]
_ZN8QMenuBarD2Ev [QtGui]	_ZN9QMenuItem11qt_metacastEPKc [QtXml]
_ZN9QMenuItem11qt_metacastEPKc [QtXml]	_ZN9QMenuItemC1Ev [QtGui]
_ZN9QMenuItemC2Ev [QtGui]	_ZNK5QMenu10frameWidth [QtGui]
_ZNK5QMenu10menuActionEv [QtGui]	_ZNK5QMenu10metaObject [QtGui]
_ZNK5QMenu11columnCountEv [QtGui]	_ZNK5QMenu12activeAction [QtGui]
_ZNK5QMenu13defaultActionEv [QtGui]	_ZNK5QMenu13itemParameters [QtGui]
_ZNK5QMenu14actionGeometryEP7QAction [QtGui]	_ZNK5QMenu16isTearOffMenuVisible [QtGui]
_ZNK5QMenu20isTearOffMenuVisibleEv [QtGui]	_ZNK5QMenu21separatorIndices [QtGui]
_ZNK5QMenu4iconEv [QtGui]	_ZNK5QMenu5titleEv [QtGui]
_ZNK5QMenu7isEmptyEv [QtXml]	_ZNK5QMenu8addActionAtEP7QAction [QtGui]
_ZNK5QMenu8sizeHintEv [QtGui]	_ZNK8QMenuBar10frameWidth [QtGui]
_ZNK8QMenuBar10metaObjectEv [QtGui]	_ZNK8QMenuBar11isDefault [QtGui]
_ZNK8QMenuBar12activeActionEv [QtGui]	_ZNK8QMenuBar12autoHide [QtGui]
_ZNK8QMenuBar12cornerWidgetEN2Qt6CornerE [LSB]	_ZNK8QMenuBar13itemParameters [QtGui]
_ZNK8QMenuBar14actionGeometryEP7QAction [LSB]	_ZNK8QMenuBar14height [QtGui]
_ZNK8QMenuBar15minimumSizeHintEv [QtGui]	_ZNK8QMenuBar8addAction [QtGui]
_ZNK8QMenuBar8sizeHintEv [QtGui]	_ZNK9QMenuItem10metaObject [QtGui]
_ZNK9QMenuItem11signalValueEv [QtGui]	_ZNK9QMenuItem2idEv [QtGui]

17.5.20. Qt4 Widgets

17.5.20.1. Class data for QWidget

The virtual table for the QWidget class is described by [Table 17-412](#)

Table 17-412. Primary vtable for QWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWidget
vfunc[0]:	QWidget::metaObject() const
vfunc[1]:	QWidget::qt_metacast(char const*)
vfunc[2]:	QWidget::qt_metacall(QMetaObject::Call, int, void**)

vfunc[3]:	QWidget::~~QWidget()
vfunc[4]:	QWidget::~~QWidget()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)

vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QWidget class is described by [Table 17-413](#)

Table 17-413. typeinfo for QWidget

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QWidget	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QPaintDevice	2050

17.5.20.2. Class data for QFrame

The virtual table for the QFrame class is described by [Table 17-414](#)

Table 17-414. Primary vtable for QFrame

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QFrame
vfunc[0]:	QFrame::metaObject() const
vfunc[1]:	QFrame::qt_metacast(char const*)
vfunc[2]:	QFrame::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QFrame::~~QFrame()
vfunc[4]:	QFrame::~~QFrame()
vfunc[5]:	QFrame::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QFrame::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QFrame::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)

vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QFrame class is described by [Table 17-415](#)

Table 17-415. typeinfo for QFrame

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFrame
basetype:	typeinfo for QWidget

17.5.20.3. Class data for QLineEdit

The virtual table for the QLineEdit class is described by [Table 17-416](#)

Table 17-416. Primary vtable for QLineEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLineEdit
vfunc[0]:	QLineEdit::metaObject() const
vfunc[1]:	QLineEdit::qt_metacast(char const*)
vfunc[2]:	QLineEdit::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QLineEdit::~~QLineEdit()
vfunc[4]:	QLineEdit::~~QLineEdit()
vfunc[5]:	QLineEdit::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QLineEdit::sizeHint() const
vfunc[15]:	QLineEdit::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QLineEdit::mousePressEvent(QMouseEvent*)
vfunc[19]:	QLineEdit::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QLineEdit::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QLineEdit::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QLineEdit::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)

vfunc[25]:	QLineEdit::focusInEvent(QFocusEvent*)
vfunc[26]:	QLineEdit::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QLineEdit::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QLineEdit::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QLineEdit::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QLineEdit::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QLineEdit::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QLineEdit::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QLineEdit::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QLineEdit::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QLineEdit::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QLineEdit class is described by [Table 17-417](#)

Table 17-417. typeinfo for QLineEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QLineEdit
basetype:	typeinfo for QWidget

17.5.20.4. Class data for QSlider

The virtual table for the QSlider class is described by [Table 17-418](#)

Table 17-418. Primary vtable for QSlider

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSlider
vfunc[0]:	QSlider::metaObject() const
vfunc[1]:	QSlider::qt_metacast(char const*)
vfunc[2]:	QSlider::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSlider::~~QSlider()
vfunc[4]:	QSlider::~~QSlider()
vfunc[5]:	QSlider::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSlider::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QSlider::sizeHint() const
vfunc[15]:	QSlider::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QSlider::mousePressEvent(QMouseEvent*)
vfunc[19]:	QSlider::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)

vfunc[21]:	QSlider::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractSlider::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractSlider::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QSlider::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSlider::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

vfunc[54]:	QAbstractSlider::sliderChange(QAbstractSlider::SliderChange)

The Run Time Type Information for the QSlider class is described by [Table 17-419](#)

Table 17-419. typeinfo for QSlider

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSlider
basetype:	typeinfo for QAbstractSlider

17.5.20.5. Class data for QTabBar

The virtual table for the QTabBar class is described by [Table 17-420](#)

Table 17-420. Primary vtable for QTabBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTabBar
vfunc[0]:	QTabBar::metaObject() const
vfunc[1]:	QTabBar::qt_metacast(char const*)
vfunc[2]:	QTabBar::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTabBar::~~QTabBar()
vfunc[4]:	QTabBar::~~QTabBar()
vfunc[5]:	QTabBar::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QTabBar::sizeHint() const
vfunc[15]:	QTabBar::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const

vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QTabBar::mousePressEvent(QMouseEvent*)
vfunc[19]:	QTabBar::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QTabBar::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QTabBar::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QTabBar::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QTabBar::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QTabBar::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QTabBar::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)

vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QTabBar::tabSizeHint(int) const
vfunc[55]:	QTabBar::tabInserted(int)
vfunc[56]:	QTabBar::tabRemoved(int)
vfunc[57]:	QTabBar::tabLayoutChange()

The Run Time Type Information for the QTabBar class is described by [Table 17-421](#)

Table 17-421. typeinfo for QTabBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTabBar
basetype:	typeinfo for QWidget

17.5.20.6. Class data for QTabWidget

The virtual table for the QTabWidget class is described by [Table 17-422](#)

Table 17-422. Primary vtable for QTabWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTabWidget
vfunc[0]:	QTabWidget::metaObject() const
vfunc[1]:	QTabWidget::qt_metacast(char const*)
vfunc[2]:	QTabWidget::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTabWidget::~~QTabWidget()
vfunc[4]:	QTabWidget::~QTabWidget()
vfunc[5]:	QTabWidget::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)

vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QTabWidget::sizeHint() const
vfunc[15]:	QTabWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QTabWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QTabWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QTabWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QTabWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)

vfunc[43]:	QTabWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QTabWidget::tabInserted(int)
vfunc[55]:	QTabWidget::tabRemoved(int)

The Run Time Type Information for the QTabWidget class is described by [Table 17-423](#)

Table 17-423. typeinfo for QTabWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTabWidget
basetype:	typeinfo for QWidget

17.5.20.7. Class data for QListView

The virtual table for the QListView class is described by [Table 17-424](#)

Table 17-424. Primary vtable for QListView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QListView
vfunc[0]:	QListView::metaObject() const
vfunc[1]:	QListView::qt_metacast(char const*)
vfunc[2]:	QListView::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QListView::~~QListView()
vfunc[4]:	QListView::~~QListView()

vfunc[5]:	QListView::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QListView::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractItemView::mousePressEvent(QMouseEvent*)
vfunc[19]:	QListView::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QAbstractItemView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QListView::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractItemView::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractItemView::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractItemView::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QListView::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QListView::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractItemView::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QListView::dragMoveEvent(QDragMoveEvent*)

vfunc[38]:	QListView::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QListView::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractItemView::viewportEvent(QEvent*)
vfunc[55]:	QListView::scrollContentsBy(int, int)
vfunc[56]:	QAbstractItemView::setModel(QAbstractItemModel*)
vfunc[57]:	QAbstractItemView::setSelectionModel(QItemSelectionModel*)
vfunc[58]:	QAbstractItemView::keyboardSearch(QString const&)
vfunc[59]:	QListView::visualRect(QModelIndex const&) const
vfunc[60]:	QListView::scrollTo(QModelIndex const&, QAbstractItemView::ScrollHint)
vfunc[61]:	QListView::indexAt(QPoint const&) const
vfunc[62]:	QAbstractItemView::sizeHintForRow(int) const
vfunc[63]:	QAbstractItemView::sizeHintForColumn(int) const
vfunc[64]:	QListView::reset()
vfunc[65]:	QListView::setRootIndex(QModelIndex const&)
vfunc[66]:	QListView::doItemsLayout()
vfunc[67]:	QAbstractItemView::selectAll()
vfunc[68]:	QListView::dataChanged(QModelIndex const&, QModelIndex const&)
vfunc[69]:	QListView::rowsInserted(QModelIndex const&, int, int)
vfunc[70]:	QListView::rowsAboutToBeRemoved(QModelIndex const&, int, int)

vfunc[71]:	QAbstractItemView::selectionChanged(QItemSelection const&, QItemSelection const&)
vfunc[72]:	QAbstractItemView::currentChanged(QModelIndex const&, QModelIndex const&)
vfunc[73]:	QAbstractItemView::updateEditorData()
vfunc[74]:	QAbstractItemView::updateEditorGeometries()
vfunc[75]:	QListView::updateGeometries()
vfunc[76]:	QAbstractItemView::verticalScrollbarAction(int)
vfunc[77]:	QAbstractItemView::horizontalScrollbarAction(int)
vfunc[78]:	QAbstractItemView::verticalScrollbarValueChanged(int)
vfunc[79]:	QAbstractItemView::horizontalScrollbarValueChanged(int)
vfunc[80]:	QAbstractItemView::closeEditor(QWidget*, QAbstractItemDelegate::EndEditHint)
vfunc[81]:	QAbstractItemView::commitData(QWidget*)
vfunc[82]:	QAbstractItemView::editorDestroyed(QObject*)
vfunc[83]:	QListView::moveCursor(QAbstractItemView::CursorAction, QFlags<Qt::KeyboardModifier>)
vfunc[84]:	QListView::horizontalOffset() const
vfunc[85]:	QListView::verticalOffset() const
vfunc[86]:	QListView::isIndexHidden(QModelIndex const&) const
vfunc[87]:	QListView::setSelection(QRect const&, QFlags<QItemSelectionModel::SelectionFlag>)
vfunc[88]:	QListView::visualRegionForSelection(QItemSelection const&) const
vfunc[89]:	QListView::selectedIndexes() const
vfunc[90]:	QAbstractItemView::edit(QModelIndex const&, QAbstractItemView::EditTrigger, QEvent*)
vfunc[91]:	QAbstractItemView::selectionCommand(QModelIndex const&, QEvent const*) const
vfunc[92]:	QListView::startDrag(QFlags<Qt::DropAction>)
vfunc[93]:	QListView::viewOptions() const

The Run Time Type Information for the QListView class is described by [Table 17-425](#)

Table 17-425. typeinfo for QListView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QListView
basetype:	typeinfo for QAbstractItemView

17.5.20.8. Class data for QListWidgetItem

The virtual table for the QListWidgetItem class is described by [Table 17-426](#)

Table 17-426. Primary vtable for QListWidgetItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QListWidgetItem
vfunc[0]:	QListWidgetItem::~~QListWidgetItem()
vfunc[1]:	QListWidgetItem::~~QListWidgetItem()
vfunc[2]:	QListWidgetItem::clone() const
vfunc[3]:	NULL or QListWidgetItem::setBackgroundColor(QColor const&)
vfunc[4]:	QListWidgetItem::data(int) const
vfunc[5]:	QListWidgetItem::setData(int, QVariant const&)
vfunc[6]:	QListWidgetItem::operator<(QListWidgetItem const&) const
vfunc[7]:	QListWidgetItem::read(QDataStream&)
vfunc[8]:	QListWidgetItem::write(QDataStream&) const

The Run Time Type Information for the QListWidgetItem class is described by [Table 17-427](#)

Table 17-427. typeinfo for QListWidgetItem

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QListWidgetItem

17.5.20.9. Class data for QListWidget

The virtual table for the QListWidget class is described by [Table 17-428](#)

Table 17-428. Primary vtable for QListWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QListWidget
vfunc[0]:	QListWidget::metaObject() const
vfunc[1]:	QListWidget::qt_metacast(char const*)

vfunc[2]:	QListWidget::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QListWidget::~~QListWidget()
vfunc[4]:	QListWidget::~~QListWidget()
vfunc[5]:	QListWidget::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QListView::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractItemView::mousePressEvent(QMouseEvent*)
vfunc[19]:	QListView::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QAbstractItemView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QListView::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractItemView::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractItemView::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractItemView::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QListView::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QListView::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)

vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractItemView::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QListView::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QListView::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QListView::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractItemView::viewportEvent(QEvent*)
vfunc[55]:	QListView::scrollContentsBy(int, int)
vfunc[56]:	QListWidget::setModel(QAbstractItemModel*)
vfunc[57]:	QAbstractItemView::setSelectionModel(QItemSelectionModel*)
vfunc[58]:	QAbstractItemView::keyboardSearch(QString const&)
vfunc[59]:	QListView::visualRect(QModelIndex const&) const
vfunc[60]:	QListView::scrollTo(QModelIndex const&, QAbstractItemView::ScrollHint)
vfunc[61]:	QListView::indexAt(QPoint const&) const
vfunc[62]:	QAbstractItemView::sizeHintForRow(int) const
vfunc[63]:	QAbstractItemView::sizeHintForColumn(int) const
vfunc[64]:	QListView::reset()
vfunc[65]:	QListView::setRootIndex(QModelIndex const&)
vfunc[66]:	QListView::doItemsLayout()
vfunc[67]:	QAbstractItemView::selectAll()

vfunc[68]:	QListView::dataChanged(QModelIndex const&, QModelIndex const&)
vfunc[69]:	QListView::rowsInserted(QModelIndex const&, int, int)
vfunc[70]:	QListView::rowsAboutToBeRemoved(QModelIndex const&, int, int)
vfunc[71]:	QAbstractItemView::selectionChanged(QItemSelection const&, QItemSelection const&)
vfunc[72]:	QAbstractItemView::currentChanged(QModelIndex const&, QModelIndex const&)
vfunc[73]:	QAbstractItemView::updateEditorData()
vfunc[74]:	QAbstractItemView::updateEditorGeometries()
vfunc[75]:	QListView::updateGeometries()
vfunc[76]:	QAbstractItemView::verticalScrollbarAction(int)
vfunc[77]:	QAbstractItemView::horizontalScrollbarAction(int)
vfunc[78]:	QAbstractItemView::verticalScrollbarValueChanged(int)
vfunc[79]:	QAbstractItemView::horizontalScrollbarValueChanged(int)
vfunc[80]:	QAbstractItemView::closeEditor(QWidget*, QAbstractItemDelegate::EndEditHint)
vfunc[81]:	QAbstractItemView::commitData(QWidget*)
vfunc[82]:	QAbstractItemView::editorDestroyed(QObject*)
vfunc[83]:	QListView::moveCursor(QAbstractItemView::CursorAction, QFlags<Qt::KeyboardModifier>)
vfunc[84]:	QListView::horizontalOffset() const
vfunc[85]:	QListView::verticalOffset() const
vfunc[86]:	QListView::isIndexHidden(QModelIndex const&) const
vfunc[87]:	QListView::setSelection(QRect const&, QFlags<QItemSelectionModel::SelectionFlag>)
vfunc[88]:	QListView::visualRegionForSelection(QItemSelection const&) const
vfunc[89]:	QListView::selectedIndexes() const
vfunc[90]:	QAbstractItemView::edit(QModelIndex const&, QAbstractItemView::EditTrigger, QEvent*)
vfunc[91]:	QAbstractItemView::selectionCommand(QModelIndex const&, QEvent const*) const
vfunc[92]:	QListView::startDrag(QFlags<Qt::DropAction>)
vfunc[93]:	QListView::viewOptions() const
vfunc[94]:	QListWidget::mimeTypes() const
vfunc[95]:	QListWidget::mimeData(QList<QListWidgetItem*>) const
vfunc[96]:	QListWidget::dropMimeData(int, QMimeData const*, Qt::DropAction)
vfunc[97]:	QListWidget::supportedDropActions() const

The Run Time Type Information for the QListWidget class is described by [Table 17-429](#)

Table 17-429. typeinfo for QListWidget

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for QListWidget
basetype:	typeinfo for QListView

17.5.20.10. Class data for QDesktopWidget

The virtual table for the QDesktopWidget class is described by [Table 17-430](#)

Table 17-430. Primary vtable for QDesktopWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDesktopWidget
vfunc[0]:	QDesktopWidget::metaObject() const
vfunc[1]:	QDesktopWidget::qt_metacast(char const*)
vfunc[2]:	QDesktopWidget::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QDesktopWidget::~~QDesktopWidget()
vfunc[4]:	QDesktopWidget::~~QDesktopWidget()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)

vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDesktopWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)

vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QDesktopWidget class is described by [Table 17-431](#)

Table 17-431. typeinfo for QDesktopWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDesktopWidget
basetype:	typeinfo for QWidget

17.5.20.11. Class data for QInputContextFactoryInterface

The virtual table for the QInputContextFactoryInterface class is described by [Table 17-432](#)

Table 17-432. Primary vtable for QInputContextFactoryInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QInputContextFactoryInterface
vfunc[0]:	NULL or QInputContextFactoryInterface::~~QInputContextFactoryInterface()
vfunc[1]:	NULL or QInputContextFactoryInterface::~~QInputContextFactoryInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual

The Run Time Type Information for the QInputContextFactoryInterface class is described by [Table 17-433](#)

Table 17-433. typeinfo for QInputContextFactoryInterface

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QInputContextFactoryInterface
basetype:	typeinfo for QFactoryInterface

17.5.20.12. Class data for QInputContext

The virtual table for the QInputContext class is described by [Table 17-434](#)

Table 17-434. Primary vtable for QInputContext

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QInputContext
vfunc[0]:	QInputContext::metaObject() const
vfunc[1]:	QInputContext::qt_metacast(char const*)
vfunc[2]:	QInputContext::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QInputContext::~~QInputContext()
vfunc[4]:	QInputContext::~~QInputContext()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	QInputContext::update()
vfunc[16]:	QInputContext::mouseHandler(int, QMouseEvent*)
vfunc[17]:	QInputContext::font() const
vfunc[18]:	__cxa_pure_virtual
vfunc[19]:	QInputContext::setFocusWidget(QWidget*)
vfunc[20]:	QInputContext::widgetDestroyed(QWidget*)
vfunc[21]:	QInputContext::actions()
vfunc[22]:	QInputContext::x11FilterEvent(QWidget*, _XEvent*)
vfunc[23]:	QInputContext::filterEvent(QEvent const*)

The Run Time Type Information for the QInputContext class is described by [Table 17-435](#)

Table 17-435. typeinfo for QInputContext

Base Vtable	vtable for __cxxabiv1::__si_class_type_info

Name	typeinfo name for QInputContext
basetype:	typeinfo for QObject

17.5.20.13. Class data for QCheckBox

The virtual table for the QCheckBox class is described by [Table 17-436](#)

Table 17-436. Primary vtable for QCheckBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCheckBox
vfunc[0]:	QCheckBox::metaObject() const
vfunc[1]:	QCheckBox::qt_metacast(char const*)
vfunc[2]:	QCheckBox::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QCheckBox::~~QCheckBox()
vfunc[4]:	NULL or QCheckBox::~~QCheckBox()
vfunc[5]:	QCheckBox::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractButton::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QCheckBox::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractButton::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractButton::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QCheckBox::mouseMoveEvent(QMouseEvent*)

vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractButton::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractButton::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractButton::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractButton::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QCheckBox::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractButton::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QCheckBox::hitButton(QPoint const&) const

vfunc[55]:	QCheckBox::checkStateSet()
vfunc[56]:	QCheckBox::nextCheckState()

The Run Time Type Information for the QCheckBox class is described by [Table 17-437](#)

Table 17-437. typeinfo for QCheckBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCheckBox
basetype:	typeinfo for QAbstractButton

17.5.20.14. Class data for QSpinBox

The virtual table for the QSpinBox class is described by [Table 17-438](#)

Table 17-438. Primary vtable for QSpinBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSpinBox
vfunc[0]:	QSpinBox::metaObject() const
vfunc[1]:	QSpinBox::qt_metacast(char const*)
vfunc[2]:	QSpinBox::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QSpinBox::~~QSpinBox()
vfunc[4]:	NULL or QSpinBox::~~QSpinBox()
vfunc[5]:	QSpinBox::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSpinBox::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractSpinBox::sizeHint() const
vfunc[15]:	QAbstractSpinBox::minimumSizeHint() const

vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractSpinBox::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractSpinBox::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractSpinBox::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractSpinBox::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractSpinBox::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractSpinBox::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractSpinBox::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractSpinBox::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QAbstractSpinBox::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractSpinBox::resizeEvent(QResizeEvent*)
vfunc[32]:	QAbstractSpinBox::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractSpinBox::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QAbstractSpinBox::showEvent(QShowEvent*)
vfunc[41]:	QAbstractSpinBox::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSpinBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)

vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QSpinBox::validate(QString&, int&) const
vfunc[55]:	QSpinBox::fixup(QString&) const
vfunc[56]:	QAbstractSpinBox::stepBy(int)
vfunc[57]:	QAbstractSpinBox::clear()
vfunc[58]:	QAbstractSpinBox::stepEnabled() const
vfunc[59]:	QSpinBox::valueFromText(QString const&) const
vfunc[60]:	QSpinBox::textFromValue(int) const

The Run Time Type Information for the QSpinBox class is described by [Table 17-439](#)

Table 17-439. typeinfo for QSpinBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSpinBox
basetype:	typeinfo for QAbstractSpinBox

17.5.20.15. Class data for QDoubleSpinBox

The virtual table for the QDoubleSpinBox class is described by [Table 17-440](#)

Table 17-440. Primary vtable for QDoubleSpinBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDoubleSpinBox
vfunc[0]:	QDoubleSpinBox::metaObject() const
vfunc[1]:	QDoubleSpinBox::qt_metacast(char const*)
vfunc[2]:	QDoubleSpinBox::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QDoubleSpinBox::~~QDoubleSpinBox()
vfunc[4]:	NULL or QDoubleSpinBox::~~QDoubleSpinBox()
vfunc[5]:	QAbstractSpinBox::event(QEvent*)

vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSpinBox::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractSpinBox::sizeHint() const
vfunc[15]:	QAbstractSpinBox::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractSpinBox::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractSpinBox::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractSpinBox::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractSpinBox::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractSpinBox::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractSpinBox::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractSpinBox::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractSpinBox::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QAbstractSpinBox::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QAbstractSpinBox::resizeEvent(QResizeEvent*)
vfunc[32]:	QAbstractSpinBox::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractSpinBox::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)

vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QAbstractSpinBox::showEvent(QShowEvent*)
vfunc[41]:	QAbstractSpinBox::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSpinBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDoubleSpinBox::validate(QString&, int&) const
vfunc[55]:	QDoubleSpinBox::fixup(QString&) const
vfunc[56]:	QAbstractSpinBox::stepBy(int)
vfunc[57]:	QAbstractSpinBox::clear()
vfunc[58]:	QAbstractSpinBox::stepEnabled() const
vfunc[59]:	QDoubleSpinBox::valueFromText(QString const&) const
vfunc[60]:	QDoubleSpinBox::textFromValue(double) const

The Run Time Type Information for the QDoubleSpinBox class is described by [Table 17-441](#)

Table 17-441. typeid for QDoubleSpinBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QDoubleSpinBox
basetype:	typeid for QAbstractSpinBox

17.5.20.16. Class data for QLCDNumber

The virtual table for the QLCDNumber class is described by [Table 17-442](#)

Table 17-442. Primary vtable for QLCDNumber

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLCDNumber
vfunc[0]:	QLCDNumber::metaObject() const
vfunc[1]:	QLCDNumber::qt_metacast(char const*)
vfunc[2]:	QLCDNumber::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QLCDNumber::~~QLCDNumber()
vfunc[4]:	QLCDNumber::~~QLCDNumber()
vfunc[5]:	QLCDNumber::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QLCDNumber::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QLCDNumber::paintEvent(QPaintEvent*)

vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QLCDNumber class is described by [Table 17-443](#)

Table 17-443. typeinfo for QLCDNumber

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QLCDNumber
basetype:	typeinfo for QFrame

17.5.20.17. Class data for QStackedWidget

The virtual table for the QStackedWidget class is described by [Table 17-444](#)

Table 17-444. Primary vtable for QStackedWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStackedWidget
vfunc[0]:	QStackedWidget::metaObject() const
vfunc[1]:	QStackedWidget::qt_metacast(char const*)
vfunc[2]:	QStackedWidget::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QStackedWidget::~~QStackedWidget()
vfunc[4]:	QStackedWidget::~~QStackedWidget()
vfunc[5]:	QStackedWidget::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QFrame::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)

vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QFrame::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QStackedWidget class is described by [Table 17-445](#)

Table 17-445. typeinfo for QStackedWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStackedWidget
basetype:	typeinfo for QFrame

17.5.20.18. Class data for QPushButton

The virtual table for the QPushButton class is described by [Table 17-446](#)

Table 17-446. Primary vtable for QPushButton

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPushButton
vfunc[0]:	QPushButton::metaObject() const
vfunc[1]:	QPushButton::qt_metacast(char const*)
vfunc[2]:	QPushButton::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QPushButton::~~QPushButton()
vfunc[4]:	QPushButton::~~QPushButton()
vfunc[5]:	QPushButton::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractButton::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QPushButton::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractButton::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractButton::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)

vfunc[21]:	QAbstractButton::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QPushButton::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractButton::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QPushButton::focusInEvent(QFocusEvent*)
vfunc[26]:	QPushButton::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QPushButton::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractButton::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

vfunc[54]:	QAbstractButton::hitButton(QPoint const&) const
vfunc[55]:	QAbstractButton::checkStateSet()
vfunc[56]:	QAbstractButton::nextCheckState()

The Run Time Type Information for the QPushButton class is described by [Table 17-447](#)

Table 17-447. typeinfo for QPushButton

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPushButton
basetype:	typeinfo for QAbstractButton

17.5.20.19. Class data for QLabel

The virtual table for the QLabel class is described by [Table 17-448](#)

Table 17-448. Primary vtable for QLabel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLabel
vfunc[0]:	QLabel::metaObject() const
vfunc[1]:	QLabel::qt_metacast(char const*)
vfunc[2]:	QLabel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QLabel::~QLabel()
vfunc[4]:	QLabel::~QLabel()
vfunc[5]:	QLabel::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QLabel::sizeHint() const

vfunc[15]:	QLabel::minimumSizeHint() const
vfunc[16]:	QLabel::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QLabel::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QLabel::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)

vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QLabel class is described by [Table 17-449](#)

Table 17-449. typeinfo for QLabel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QLabel
basetype:	typeinfo for QFrame

17.5.20.20. Class data for QDockWidget

The virtual table for the QDockWidget class is described by [Table 17-450](#)

Table 17-450. Primary vtable for QDockWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDockWidget
vfunc[0]:	QDockWidget::metaObject() const
vfunc[1]:	QDockWidget::qt_metacast(char const*)
vfunc[2]:	QDockWidget::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QDockWidget::~~QDockWidget()
vfunc[4]:	QDockWidget::~QDockWidget()
vfunc[5]:	QDockWidget::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QDockWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QDockWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QDockWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const

vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QDockWidget class is described by [Table 17-451](#)

Table 17-451. typeinfo for QDockWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDockWidget
basetype:	typeinfo for QWidget

17.5.20.21. Class data for QMainWindow

The virtual table for the QMainWindow class is described by [Table 17-452](#)

Table 17-452. Primary vtable for QMainWindow

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMainWindow
vfunc[0]:	QMainWindow::metaObject() const
vfunc[1]:	QMainWindow::qt_metacast(char const*)
vfunc[2]:	QMainWindow::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QMainWindow::~~QMainWindow()
vfunc[4]:	QMainWindow::~~QMainWindow()
vfunc[5]:	QMainWindow::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)

vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QMainWindow::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)

vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QMainWindow::createPopupMenu()

The Run Time Type Information for the QMainWindow class is described by [Table 17-453](#)

Table 17-453. typeinfo for QMainWindow

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMainWindow
basetype:	typeinfo for QWidget

17.5.20.22. Class data for QTextEdit

The virtual table for the QTextEdit class is described by [Table 17-454](#)

Table 17-454. Primary vtable for QTextEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextEdit
vfunc[0]:	QTextEdit::metaObject() const
vfunc[1]:	QTextEdit::qt_metacast(char const*)
vfunc[2]:	QTextEdit::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTextEdit::~~QTextEdit()
vfunc[4]:	QTextEdit::~QTextEdit()

vfunc[5]:	QTextEdit::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QTextEdit::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QTextEdit::mousePressEvent(QMouseEvent*)
vfunc[19]:	QTextEdit::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QTextEdit::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QTextEdit::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QTextEdit::wheelEvent(QWheelEvent*)
vfunc[23]:	QTextEdit::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QTextEdit::focusInEvent(QFocusEvent*)
vfunc[26]:	QTextEdit::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QTextEdit::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QTextEdit::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QTextEdit::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QTextEdit::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QTextEdit::dragMoveEvent(QDragMoveEvent*)

vfunc[38]:	QTextEdit::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QTextEdit::dropEvent(QDropEvent*)
vfunc[40]:	QTextEdit::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QTextEdit::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QTextEdit::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QTextEdit::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QTextEdit::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractScrollArea::viewportEvent(QEvent*)
vfunc[55]:	QTextEdit::scrollContentsBy(int, int)
vfunc[56]:	QTextEdit::loadResource(int, QUrl const&)
vfunc[57]:	QTextEdit::createMimeDataFromSelection() const
vfunc[58]:	QTextEdit::canInsertFromMimeData(QMimeData const*) const
vfunc[59]:	QTextEdit::insertFromMimeData(QMimeData const*)

The Run Time Type Information for the QTextEdit class is described by [Table 17-455](#)

Table 17-455. typeinfo for QTextEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextEdit
basetype:	typeinfo for QAbstractScrollArea

17.5.20.23. Class data for QProgressBar

The virtual table for the QProgressBar class is described by [Table 17-456](#)

Table 17-456. Primary vtable for QProgressBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QProgressBar
vfunc[0]:	QProgressBar::metaObject() const
vfunc[1]:	QProgressBar::qt_metacast(char const*)
vfunc[2]:	QProgressBar::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QProgressBar::~~QProgressBar()
vfunc[4]:	NULL or QProgressBar::~~QProgressBar()
vfunc[5]:	QProgressBar::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QProgressBar::sizeHint() const
vfunc[15]:	QProgressBar::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QProgressBar::paintEvent(QPaintEvent*)

vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QProgressBar::text() const

The Run Time Type Information for the QProgressBar class is described by [Table 17-457](#)

Table 17-457. typeinfo for QProgressBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QProgressBar
basetype:	typeinfo for QWidget

17.5.20.24. Class data for QScrollBar

The virtual table for the QScrollBar class is described by [Table 17-458](#)

Table 17-458. Primary vtable for QScrollBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QScrollBar
vfunc[0]:	QScrollBar::metaObject() const
vfunc[1]:	QScrollBar::qt_metacast(char const*)
vfunc[2]:	QScrollBar::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QScrollBar::~~QScrollBar()
vfunc[4]:	QScrollBar::~~QScrollBar()
vfunc[5]:	QScrollBar::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSlider::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QScrollBar::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QScrollBar::mousePressEvent(QMouseEvent*)
vfunc[19]:	QScrollBar::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QScrollBar::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractSlider::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractSlider::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)

vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QScrollBar::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QScrollBar::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QScrollBar::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSlider::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QScrollBar::sliderChange(QAbstractSlider::SliderChange)

The Run Time Type Information for the QScrollBar class is described by [Table 17-459](#)

Table 17-459. typeinfo for QScrollBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QScrollBar
basetype:	typeinfo for QAbstractSlider

17.5.20.25. Class data for QTextBrowser

The virtual table for the QTextBrowser class is described by [Table 17-460](#)

Table 17-460. Primary vtable for QTextBrowser

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextBrowser
vfunc[0]:	QTextBrowser::metaObject() const
vfunc[1]:	QTextBrowser::qt_metacast(char const*)
vfunc[2]:	QTextBrowser::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTextBrowser::~QTextBrowser()
vfunc[4]:	QTextBrowser::~QTextBrowser()
vfunc[5]:	QTextBrowser::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QTextEdit::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QAbstractScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QTextBrowser::mousePressEvent(QMouseEvent*)
vfunc[19]:	QTextBrowser::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QTextEdit::mouseDoubleClickEvent(QMouseEvent*)

vfunc[21]:	QTextBrowser::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QTextEdit::wheelEvent(QWheelEvent*)
vfunc[23]:	QTextBrowser::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QTextEdit::focusInEvent(QFocusEvent*)
vfunc[26]:	QTextBrowser::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QTextBrowser::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QTextEdit::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QTextEdit::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QTextEdit::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QTextEdit::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QTextEdit::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QTextEdit::dropEvent(QDropEvent*)
vfunc[40]:	QTextEdit::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QTextEdit::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QTextEdit::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QTextEdit::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QTextBrowser::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

vfunc[54]:	QAbstractScrollArea::viewportEvent(QEvent*)
vfunc[55]:	QTextEdit::scrollContentsBy(int, int)
vfunc[56]:	QTextBrowser::loadResource(int, QUrl const&)
vfunc[57]:	QTextEdit::createMimeDataFromSelection() const
vfunc[58]:	QTextEdit::canInsertFromMimeData(QMimeData const*) const
vfunc[59]:	QTextEdit::insertFromMimeData(QMimeData const*)
vfunc[60]:	QTextBrowser::setSource(QUrl const&)
vfunc[61]:	QTextBrowser::backward()
vfunc[62]:	QTextBrowser::forward()
vfunc[63]:	QTextBrowser::home()
vfunc[64]:	QTextBrowser::reload()

The Run Time Type Information for the QTextBrowser class is described by [Table 17-461](#)

Table 17-461. typeinfo for QTextBrowser

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextBrowser
basetype:	typeinfo for QTextEdit

17.5.20.26. Class data for QScrollArea

The virtual table for the QScrollArea class is described by [Table 17-462](#)

Table 17-462. Primary vtable for QScrollArea

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QScrollArea
vfunc[0]:	QScrollArea::metaObject() const
vfunc[1]:	QScrollArea::qt_metacast(char const*)
vfunc[2]:	QScrollArea::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QScrollArea::~QScrollArea()
vfunc[4]:	QScrollArea::~QScrollArea()
vfunc[5]:	QScrollArea::event(QEvent*)
vfunc[6]:	QScrollArea::eventFilter(QObject*, QEvent*)

vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QScrollArea::sizeHint() const
vfunc[15]:	QAbstractScrollArea::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractScrollArea::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractScrollArea::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QAbstractScrollArea::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractScrollArea::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractScrollArea::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractScrollArea::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QAbstractScrollArea::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QScrollArea::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QAbstractScrollArea::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QAbstractScrollArea::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QAbstractScrollArea::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QAbstractScrollArea::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QAbstractScrollArea::dropEvent(QDropEvent*)

vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QFrame::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QScrollArea::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractScrollArea::viewportEvent(QEvent*)
vfunc[55]:	QScrollArea::scrollContentsBy(int, int)

The Run Time Type Information for the QScrollArea class is described by [Table 17-463](#)

Table 17-463. typeinfo for QScrollArea

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QScrollArea
basetype:	typeinfo for QAbstractScrollArea

17.5.20.27. Class data for QToolButton

The virtual table for the QToolButton class is described by [Table 17-464](#)

Table 17-464. Primary vtable for QToolButton

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QToolButton
vfunc[0]:	QToolButton::metaObject() const
vfunc[1]:	QToolButton::qt_metacast(char const*)

vfunc[2]:	QToolButton::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QToolButton::~~QToolButton()
vfunc[4]:	QToolButton::~~QToolButton()
vfunc[5]:	QToolButton::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QToolButton::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QToolButton::sizeHint() const
vfunc[15]:	QToolButton::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QToolButton::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractButton::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QAbstractButton::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractButton::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractButton::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QAbstractButton::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractButton::focusOutEvent(QFocusEvent*)
vfunc[27]:	QToolButton::enterEvent(QEvent*)
vfunc[28]:	QToolButton::leaveEvent(QEvent*)
vfunc[29]:	QToolButton::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)

vfunc[35]:	QToolButton::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QToolButton::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QAbstractButton::hitButton(QPoint const&) const
vfunc[55]:	QAbstractButton::checkStateSet()
vfunc[56]:	QToolButton::nextCheckState()

The Run Time Type Information for the QToolButton class is described by [Table 17-465](#)

Table 17-465. typeinfo for QToolButton

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QToolButton
basetype:	typeinfo for QAbstractButton

17.5.20.28. Class data for QComboBox

The virtual table for the QComboBox class is described by [Table 17-466](#)

Table 17-466. Primary vtable for QComboBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QComboBox
vfunc[0]:	QComboBox::metaObject() const
vfunc[1]:	QComboBox::qt_metacast(char const*)
vfunc[2]:	QComboBox::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QComboBox::~QComboBox()
vfunc[4]:	QComboBox::~~QComboBox()
vfunc[5]:	QComboBox::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QComboBox::sizeHint() const
vfunc[15]:	QComboBox::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QComboBox::mousePressEvent(QMouseEvent*)
vfunc[19]:	QComboBox::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QComboBox::wheelEvent(QWheelEvent*)
vfunc[23]:	QComboBox::keyPressEvent(QKeyEvent*)
vfunc[24]:	QComboBox::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QComboBox::focusInEvent(QFocusEvent*)
vfunc[26]:	QComboBox::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QComboBox::paintEvent(QPaintEvent*)

vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QComboBox::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QComboBox::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QComboBox::showEvent(QShowEvent*)
vfunc[41]:	QComboBox::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QComboBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QComboBox::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QComboBox::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QComboBox::showPopup()
vfunc[55]:	QComboBox::hidePopup()

The Run Time Type Information for the QComboBox class is described by [Table 17-467](#)

Table 17-467. typeinfo for QComboBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QComboBox
basetype:	typeinfo for QWidget

17.5.20.29. Class data for QRadioButton

The virtual table for the QRadioButton class is described by [Table 17-468](#)

Table 17-468. Primary vtable for QRadioButton

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QRadioButton
vfunc[0]:	QRadioButton::metaObject() const
vfunc[1]:	QRadioButton::qt_metacast(char const*)
vfunc[2]:	QRadioButton::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	NULL or QRadioButton::~~QRadioButton()
vfunc[4]:	NULL or QRadioButton::~~QRadioButton()
vfunc[5]:	QRadioButton::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractButton::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QRadioButton::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QAbstractButton::mousePressEvent(QMouseEvent*)
vfunc[19]:	QAbstractButton::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QRadioButton::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractButton::keyPressEvent(QKeyEvent*)
vfunc[24]:	QAbstractButton::keyReleaseEvent(QKeyEvent*)

vfunc[25]:	QAbstractButton::focusInEvent(QFocusEvent*)
vfunc[26]:	QAbstractButton::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QRadioButton::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractButton::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QRadioButton::hitButton(QPoint const&) const
vfunc[55]:	QAbstractButton::checkStateSet()
vfunc[56]:	QAbstractButton::nextCheckState()

The Run Time Type Information for the QRadioButton class is described by [Table 17-469](#)

Table 17-469. typeinfo for QRadioButton

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QRadioButton
basetype:	typeinfo for QAbstractButton

17.5.20.30. Class data for QFocusFrame

The virtual table for the QFocusFrame class is described by [Table 17-470](#)

Table 17-470. Primary vtable for QFocusFrame

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFocusFrame
vfunc[0]:	QFocusFrame::metaObject() const
vfunc[1]:	QFocusFrame::qt_metacast(char const*)
vfunc[2]:	QFocusFrame::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QFocusFrame::~~QFocusFrame()
vfunc[4]:	QFocusFrame::~~QFocusFrame()
vfunc[5]:	QFocusFrame::event(QEvent*)
vfunc[6]:	QFocusFrame::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)

vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QFocusFrame::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)

vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the QFocusFrame class is described by [Table 17-471](#)

Table 17-471. typeinfo for QFocusFrame

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFocusFrame
basetype:	typeinfo for QWidget

17.5.20.31. Class data for QToolBox

The virtual table for the QToolBox class is described by [Table 17-472](#)

Table 17-472. Primary vtable for QToolBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QToolBox
vfunc[0]:	QToolBox::metaObject() const
vfunc[1]:	QToolBox::qt_metacast(char const*)
vfunc[2]:	QToolBox::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QToolBox::~~QToolBox()
vfunc[4]:	QToolBox::~~QToolBox()
vfunc[5]:	QToolBox::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QFrame::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const

vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QFrame::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QToolBox::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QToolBox::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)

vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QToolBox::itemInserted(int)
vfunc[55]:	QToolBox::itemRemoved(int)

The Run Time Type Information for the QToolBox class is described by [Table 17-473](#)

Table 17-473. typeinfo for QToolBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QToolBox
basetype:	typeinfo for QFrame

17.5.20.32. Class data for QDial

The virtual table for the QDial class is described by [Table 17-474](#)

Table 17-474. Primary vtable for QDial

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDial
vfunc[0]:	QDial::metaObject() const
vfunc[1]:	QDial::qt_metacast(char const*)
vfunc[2]:	QDial::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QDial::~~QDial()
vfunc[4]:	QDial::~~QDial()
vfunc[5]:	QDial::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QAbstractSlider::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QDial::sizeHint() const
vfunc[15]:	QDial::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QDial::mousePressEvent(QMouseEvent*)
vfunc[19]:	QDial::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QDial::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QAbstractSlider::wheelEvent(QWheelEvent*)
vfunc[23]:	QAbstractSlider::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QDial::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QDial::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QAbstractSlider::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const

vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QDial::sliderChange(QAbstractSlider::SliderChange)

The Run Time Type Information for the QDial class is described by [Table 17-475](#)

Table 17-475. typeinfo for QDial

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDial
basetype:	typeinfo for QAbstractSlider

17.5.20.33. Class data for QSystemTrayIcon

The virtual table for the QSystemTrayIcon class is described by [Table 17-476](#)

Table 17-476. Primary vtable for QSystemTrayIcon

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSystemTrayIcon
vfunc[0]:	QSystemTrayIcon::metaObject() const
vfunc[1]:	QSystemTrayIcon::qt_metacast(char const*)
vfunc[2]:	QSystemTrayIcon::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSystemTrayIcon::~QSystemTrayIcon()
vfunc[4]:	QSystemTrayIcon::~QSystemTrayIcon()
vfunc[5]:	QSystemTrayIcon::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)

vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

17.5.20.34. Interfaces for Qt4 Widgets

An LSB conforming implementation shall provide the generic functions for Qt4 Widgets specified in [Table 17-477](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-477. libQtGui - Qt4 Widgets Function Interfaces

_ZN10QLCDNumber10paintEventEP11QPaintEvent [QtGui]	_Z
_ZN10QLCDNumber10setDecModeEv [QtGui]	_Z
_ZN10QLCDNumber10setOctModeEv [QtGui]	_Z
_ZN10QLCDNumber11qt_metacastEPKc [QtGui]	_Z
_ZN10QLCDNumber15setSegmentStyleENS_12SegmentStyleE [QtGui]	_Z
_ZN10QLCDNumber5eventEP6QEvent [QtGui]	_Z
_ZN10QLCDNumber7displayEd [QtGui]	_Z
_ZN10QLCDNumber7setModeENS_4ModeE [QtGui]	_Z
_ZN10QLCDNumberC1EP7QWidget [QtGui]	_Z
_ZN10QLCDNumberC1EjP7QWidget [QtGui]	_Z
_ZN10QLCDNumberC2EP7QWidget [QtGui]	_Z
_ZN10QLCDNumberC2EjP7QWidget [QtGui]	_Z
_ZN10QLCDNumberD0Ev [QtGui]	_Z
_ZN10QLCDNumberD2Ev [QtGui]	_Z
_ZN10QScrollBar11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_Z
_ZN10QScrollBar12sliderChangeEN15QAbstractSlider12SliderChangeE [QtGui]	_Z
_ZN10QScrollBar15mousePressEventEP11QMouseEvent [QtGui]	_Z
_ZN10QScrollBar17mouseReleaseEventEP11QMouseEvent [QtGui]	_Z
_ZN10QScrollBar9hideEventEP10QHideEvent [QtGui]	_Z
_ZN10QScrollBarC1EN2Qt11OrientationEP7QWidgetPKc [QtGui]	_Z
_ZN10QScrollBarC1EP7QWidgetPKc [QtGui]	_Z
_ZN10QScrollBarC2EN2Qt11OrientationEP7QWidget [QtGui]	_Z
_ZN10QScrollBarC2EP7QWidget [QtGui]	_Z

_ZN10QScrollBarC2EiiiiN2Qt11OrientationEP7QWidgetPKc [QtGui]	_2
_ZN10QScrollBarD1Ev [QtGui]	_2
_ZN10QTabWidget10paintEventEP11QPaintEvent [QtGui]	_2
_ZN10QTabWidget10setTabTextEiRK7QString [QtGui]	_2
_ZN10QTabWidget11changeEventEP6QEvent [QtGui]	_2
_ZN10QTabWidget11qt_metacastEPKc [QtGui]	_2
_ZN10QTabWidget11setIconSizeERK5QSize [QtXml]	_2
_ZN10QTabWidget11tabInsertedEi [QtGui]	_2
_ZN10QTabWidget13keyPressEventEP9QKeyEvent [QtGui]	_2
_ZN10QTabWidget13setTabToolTipEiRK7QString [QtGui]	_2
_ZN10QTabWidget14currentChangedEi [QtGui]	_2
_ZN10QTabWidget15setCornerWidgetEP7QWidgetN2Qt6CornerE [QtGui]	_2
_ZN10QTabWidget15setTabWhatsThisEiRK7QString [QtGui]	_2
_ZN10QTabWidget20setUsesScrollButtonsEb [QtXml]	_2
_ZN10QTabWidget6addTabEP7QWidgetRK5QIconRK7QString [QtGui]	_2
_ZN10QTabWidget8selectedERK7QString [QtXml]	_2
_ZN10QTabWidget9insertTabEiP7QWidgetRK7QString [QtGui]	_2
_ZN10QTabWidget9setTabBarEP7QTabBar [QtGui]	_2
_ZN10QTabWidgetC1EP7QWidget [QtGui]	_2
_ZN10QTabWidgetC2EP7QWidget [QtGui]	_2
_ZN10QTabWidgetD0Ev [QtGui]	_2
_ZN10QTabWidgetD2Ev [QtGui]	_2
_ZN10QWhatsThis15inWhatsThisModeEv [QtGui]	_2
_ZN10QWhatsThis18enterWhatsThisModeEv [QtGui]	_2
_ZN10QWhatsThis3addEP7QWidgetRK7QString [QtGui]	_2
_ZN10QWhatsThis8hideTextEv [QtGui]	_2
_ZN11QDockWidget10closeEventEP11QCloseEvent [QtGui]	_2
_ZN11QDockWidget11changeEventEP6QEvent [QtGui]	_2
_ZN11QDockWidget11qt_metacastEPKc [QtGui]	_2
_ZN11QDockWidget11setFloatingEb [QtGui]	_2
_ZN11QDockWidget15setAllowedAreasE6QFlagsIN2Qt14DockWidgetAreaEE [QtGui]	_2
_ZN11QDockWidget19allowedAreasChangedE6QFlagsIN2Qt14DockWidgetAreaEE [QtGui]	_2
_ZN11QDockWidget9setWidgetEP7QWidget [QtGui]	_2

_ZN11QDockWidgetC1ERK7QStringP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]	_Z
_ZN11QDockWidgetC2ERK7QStringP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]	_Z
_ZN11QDockWidgetD1Ev [QtGui]	_Z
_ZN11QFocusFrameI0paintEventEP11QPaintEvent [QtGui]	_Z
_ZN11QFocusFrameI1qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_Z
_ZN11QFocusFrame5eventEP6QEvent [QtGui]	_Z
_ZN11QFocusFrameC1EP7QWidget [QtGui]	_Z
_ZN11QFocusFrameD0Ev [QtGui]	_Z
_ZN11QFocusFrameD2Ev [QtGui]	_Z
_ZN11QListWidgetI0insertItemEiRK7QString [QtGui]	_Z
_ZN11QListWidgetI1itemChangedEP15QListWidgetItem [QtGui]	_Z
_ZN11QListWidgetI1itemEnteredEP15QListWidgetItem [QtGui]	_Z
_ZN11QListWidgetI1qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_Z
_ZN11QListWidgetI2dropMimeDataEiPK9QMimeDataN2Qt10DropActionE [QtGui]	_Z
_ZN11QListWidgetI3itemActivatedEP15QListWidgetItem [QtGui]	_Z
_ZN11QListWidgetI3setItemHiddenEPK15QListWidgetItemb [QtGui]	_Z
_ZN11QListWidgetI4setCurrentItemEP15QListWidgetItem [QtGui]	_Z
_ZN11QListWidgetI7currentRowChangedEi [QtGui]	_Z
_ZN11QListWidgetI7setSortingEnabledEb [QtXml]	_Z
_ZN11QListWidgetI8currentTextChangedERK7QString [QtGui]	_Z
_ZN11QListWidgetI20openPersistentEditorEP15QListWidgetItem [QtGui]	_Z
_ZN11QListWidget5clearEv [QtGui]	_Z
_ZN11QListWidget8editItemEP15QListWidgetItem [QtGui]	_Z
_ZN11QListWidget8takeItemEi [QtGui]	_Z
_ZN11QListWidget9sortItemsEN2Qt9SortOrderE [QtGui]	_Z
_ZN11QListWidgetC2EP7QWidget [QtGui]	_Z
_ZN11QListWidgetD1Ev [QtGui]	_Z
_ZN11QMainWindowI0addToolBarEN2Qt11ToolBarAreaEP8QToolBar [QtGui]	_Z
_ZN11QMainWindowI0addToolBarERK7QString [QtGui]	_Z
_ZN11QMainWindowI1qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_Z
_ZN11QMainWindowI1setAnimatedEb [QtXml]	_Z
_ZN11QMainWindowI2restoreStateERK10QByteArrayi [QtGui]	_Z
_ZN11QMainWindowI3addDockWidgetEN2Qt14DockWidgetAreaEP11QDockWidget [QtGui]	

ZN11QMainWindow13insertToolBarEP8QToolBarS1 [QtGui]	_Z
_ZN11QMainWindow13setMenuWidgetEP7QWidget [QtXml]	_Z
_ZN11QMainWindow15createPopupMenuEv [QtGui]	_Z
_ZN11QMainWindow15splitDockWidgetEP11QDockWidgetS1_N2Qt11OrientationE [QtGui]	_Z
_ZN11QMainWindow16removeDockWidgetEP11QDockWidget [QtGui]	_Z
ZN11QMainWindow16tabifyDockWidgetEP11QDockWidgetS1 [QtXml]	_Z
_ZN11QMainWindow18setToolButtonStyleEN2Qt15ToolButtonStyleE [QtGui]	_Z
_ZN11QMainWindow22toolButtonStyleChangedEN2Qt15ToolButtonStyleE [QtGui]	_Z
_ZN11QMainWindow9setCornerEN2Qt6CornerENS0_14DockWidgetAreaE [QtGui]	_Z
_ZN11QMainWindowC1EP7QWidgetPKc6QFlagsIN2Qt10WindowTypeEE [QtGui]	_Z
_ZN11QMainWindowC2EP7QWidgetPKc6QFlagsIN2Qt10WindowTypeEE [QtGui]	_Z
_ZN11QMainWindowD1Ev [QtGui]	_Z
_ZN11QPushButton10paintEventEP11QPaintEvent [QtGui]	_Z
_ZN11QPushButton11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_Z
_ZN11QPushButton12focusInEventEP11QFocusEvent [QtGui]	_Z
_ZN11QPushButton13keyPressEventEP9QKeyEvent [QtGui]	_Z
_ZN11QPushButton5eventEP6QEvent [QtGui]	_Z
_ZN11QPushButton7setMenuEP5QMenu [QtGui]	_Z
_ZN11QPushButtonC1EP7QWidget [QtGui]	_Z
_ZN11QPushButtonC1ERK5QIconRK7QStringP7QWidget [QtGui]	_Z
_ZN11QPushButtonC1ERK7QStringP7QWidget [QtGui]	_Z
_ZN11QPushButtonC2EP7QWidget [QtGui]	_Z
_ZN11QPushButtonC2ERK5QIconRK7QStringP7QWidget [QtGui]	_Z
_ZN11QPushButtonC2ERK7QStringP7QWidget [QtGui]	_Z
_ZN11QPushButtonD0Ev [QtGui]	_Z
_ZN11QPushButtonD2Ev [QtGui]	_Z
_ZN11QScrollArea11eventFilterEP7QObjectP6QEvent [QtGui]	_Z
_ZN11QScrollArea11qt_metacastEPKc [QtGui]	_Z
_ZN11QScrollArea12setAlignmentE6QFlagsIN2Qt13AlignmentFlagEE [QtXml]	_Z
_ZN11QScrollArea16scrollContentsByEii [QtGui]	_Z
_ZN11QScrollArea18setWidgetResizableEb [QtGui]	_Z

_ZN11QScrollArea5eventEP6QEvent [QtGui]	_2
_ZN11QScrollAreaC1EP7QWidget [QtGui]	_2
_ZN11QScrollAreaD0Ev [QtGui]	_2
_ZN11QScrollAreaD2Ev [QtGui]	_2
_ZN11QToolButton10leaveEventEP6QEvent [QtGui]	_2
_ZN11QToolButton10setIconSetERK5QIconb [QtGui]	_2
_ZN11QToolButton11actionEventEP12QActionEvent [QtGui]	_2
_ZN11QToolButton11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_2
_ZN11QToolButton12setArrowTypeEN2Qt9ArrowTypeE [QtGui]	_2
_ZN11QToolButton12setOnIconSetERK5QIcon [QtGui]	_2
_ZN11QToolButton13setOffIconSetERK5QIcon [QtGui]	_2
_ZN11QToolButton14nextCheckStateEv [QtGui]	_2
_ZN11QToolButton16setDefaultActionEP7QAction [QtGui]	_2
_ZN11QToolButton18setToolButtonStyleEN2Qt15ToolButtonStyleE [QtGui]	_2
_ZN11QToolButton7setMenuEP5QMenu [QtGui]	_2
_ZN11QToolButton9triggeredEP7QAction [QtGui]	_2
_ZN11QToolButtonC1EP7QWidget [QtGui]	_2
_ZN11QToolButtonC1ERK5QIconRK7QStringS5_P7QObjectPKcP7QWidgetS9_ [QtGui]	_2
_ZN11QToolButtonC2EP7QWidget [QtGui]	_2
_ZN11QToolButtonC2ERK5QIconRK7QStringS5_P7QObjectPKcP7QWidgetS9_ [QtGui]	_2
_ZN11QToolButtonD1Ev [QtGui]	_2
_ZN12QProgressBar10paintEventEP11QPaintEvent [QtGui]	_2
_ZN12QProgressBar10setMinimumEi [QtGui]	_2
_ZN12QProgressBar11qt_metacastEPKc [QtGui]	_2
_ZN12QProgressBar12valueChangedEi [QtGui]	_2
_ZN12QProgressBar14setOrientationEN2Qt11OrientationE [QtGui]	_2
_ZN12QProgressBar16setTextDirectionENS_9DirectionE [QtGui]	_2
_ZN12QProgressBar21setInvertedAppearanceEb [QtGui]	_2
_ZN12QProgressBar5resetEv [QtGui]	_2
_ZN12QProgressBar8setValueEi [QtGui]	_2
_ZN12QProgressBarC1EP7QWidget [QtGui]	_2
_ZN12QRadioButton10paintEventEP11QPaintEvent [QtGui]	_2
_ZN12QRadioButton11qt_metacastEPKc [QtGui]	_2

_ZN12QRadioButton5eventEP6QEvent [QtGui]	_Z
_ZN12QRadioButtonC1EP7QWidgetPKc [QtGui]	_Z
_ZN12QRadioButtonC1ERK7QStringP7QWidgetPKc [QtGui]	_Z
_ZN12QRadioButtonC2EP7QWidgetPKc [QtGui]	_Z
_ZN12QRadioButtonC2ERK7QStringP7QWidgetPKc [QtGui]	_Z
_ZN12QTextBrowser11highlightedERK4QUrl [QtGui]	_Z
_ZN12QTextBrowser11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_Z
_ZN12QTextBrowser12clearHistoryEv [QtXml]	_Z
_ZN12QTextBrowser13anchorClickedERK4QUrl [QtGui]	_Z
_ZN12QTextBrowser13keyPressEventEP9QKeyEvent [QtGui]	_Z
_ZN12QTextBrowser14mouseMoveEventEP11QMouseEvent [QtGui]	_Z
_ZN12QTextBrowser15mousePressEventEP11QMouseEvent [QtGui]	_Z
_ZN12QTextBrowser17backwardAvailableEb [QtGui]	_Z
_ZN12QTextBrowser18focusNextPrevChildEb [QtGui]	_Z
_ZN12QTextBrowser4homeEv [QtGui]	_Z
_ZN12QTextBrowser6reloadEv [QtGui]	_Z
_ZN12QTextBrowser8backwardEv [QtGui]	_Z
_ZN12QTextBrowserC1EP7QWidget [QtGui]	_Z
_ZN12QTextBrowserC2EP7QWidget [QtGui]	_Z
_ZN12QTextBrowserD0Ev [QtGui]	_Z
_ZN12QTextBrowserD2Ev [QtGui]	_Z
_ZN13QInputContext11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_Z
_ZN13QInputContext12mouseHandlerEiP11QMouseEvent [QtGui]	_Z
_ZN13QInputContext14x11FilterEventEP7QWidgetP7_XEvent [QtGui]	_Z
_ZN13QInputContext6updateEv [QtGui]	_Z
_ZN13QInputContext9sendEventERK17QInputMethodEvent [QtGui]	_Z
_ZN13QInputContextC2EP7QObject [QtGui]	_Z
_ZN13QInputContextD1Ev [QtGui]	_Z
_ZN14QDesktopWidget11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]	_Z
_ZN14QDesktopWidget11resizeEventEP12QResizeEvent [QtGui]	_Z
_ZN14QDesktopWidget6screenEi [QtGui]	_Z
_ZN14QDesktopWidgetC1Ev [QtGui]	_Z
_ZN14QDesktopWidgetD0Ev [QtGui]	_Z

_ZN14QDesktopWidgetD2Ev [QtGui]	_Z
_ZN14QDoubleSpinBox10setMinimumEd [QtGui]	_Z
_ZN14QDoubleSpinBox11qt_metacastEPKc [QtGui]	_Z
_ZN14QDoubleSpinBox12valueChangedERK7QString [QtGui]	_Z
_ZN14QDoubleSpinBox13setSingleStepEd [QtGui]	_Z
_ZN14QDoubleSpinBox8setValueEd [QtGui]	_Z
_ZN14QDoubleSpinBox9setSuffixERK7QString [QtGui]	_Z
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_ZN14QStackedWidget16setCurrentWidgetEP7QWidget [QtGui]	_Z
_ZN14QStackedWidget9addWidgetEP7QWidget [QtGui]	_Z
_ZN14QStackedWidgetC2EP7QWidget [QtGui]	_Z
_ZN14QStackedWidgetD1Ev [QtGui]	_Z
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_ZN15QCalendarWidget11resizeEventEP12QResizeEvent [QtXml]	_Z
_ZN15QCalendarWidget12showNextYearEv [QtXml]	_Z
_ZN15QCalendarWidget13showNextMonthEv [QtXml]	_Z
_ZN15QCalendarWidget14setGridVisibleEb [QtXml]	_Z
_ZN15QCalendarWidget14setMinimumDateERK5QDate [QtXml]	_Z
_ZN15QCalendarWidget15setSelectedDateERK5QDate [QtXml]	_Z
_ZN15QCalendarWidget16setHeaderVisibleEb [QtXml]	_Z
_ZN15QCalendarWidget16showPreviousYearEv [QtXml]	_Z
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_ZN15QCalendarWidget17showPreviousMonthEv [QtXml]	_Z
_ZN15QCalendarWidget19setHeaderDateFormatERK15QTextCharFormat [QtXml]	_Z
_ZN15QCalendarWidget23setVerticalHeaderFormatENS_20VerticalHeaderFormatE [QtXml]	_Z
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_ZN15QCalendarWidget9activatedERK5QDate [QtXml]	_Z
_ZN15QCalendarWidgetC1EP7QWidget [QtXml]	_Z
_ZN15QCalendarWidgetD0Ev [QtXml]	_Z
_ZN15QCalendarWidgetD2Ev [QtXml]	_Z

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_ZN15QListWidgetItemC1ERK7QStringP11QListWidgeti [QtGui]	_2
_ZN15QListWidgetItemC2EP11QListWidgeti [QtGui]	_2
_ZN15QListWidgetItemC2ERK7QStringP11QListWidgeti [QtGui]	_2
_ZN15QListWidgetItemD0Ev [QtGui]	_2
_ZN15QListWidgetItemD2Ev [QtGui]	_2
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_ZN15QSystemTrayIcon14setContextMenuEP5QMenu [QtXml]	_2
_ZN15QSystemTrayIcon21isSystemTrayAvailableEv [QtXml]	_2
_ZN15QSystemTrayIcon7setIconERK5QIcon [QtXml]	_2
_ZN15QSystemTrayIconC1EP7QObject [QtXml]	_2
_ZN15QSystemTrayIconC2EP7QObject [QtXml]	_2
_ZN15QSystemTrayIconD0Ev [QtXml]	_2
_ZN15QSystemTrayIconD2Ev [QtXml]	_2
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_ZN16QDialogButtonBox11qt_metacastEPKc [QtXml]	_2
_ZN16QDialogButtonBox13helpRequestedEv [QtXml]	_2
_ZN16QDialogButtonBox16setCenterButtonsEb [QtXml]	_2
_ZN16QDialogButtonBox5clearEv [QtXml]	_2
_ZN16QDialogButtonBox7clickedEP15QAbstractButton [QtXml]	_2
_ZN16QDialogButtonBox8rejectedEv [QtXml]	_2
_ZN16QDialogButtonBox9addButtonEP15QAbstractButtonNS_10ButtonRoleE [QtXml]	_2
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_ZN16QDialogButtonBoxC1EP7QWidget [QtXml]	_2
_ZN16QDialogButtonBoxC2EN2Qt11OrientationEP7QWidget [QtXml]	_2
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_ZN16QDialogButtonBoxD2Ev [QtXml]	_2
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_ZN20QInputContextFactory6createERK7QStringP7QObject [QtGui]	_2

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_ZN5QDial15mousePressEventEP11QMouseEvent [QtGui]	_2
_ZN5QDial17setNotchesVisibleEb [QtGui]	_2
_ZN5QDial9dialMovedEi [QtGui]	_2
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_ZN5QDialC2EP7QWidget [QtGui]	_2
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_ZN6QFrame13 setFrameShapeENS_5ShapeE [QtGui]	_2
_ZN6QFrame14 setFrameShadowENS_6ShadowE [QtGui]	_2
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_ZN6QFrameC2EP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]	_2
_ZN6QFrameD0Ev [QtGui]	_2
_ZN6QFrameD2Ev [QtGui]	_2
_ZN6QLabel10setPictureERK8QPicture [QtGui]	_2
_ZN6QLabel11linkHoveredERK7QString [QtXml]	_2
_ZN6QLabel11qt_metacastEPKc [QtGui]	_2
_ZN6QLabel12focusInEventEP11QFocusEvent [QtXml]	_2
_ZN6QLabel12setAlignmentEi [QtGui]	_2
_ZN6QLabel13keyPressEventEP9QKeyEvent [QtXml]	_2
_ZN6QLabel13setTextFormatEN2Qt10TextFormatE [QtGui]	_2
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_ZN6QLabel17mouseReleaseEventEP11QMouseEvent [QtXml]	_2
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_ZN6QLabel6setNumEi [QtGui]	_2
_ZN6QLabel8setBuddyEP7QWidget [QtGui]	_2
_ZN6QLabel9setIndentEi [QtGui]	_2
_ZN6QLabel9setPixmapERK7QPixmap [QtGui]	_2
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_ZN7QSlider15mousePressEventEP11QMouseEvent [QtGui]	_2
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_ZN7QSliderC2EP7QWidget [QtGui]	_2
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_ZN7QTabBar11setIconSizeERK5QSize [QtGui]	_2
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_ZN7QTabBar13setTabEnabledEib [QtGui]	_2
_ZN7QTabBar14currentChangedEi [QtGui]	_2
_ZN7QTabBar15mousePressEventEP11QMouseEvent [QtGui]	_2
_ZN7QTabBar15setTabTextColorEiRK6QColor [QtGui]	_2

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_ZN7QTabBar20setUsesScrollButtonsEb [QtXml]	_2
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_ZN7QTabBar8selectedEi [QtGui]	_2
_ZN7QTabBar9insertTabEiRK5QIconRK7QString [QtGui]	_2
_ZN7QTabBar9removeTabEi [QtGui]	_2
_ZN7QTabBarC1EP7QWidget [QtGui]	_2
_ZN7QTabBarD0Ev [QtGui]	_2
_ZN7QTabBarD2Ev [QtGui]	_2
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_ZN7QWidget10closeEventEP11QCloseEvent [QtGui]	_2
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_ZN7QWidget10paintEventEP11QPaintEvent [QtGui]	_2
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_ZN7QWidget10setVisibleEb [QtGui]	_2
ZN7QWidget10stackUnderEPS [QtGui]	_2
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_ZN7QWidget11createWinIdEv [LSB]	_2
_ZN7QWidget11qt_metacastEPKc [QtGui]	_2
_ZN7QWidget11setBaseSizeEii [QtGui]	_2
_ZN7QWidget11setGeometryERK5QRect [QtGui]	_2
_ZN7QWidget11styleChangeER6QStyle [QtGui]	_2
_ZN7QWidget11unsetCursorEv [QtGui]	_2
_ZN7QWidget12grabKeyboardEv [QtGui]	_2
_ZN7QWidget12inputContextEv [QtGui]	_2
_ZN7QWidget12mouseGrabberEv [QtGui]	_2
_ZN7QWidget12removeActionEP7QAction [QtGui]	_2
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_ZN7QWidget12setStatusTipERK7QString [QtGui]	_2
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_ZN7QWidget13focusOutEventEP11QFocusEvent [QtGui]	_2
_ZN7QWidget13keyPressEventEP9QKeyEvent [QtGui]	_2
_ZN7QWidget13setFixedWidthEi [QtGui]	_2

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_ZN7QWidget13showMaximizedEv [QtGui]	_Z
_ZN7QWidget14activateWindowEv [QtGui]	_Z
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_ZN7QWidget14mouseMoveEventEP11QMouseEvent [QtGui]	_Z
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_ZN7QWidget14setMaximumSizeEii [QtGui]	_Z
_ZN7QWidget14setWindowFlagsE6QFlagsIN2Qt10WindowTypeEE [QtGui]	_Z
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_ZN7QWidget15keyboardGrabberEv [QtGui]	_Z
_ZN7QWidget15releaseKeyboardEv [QtGui]	_Z
_ZN7QWidget15restoreGeometryERK10QByteArray [QtXml]	_Z
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_ZN7QWidget16setMaximumHeightEi [QtGui]	_Z
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_ZN7QWidget16setWindowSurfaceEP14QWindowSurface [QtXml]	_Z
_ZN7QWidget17mouseReleaseEventEP11QMouseEvent [QtGui]	_Z
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_ZN7QWidget6scrollEii [QtGui]	_2
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_ZN7QWidget6updateEv [QtGui]	_2
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_ZN7QWidget8x11EventEP7_XEvent [QtGui]	_2
_ZN7QWidget9clearMaskEv [QtGui]	_2
_ZN7QWidget9grabMouseERK7QCursor [QtGui]	_2
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_ZN7QWidgetC2EPS_PKc6QFlagsIN2Qt10WindowTypeEE [QtGui]	_2
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_ZN8QSpinBox8setRangeEii [QtGui]	_2
_ZN8QSpinBox9setPrefixERK7QString [QtGui]	_2
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_ZN8QSpinBoxC1EiiiP7QWidgetPKc [QtGui]	_2
_ZN8QSpinBoxC2EP7QWidgetPKc [QtGui]	_2
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_ZN8QToolBox12itemInsertedEi [QtGui]	_2
_ZN8QToolBox14setItemEnabledEib [QtGui]	_2
_ZN8QToolBox15setCurrentIndexEi [QtGui]	_2
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_ZN8QToolBoxC1EP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]	_2
_ZN8QToolBoxC2EP7QWidget6QFlagsIN2Qt10WindowTypeEE [QtGui]	_2
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_ZN8QToolBoxD2Ev [QtGui]	_2
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_ZN9QCheckBox5eventEP6QEvent [QtGui]	_2
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_ZN9QCheckBoxC2EP7QWidgetPKc [QtGui]	_2
_ZN9QCheckBoxC2ERK7QStringP7QWidgetPKc [QtGui]	_2
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_ZN9QComboBox10wheelEventEP11QWheelEvent [QtGui]	_2
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_ZN9QComboBox11setIconSizeERK5QSize [QtGui]	_2
_ZN9QComboBox11setItemIconEiRK5QIcon [QtGui]	_2
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_ZN9QComboBox15mousePressEventEP11QMouseEvent [QtGui]	_2
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_ZN9QComboBox16contextMenuEventEP17QContextMenuEvent [QtGui]	_2
_ZN9QComboBox17mouseReleaseEventEP11QMouseEvent [QtGui]	_2
_ZN9QComboBox17setRootModelIndexERK11QModelIndex [QtGui]	_2
_ZN9QComboBox19currentIndexChangedERK7QString [QtGui]	_2
_ZN9QComboBox19setSizeAdjustPolicyENS_16SizeAdjustPolicyE [QtGui]	_2
_ZN9QComboBox24setMinimumContentsLengthEi [QtGui]	_2
_ZN9QComboBox5clearEv [QtGui]	_2
_ZN9QComboBox7setViewEP17QAbstractItemView [QtGui]	_2
_ZN9QComboBox8setModelEP18QAbstractItemModel [QtGui]	_2
_ZN9QComboBox9activatedEi [QtGui]	_2
_ZN9QComboBox9hidePopupEv [QtGui]	_2
_ZN9QComboBox9showPopupEv [QtGui]	_2
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_ZN9QComboBoxC2EP7QWidget [QtGui]	_2
_ZN9QComboBoxC2EbP7QWidgetPKc [QtGui]	_2
_ZN9QComboBoxD1Ev [QtGui]	_2
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_ZN9QLineEdit11changeEventEP6QEvent [QtGui]	_2
_ZN9QLineEdit11qt_metacastEPKc [QtGui]	_2
_ZN9QLineEdit11setModifiedEb [QtGui]	_2
_ZN9QLineEdit11textChangedERK7QString [QtGui]	_2
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_ZN9QLineEdit12setMaxLengthEi [QtGui]	_2
_ZN9QLineEdit12setValidatorEPK10QValidator [QtGui]	_2
_ZN9QLineEdit13dragMoveEventEP14QDragMoveEvent [QtGui]	_2
_ZN9QLineEdit13keyPressEventEP9QKeyEvent [QtGui]	_2
_ZN9QLineEdit14cursorBackwardEbi [QtGui]	_2

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_ZN9QLineEdit16inputMethodEventEP17QInputMethodEvent [QtGui]	_Z
_ZN9QLineEdit17cursorWordForwardEb [QtGui]	_Z
_ZN9QLineEdit17setCursorPositionEi [QtGui]	_Z
_ZN9QLineEdit21cursorPositionChangedEii [QtGui]	_Z
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_ZN9QLineEdit3delEv [QtGui]	_Z
_ZN9QLineEdit4homeEb [QtGui]	_Z
_ZN9QLineEdit4undoEv [QtGui]	_Z
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_ZN9QLineEdit8deselectEv [QtGui]	_Z
_ZN9QLineEdit9backspaceEv [QtGui]	_Z
_ZN9QLineEdit9lostFocusEv [QtGui]	_Z
_ZN9QLineEdit9setEditedEb [QtGui]	_Z
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_ZN9QLineEditC2EP7QWidget [QtGui]	_Z
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_ZN9QListView11setGridSizeERK5QSize [QtGui]	_Z
_ZN9QListView11setViewModeENS_8ViewModeE [QtGui]	_Z
_ZN9QListView11setWrappingEb [QtGui]	_Z
_ZN9QListView12internalDragE6QFlagsIN2Qt10DropActionEE [QtGui]	_Z

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_ZN9QListView14mouseMoveEventEP11QMouseEvent [QtGui]	_2
_ZN9QListView14setModelColumnEi [QtGui]	_2
_ZN9QListView16updateGeometriesEv [QtGui]	_2
_ZN9QListView18clearPropertyFlagsEv [QtGui]	_2
_ZN9QListView19setUniformItemSizesEb [QtGui]	_2
_ZN9QListView5eventEP6QEvent [QtGui]	_2
_ZN9QListView7setFlowENS_4FlowE [QtGui]	_2
_ZN9QListView9dropEventEP10QDropEvent [QtGui]	_2
_ZN9QListViewC1EP7QWidget [QtGui]	_2
_ZN9QListViewD0Ev [QtGui]	_2
_ZN9QListViewD2Ev [QtGui]	_2
_ZN9QTextEdit10moveCursorEN11QTextCursor13MoveOperationENS0_8MoveModeE [QtXml]	_2
_ZN9QTextEdit10moveCursorENS_12CursorActionEb [QtXml]	_2
_ZN9QTextEdit10timerEventEP11QTimerEvent [QtGui]	_2
_ZN9QTextEdit11changeEventEP6QEvent [QtGui]	_2
_ZN9QTextEdit11qt_metacastEPKc [QtGui]	_2
_ZN9QTextEdit11setDocumentEP13QTextDocument [QtGui]	_2
_ZN9QTextEdit11textChangedEv [QtGui]	_2
_ZN9QTextEdit12loadResourceEiRK4QUrl [QtGui]	_2
_ZN9QTextEdit12setPlainTextERK7QString [QtGui]	_2
_ZN9QTextEdit13copyAvailableEb [QtGui]	_2
_ZN9QTextEdit13focusOutEventEP11QFocusEvent [QtGui]	_2
_ZN9QTextEdit13redoAvailableEb [QtGui]	_2
_ZN9QTextEdit13setFontItalicEb [QtGui]	_2
_ZN9QTextEdit13setTextCursorERK11QTextCursor [QtGui]	_2
_ZN9QTextEdit13undoAvailableEb [QtGui]	_2
_ZN9QTextEdit14dragLeaveEventEP15QDragLeaveEvent [QtGui]	_2
_ZN9QTextEdit14scrollToAnchorERK7QString [QtGui]	_2

_ZN9QTextEdit14setCursorWidthEi [QtXml]	_Z
_ZN9QTextEdit15keyPressEventEP9QKeyEvent [QtXml]	_Z
_ZN9QTextEdit15setLineWrapModeENS_12LineWrapModeE [QtGui]	_Z
_ZN9QTextEdit15setWordWrapModeEN11QTextOption8WrapModeE [QtGui]	_Z
_ZN9QTextEdit16doKeyboardActionENS_14KeyboardActionE [QtGui]	_Z
_ZN9QTextEdit16scrollContentsByEii [QtGui]	_Z
_ZN9QTextEdit16setFontPointSizeEd [QtGui]	_Z
_ZN9QTextEdit16setOverwriteModeEb [QtGui]	_Z
_ZN9QTextEdit17setAcceptRichTextEb [QtGui]	_Z
_ZN9QTextEdit18currentFontChangedERK5QFont [QtGui]	_Z
_ZN9QTextEdit18insertFromMimeDataEPK9QMimeData [QtGui]	_Z
_ZN9QTextEdit18setTabChangesFocusEb [QtGui]	_Z
_ZN9QTextEdit19ensureCursorVisibleEv [QtGui]	_Z
_ZN9QTextEdit21cursorPositionChangedEv [QtGui]	_Z
_ZN9QTextEdit22mergeCurrentCharFormatERK15QTextCharFormat [QtGui]	_Z
_ZN9QTextEdit24currentCharFormatChangedERK15QTextCharFormat [QtGui]	_Z
_ZN9QTextEdit25createStandardContextMenuEv [QtGui]	_Z
_ZN9QTextEdit4copyEv [QtGui]	_Z
_ZN9QTextEdit4redoEv [QtXml]	_Z
_ZN9QTextEdit5clearEv [QtGui]	_Z
_ZN9QTextEdit5pasteEv [QtGui]	_Z
_ZN9QTextEdit6zoomInEi [QtGui]	_Z
_ZN9QTextEdit7setTextERK7QString [QtGui]	_Z
_ZN9QTextEdit9dropEventEP10QDropEvent [QtGui]	_Z
_ZN9QTextEdit9showEventEP10QShowEvent [QtGui]	_Z
_ZN9QTextEditC1EP7QWidgetPKc [QtGui]	_Z
_ZN9QTextEditC2EP7QWidget [QtGui]	_Z
_ZN9QTextEditC2ERK7QStringP7QWidget [QtGui]	_Z
_ZN9QTextEditD1Ev [QtGui]	_Z
_ZNK10QLCDNumber10metaObjectEv [QtGui]	_Z
_ZNK10QLCDNumber13checkOverflowEd [QtGui]	_Z
_ZNK10QLCDNumber17smallDecimalPointEv [QtGui]	_Z
_ZNK10QLCDNumber5valueEv [QtGui]	_Z

_ZNK10QLCDNumber8sizeHintEv [QtGui]	_Z
_ZNK10QScrollBar10metaObjectEv [QtGui]	_Z
_ZNK10QTabWidget10metaObjectEv [QtGui]	_Z
_ZNK10QTabWidget11tabPositionEv [QtGui]	_Z
_ZNK10QTabWidget12currentIndexEv [QtGui]	_Z
_ZNK10QTabWidget12tabWhatsThisEi [QtGui]	_Z
_ZNK10QTabWidget15minimumSizeHintEv [QtGui]	_Z
_ZNK10QTabWidget5countEv [QtGui]	_Z
_ZNK10QTabWidget6widgetEi [QtGui]	_Z
_ZNK10QTabWidget7tabIconEi [QtGui]	_Z
_ZNK10QTabWidget8iconSizeEv [QtXml]	_Z
_ZNK10QTabWidget8tabShapeEv [QtGui]	_Z
_ZNK11QDockWidget10metaObjectEv [QtGui]	_Z
_ZNK11QDockWidget16toggleViewActionEv [QtGui]	_Z
_ZNK11QDockWidget8featuresEv [QtGui]	_Z
_ZNK11QFocusFrame6widgetEv [QtGui]	_Z
_ZNK11QListWidget10itemWidgetEP15QListWidgetItem [QtGui]	_Z
_ZNK11QListWidget11currentItemEv [QtGui]	_Z
_ZNK11QListWidget13indexFromItemEP15QListWidgetItem [QtGui]	_Z
_ZNK11QListWidget13selectedItemsEv [QtGui]	_Z
_ZNK11QListWidget14visualItemRectEPK15QListWidgetItem [QtGui]	_Z
_ZNK11QListWidget20supportedDropActionsEv [QtGui]	_Z
_ZNK11QListWidget4itemEi [QtGui]	_Z
_ZNK11QListWidget5itemsEPK9QMimeType [QtGui]	_Z
_ZNK11QListWidget8mimeTypeE5QListIP15QListWidgetItemE [QtGui]	_Z
_ZNK11QListWidget9mimeTypeEv [QtGui]	_Z
_ZNK11QMainWindow10menuWidgetEv [QtXml]	_Z
_ZNK11QMainWindow11isSeparatorERK6QPoint [QtXml]	_Z
_ZNK11QMainWindow13centralWidgetEv [QtGui]	_Z
_ZNK11QMainWindow15toolButtonStyleEv [QtGui]	_Z
_ZNK11QMainWindow6cornerEN2Qt6CornerE [QtGui]	_Z
_ZNK11QMainWindow8iconSizeEv [QtGui]	_Z
_ZNK11QMainWindow9statusBarEv [QtGui]	_Z

_ZNK11QPushButton11autoDefaultEv	[QtGui]	_Z
_ZNK11QPushButton6isFlatEv	[QtGui]	_Z
_ZNK11QPushButton9isDefaultEv	[QtGui]	_Z
_ZNK11QScrollArea15widgetResizableEv	[QtGui]	_Z
_ZNK11QScrollArea8sizeHintEv	[QtGui]	_Z
_ZNK11QToolButton10metaObjectEv	[QtGui]	_Z
_ZNK11QToolButton10popupDelayEv	[QtGui]	_Z
_ZNK11QToolButton15minimumSizeHintEv	[QtGui]	_Z
_ZNK11QToolButton4menuEv	[QtGui]	_Z
_ZNK11QToolButton8sizeHintEv	[QtGui]	_Z
_ZNK11QToolButton9autoRaiseEv	[QtGui]	_Z
_ZNK11QToolButton9onIconSetEv	[QtGui]	_Z
_ZNK12QProgressBar10metaObjectEv	[QtGui]	_Z
_ZNK12QProgressBar13isTextVisibleEv	[QtGui]	_Z
_ZNK12QProgressBar4textEv	[QtGui]	_Z
_ZNK12QProgressBar6formatEv	[QtXml]	_Z
_ZNK12QProgressBar7minimumEv	[QtGui]	_Z
_ZNK12QProgressBar9alignmentEv	[QtGui]	_Z
_ZNK12QRadioButton8sizeHintEv	[QtGui]	_Z
_ZNK12QTextBrowser10metaObjectEv	[QtGui]	_Z
_ZNK12QTextBrowser17openExternalLinksEv	[QtXml]	_Z
_ZNK12QTextBrowser19isBackwardAvailableEv	[QtXml]	_Z
_ZNK13QInputContext10metaObjectEv	[QtGui]	_Z
_ZNK13QInputContext14standardFormatENS_14StandardFormatE	[QtGui]	_Z
_ZNK14QDesktopWidget10metaObjectEv	[QtGui]	_Z
_ZNK14QDesktopWidget12screenNumberEPK7QWidget	[QtGui]	_Z
_ZNK14QDesktopWidget13primaryScreenEv	[QtGui]	_Z
_ZNK14QDesktopWidget16isVirtualDesktopEv	[QtGui]	_Z
_ZNK14QDoubleSpinBox10metaObjectEv	[QtGui]	_Z
_ZNK14QDoubleSpinBox13textFromValueEd	[QtGui]	_Z
_ZNK14QDoubleSpinBox5fixupER7QString	[QtGui]	_Z
_ZNK14QDoubleSpinBox6prefixEv	[QtGui]	_Z
_ZNK14QDoubleSpinBox7maximumEv	[QtGui]	_Z

_ZNK14QDoubleSpinBox8decimalsEv [QtGui]	_Z
_ZNK14QDoubleSpinBox9cleanTextEv [QtGui]	_Z
_ZNK14QStackedWidget12currentIndexEv [QtGui]	_Z
_ZNK14QStackedWidget5countEv [QtGui]	_Z
_ZNK14QStackedWidget7indexOfEP7QWidget [QtGui]	_Z
_ZNK15QCalendarWidget10monthShownEv [QtXml]	_Z
_ZNK15QCalendarWidget11minimumDateEv [QtXml]	_Z
_ZNK15QCalendarWidget13isGridVisibleEv [QtXml]	_Z
_ZNK15QCalendarWidget14dateTextFormatERK5QDate [QtXml]	_Z
_ZNK15QCalendarWidget14firstDayOfWeekEv [QtXml]	_Z
_ZNK15QCalendarWidget15minimumSizeHintEv [QtXml]	_Z
_ZNK15QCalendarWidget17weekdayTextFormatEN2Qt9DayOfWeekE [QtXml]	_Z
_ZNK15QCalendarWidget22horizontalHeaderFormatEv [QtXml]	_Z
_ZNK15QCalendarWidget9paintCellEP8QPainterRK5QRectRK5QDate [QtXml]	_Z
_ZNK15QListWidgetItem4dataEi [QtGui]	_Z
_ZNK15QListWidgetItem5writeER11QDataStream [QtGui]	_Z
_ZNK15QSystemTrayIcon10metaObjectEv [QtXml]	_Z
_ZNK15QSystemTrayIcon4iconEv [QtXml]	_Z
_ZNK15QSystemTrayIcon9isVisibleEv [QtXml]	_Z
_ZNK16QDialogButtonBox10metaObjectEv [QtXml]	_Z
_ZNK16QDialogButtonBox13centerButtonsEv [QtXml]	_Z
_ZNK16QDialogButtonBox15standardButtonsEv [QtXml]	_Z
_ZNK16QDialogButtonBox7buttonsEv [QtXml]	_Z
_ZNK5QDial11notchTargetEv [QtGui]	_Z
_ZNK5QDial15minimumSizeHintEv [QtGui]	_Z
_ZNK5QDial8wrappingEv [QtGui]	_Z
_ZNK6QFrame10frameShapeEv [QtGui]	_Z
_ZNK6QFrame10frameWidthEv [QtGui]	_Z
_ZNK6QFrame11frameShadowEv [QtGui]	_Z
_ZNK6QFrame8sizeHintEv [QtGui]	_Z
_ZNK6QFrame9lineWidthEv [QtGui]	_Z
_ZNK6QLabel10textFormatEv [QtGui]	_Z
_ZNK6QLabel15minimumSizeHintEv [QtGui]	_Z

_ZNK6QLabel17openExternalLinksEv [QtXml]	_Z
_ZNK6QLabel4textEv [QtGui]	_Z
_ZNK6QLabel5movieEv [QtGui]	_Z
_ZNK6QLabel6marginEv [QtGui]	_Z
_ZNK6QLabel7pictureEv [QtGui]	_Z
_ZNK6QLabel8wordWrapEv [QtGui]	_Z
_ZNK7QSlider10metaObjectEv [QtGui]	_Z
_ZNK7QSlider12tickPositionEv [QtGui]	_Z
_ZNK7QSlider8sizeHintEv [QtGui]	_Z
_ZNK7QTabBar10tabToolTipEi [QtGui]	_Z
_ZNK7QTabBar12currentIndexEv [QtGui]	_Z
_ZNK7QTabBar12tabTextColorEi [QtGui]	_Z
_ZNK7QTabBar15minimumSizeHintEv [QtGui]	_Z
_ZNK7QTabBar5countEv [QtGui]	_Z
_ZNK7QTabBar7tabDataEi [QtGui]	_Z
_ZNK7QTabBar7tabRectEi [QtGui]	_Z
_ZNK7QTabBar8drawBaseEv [QtGui]	_Z
_ZNK7QTabBar8sizeHintEv [QtGui]	_Z
_ZNK7QWidget10focusProxyEv [QtGui]	_Z
_ZNK7QWidget10sizePolicyEv [QtGui]	_Z
_ZNK7QWidget10windowIconEv [QtGui]	_Z
_ZNK7QWidget11acceptDropsEv [QtGui]	_Z
_ZNK7QWidget11focusWidgetEv [QtGui]	_Z
_ZNK7QWidget11isMaximizedEv [QtGui]	_Z
ZNK7QWidget11isVisibleToEPS [QtGui]	_Z
_ZNK7QWidget11mapToParentERK6QPoint [QtGui]	_Z
_ZNK7QWidget11minimumSizeEv [QtGui]	_Z
_ZNK7QWidget11visibleRectEv [QtGui]	_Z
_ZNK7QWidget11windowTitleEv [QtGui]	_Z
_ZNK7QWidget12contentsRectEv [QtGui]	_Z
_ZNK7QWidget12isFullScreenEv [QtGui]	_Z
_ZNK7QWidget13frameGeometryEv [QtGui]	_Z
_ZNK7QWidget13mapFromParentERK6QPoint [QtGui]	_Z

_ZNK7QWidget13visibleRegionEv [QtGui]	_Z
_ZNK7QWidget13windowSurfaceEv [QtXml]	_Z
_ZNK7QWidget14backgroundModeEv [QtGui]	_Z
_ZNK7QWidget14childrenRegionEv [QtGui]	_Z
_ZNK7QWidget14foregroundRoleEv [QtGui]	_Z
_ZNK7QWidget14isActiveWindowEv [QtGui]	_Z
_ZNK7QWidget14windowIconTextEv [QtGui]	_Z
_ZNK7QWidget15layoutDirectionEv [QtGui]	_Z
_ZNK7QWidget16inputMethodQueryEN2Qt16InputMethodQueryE [QtGui]	_Z
_ZNK7QWidget16nextInFocusChainEv [QtGui]	_Z
_ZNK7QWidget17contextMenuPolicyEv [QtGui]	_Z
_ZNK7QWidget18getContentsMarginsEPiS0_S0_S0_ [QtGui]	_Z
_ZNK7QWidget1yEv [QtGui]	_Z
_ZNK7QWidget21accessibleDescriptionEv [QtGui]	_Z
_ZNK7QWidget4iconEv [QtGui]	_Z
_ZNK7QWidget5mapToEPS_RK6QPoint [QtGui]	_Z
_ZNK7QWidget5winIdEv [QtXml]	_Z
_ZNK7QWidget6handleEv [QtGui]	_Z
_ZNK7QWidget6metricEN12QPaintDeviceI7PaintDeviceMetricE [QtGui]	_Z
_ZNK7QWidget7actionsEv [QtGui]	_Z
_ZNK7QWidget7devTypeEv [LSB]	_Z
_ZNK7QWidget7paletteEv [QtGui]	_Z
_ZNK7QWidget7x11InfoEv [QtGui]	_Z
_ZNK7QWidget8hasFocusEv [QtGui]	_Z
_ZNK7QWidget9frameSizeEv [QtGui]	_Z
_ZNK7QWidget9whatsThisEv [QtGui]	_Z
_ZNK8QSpinBox10singleStepEv [QtGui]	_Z
_ZNK8QSpinBox13valueFromTextERK7QString [QtGui]	_Z
_ZNK8QSpinBox5valueEv [QtGui]	_Z
_ZNK8QSpinBox6suffixEv [QtGui]	_Z
_ZNK8QSpinBox7minimumEv [QtGui]	_Z
_ZNK8QSpinBox9cleanTextEv [QtGui]	_Z
_ZNK8QToolBox11itemToolTipEi [QtGui]	_Z

_ZNK8QToolBox13currentWidgetEv [QtGui]	_Z
_ZNK8QToolBox5countEv [QtGui]	_Z
_ZNK8QToolBox7indexOfEP7QWidget [QtGui]	_Z
_ZNK8QToolBox8itemTextEi [QtGui]	_Z
_ZNK9QCheckBox10isTristateEv [QtGui]	_Z
_ZNK9QCheckBox8sizeHintEv [QtGui]	_Z
_ZNK9QComboBox10isEditableEv [QtGui]	_Z
_ZNK9QComboBox11currentTextEv [QtGui]	_Z
_ZNK9QComboBox12currentIndexEv [QtGui]	_Z
_ZNK9QComboBox12itemDelegateEv [QtGui]	_Z
_ZNK9QComboBox14rootModelIndexEv [QtGui]	_Z
_ZNK9QComboBox15minimumSizeHintEv [QtGui]	_Z
_ZNK9QComboBox16sizeAdjustPolicyEv [QtGui]	_Z
_ZNK9QComboBox21minimumContentsLengthEv [QtGui]	_Z
_ZNK9QComboBox4viewEv [QtGui]	_Z
_ZNK9QComboBox5modelEv [QtGui]	_Z
_ZNK9QComboBox8hasFrameEv [QtGui]	_Z
_ZNK9QComboBox8itemDataEii [QtGui]	_Z
_ZNK9QComboBox8itemTextEi [QtGui]	_Z
_ZNK9QComboBox8maxCountEv [QtGui]	_Z
_ZNK9QComboBox9completerEv [QtXml]	_Z
_ZNK9QLineEdit10isModifiedEv [QtGui]	_Z
_ZNK9QLineEdit10metaObjectEv [QtGui]	_Z
_ZNK9QLineEdit11displayTextEv [QtGui]	_Z
_ZNK9QLineEdit12selectedTextEv [QtGui]	_Z
_ZNK9QLineEdit14selectionStartEv [QtGui]	_Z
_ZNK9QLineEdit15isRedoAvailableEv [QtGui]	_Z
_ZNK9QLineEdit15minimumSizeHintEv [QtGui]	_Z
_ZNK9QLineEdit18hasAcceptableInputEv [QtGui]	_Z
_ZNK9QLineEdit4textEv [QtGui]	_Z
_ZNK9QLineEdit8echoModeEv [QtGui]	_Z
_ZNK9QLineEdit8sizeHintEv [QtGui]	_Z
_ZNK9QLineEdit9completerEv [QtXml]	_Z

_ZNK9QLineEdit9maxLengthEv [QtGui]	_2
_ZNK9QListView10isWrappingEv [QtGui]	_2
_ZNK9QListView10metaObjectEv [QtGui]	_2
_ZNK9QListView10visualRectERK11QModelIndex [QtGui]	_2
_ZNK9QListView11modelColumnEv [QtGui]	_2
_ZNK9QListView12contentsSizeEv [QtGui]	_2
_ZNK9QListView13isIndexHiddenERK11QModelIndex [QtGui]	_2
_ZNK9QListView15selectedIndexesEv [QtGui]	_2
_ZNK9QListView16uniformItemSizesEv [QtGui]	_2
_ZNK9QListView4flowEv [QtGui]	_2
_ZNK9QListView7spacingEv [QtGui]	_2
_ZNK9QListView8movementEv [QtGui]	_2
_ZNK9QListView8wordWrapEv [QtXml]	_2
_ZNK9QTextEdit10cursorRectERK11QTextCursor [QtGui]	_2
_ZNK9QTextEdit10fontFamilyEv [QtGui]	_2
_ZNK9QTextEdit10fontWeightEv [QtGui]	_2
_ZNK9QTextEdit10metaObjectEv [QtGui]	_2
_ZNK9QTextEdit10textFormatEv [QtGui]	_2
_ZNK9QTextEdit11cursorWidthEv [QtXml]	_2
_ZNK9QTextEdit12tabStopWidthEv [QtGui]	_2
_ZNK9QTextEdit13fontPointSizeEv [QtGui]	_2
_ZNK9QTextEdit13overwriteModeEv [QtGui]	_2
_ZNK9QTextEdit14autoFormattingEv [QtGui]	_2
_ZNK9QTextEdit15tabChangesFocusEv [QtGui]	_2
_ZNK9QTextEdit17currentCharFormatEv [QtGui]	_2
_ZNK9QTextEdit20textInteractionFlagsEv [QtXml]	_2
_ZNK9QTextEdit21lineWrapColumnOrWidthEv [QtGui]	_2
_ZNK9QTextEdit4textEv [QtGui]	_2
_ZNK9QTextEdit8canPasteEv [QtXml]	_2
_ZNK9QTextEdit9alignmentEv [QtGui]	_2
_ZlsR11QDataStreamRK15QListWidgetItem [QtGui]	_2

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Widgets specified in [Table 17-478](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-478. libQtGui - Qt4 Widgets Deprecated Function Interfaces

_ZN7QWidget10fontChangeERK5QFont [QtGui]	_ZN7QWidget11styleChangeER6QStyle [QtGui]
_ZN7QWidget13enabledChangeEb [QtGui]	_ZN7QWidget13paletteChangeERK8QPalette [QtGui]
_ZN7QWidget14languageChangeEv [QtGui]	_ZN7QWidget22windowActivationChangeEb [QtGui]
_ZN9QComboBox17setAutoCompletionEb [QtGui]	_ZN9QComboBox32setAutoCompletionCaseSensitivityEN2Qt15CaseS [QtGui]
_ZNK9QComboBox14autoCompletionEv [QtGui]	_ZNK9QComboBox29autoCompletionCaseSensitivityEv [QtGui]

17.5.21. Qt4 Drag and Drop

17.5.21.1. Class data for QMimeSource

The virtual table for the QMimeSource class is described by [Table 17-479](#)

Table 17-479. Primary vtable for QMimeSource

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMimeSource
vfunc[0]:	QMimeSource::~~QMimeSource()
vfunc[1]:	QMimeSource::~~QMimeSource()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	QMimeSource::provides(char const*) const
vfunc[4]:	__cxa_pure_virtual

The Run Time Type Information for the QMimeSource class is described by [Table 17-480](#)

Table 17-480. typeinfo for QMimeSource

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QMimeSource

17.5.21.2. Class data for QDrag

The virtual table for the QDrag class is described by [Table 17-481](#)

Table 17-481. Primary vtable for QDrag

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDrag
vfunc[0]:	QDrag::metaObject() const
vfunc[1]:	QDrag::qt_metacast(char const*)
vfunc[2]:	QDrag::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QDrag::~QDrag()
vfunc[4]:	QDrag::~QDrag()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QDrag class is described by [Table 17-482](#)

Table 17-482. typeinfo for QDrag

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDrag
basetype:	typeinfo for QObject

17.5.21.3. Class data for QDropEvent

The virtual table for the QDropEvent class is described by [Table 17-483](#)

Table 17-483. Primary vtable for QDropEvent

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QDropEvent
vfunc[0]:	QDropEvent::~~QDropEvent()
vfunc[1]:	QDropEvent::~~QDropEvent()
vfunc[2]:	QDropEvent::format(int) const
vfunc[3]:	QDropEvent::encodedData(char const*) const
vfunc[4]:	QDropEvent::provides(char const*) const

The Run Time Type Information for the QDropEvent class is described by [Table 17-484](#)

Table 17-484. typeinfo for QDropEvent

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QDropEvent	
flags:	0	
basetype:	typeinfo for QEvent	2
basetype:	typeinfo for QMimeSource	3074

17.5.21.4. Class data for QDragMoveEvent

The virtual table for the QDragMoveEvent class is described by [Table 17-485](#)

Table 17-485. Primary vtable for QDragMoveEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDragMoveEvent
vfunc[0]:	QDragMoveEvent::~~QDragMoveEvent()
vfunc[1]:	QDragMoveEvent::~~QDragMoveEvent()
vfunc[2]:	QDropEvent::format(int) const
vfunc[3]:	QDropEvent::encodedData(char const*) const
vfunc[4]:	QDropEvent::provides(char const*) const

The Run Time Type Information for the QDragMoveEvent class is described by [Table 17-486](#)

Table 17-486. typeinfo for QDragMoveEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDragMoveEvent

basetype:	typeinfo for QDropEvent

17.5.21.5. Class data for QDragEnterEvent

The virtual table for the QDragEnterEvent class is described by [Table 17-487](#)

Table 17-487. Primary vtable for QDragEnterEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDragEnterEvent
vfunc[0]:	QDragEnterEvent::~~QDragEnterEvent()
vfunc[1]:	QDragEnterEvent::~~QDragEnterEvent()
vfunc[2]:	QDropEvent::format(int) const
vfunc[3]:	QDropEvent::encodedData(char const*) const
vfunc[4]:	QDropEvent::provides(char const*) const

The Run Time Type Information for the QDragEnterEvent class is described by [Table 17-488](#)

Table 17-488. typeinfo for QDragEnterEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDragEnterEvent
basetype:	typeinfo for QDragMoveEvent

17.5.21.6. Class data for QDragResponseEvent

The virtual table for the QDragResponseEvent class is described by [Table 17-489](#)

Table 17-489. Primary vtable for QDragResponseEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDragResponseEvent
vfunc[0]:	QDragResponseEvent::~~QDragResponseEvent()
vfunc[1]:	QDragResponseEvent::~~QDragResponseEvent()

The Run Time Type Information for the QDragResponseEvent class is described by [Table 17-490](#)

Table 17-490. typeinfo for QDragResponseEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDragResponseEvent
basetype:	typeinfo for QEvent

17.5.21.7. Class data for QDragLeaveEvent

The virtual table for the QDragLeaveEvent class is described by [Table 17-491](#)

Table 17-491. Primary vtable for QDragLeaveEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDragLeaveEvent
vfunc[0]:	QDragLeaveEvent::~~QDragLeaveEvent()
vfunc[1]:	QDragLeaveEvent::~~QDragLeaveEvent()

The Run Time Type Information for the QDragLeaveEvent class is described by [Table 17-492](#)

Table 17-492. typeinfo for QDragLeaveEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDragLeaveEvent
basetype:	typeinfo for QEvent

17.5.21.8. Interfaces for Qt4 Drag and Drop

An LSB conforming implementation shall provide the generic functions for Qt4 Drag and Drop specified in [Table 17-493](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-493. libQtGui - Qt4 Drag and Drop Function Interfaces

<code>_ZN10QDropEventI3setDropActionEN2Qt10DropActionE</code> [QtGui]
<code>_ZN10QDropEventC2ERK6QPoint6QFlagsIN2Qt10DropActionEEP9QMimeDataS3_INS4_11MouseButtonEES3_</code> [QtGui]
<code>_ZN10QDropEventD1Ev</code> [QtGui]
<code>_ZN11QMimeSourceD0Ev</code> [QtGui]
<code>_ZN11QMimeSourceD2Ev</code> [QtGui]

_ZN14QDragMoveEventC2ERK6QPoint6QFlagsIN2Qt10DropActionEEP9QMimeDataS3_INS4_11MouseButtonE [QtGui]
_ZN14QDragMoveEventD1Ev [QtGui]
_ZN15QDragEnterEventC1ERK6QPoint6QFlagsIN2Qt10DropActionEEP9QMimeDataS3_INS4_11MouseButtonE [QtGui]
_ZN15QDragEnterEventD0Ev [QtGui]
_ZN15QDragEnterEventD2Ev [QtGui]
_ZN15QDragLeaveEventC2Ev [QtGui]
_ZN15QDragLeaveEventD1Ev [QtGui]
_ZN18QDragResponseEventC1Eb [LSB]
_ZN18QDragResponseEventD0Ev [QtGui]
_ZN18QDragResponseEventD2Ev [QtGui]
_ZN5QDrag11qt_metacallEN11QMetaObject4CallEiPPv [QtGui]
_ZN5QDrag11setMimeDataEP9QMimeData [QtGui]
_ZN5QDrag13setDragCursorERK7QPixmapN2Qt10DropActionE [QtGui]
_ZN5QDrag5startE6QFlagsIN2Qt10DropActionEE [QtGui]
_ZN5QDragC1EP7QWidget [QtGui]
_ZN5QDragD0Ev [QtGui]
_ZN5QDragD2Ev [QtGui]
_ZNK10QDropEvent6actionEv [QtGui]
_ZNK10QDropEvent6sourceEv [QtGui]
_ZNK11QMimeSource8providesEPKc [QtGui]
_ZNK5QDrag6pixmapEv [QtGui]
_ZNK5QDrag6targetEv [QtGui]
_ZNK5QDrag8mimeDataEv [QtGui]

17.5.22. Qt4 2D Graphics

17.5.22.1. Class data for QIconEngineFactoryInterface

The virtual table for the QIconEngineFactoryInterface class is described by [Table 17-494](#)

Table 17-494. Primary vtable for QIconEngineFactoryInterface

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QIconEngineFactoryInterface
vfunc[0]:	NULL or QIconEngineFactoryInterface::~~QIconEngineFactoryInterface()
vfunc[1]:	NULL or QIconEngineFactoryInterface::~~QIconEngineFactoryInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QIconEngineFactoryInterface class is described by [Table 17-495](#)

Table 17-495. typeinfo for QIconEngineFactoryInterface

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIconEngineFactoryInterface
basetype:	typeinfo for QFactoryInterface

17.5.22.2. Class data for QIconEngine

The virtual table for the QIconEngine class is described by [Table 17-496](#)

Table 17-496. Primary vtable for QIconEngine

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIconEngine
vfunc[0]:	QIconEngine::~~QIconEngine()
vfunc[1]:	QIconEngine::~~QIconEngine()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	QIconEngine::actualSize(QSize const&, QIcon::Mode, QIcon::State)
vfunc[4]:	QIconEngine::pixmap(QSize const&, QIcon::Mode, QIcon::State)
vfunc[5]:	QIconEngine::addPixmap(QPixmap const&, QIcon::Mode, QIcon::State)
vfunc[6]:	QIconEngine::addFile(QString const&, QSize const&, QIcon::Mode, QIcon::State)

The Run Time Type Information for the QIconEngine class is described by [Table 17-497](#)

Table 17-497. typeinfo for QIconEngine

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QIconEngine

17.5.22.3. Class data for QPainterEngine

The virtual table for the QPainterEngine class is described by [Table 17-498](#)

Table 17-498. Primary vtable for QPainterEngine

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPainterEngine
vfunc[0]:	QPainterEngine::~~QPainterEngine()
vfunc[1]:	QPainterEngine::~~QPainterEngine()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	QPainterEngine::drawRects(QRect const*, int)
vfunc[6]:	QPainterEngine::drawRects(QRectF const*, int)
vfunc[7]:	QPainterEngine::drawLines(QLine const*, int)
vfunc[8]:	QPainterEngine::drawLines(QLineF const*, int)
vfunc[9]:	QPainterEngine::drawEllipse(QRectF const&)
vfunc[10]:	QPainterEngine::drawEllipse(QRect const&)
vfunc[11]:	QPainterEngine::drawPath(QPainterPath const&)
vfunc[12]:	QPainterEngine::drawPoints(QPointF const*, int)
vfunc[13]:	QPainterEngine::drawPoints(QPoint const*, int)
vfunc[14]:	QPainterEngine::drawPolygon(QPointF const*, int, QPainterEngine::PolygonDrawMode)
vfunc[15]:	QPainterEngine::drawPolygon(QPoint const*, int, QPainterEngine::PolygonDrawMode)
vfunc[16]:	__cxa_pure_virtual
vfunc[17]:	QPainterEngine::drawTextItem(QPointF const&, QTextItem const&)
vfunc[18]:	QPainterEngine::drawTiledPixmap(QRectF const&, QPixmap const&, QPointF const&)
vfunc[19]:	QPainterEngine::drawImage(QRectF const&, QImage const&, QRectF const&, QFlags<Qt::ImageConversionFlag>)
vfunc[20]:	QPainterEngine::coordinateOffset() const
vfunc[21]:	__cxa_pure_virtual

The Run Time Type Information for the QPainterEngine class is described by [Table 17-499](#)

Table 17-499. typeid for QPainterEngine

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QPainterEngine

17.5.22.4. Class data for QGraphicsEllipseItem

The virtual table for the QGraphicsEllipseItem class is described by [Table 17-500](#)

Table 17-500. Primary vtable for QGraphicsEllipseItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QGraphicsEllipseItem
vfunc[0]:	QGraphicsEllipseItem::~~QGraphicsEllipseItem()
vfunc[1]:	QGraphicsEllipseItem::~~QGraphicsEllipseItem()
vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	QGraphicsEllipseItem::boundingRect() const
vfunc[4]:	QGraphicsEllipseItem::shape() const
vfunc[5]:	QGraphicsEllipseItem::contains(QPointF const&) const
vfunc[6]:	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const
vfunc[8]:	QGraphicsEllipseItem::isObscuredBy(QGraphicsItem const*) const
vfunc[9]:	QGraphicsEllipseItem::opaqueArea() const
vfunc[10]:	QGraphicsEllipseItem::paint(QPainter*, QStyleOptionGraphicsItem const*, QWidget*)
vfunc[11]:	QGraphicsEllipseItem::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)

vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)
vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)
vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)
vfunc[34]:	QGraphicsEllipseItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsEllipseItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsEllipseItem::extension(QVariant const&) const

17.5.22.5. Class data for QGraphicsItem

The virtual table for the QGraphicsItem class is described by [Table 17-501](#)

Table 17-501. Primary vtable for QGraphicsItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsItem
vfunc[0]:	QGraphicsItem::~~QGraphicsItem()
vfunc[1]:	QGraphicsItem::~~QGraphicsItem()
vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	QGraphicsItem::shape() const
vfunc[5]:	QGraphicsItem::contains(QPointF const&) const
vfunc[6]:	

	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const
vfunc[8]:	QGraphicsItem::isObscuredBy(QGraphicsItem const*) const
vfunc[9]:	QGraphicsItem::opaqueArea() const
vfunc[10]:	__cxa_pure_virtual
vfunc[11]:	QGraphicsItem::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)
vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)
vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)
vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)
vfunc[34]:	QGraphicsItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsItem::extension(QVariant const&) const

17.5.22.6. Class data for QGraphicsItemAnimation

The virtual table for the QGraphicsItemAnimation class is described by [Table 17-502](#)

Table 17-502. Primary vtable for QGraphicsItemAnimation

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QGraphicsItemAnimation
vfunc[0]:	QGraphicsItemAnimation::metaObject() const
vfunc[1]:	QGraphicsItemAnimation::qt_metacast(char const*)
vfunc[2]:	QGraphicsItemAnimation::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QGraphicsItemAnimation::~~QGraphicsItemAnimation()
vfunc[4]:	QGraphicsItemAnimation::~~QGraphicsItemAnimation()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QGraphicsItemAnimation::beforeAnimationStep(double)
vfunc[13]:	QGraphicsItemAnimation::afterAnimationStep(double)

17.5.22.7. Class data for QGraphicsItemGroup

The virtual table for the QGraphicsItemGroup class is described by [Table 17-503](#)

Table 17-503. Primary vtable for QGraphicsItemGroup

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QGraphicsItemGroup
vfunc[0]:	QGraphicsItemGroup::~~QGraphicsItemGroup()
vfunc[1]:	QGraphicsItemGroup::~~QGraphicsItemGroup()

vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	QGraphicsItemGroup::boundingRect() const
vfunc[4]:	QGraphicsItem::shape() const
vfunc[5]:	QGraphicsItem::contains(QPointF const&) const
vfunc[6]:	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const
vfunc[8]:	QGraphicsItemGroup::isObscuredBy(QGraphicsItem const*) const
vfunc[9]:	QGraphicsItemGroup::opaqueArea() const
vfunc[10]:	QGraphicsItemGroup::paint(QPainter*, QStyleOptionGraphicsItem const*, QWidget*)
vfunc[11]:	QGraphicsItemGroup::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)
vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)
vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)
vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)

vfunc[34]:	QGraphicsItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsItem::extension(QVariant const&) const

17.5.22.8. Class data for QGraphicsLineItem

The virtual table for the QGraphicsLineItem class is described by [Table 17-504](#)

Table 17-504. Primary vtable for QGraphicsLineItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsLineItem
vfunc[0]:	QGraphicsLineItem::~~QGraphicsLineItem()
vfunc[1]:	QGraphicsLineItem::~~QGraphicsLineItem()
vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	QGraphicsLineItem::boundingRect() const
vfunc[4]:	QGraphicsLineItem::shape() const
vfunc[5]:	QGraphicsLineItem::contains(QPointF const&) const
vfunc[6]:	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const
vfunc[8]:	QGraphicsLineItem::isObscuredBy(QGraphicsItem const*) const
vfunc[9]:	QGraphicsLineItem::opaqueArea() const
vfunc[10]:	QGraphicsLineItem::paint(QPainter*, QStyleOptionGraphicsItem const*, QWidget*)
vfunc[11]:	QGraphicsLineItem::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)

vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)
vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)
vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)
vfunc[34]:	QGraphicsLineItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsLineItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsLineItem::extension(QVariant const&) const

17.5.22.9. Class data for QGraphicsPathItem

The virtual table for the QGraphicsPathItem class is described by [Table 17-505](#)

Table 17-505. Primary vtable for QGraphicsPathItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsPathItem
vfunc[0]:	QGraphicsPathItem::~~QGraphicsPathItem()
vfunc[1]:	QGraphicsPathItem::~~QGraphicsPathItem()
vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	QGraphicsPathItem::boundingRect() const
vfunc[4]:	QGraphicsPathItem::shape() const
vfunc[5]:	QGraphicsPathItem::contains(QPointF const&) const
vfunc[6]:	

	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const
vfunc[8]:	QGraphicsPathItem::isObscuredBy(QGraphicsItem const*) const
vfunc[9]:	QGraphicsPathItem::opaqueArea() const
vfunc[10]:	QGraphicsPathItem::paint(QPainter*, QStyleOptionGraphicsItem const*, QWidget*)
vfunc[11]:	QGraphicsPathItem::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)
vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)
vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)
vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)
vfunc[34]:	QGraphicsPathItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsPathItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsPathItem::extension(QVariant const&) const

17.5.22.10. Class data for QGraphicsPixmapItem

The virtual table for the QGraphicsPixmapItem class is described by [Table 17-506](#)

Table 17-506. Primary vtable for QGraphicsPixmapItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsPixmapItem
vfunc[0]:	QGraphicsPixmapItem::~~QGraphicsPixmapItem()
vfunc[1]:	QGraphicsPixmapItem::~~QGraphicsPixmapItem()
vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	QGraphicsPixmapItem::boundingRect() const
vfunc[4]:	QGraphicsPixmapItem::shape() const
vfunc[5]:	QGraphicsPixmapItem::contains(QPointF const&) const
vfunc[6]:	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const
vfunc[8]:	QGraphicsPixmapItem::isObscuredBy(QGraphicsItem const*) const
vfunc[9]:	QGraphicsPixmapItem::opaqueArea() const
vfunc[10]:	QGraphicsPixmapItem::paint(QPainter*, QStyleOptionGraphicsItem const*, QWidget*)
vfunc[11]:	QGraphicsPixmapItem::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)
vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)

vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)
vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)
vfunc[34]:	QGraphicsPixmapItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsPixmapItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsPixmapItem::extension(QVariant const&) const

17.5.22.11. Class data for QGraphicsPolygonItem

The virtual table for the QGraphicsPolygonItem class is described by [Table 17-507](#)

Table 17-507. Primary vtable for QGraphicsPolygonItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsPolygonItem
vfunc[0]:	QGraphicsPolygonItem::~~QGraphicsPolygonItem()
vfunc[1]:	QGraphicsPolygonItem::~~QGraphicsPolygonItem()
vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	QGraphicsPolygonItem::boundingRect() const
vfunc[4]:	QGraphicsPolygonItem::shape() const
vfunc[5]:	QGraphicsPolygonItem::contains(QPointF const&) const
vfunc[6]:	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const
vfunc[8]:	QGraphicsPolygonItem::isObscuredBy(QGraphicsItem const*) const

vfunc[9]:	QGraphicsPolygonItem::opaqueArea() const
vfunc[10]:	QGraphicsPolygonItem::paint(QPainter*, QStyleOptionGraphicsItem const*, QWidget*)
vfunc[11]:	QGraphicsPolygonItem::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)
vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)
vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)
vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)
vfunc[34]:	QGraphicsPolygonItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsPolygonItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsPolygonItem::extension(QVariant const&) const

17.5.22.12. Class data for QGraphicsRectItem

The virtual table for the QGraphicsRectItem class is described by [Table 17-508](#)

Table 17-508. Primary vtable for QGraphicsRectItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsRectItem
vfunc[0]:	QGraphicsRectItem::~~QGraphicsRectItem()
vfunc[1]:	QGraphicsRectItem::~~QGraphicsRectItem()
vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	QGraphicsRectItem::boundingRect() const
vfunc[4]:	QGraphicsRectItem::shape() const
vfunc[5]:	QGraphicsRectItem::contains(QPointF const&) const
vfunc[6]:	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const
vfunc[8]:	QGraphicsRectItem::isObscuredBy(QGraphicsItem const*) const
vfunc[9]:	QGraphicsRectItem::opaqueArea() const
vfunc[10]:	QGraphicsRectItem::paint(QPainter*, QStyleOptionGraphicsItem const*, QWidget*)
vfunc[11]:	QGraphicsRectItem::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)
vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)
vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)
vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)

vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)
vfunc[34]:	QGraphicsRectItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsRectItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsRectItem::extension(QVariant const&) const

17.5.22.13. Class data for QGraphicsScene

The virtual table for the QGraphicsScene class is described by [Table 17-509](#)

Table 17-509. Primary vtable for QGraphicsScene

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsScene
vfunc[0]:	QGraphicsScene::metaObject() const
vfunc[1]:	QGraphicsScene::qt_metacast(char const*)
vfunc[2]:	QGraphicsScene::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QGraphicsScene::~~QGraphicsScene()
vfunc[4]:	QGraphicsScene::~QGraphicsScene()
vfunc[5]:	QGraphicsScene::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QGraphicsScene::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[13]:	QGraphicsScene::contextMenuEvent(QGraphicsSceneContextMenuEvent*)

vfunc[14]:	QGraphicsScene::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[15]:	QGraphicsScene::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsScene::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsScene::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsScene::focusInEvent(QFocusEvent*)
vfunc[19]:	QGraphicsScene::focusOutEvent(QFocusEvent*)
vfunc[20]:	QGraphicsScene::helpEvent(QGraphicsSceneHelpEvent*)
vfunc[21]:	QGraphicsScene::keyPressEvent(QKeyEvent*)
vfunc[22]:	QGraphicsScene::keyReleaseEvent(QKeyEvent*)
vfunc[23]:	QGraphicsScene::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[24]:	QGraphicsScene::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[25]:	QGraphicsScene::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[26]:	QGraphicsScene::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsScene::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[28]:	QGraphicsScene::inputMethodEvent(QInputMethodEvent*)
vfunc[29]:	QGraphicsScene::drawBackground(QPainter*, QRectF const&)
vfunc[30]:	QGraphicsScene::drawForeground(QPainter*, QRectF const&)
vfunc[31]:	QGraphicsScene::drawItems(QPainter*, int, QGraphicsItem**, QStyleOptionGraphicsItem const*, QWidget*)

The Run Time Type Information for the QGraphicsScene class is described by [Table 17-510](#)

Table 17-510. typeinfo for QGraphicsScene

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGraphicsScene
basetype:	typeinfo for QObject

17.5.22.14. Class data for QGraphicsSceneContextMenuEvent

The virtual table for the QGraphicsSceneContextMenuEvent class is described by [Table 17-511](#)

Table 17-511. Primary vtable for QGraphicsSceneContextMenuEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsSceneContextMenuEvent

vfunc[0]:	QGraphicsSceneContextMenuEvent::~~QGraphicsSceneContextMenuEvent()
vfunc[1]:	QGraphicsSceneContextMenuEvent::~~QGraphicsSceneContextMenuEvent()

17.5.22.15. Class data for QGraphicsSceneDragDropEvent

The virtual table for the QGraphicsSceneDragDropEvent class is described by [Table 17-512](#)

Table 17-512. Primary vtable for QGraphicsSceneDragDropEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsSceneDragDropEvent
vfunc[0]:	QGraphicsSceneDragDropEvent::~~QGraphicsSceneDragDropEvent()
vfunc[1]:	QGraphicsSceneDragDropEvent::~~QGraphicsSceneDragDropEvent()

17.5.22.16. Class data for QGraphicsSceneEvent

The virtual table for the QGraphicsSceneEvent class is described by [Table 17-513](#)

Table 17-513. Primary vtable for QGraphicsSceneEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsSceneEvent
vfunc[0]:	QGraphicsSceneEvent::~~QGraphicsSceneEvent()
vfunc[1]:	QGraphicsSceneEvent::~~QGraphicsSceneEvent()

17.5.22.17. Class data for QGraphicsSceneHelpEvent

The virtual table for the QGraphicsSceneHelpEvent class is described by [Table 17-514](#)

Table 17-514. Primary vtable for QGraphicsSceneHelpEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsSceneHelpEvent
vfunc[0]:	QGraphicsSceneHelpEvent::~~QGraphicsSceneHelpEvent()
vfunc[1]:	QGraphicsSceneHelpEvent::~~QGraphicsSceneHelpEvent()

17.5.22.18. Class data for QGraphicsSceneHoverEvent

The virtual table for the QGraphicsSceneHoverEvent class is described by [Table 17-515](#)

Table 17-515. Primary vtable for QGraphicsSceneHoverEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsSceneHoverEvent
vfunc[0]:	QGraphicsSceneHoverEvent::~~QGraphicsSceneHoverEvent()
vfunc[1]:	QGraphicsSceneHoverEvent::~~QGraphicsSceneHoverEvent()

17.5.22.19. Class data for QGraphicsSceneMouseEvent

The virtual table for the QGraphicsSceneMouseEvent class is described by [Table 17-516](#)

Table 17-516. Primary vtable for QGraphicsSceneMouseEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsSceneMouseEvent
vfunc[0]:	QGraphicsSceneMouseEvent::~~QGraphicsSceneMouseEvent()
vfunc[1]:	QGraphicsSceneMouseEvent::~~QGraphicsSceneMouseEvent()

17.5.22.20. Class data for QGraphicsSceneWheelEvent

The virtual table for the QGraphicsSceneWheelEvent class is described by [Table 17-517](#)

Table 17-517. Primary vtable for QGraphicsSceneWheelEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGraphicsSceneWheelEvent
vfunc[0]:	QGraphicsSceneWheelEvent::~~QGraphicsSceneWheelEvent()
vfunc[1]:	QGraphicsSceneWheelEvent::~~QGraphicsSceneWheelEvent()

17.5.22.21. Class data for QGraphicsSimpleTextItem

The virtual table for the QGraphicsSimpleTextItem class is described by [Table 17-518](#)

Table 17-518. Primary vtable for QGraphicsSimpleTextItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QGraphicsSimpleTextItem
vfunc[0]:	QGraphicsSimpleTextItem::~~QGraphicsSimpleTextItem()
vfunc[1]:	QGraphicsSimpleTextItem::~~QGraphicsSimpleTextItem()
vfunc[2]:	QGraphicsItem::advance(int)
vfunc[3]:	QGraphicsSimpleTextItem::boundingRect() const
vfunc[4]:	QGraphicsSimpleTextItem::shape() const
vfunc[5]:	QGraphicsSimpleTextItem::contains(QPointF const&) const
vfunc[6]:	QGraphicsItem::collidesWithItem(QGraphicsItem const*, Qt::ItemSelectionMode) const
vfunc[7]:	QGraphicsItem::collidesWithPath(QPainterPath const&, Qt::ItemSelectionMode) const
vfunc[8]:	QGraphicsSimpleTextItem::isObscuredBy(QGraphicsItem const*) const
vfunc[9]:	QGraphicsSimpleTextItem::opaqueArea() const
vfunc[10]:	QGraphicsSimpleTextItem::paint(QPainter*, QStyleOptionGraphicsItem const*, QWidget*)
vfunc[11]:	QGraphicsSimpleTextItem::type() const
vfunc[12]:	QGraphicsItem::sceneEventFilter(QGraphicsItem*, QEvent*)
vfunc[13]:	QGraphicsItem::sceneEvent(QEvent*)
vfunc[14]:	QGraphicsItem::contextMenuEvent(QGraphicsSceneContextMenuEvent*)
vfunc[15]:	QGraphicsItem::dragEnterEvent(QGraphicsSceneDragDropEvent*)
vfunc[16]:	QGraphicsItem::dragLeaveEvent(QGraphicsSceneDragDropEvent*)
vfunc[17]:	QGraphicsItem::dragMoveEvent(QGraphicsSceneDragDropEvent*)
vfunc[18]:	QGraphicsItem::dropEvent(QGraphicsSceneDragDropEvent*)
vfunc[19]:	QGraphicsItem::focusInEvent(QFocusEvent*)
vfunc[20]:	QGraphicsItem::focusOutEvent(QFocusEvent*)
vfunc[21]:	QGraphicsItem::hoverEnterEvent(QGraphicsSceneHoverEvent*)
vfunc[22]:	QGraphicsItem::hoverMoveEvent(QGraphicsSceneHoverEvent*)
vfunc[23]:	QGraphicsItem::hoverLeaveEvent(QGraphicsSceneHoverEvent*)

vfunc[24]:	QGraphicsItem::keyPressEvent(QKeyEvent*)
vfunc[25]:	QGraphicsItem::keyReleaseEvent(QKeyEvent*)
vfunc[26]:	QGraphicsItem::mousePressEvent(QGraphicsSceneMouseEvent*)
vfunc[27]:	QGraphicsItem::mouseMoveEvent(QGraphicsSceneMouseEvent*)
vfunc[28]:	QGraphicsItem::mouseReleaseEvent(QGraphicsSceneMouseEvent*)
vfunc[29]:	QGraphicsItem::mouseDoubleClickEvent(QGraphicsSceneMouseEvent*)
vfunc[30]:	QGraphicsItem::wheelEvent(QGraphicsSceneWheelEvent*)
vfunc[31]:	QGraphicsItem::inputMethodEvent(QInputMethodEvent*)
vfunc[32]:	QGraphicsItem::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[33]:	QGraphicsItem::itemChange(QGraphicsItem::GraphicsItemChange, QVariant const&)
vfunc[34]:	QGraphicsSimpleTextItem::supportsExtension(QGraphicsItem::Extension) const
vfunc[35]:	QGraphicsSimpleTextItem::setExtension(QGraphicsItem::Extension, QVariant const&)
vfunc[36]:	QGraphicsSimpleTextItem::extension(QVariant const&) const

17.5.22.22. Interfaces for Qt4 2D Graphics

An LSB conforming implementation shall provide the generic functions for Qt4 2D Graphics specified in [Table 17-519](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-519. libQtGui - Qt4 2D Graphics Function Interfaces

_Z13qDrawWinPanelP8QPainteriiiiRK8QPalettbPK6QBrush [QtGui]	—
_Z14qDrawPlainRectP8QPainteriiiiRK6QColoriPK6QBrush [QtGui]	—
_Z14qDrawShadeLineP8QPainteriiiiRK8QPalettbii [QtGui]	—
_Z14qDrawShadeRectP8QPainteriiiiRK8QPalettbiiPK6QBrush [QtGui]	—
_Z14qDrawWinButtonP8QPainteriiiiRK8QPalettbPK6QBrush [QtGui]	—
_Z15qDrawShadePanelP8QPainteriiiiRK8QPalettebiPK6QBrush [QtGui]	—
_ZN11QIconEngine6pixmapERK5QSizeN5QIcon4ModeENS3_5StateE [QtGui]	—
_ZN11QIconEngine9addPixmapERK7QPixmapN5QIcon4ModeENS3_5StateE [QtGui]	—
_ZN11QIconEngineD1Ev [QtGui]	—
_ZN12QPaintEngine10drawPointsEPK6QPointi [QtGui]	—
_ZN12QPaintEngine11drawEllipseERK5QRect [QtGui]	—
_ZN12QPaintEngine11drawPolygonEPK6QPointiNS_15PolygonDrawModeE [QtGui]	—
_ZN12QPaintEngine12drawTextItemERK7QPointFRK9QTextItem [QtGui]	—
_ZN12QPaintEngine13setSystemRectERK5QRect [LSB]	—

_ZN12QPaintEngine15drawTiledPixmapERK6QRectFRK7QPixmapRK7QPointF [QtGui]	—
_ZN12QPaintEngine9drawImageERK6QRectFRK6QImageS2_6QFlagsIN2Qt19ImageConversionFlagEE [QtGui]	—
_ZN12QPaintEngine9drawLinesEPK6QLineFi [QtGui]	—
_ZN12QPaintEngine9drawRectsEPK6QRectFi [QtGui]	—
_ZN12QPaintEngineC2E6QFlagsINS_18PaintEngineFeatureEE [QtGui]	—
_ZN12QPaintEngineD1Ev [QtGui]	—
_ZN12QPainterPath10addEllipseERK6QRectF [QtGui]	—
ZN12QPainterPath11connectPathERKS [QtGui]	—
_ZN12QPainterPath12closeSubpathEv [QtGui]	—
_ZN12QPainterPath6lineToERK7QPointF [QtGui]	—
_ZN12QPainterPath6quadToERK7QPointF [QtGui]	—
_ZN12QPainterPath7addRectERK6QRectF [QtGui]	—
_ZN12QPainterPath7cubicToERK7QPointF [QtGui]	—
_ZN12QPainterPath9arcMoveToERK6QRectFd [QtGui]	—
ZN12QPainterPathC1ERKS [QtGui]	—
_ZN12QPainterPathC2ERK7QPointF [QtGui]	—
_ZN12QPainterPathC2Ev [QtGui]	—
_ZN12QPainterPathD2Ev [QtGui]	—
_ZN13QGraphicsItem10addToIndexEv [LSB]	—
_ZN13QGraphicsItem10itemChangeENS_18GraphicsItemChangeERK8QVariant [QtGui]	—
_ZN13QGraphicsItem10setEnabledEb [QtGui]	—
_ZN13QGraphicsItem10setVisibleEb [QtGui]	—
_ZN13QGraphicsItem11resetMatrixEv [QtGui]	—
_ZN13QGraphicsItem11unsetCursorEv [QtGui]	—
_ZN13QGraphicsItem12setExtensionENS_9ExtensionERK8QVariant [LSB]	—
_ZN13QGraphicsItem13ensureVisibleERK6QRectFi [QtGui]	—
_ZN13QGraphicsItem13keyPressEventEP9QKeyEvent [QtGui]	—
_ZN13QGraphicsItem14dragEnterEventEP27QGraphicsSceneDragDropEvent [QtGui]	—
_ZN13QGraphicsItem14hoverMoveEventEP24QGraphicsSceneHoverEvent [QtGui]	—
_ZN13QGraphicsItem14setAcceptDropsEb [QtGui]	—
_ZN13QGraphicsItem15hoverLeaveEventEP24QGraphicsSceneHoverEvent [QtGui]	—
_ZN13QGraphicsItem15mousePressEventEP24QGraphicsSceneMouseEvent [QtGui]	—

_ZN13QGraphicsItem16contextMenuEventEP30QGraphicsSceneContextMenuEvent	[QtXml]
_ZN13QGraphicsItem16sceneEventFilterEPS_P6QEvent	[QtXml]
_ZN13QGraphicsItem21mouseDoubleClickEventEP24QGraphicsSceneMouseEvent	[QtXml]
_ZN13QGraphicsItem21setAcceptsHoverEventsEb	[QtXml]
ZN13QGraphicsItem22removeSceneEventFilterEPS	[QtXml]
_ZN13QGraphicsItem23setAcceptedMouseButtonsE6QFlagsIN2Qt11MouseButtonEE	[QtXml]
_ZN13QGraphicsItem5shearEdd	[QtXml]
_ZN13QGraphicsItem6setPosERK7QPointF	[QtXml]
_ZN13QGraphicsItem7advanceEi	[QtXml]
_ZN13QGraphicsItem7setFlagENS_16GraphicsItemFlagEb	[QtXml]
_ZN13QGraphicsItem8setFocusEN2Qt11FocusReasonE	[QtXml]
_ZN13QGraphicsItem9dropEventEP27QGraphicsSceneDragDropEvent	[QtXml]
_ZN13QGraphicsItem9setMatrixERK7QMatrixb	[QtXml]
_ZN13QGraphicsItem9translateEdd	[QtXml]
_ZN13QGraphicsItemC2EPS_P14QGraphicsScene	[QtXml]
_ZN13QGraphicsItemD1Ev	[QtXml]
_ZN13QGraphicsView10paintEventEP11QPaintEvent	[QtXml]
_ZN13QGraphicsView11qt_metacallEN11QMetaObject4CallEiPPv	[QtXml]
_ZN13QGraphicsView11resetMatrixEv	[QtXml]
_ZN13QGraphicsView11setDragModeENS_8DragModeE	[QtXml]
_ZN13QGraphicsView12focusInEventEP11QFocusEvent	[QtXml]
_ZN13QGraphicsView12setCacheModeE6QFlagsINS_13CacheModeFlagEE	[QtXml]
_ZN13QGraphicsView13dragMoveEventEP14QDragMoveEvent	[QtXml]
_ZN13QGraphicsView13ensureVisibleERK6QRectFii	[QtXml]
_ZN13QGraphicsView13keyPressEventEP9QKeyEvent	[QtXml]
_ZN13QGraphicsView13setupViewportEP7QWidget	[QtXml]
_ZN13QGraphicsView14dragEnterEventEP15QDragEnterEvent	[QtXml]
_ZN13QGraphicsView14drawBackgroundEP8QPainterRK6QRectF	[QtXml]
_ZN13QGraphicsView14mouseMoveEventEP11QMouseEvent	[QtXml]
_ZN13QGraphicsView14setRenderHintsE6QFlagsIN8QPainter10RenderHintEE	[QtXml]
_ZN13QGraphicsView15mousePressEventEP11QMouseEvent	[QtXml]
_ZN13QGraphicsView15updateSceneRectERK6QRectF	[QtXml]
_ZN13QGraphicsView16inputMethodEventEP17QInputMethodEvent	[QtXml]

_ZN13QGraphicsView17mouseReleaseEventEP11QMouseEvent [QtXml]	—
_ZN13QGraphicsView18setBackgroundBrushERK6QBrush [QtXml]	—
_ZN13QGraphicsView21mouseDoubleClickEventEP11QMouseEvent [QtXml]	—
_ZN13QGraphicsView5eventEP6QEvent [QtXml]	—
_ZN13QGraphicsView5shearEdd [QtXml]	—
_ZN13QGraphicsView6rotateEd [QtXml]	—
_ZN13QGraphicsView8centerOnERK7QPointF [QtXml]	—
_ZN13QGraphicsView9drawItemsEP8QPainteriPP13QGraphicsItemPK24QStyleOptionGraphicsItem [QtXml]	—
_ZN13QGraphicsView9fitInViewEPK13QGraphicsItemN2Qt15AspectRatioModeE [QtXml]	—
_ZN13QGraphicsView9setMatrixERK7QMatrixb [QtXml]	—
_ZN13QGraphicsView9translateEdd [QtXml]	—
_ZN13QGraphicsViewC1EP7QWidget [QtXml]	—
_ZN13QGraphicsViewC2EP7QWidget [QtXml]	—
_ZN13QGraphicsViewD1Ev [QtXml]	—
_ZN14QGraphicsScene10addEllipseERK6QRectFRK4QPenRK6QBrush [QtXml]	—
_ZN14QGraphicsScene10clearFocusEv [QtXml]	—
_ZN14QGraphicsScene10wheelEventEP24QGraphicsSceneWheelEvent [QtXml]	—
_ZN14QGraphicsScene11qt_metacastEPKc [QtXml]	—
_ZN14QGraphicsScene12setFocusItemEP13QGraphicsItemN2Qt11FocusReasonE [QtXml]	—
_ZN14QGraphicsScene13dragMoveEventEP27QGraphicsSceneDragDropEvent [QtXml]	—
_ZN14QGraphicsScene13keyPressEventEP9QKeyEvent [QtXml]	—
_ZN14QGraphicsScene14dragEnterEventEP27QGraphicsSceneDragDropEvent [QtXml]	—
_ZN14QGraphicsScene14drawBackgroundEP8QPainterRK6QRectF [QtXml]	—
_ZN14QGraphicsScene14mouseMoveEventEP24QGraphicsSceneMouseEvent [QtXml]	—
_ZN14QGraphicsScene15keyReleaseEventEP9QKeyEvent [QtXml]	—
_ZN14QGraphicsScene16contextMenuEventEP30QGraphicsSceneContextMenuEvent [QtXml]	—
_ZN14QGraphicsScene16inputMethodEventEP17QInputMethodEvent [QtXml]	—
_ZN14QGraphicsScene16setSelectionAreaERK12QPainterPath [QtXml]	—
_ZN14QGraphicsScene18setBackgroundBrushERK6QBrush [QtXml]	—
_ZN14QGraphicsScene18setItemIndexMethodENS_15ItemIndexMethodE [QtXml]	—
_ZN14QGraphicsScene5eventEP6QEvent [QtXml]	—
_ZN14QGraphicsScene6updateERK6QRectF [QtXml]	—

_ZN14QGraphicsScene7addLineERK6QLineFRK4QPen [QtXml]	__
_ZN14QGraphicsScene7addRectERK6QRectFRK4QPenRK6QBrush [QtXml]	__
_ZN14QGraphicsScene7advanceEv [QtXml]	__
_ZN14QGraphicsScene8setFocusEN2Qt11FocusReasonE [QtXml]	__
_ZN14QGraphicsScene9drawItemsEP8QPainteriPP13QGraphicsItemPK24QStyleOptionGraphicsItemP7QWidget [QtXml]	__
_ZN14QGraphicsScene9helpEventEP23QGraphicsSceneHelpEvent [QtXml]	__
_ZN14QGraphicsSceneC1ERK6QRectFP7QObject [QtXml]	__
_ZN14QGraphicsSceneC2EP7QObject [QtXml]	__
_ZN14QGraphicsSceneC2EddddP7QObject [QtXml]	__
_ZN14QGraphicsSceneD1Ev [QtXml]	__
_ZN15QLinearGradient12setFinalStopERK7QPointF [QtXml]	__
ZN15QLinearGradientC1ERK7QPointF5S2 [QtGui]	__
_ZN15QLinearGradientC1Ev [QtXml]	__
_ZN15QLinearGradientC2Edddd [QtGui]	__
_ZN15QRadialGradient13setFocalPointERK7QPointF [QtXml]	__
_ZN15QRadialGradient9setRadiusEd [QtXml]	__
ZN15QRadialGradientC1ERK7QPointF5dS2 [QtGui]	__
_ZN15QRadialGradientC1Edddd [QtGui]	__
_ZN15QRadialGradientC2ERK7QPointF5d [QtXml]	__
_ZN15QRadialGradientC2Eddd [QtXml]	__
_ZN15QRadialGradientC2Ev [QtXml]	__
_ZN16QConicalGradient9setCenterERK7QPointF [QtXml]	__
_ZN16QConicalGradientC1Eddd [QtGui]	__
_ZN16QConicalGradientC2ERK7QPointF5d [QtGui]	__
_ZN16QConicalGradientC2Ev [QtXml]	__
_ZN17QGraphicsLineItem5paintEP8QPainterPK24QStyleOptionGraphicsItemP7QWidget [QtXml]	__
_ZN17QGraphicsLineItem7setLineERK6QLineF [QtXml]	__
_ZN17QGraphicsLineItemC1ERK6QLineFP13QGraphicsItemP14QGraphicsScene [QtXml]	__
_ZN17QGraphicsLineItemC2EP13QGraphicsItemP14QGraphicsScene [QtXml]	__
_ZN17QGraphicsLineItemC2EddddP13QGraphicsItemP14QGraphicsScene [QtXml]	__
_ZN17QGraphicsLineItemD1Ev [QtXml]	__
_ZN17QGraphicsPathItem12setExtensionEN13QGraphicsItem9ExtensionERK8QVariant [LSB]	__

_ZN17QGraphicsPathItem7setPathERK12QPainterPath [QtXml]	—
_ZN17QGraphicsPathItemC1ERK12QPainterPathP13QGraphicsItemP14QGraphicsScene [QtXml]	—
_ZN17QGraphicsPathItemC2ERK12QPainterPathP13QGraphicsItemP14QGraphicsScene [QtXml]	—
_ZN17QGraphicsPathItemD1Ev [QtXml]	—
_ZN17QGraphicsRectItem12setExtensionEN13QGraphicsItem9ExtensionERK8QVariant [LSB]	—
_ZN17QGraphicsRectItem7setRectERK6QRectF [QtXml]	—
_ZN17QGraphicsRectItemC1ERK6QRectFP13QGraphicsItemP14QGraphicsScene [QtXml]	—
_ZN17QGraphicsRectItemC2EP13QGraphicsItemP14QGraphicsScene [QtXml]	—
_ZN17QGraphicsRectItemC2EdddddP13QGraphicsItemP14QGraphicsScene [QtXml]	—
_ZN17QGraphicsRectItemD1Ev [QtXml]	—
_ZN17QGraphicsTextItem10adjustSizeEv [QtXml]	—
_ZN17QGraphicsTextItem11linkHoveredERK7QString [QtXml]	—
_ZN17QGraphicsTextItem11qt_metacastEPKc [QtXml]	—
_ZN17QGraphicsTextItem12focusInEventEP11QFocusEvent [QtXml]	—
_ZN17QGraphicsTextItem12setPlainTextERK7QString [QtXml]	—
_ZN17QGraphicsTextItem13dragMoveEventEP27QGraphicsSceneDragDropEvent [QtXml]	—
_ZN17QGraphicsTextItem13keyPressEventEP9QKeyEvent [QtXml]	—
_ZN17QGraphicsTextItem13setTextCursorERK11QTextCursor [QtXml]	—
_ZN17QGraphicsTextItem14dragLeaveEventEP27QGraphicsSceneDragDropEvent [QtXml]	—
_ZN17QGraphicsTextItem14mouseMoveEventEP24QGraphicsSceneMouseEvent [QtXml]	—
_ZN17QGraphicsTextItem15hoverLeaveEventEP24QGraphicsSceneHoverEvent [QtXml]	—
_ZN17QGraphicsTextItem15mousePressEventEP24QGraphicsSceneMouseEvent [QtXml]	—
_ZN17QGraphicsTextItem16inputMethodEventEP17QInputMethodEvent [QtXml]	—
_ZN17QGraphicsTextItem19setDefaultTextColorERK6QColor [QtXml]	—
_ZN17QGraphicsTextItem21mouseDoubleClickEventEP24QGraphicsSceneMouseEvent [QtXml]	—
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_ZN17QGraphicsTextItem7setHtmlERK7QString [QtXml]	—
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_ZN17QGraphicsTextItemC2EP13QGraphicsItemP14QGraphicsScene [QtXml]	—
_ZN17QGraphicsTextItemD0Ev [QtXml]	—
_ZN17QGraphicsTextItemD2Ev [QtXml]	—
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_ZN19QPainterPathStroker13setMiterLimitEd [QtGui]	—
_ZN19QPainterPathStroker14setDashPatternERK7QVectorIdE [QtGui]	—
_ZN19QPainterPathStroker8setWidthEd [QtGui]	—
_ZN19QPainterPathStrokerC2Ev [QtGui]	—
_ZN19QPainterPathStrokerD2Ev [QtGui]	—
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_ZN20QGraphicsEllipseItemD2Ev [QtXml]	—
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_ZN22QGraphicsItemAnimation5resetEv [QtXml]	—
_ZN22QGraphicsItemAnimation7setStepEd [QtXml]	—
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_ZN22QGraphicsItemAnimationD0Ev [QtXml]	—
_ZN22QGraphicsItemAnimationD2Ev [QtXml]	—
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_ZN23QGraphicsSceneHelpEventC2EN6QEvent4TypeE [LSB]	—
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_ZN23QGraphicsSimpleTextItemD2Ev [QtXml]	—
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_ZN24QGraphicsSceneHoverEventD2Ev [QtXml]	—
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_ZN24QGraphicsSceneMouseEvent15setLastScenePosERK7QPointF [LSB]	—
_ZN24QGraphicsSceneMouseEvent16setLastScreenPosERK6QPoint [LSB]	—
_ZN24QGraphicsSceneMouseEvent22setButtonDownScreenPosEN2Qt11MouseButtonERK6QPoint [LSB]	—
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_ZN24QGraphicsSceneWheelEventD2Ev [QtXml]	—
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_ZN30QGraphicsSceneContextMenuEventD2Ev [QtXml]	—
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_ZN4QPen13setMiterLimitEd [QtGui]	—
_ZN4QPen8setBrushERK6QBrush [QtGui]	—
_ZN4QPen8setStyleEN2Qt8PenStyleE [QtGui]	—
_ZN4QPen9setWidthFEd [QtGui]	—
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_ZN4QPenC2ERK6QColor [QtGui]	—
_ZN4QPenC2Ev [QtGui]	—
_ZN4QPenD2Ev [QtGui]	—
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_ZN5QIcon7addFileERK7QStringRK5QSizeNS_4ModeENS_5StateE [QtGui]	—
_ZN5QIconC1EP11QIconEngine [QtGui]	—
_ZN5QIconC1ERK7QString [QtGui]	—
_ZN5QIconC1Ev [QtGui]	—

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_ZN7QMatrix6rotateEd [QtGui]	—
_ZN7QMatrix9translateEdd [QtGui]	—
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_ZN7QRegionC1ERK8QPolygonb [QtGui]	—
_ZN7QRegionC1EiiiiNS_10RegionTypeE [QtGui]	—
_ZN7QRegionC2ERK5QRectNS_10RegionTypeE [QtGui]	—
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_ZN8QPainter10redirectedEPK12QPaintDeviceP6QPoint [QtGui]	—
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_ZN8QPainter11drawEllipseERK6QRectF [QtGui]	—
_ZN8QPainter11drawPolygonEPK6QPointiN2Qt8FillRuleE [QtGui]	—
_ZN8QPainter11resetMatrixEv [QtGui]	—
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_ZN8QPainter11setViewportERK5QRect [QtGui]	—
_ZN8QPainter12boundingRectERK6QRectFRK7QStringRK11QTextOption [QtGui]	—
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_ZN8QPainter13drawRoundRectERK6QRectFii [QtGui]	—
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_ZN8QPainter14setRenderHintsE6QFlagsINS_10RenderHintEEb [QtXml]	—
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_ZN8QPainter16drawLineSegmentsERK8QPolygonii [QtGui]	—
_ZN8QPainter17drawConvexPolygonEPK6QPointi [QtGui]	—
_ZN8QPainter17restoreRedirectedEPK12QPaintDevice [QtGui]	—
_ZN8QPainter18setCompositionModeENS_15CompositionModeE [QtGui]	—
_ZN8QPainter21setWorldMatrixEnabledEb [QtXml]	—
_ZN8QPainter3endEv [QtGui]	—
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_ZN8QPainter5shearEdd [QtGui]	—
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<u>_ZN8QPainter8fillRectERK6QRectFRK6QBrush [QtGui]</u>	—
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<u>_ZN8QPainter9drawLinesEPK5QLinei [QtGui]</u>	—
<u>_ZN8QPainter9drawLinesEPK6QPointi [QtGui]</u>	—
<u>_ZN8QPainter9drawRectsEPK5QRecti [QtGui]</u>	—
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<u>_ZN8QPainter9setWindowERK5QRect [QtGui]</u>	—
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<u>_ZN8QPainterC2EP12QPaintDevice [QtGui]</u>	—
<u>_ZN8QPainterD1Ev [QtGui]</u>	—
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<u>_ZN8QPolygon9putPointsEiiiiz [QtGui]</u>	—
<u>_ZN8QPolygon9setPointsEiiiiz [QtGui]</u>	—
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<u>_ZN8QPolygonC2ERK5QRectb [QtGui]</u>	—
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<u>_ZN9QGradient8setStopsERK7QVectorI5QPairId6QColorEE [QtGui]</u>	—
<u>_ZN9QGradientC2Ev [QtGui]</u>	—
<u>_ZN9QPolygonF9translateERK7QPointF [QtGui]</u>	—
<u>_ZN9QPolygonFC1ERK8QPolygon [QtGui]</u>	—
<u>_ZN9QPolygonFC2ERK8QPolygon [QtGui]</u>	—
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<u>_ZNK12QPaintEngine16coordinateOffsetEv [LSB]</u>	—
<u>_ZNK12QPainterPath10intersectsERK6QRectF [QtGui]</u>	—
<u>_ZNK12QPainterPath12boundingRectEv [QtGui]</u>	—
<u>_ZNK12QPainterPath14toFillPolygonsERK7QMatrix [QtGui]</u>	—
<u>_ZNK12QPainterPath16controlPointRectEv [QtGui]</u>	—
<u>_ZNK12QPainterPath8containsERK6QRectF [QtGui]</u>	—
<u>_ZNK12QPainterPath8fillRuleEv [QtGui]</u>	—
<u>_ZNK12QPainterPathneERKS_ [QtGui]</u>	—

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_ZNK13QGraphicsItem10parentItemEv [QtXml]	—
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_ZNK13QGraphicsItem11mapFromItemEPKS_RK7QPointF [QtXml]	—
_ZNK13QGraphicsItem11mapToParentERK12QPainterPath [QtXml]	—
_ZNK13QGraphicsItem11mapToParentERK7QPointF [QtXml]	—
_ZNK13QGraphicsItem11sceneMatrixEv [QtXml]	—
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_ZNK13QGraphicsItem13mapFromParentERK12QPainterPath [QtXml]	—
_ZNK13QGraphicsItem13mapFromParentERK7QPointF [QtXml]	—
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_ZNK13QGraphicsItem16collidesWithPathERK12QPainterPathN2Qt17ItemSelectionModeE [QtXml]	—
_ZNK13QGraphicsItem17sceneBoundingRectEv [QtXml]	—
_ZNK13QGraphicsItem18acceptsHoverEventsEv [QtXml]	—
_ZNK13QGraphicsItem20acceptedMouseButtonsEv [QtXml]	—
_ZNK13QGraphicsItem3posEv [QtXml]	—
_ZNK13QGraphicsItem4typeEv [QtXml]	—
_ZNK13QGraphicsItem5groupEv [QtXml]	—
_ZNK13QGraphicsItem5shapeEv [QtXml]	—
_ZNK13QGraphicsItem6matrixEv [QtXml]	—
_ZNK13QGraphicsItem7toolTipEv [QtXml]	—
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_ZNK13QGraphicsItem8scenePosEv [QtXml]	—
_ZNK13QGraphicsItem9hasCursorEv [QtXml]	—
_ZNK13QGraphicsItem9isVisibleEv [QtXml]	—
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_ZNK13QGraphicsView10mapToSceneERK8QPolygon [QtXml]	—

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_ZNK13QGraphicsView12mapFromSceneERK9QPolygonF [QtXml]	—
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_ZNK13QGraphicsView15foregroundBrushEv [QtXml]	—
_ZNK13QGraphicsView20transformationAnchorEv [QtXml]	—
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_ZNK17QGraphicsLineItem3penEv [QtXml]	—
_ZNK17QGraphicsLineItem4typeEv [QtXml]	—
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_ZNK17QGraphicsTextItem12boundingRectEv [QtXml]	—
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_ZNK17QGraphicsTextItem17openExternalLinksEv [QtXml]	—
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_ZNK17QGraphicsTextItem4typeEv [QtXml]	—
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_ZNK17QPaintEngineState7painterEv [QtGui]	—
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_ZNK19QGraphicsPixmapItem6pixmapEv [QtXml]	—
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_ZNK22QGraphicsItemAnimation14yTranslationAtEd [QtXml]	—
_ZNK22QGraphicsItemAnimation15verticalShearAtEd [QtXml]	—
_ZNK22QGraphicsItemAnimation17horizontalShearAtEd [QtXml]	—
_ZNK22QGraphicsItemAnimation5posAtEd [QtXml]	—
_ZNK22QGraphicsItemAnimation8timeLineEv [QtXml]	—
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_ZNK24QGraphicsSceneMouseEvent13lastScreenPosEv [QtXml]	—
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_ZNK24QGraphicsSceneMouseEvent6buttonEv [QtXml]	—
_ZNK24QGraphicsSceneMouseEvent7lastPosEv [QtXml]	—
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_ZNK24QGraphicsSceneWheelEvent3posEv [QtXml]	—

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_ZNK24QGraphicsSceneWheelEvent9modifiersEv [QtXml]	—
_ZNK27QGraphicsSceneDragDropEvent10dropActionEv [QtXml]	—
_ZNK27QGraphicsSceneDragDropEvent15possibleActionsEv [QtXml]	—
_ZNK27QGraphicsSceneDragDropEvent6sourceEv [QtXml]	—
_ZNK27QGraphicsSceneDragDropEvent8mimeDataEv [QtXml]	—
_ZNK27QGraphicsSceneDragDropEvent9modifiersEv [QtXml]	—
_ZNK30QGraphicsSceneContextMenuEvent3posEv [QtXml]	—
_ZNK30QGraphicsSceneContextMenuEvent8scenePosEv [QtXml]	—
_ZNK30QGraphicsSceneContextMenuEvent9screenPosEv [QtXml]	—
_ZNK4QPen11dashPatternEv [QtGui]	—
_ZNK4QPen5colorEv [QtGui]	—
_ZNK4QPen5widthEv [QtGui]	—
_ZNK4QPen7isSolidEv [QtGui]	—
_ZNK4QPen9joinStyleEv [QtGui]	—
ZNK4QPeneqERKS [QtGui]	—
_ZNK5QIcon10isDetachedEv [QtGui]	—
_ZNK5QIcon5paintEP8QPainterRK5QRect6QFlagsIN2Qt13AlignmentFlagEENS_4ModeENS_5StateE [QtGui]	—
_ZNK5QIcon6pixmapENS_4SizeENS_4ModeENS_5StateE [QtGui]	—
_ZNK5QIcon6pixmapERK5QSizeNS_4ModeENS_5StateE [QtGui]	—
_ZNK5QIconcv8QVariantEv [QtGui]	—
_ZNK6QBrush6pixmapEv [QtGui]	—
_ZNK6QBrush8gradientEv [QtGui]	—
_ZNK6QBrushcv8QVariantEv [QtGui]	—
_ZNK7QMatrix11mapToRegionERK5QRect [QtGui]	—
_ZNK7QMatrix3mapERK12QPainterPath [QtGui]	—
_ZNK7QMatrix3mapERK6QLineF [QtGui]	—
_ZNK7QMatrix3mapERK7QPointF [QtGui]	—
_ZNK7QMatrix3mapERK8QPolygon [QtGui]	—
ZNK7QMatrix3mapEddPdS0 [QtGui]	—
_ZNK7QMatrix7mapRectERK5QRect [QtGui]	—
_ZNK7QMatrix8invertedEPb [QtGui]	—
ZNK7QMatriceqERKS [QtGui]	—

<u>_Znk7QMatrixneERKS_ [QtGui]</u>	—
<u>_Znk7QRegion10intersectsERKS_ [QtXml]</u>	—
<u>_Znk7QRegion12boundingRectEv [QtGui]</u>	—
<u>_Znk7QRegion5rectsEv [QtGui]</u>	—
<u>_Znk7QRegion7isEmptyEv [QtGui]</u>	—
<u>_Znk7QRegion8containsERK6QPoint [QtGui]</u>	—
<u>_Znk7QRegion9intersectERKS_ [QtGui]</u>	—
<u>_Znk7QRegioncv8QVariantEv [QtGui]</u>	—
<u>_Znk7QRegioneqERKS_ [QtGui]</u>	—
<u>_Znk7QRegionorERKS_ [QtGui]</u>	—
<u>_Znk8QPainter10backgroundEv [QtGui]</u>	—
<u>_Znk8QPainter11brushOriginEv [QtGui]</u>	—
<u>_Znk8QPainter11hasClippingEv [QtGui]</u>	—
<u>_Znk8QPainter11renderHintsEv [QtGui]</u>	—
<u>_Znk8QPainter12deviceMatrixEv [QtGui]</u>	—
<u>_Znk8QPainter12translationYEv [QtGui]</u>	—
<u>_Znk8QPainter14backgroundModeEv [QtGui]</u>	—
<u>_Znk8QPainter15compositionModeEv [QtGui]</u>	—
<u>_Znk8QPainter18worldMatrixEnabledEv [QtXml]</u>	—
<u>_Znk8QPainter3mapEiiPiS0_ [LSB]</u>	—
<u>_Znk8QPainter4fontEv [QtGui]</u>	—
<u>_Znk8QPainter5xFormERK5QRect [QtGui]</u>	—
<u>_Znk8QPainter5xFormERK8QPolygon [QtGui]</u>	—
<u>_Znk8QPainter6deviceEv [QtGui]</u>	—
<u>_Znk8QPainter6windowEv [QtGui]</u>	—
<u>_Znk8QPainter8clipPathEv [QtGui]</u>	—
<u>_Znk8QPainter8isActiveEv [QtGui]</u>	—
<u>_Znk8QPainter8xFormDevERK5QRect [QtGui]</u>	—
<u>_Znk8QPainter8xFormDevERK8QPolygon [QtGui]</u>	—
<u>_Znk8QPolygon12boundingRectEv [QtGui]</u>	—
<u>_Znk8QPolygoncv8QVariantEv [QtGui]</u>	—
<u>_Znk9QGradient5stopsEv [QtGui]</u>	—
<u>_Znk9QPolygonF12boundingRectEv [QtGui]</u>	—

_Zls6QDebugP13QGraphicsItem [QtGui]	—
_Zls6QDebugRK6QBrush [QtGui]	—
_Zls6QDebugRK7QRegion [QtGui]	—
_Zls6QDebugRK9QPolygonF [QtGui]	—
_ZlsR11QDataStreamRK4QPen [QtGui]	—
_ZlsR11QDataStreamRK6QBrush [QtGui]	—
_ZlsR11QDataStreamRK7QRegion [QtGui]	—
_ZmlRK12QPainterPathRK7QMatrix [QtGui]	—
_ZrsR11QDataStreamR4QPen [QtGui]	—
_ZrsR11QDataStreamR6QBrush [QtGui]	—
_ZrsR11QDataStreamR7QRegion [QtGui]	—

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 2D Graphics specified in [Table 17-520](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 17-520. libQtGui - Qt4 2D Graphics Deprecated Function Interfaces

_ZN22QGraphicsItemAnimation5resetEv [QtXml]	

17.6. Data Definitions for libQtGui

This section defines global identifiers and their values that are associated with interfaces contained in libQtGui. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

17.6.1. QtGui/qabstractbutton.h

```
class QAbstractButton;
```

17.6.2. QtGui/qabstractitemdelegate.h

```
class QAbstractItemDelegate;
enum _ZN21QAbstractItemDelegate11EndEditHintE {
    NoHint = 0,
    EditNextItem = 1,
    EditPreviousItem = 2,
    SubmitModelCache = 3,
    RevertModelCache = 4
};
```

17.6.3. QtGui/qabstractitemview.h

```
class QAbstractItemView;
enum _ZN17QAbstractItemView13SelectionModeE {
    NoSelection = 0,
    SingleSelection = 1,
    MultiSelection = 2,
    ExtendedSelection = 3,
    ContiguousSelection = 4
};
enum _ZN17QAbstractItemView17SelectionBehaviorE {
    SelectItems = 0,
    SelectRows = 1,
    SelectColumns = 2
};
enum _ZN17QAbstractItemView10ScrollHintE {
    EnsureVisible = 0,
    PositionAtTop = 1,
    PositionAtBottom = 2
};
enum _ZN17QAbstractItemView11EditTriggerE {
    NoEditTriggers = 0,
    CurrentChanged = 1,
    DoubleClicked = 2,
    SelectedClicked = 4,
    EditKeyPressed = 8,
    AnyKeyPressed = 16,
    AllEditTriggers = 31
};
class QFlags < QAbstractItemView::EditTrigger >;
typedef class QFlags < QAbstractItemView::EditTrigger >
    QAbstractItemView::EditTriggers;
enum _ZN17QAbstractItemView12CursorActionE {
    MoveUp = 0,
    MoveDown = 1,
    MoveLeft = 2,
    MoveRight = 3,
    MoveHome = 4,
    MoveEnd = 5,
    MovePageUp = 6,
    MovePageDown = 7,
    MoveNext = 8,
    MovePrevious = 9
};
```

```
};
enum _ZN17QAbstractItemView5StateE {
    NoState = 0,
    DraggingState = 1,
    DragSelectingState = 2,
    EditingState = 3,
    ExpandingState = 4,
    CollapsingState = 5
};
enum _ZN17QAbstractItemView21DropIndicatorPositionE {
    OnItem = 0,
    AboveItem = 1,
    BelowItem = 2,
    OnViewport = 3
};
```

17.6.4. QtGui/qabstractpagesetupdialog.h

```
class QAbstractPageSetupDialog;
```

17.6.5. QtGui/qabstractprintdialog.h

```
class QAbstractPrintDialog;
enum _ZN20QAbstractPrintDialog10PrintRangeE {
    AllPages = 0,
    Selection = 1,
    PageRange = 2
};
enum _ZN20QAbstractPrintDialog17PrintDialogOptionE {
    None = 0,
    PrintToFile = 1,
    PrintSelection = 2,
    PrintPageRange = 4,
    PrintCollateCopies = 16
};
class QFlags < QAbstractPrintDialog::PrintDialogOption >;
typedef class QFlags < QAbstractPrintDialog::PrintDialogOption >
    QAbstractPrintDialog::PrintDialogOptions;
```

17.6.6. QtGui/qabstractproxymodel.h

```
class QAbstractProxyModel;
```

17.6.7. QtGui/qabstractscrollarea.h

```
class QAbstractScrollArea;
```

17.6.8. QtGui/qabstractslider.h

```
class QAbstractSlider;
enum _ZN15QAbstractSlider12SliderActionE {
    SliderNoAction = 0,
    SliderSingleStepAdd = 1,
    SliderSingleStepSub = 2,
    SliderPageStepAdd = 3,
```

```

SliderPageStepSub = 4,
SliderToMinimum = 5,
SliderToMaximum = 6,
SliderMove = 7
};
enum _ZN15QAbstractSlider12SliderChangeEvent {
SliderRangeChange = 0,
SliderOrientationChange = 1,
SliderStepsChange = 2,
SliderValueChange = 3
};

```

17.6.9. QtGui/qabstractspinbox.h

```

class QAbstractSpinBox;
enum _ZN16QAbstractSpinBox15StepEnabledFlagE {
StepNone = 0,
StepUpEnabled = 1,
StepDownEnabled = 2
};
class QFlags < QAbstractSpinBox::StepEnabledFlag >;
typedef class QFlags < QAbstractSpinBox::StepEnabledFlag >
QAbstractSpinBox::StepEnabled;
enum _ZN16QAbstractSpinBox13ButtonSymbolsE {
UpDownArrows = 0,
PlusMinus = 1
};

```

17.6.10. QtGui/qabstracttextdocumentlayout.h

```

class QAbstractTextDocumentLayout;
struct QAbstractTextDocumentLayout::Selection;
struct QAbstractTextDocumentLayout::PaintContext;
class QTextObjectInterface;

```

17.6.11. QtGui/qaccessible.h

```

class QAccessible;
enum _ZN11QAccessible5EventE {
SoundPlayed = 1,
Alert = 2,
ForegroundChanged = 3,
MenuStart = 4,
MenuEnd = 5,
PopupMenuStart = 6,
PopupMenuEnd = 7,
ContextHelpStart = 12,
ContextHelpEnd = 13,
DragDropStart = 14,
DragDropEnd = 15,
DialogStart = 16,
DialogEnd = 17,
ScrollingStart = 18,
ScrollingEnd = 19,
MenuCommand = 24,
ObjectCreated = 32768,
ObjectDestroyed = 32769,
ObjectShow = 32770,

```



```

    ObjectHide = 32771,
    ObjectReorder = 32772,
    Focus = 32773,
    Selection = 32774,
    SelectionAdd = 32775,
    SelectionRemove = 32776,
    SelectionWithin = 32777,
    StateChanged = 32778,
    LocationChanged = 32779,
    NameChanged = 32780,
    DescriptionChanged = 32781,
    ValueChanged = 32782,
    ParentChanged = 32783,
    HelpChanged = 32928,
    DefaultActionChanged = 32944,
    AcceleratorChanged = 32960
};
enum _ZN11QAccessible9StateFlagE {
    Modal = -2147483648,
    Normal = 0,
    Unavailable = 1,
    Selected = 2,
    Focused = 4,
    Pressed = 8,
    Checked = 16,
    Mixed = 32,
    ReadOnly = 64,
    HotTracked = 128,
    DefaultButton = 256,
    Expanded = 512,
    Collapsed = 1024,
    Busy = 2048,
    Marqued = 8192,
    Animated = 16384,
    Invisible = 32768,
    Offscreen = 65536,
    Sizeable = 131072,
    Moveable = 262144,
    Movable = 262144,
    SelfVoicing = 524288,
    Focusable = 1048576,
    Selectable = 2097152,
    Linked = 4194304,
    Traversed = 8388608,
    MultiSelectable = 16777216,
    ExtSelectable = 33554432,
    Protected = 536870912,
    HasPopup = 1073741824
};
class QFlags < QAccessible::StateFlag >;
typedef class QFlags < QAccessible::StateFlag > QAccessible::State;
enum _ZN11QAccessible4RoleE {
    NoRole = 0,
    TitleBar = 1,
    MenuBar = 2,
    ScrollBar = 3,
    Grip = 4,
    Sound = 5,
    Cursor = 6,
    Caret = 7,
    AlertMessage = 8,
    Window = 9,

```

```

Client = 10,
PopupMenu = 11,
MenuItem = 12,
ToolTip = 13,
Application = 14,
Document = 15,
Pane = 16,
Chart = 17,
Dialog = 18,
Border = 19,
Grouping = 20,
Separator = 21,
ToolBar = 22,
StatusBar = 23,
Table = 24,
ColumnHeader = 25,
RowHeader = 26,
Column = 27,
Row = 28,
Cell = 29,
Link = 30,
HelpBalloon = 31,
Assistant = 32,
List = 33,
ListItem = 34,
Tree = 35,
TreeItem = 36,
PageTab = 37,
PropertyPage = 38,
Indicator = 39,
Graphic = 40,
StaticText = 41,
EditableText = 42,
PushButton = 43,
CheckBox = 44,
RadioButton = 45,
ComboBox = 46,
ProgressBar = 48,
Dial = 49,
HotkeyField = 50,
Slider = 51,
SpinBox = 52,
Canvas = 53,
Animation = 54,
Equation = 55,
ButtonDropDown = 56,
ButtonMenu = 57,
ButtonDropGrid = 58,
Whitespace = 59,
PageTabList = 60,
Clock = 61,
Splitter = 62,
LayeredPane = 63,
UserRole = 65535
};
enum _ZN11QAccessible4TextE {
    Name = 0,
    Description = 1,
    Value = 2,
    Help = 3,
    Accelerator = 4,
    UserText = 65535
};

```

```

};
enum _ZN11QAccessible12RelationFlagE {
    Unrelated = 0,
    Self = 1,
    Ancestor = 2,
    Child = 4,
    Descendent = 8,
    Sibling = 16,
    HierarchyMask = 255,
    Up = 256,
    Down = 512,
    Left = 1024,
    Right = 2048,
    Covers = 4096,
    Covered = 8192,
    GeometryMask = 65280,
    FocusChild = 65536,
    Label = 131072,
    Labelled = 262144,
    Controller = 524288,
    Controlled = 1048576,
    LogicalMask = 16711680
};
class QFlags < QAccessible::RelationFlag >;
typedef class QFlags < QAccessible::RelationFlag > QAccessible::Relation;
enum _ZN11QAccessible6ActionE {
    LastStandardAction = -11,
    AddToSelection = -11,
    ExtendSelection = -10,
    RemoveSelection = -9,
    ClearSelection = -8,
    Select = -7,
    Cancel = -6,
    Accept = -5,
    Decrease = -4,
    Increase = -3,
    SetFocus = -2,
    FirstStandardAction = -1,
    Press = -1,
    DefaultAction = 0
};
typedef void QAccessible::UpdateHandler;
typedef void QAccessible::RootObjectHandler;
class QAccessibleInterface;
class QAccessibleEvent;

```

17.6.12. QtGui/qaccessiblebridge.h

```

class QAccessibleBridge;
struct QAccessibleBridgeFactoryInterface;
class QAccessibleBridgePlugin;

```

17.6.13. QtGui/qaccessibleobject.h

```

class QAccessibleObject;
class QAccessibleApplication;

```

17.6.14. QtGui/qaccessibleplugin.h

```
struct QAccessibleFactoryInterface;
class QAccessiblePlugin;
```

17.6.15. QtGui/qaccessiblewidget.h

```
class QAccessibleWidget;
```

17.6.16. QtGui/qaction.h

```
class QAction;
enum _ZN7QAction11ActionEventE {
    Trigger = 0,
    Hover = 1
};
```

17.6.17. QtGui/qactiongroup.h

```
class QActionGroup;
```

17.6.18. QtGui/qapplication.h

```
class QApplication;
enum _ZN12QApplication4TypeE {
    Tty = 0,
    GuiClient = 1,
    GuiServer = 2
};
enum _ZN12QApplication9ColorSpecE {
    NormalColor = 0,
    CustomColor = 1,
    ManyColor = 2
};
typedef int QApplication::ColorMode;
```

17.6.19. QtGui/qbitmap.h

```
class QBitmap;
```

17.6.20. QtGui/qboxlayout.h

```
class QBoxLayout;
enum _ZN10QBoxLayout9DirectionE {
    LeftToRight = 0,
    RightToLeft = 1,
    TopToBottom = 2,
    Down = 2,
    BottomToTop = 3,
    Up = 3
};
class QHBoxLayout;
class QVBoxLayout;
```

17.6.21. QtGui/qbrush.h

```
class QBrush;
struct QBrushData;
class QGradient;
enum _ZN9QGradient4TypeE {
    LinearGradient = 0,
    RadialGradient = 1,
    ConicalGradient = 2,
    NoGradient = 3
};
enum _ZN9QGradient6SpreadE {
    PadSpread = 0,
    ReflectSpread = 1,
    RepeatSpread = 2
};
class QLinearGradient;
class QRadialGradient;
class QConicalGradient;
```

17.6.22. QtGui/qbuttongroup.h

```
class QButtonGroup;
```

17.6.23. QtGui/qcdestyle.h

```
class QCDEStyle;
```

17.6.24. QtGui/qcheckbox.h

```
class QCheckBox;
enum _ZN9QCheckBox11ToggleStateE {
    Off = 0,
    NoChange = 1,
    On = 2
};
```

17.6.25. QtGui/qclipboard.h

```
class QClipboard;
enum _ZN10QClipboard4ModeE {
    Clipboard = 0,
    Selection = 1
};
```

17.6.26. QtGui/qcolor.h

```
class QColor;
enum _ZN6QColor4SpecE {
    Invalid = 0,
    Rgb = 1,
    Hsv = 2,
    Cmyk = 3
};
```

```
};
```

17.6.27. QtGui/qcolordialog.h

```
class QColorDialog;
```

17.6.28. QtGui/qcolormap.h

```
class QColormap;
enum _ZN9QColormap4ModeE {
    Direct = 0,
    Indexed = 1,
    Gray = 2
};
```

17.6.29. QtGui/qcombobox.h

```
class QComboBox;
enum _ZN9QComboBox12InsertPolicyE {
    NoInsert = 0,
    NoInsertion = 0,
    AtTop = 1,
    InsertAtTop = 1,
    AtCurrent = 2,
    InsertAtCurrent = 2,
    InsertAtBottom = 3,
    AtBottom = 3,
    InsertAfterCurrent = 4,
    AfterCurrent = 4,
    InsertBeforeCurrent = 5,
    BeforeCurrent = 5
};
typedef enum _ZN9QComboBox12InsertPolicyE {
    NoInsert = 0,
    NoInsertion = 0,
    AtTop = 1,
    InsertAtTop = 1,
    AtCurrent = 2,
    InsertAtCurrent = 2,
    InsertAtBottom = 3,
    AtBottom = 3,
    InsertAfterCurrent = 4,
    AfterCurrent = 4,
    InsertBeforeCurrent = 5,
    BeforeCurrent = 5
} QComboBox::Policy;
enum _ZN9QComboBox16SizeAdjustPolicyE {
    AdjustToContents = 0,
    AdjustToContentsOnFirstShow = 1,
    AdjustToMinimumContentsLength = 2
};
```

17.6.30. QtGui/qcommonstyle.h

```
class QCommonStyle;
```

17.6.31. QtGui/qcursor.h

```
class QCursor;
typedef enum _ZN2Qt11CursorShapeE QCursorShape;
```

17.6.32. QtGui/qdatetimeedit.h

```
class QDateTimeEdit;
enum _ZN13QDateTimeEdit7SectionE {
    NoSection = 0,
    AmPmSection = 1,
    MSecSection = 2,
    SecondSection = 4,
    MinuteSection = 8,
    HourSection = 16,
    TimeSections_Mask = 31,
    DaySection = 256,
    MonthSection = 512,
    YearSection = 1024,
    DateSections_Mask = 1792
};
class QFlags < QDateTimeEdit::Section >;
typedef class QFlags < QDateTimeEdit::Section > QDateTimeEdit::Sections;
class QTimeEdit;
class QDateEdit;
```

17.6.33. QtGui/qdesktopwidget.h

```
class QDesktopWidget;
```

17.6.34. QtGui/qdial.h

```
typedef enum QtValidLicenseForGuiModule QtGuiModule;
class QDial;
```

17.6.35. QtGui/qdialog.h

```
class QDialog;
enum _ZN7QDialog10DialogCodeE {
    Rejected = 0,
    Accepted = 1
};
```

17.6.36. QtGui/qdirmodel.h

```
class QFileIconProvider;
enum _ZN17QFileIconProvider8IconTypeE {
    Computer = 0,
    Desktop = 1,
```

```

    Trashcan = 2,
    Network = 3,
    Drive = 4,
    Folder = 5,
    File = 6
};
class QDirModel;
enum _ZN9QDirModel5RolesE {
    FileIconRole = 1,
    FilePathRole = 33,
    FileNameRole = 34
};

```

17.6.37. QtGui/qdockwidget.h

```

class QDockWidget;
enum _ZN11QDockWidget17DockWidgetFeatureE {
    NoDockWidgetFeatures = 0,
    DockWidgetClosable = 1,
    DockWidgetMovable = 2,
    DockWidgetFloatable = 4,
    DockWidgetFeatureMask = 7,
    AllDockWidgetFeatures = 7,
    Reserved = 255
};
class QFlags < QDockWidget::DockWidgetFeature >;
typedef class QFlags < QDockWidget::DockWidgetFeature >
    QDockWidget::DockWidgetFeatures;

```

17.6.38. QtGui/qdrag.h

```

class QDrag;

```

17.6.39. QtGui/qerrormessage.h

```

class QErrorMessage;

```

17.6.40. QtGui/qevent.h

```

class QInputEvent;
class QMouseEvent;
class QHoverEvent;
class QWheelEvent;
class QTabletEvent;
enum _ZN12QTabletEvent12TabletDeviceE {
    NoDevice = 0,
    Puck = 1,
    Stylus = 2,
    Airbrush = 3,
    FourDMouse = 4,
    XFreeEraser = 5,
    RotationStylus = 6
};
enum _ZN12QTabletEvent11PointerTypeE {
    UnknownPointer = 0,
    Pen = 1,

```



```

        Cursor = 2,
        Eraser = 3
};
class QKeyEvent;
class QFocusEvent;
enum _ZN11QFocusEvent6ReasonE {
    Mouse = 0,
    Tab = 1,
    Backtab = 2,
    ActiveWindow = 3,
    Popup = 4,
    Shortcut = 5,
    MenuBar = 6,
    Other = 7
};
class QPaintEvent;
class QMoveEvent;
class QResizeEvent;
class QCloseEvent;
class QIconDragEvent;
class QShowEvent;
class QHideEvent;
class QContextMenuEvent;
enum _ZN17QContextMenuEvent6ReasonE {
    Mouse = 0,
    Keyboard = 1,
    Other = 2
};
class QInputMethodEvent;
enum _ZN17QInputMethodEvent13AttributeTypeE {
    TextFormat = 0,
    Cursor = 1,
    Language = 2,
    Ruby = 3
};
class QInputMethodEvent::Attribute;
class QDropEvent;
enum _ZN10QDropEvent6ActionE {
    Copy = 0,
    Link = 1,
    Move = 2,
    Private = 3,
    UserAction = 3
};
class QDragMoveEvent;
class QDragEnterEvent;
class QDragResponseEvent;
class QDragLeaveEvent;
class QHelpEvent;
class QStatusTipEvent;
class QWhatsThisClickedEvent;
class QActionEvent;
class QFileOpenEvent;
class QToolBarChangeEvent;
class QShortcutEvent;
class QClipboardEvent;
class QWindowStateChangeEvent;
class QMenuBarUpdatedEvent;

```

17.6.41. QtGui/qfiledialog.h

```

class QFileDialog;
enum _ZN11QFileDialog8ViewModeE {
    Detail = 0,
    List = 1
};
enum _ZN11QFileDialog8FileModeE {
    AnyFile = 0,
    ExistingFile = 1,
    Directory = 2,
    ExistingFiles = 3,
    DirectoryOnly = 4
};
enum _ZN11QFileDialog10AcceptModeE {
    AcceptOpen = 0,
    AcceptSave = 1
};
enum _ZN11QFileDialog11DialogLabelE {
    LookIn = 0,
    FileName = 1,
    FileType = 2,
    Accept = 3,
    Reject = 4
};
enum _ZN11QFileDialog6OptionE {
    ShowDirsOnly = 1,
    DontResolveSymlinks = 2,
    DontConfirmOverwrite = 4,
    DontUseSheet = 8,
    DontUseNativeDialog = 16
};
class QFlags < QFileDialog::Option >;
typedef class QFlags < QFileDialog::Option > QFileDialog::Options;
typedef enum _ZN11QFileDialog8FileModeE {
    AnyFile = 0,
    ExistingFile = 1,
    Directory = 2,
    ExistingFiles = 3,
    DirectoryOnly = 4
} QFileDialog::Mode;

```

17.6.42. QtGui/qfocusframe.h

```

class QFocusFrame;

```

17.6.43. QtGui/qfont.h

```

class QFont;
enum _ZN5QFont9StyleHintE {
    Helvetica = 0,
    SansSerif = 0,
    Times = 1,
    Serif = 1,
    TypeWriter = 2,
    Courier = 2,
    OldEnglish = 3,
    Decorative = 3,

```

```

    System = 4,
    AnyStyle = 5
};
enum _ZN5QFont13StyleStrategyE {
    PreferDefault = 1,
    PreferBitmap = 2,
    PreferDevice = 4,
    PreferOutline = 8,
    ForceOutline = 16,
    PreferMatch = 32,
    PreferQuality = 64,
    PreferAntialias = 128,
    NoAntialias = 256,
    OpenGLCompatible = 512
};
enum _ZN5QFont6WeightE {
    Light = 25,
    Normal = 50,
    DemiBold = 63,
    Bold = 75,
    Black = 87
};
enum _ZN5QFont5StyleE {
    StyleNormal = 0,
    StyleItalic = 1,
    StyleOblique = 2
};
enum _ZN5QFont7StretchE {
    UltraCondensed = 50,
    ExtraCondensed = 62,
    Condensed = 75,
    SemiCondensed = 87,
    Unstretched = 100,
    SemiExpanded = 112,
    Expanded = 125,
    ExtraExpanded = 150,
    UltraExpanded = 200
};

```

17.6.44. QtGui/qfontdatabase.h

```

class QFontDatabase;
enum _ZN13QFontDatabase13WritingSystemE {
    Any = 0,
    Latin = 1,
    Greek = 2,
    Cyrillic = 3,
    Armenian = 4,
    Hebrew = 5,
    Arabic = 6,
    Syriac = 7,
    Thaana = 8,
    Devanagari = 9,
    Bengali = 10,
    Gurmukhi = 11,
    Gujarati = 12,
    Oriya = 13,
    Tamil = 14,
    Telugu = 15,
    Kannada = 16,
    Malayalam = 17,

```

```

    Sinhala = 18,
    Thai = 19,
    Lao = 20,
    Tibetan = 21,
    Myanmar = 22,
    Georgian = 23,
    Khmer = 24,
    SimplifiedChinese = 25,
    TraditionalChinese = 26,
    Japanese = 27,
    Korean = 28,
    Vietnamese = 29,
    Other = 30,
    WritingSystemsCount = 31
};

```

17.6.45. QtGui/qfontdialog.h

```
class QFontDialog;
```

17.6.46. QtGui/qfontinfo.h

```
class QFontInfo;
```

17.6.47. QtGui/qfontmetrics.h

```
class QFontMetrics;
class QFontMetricsF;
```

17.6.48. QtGui/qframe.h

```

class QFrame;
enum _ZN6QFrame5ShapeE {
    NoFrame = 0,
    Box = 1,
    Panel = 2,
    WinPanel = 3,
    HLine = 4,
    VLine = 5,
    TabWidgetPanel = 6,
    LineEditPanel = 6,
    ToolBarPanel = 6,
    MenuBarPanel = 6,
    PopupPanel = 6,
    StyledPanel = 6,
    GroupBoxPanel = 6
};
enum _ZN6QFrame6ShadowE {
    Plain = 16,
    Raised = 32,
    Sunken = 48
};

```

17.6.49. QtGui/qgridlayout.h

```
class QGridLayout;
```

17.6.50. QtGui/qgroupbox.h

```
class QGroupBox;
```

17.6.51. QtGui/qheaderview.h

```
class QHeaderView;
enum _ZN11QHeaderView10ResizeModeE {
    Interactive = 0,
    Stretch = 1,
    Custom = 2
};
```

17.6.52. QtGui/qicon.h

```
class QIcon;
enum _ZN5QIcon4ModeE {
    Normal = 0,
    Disabled = 1,
    Active = 2
};
enum _ZN5QIcon5StateE {
    On = 0,
    Off = 1
};
enum _ZN5QIcon4SizeE {
    Small = 0,
    Automatic = 0,
    Large = 1
};
typedef class QIcon QIconSet;
```

17.6.53. QtGui/qiconengine.h

```
class QIconEngine;
```

17.6.54. QtGui/qiconengineplugin.h

```
struct QIconEngineFactoryInterface;
class QIconEnginePlugin;
```

17.6.55. QtGui/qimage.h

```
class QImageTextKeyLang;
class QImage;
enum _ZN6QImage10InvertModeE {
    InvertRgb = 0,
    InvertRgba = 1
};
```

```
enum _ZN6QImage6FormatE {
    Format_Invalid = 0,
    Format_Mono = 1,
    Format_MonoLSB = 2,
    Format_Indexed8 = 3,
    Format_RGB32 = 4,
    Format_ARGB32 = 5,
    Format_ARGB32_Premultiplied = 6
};
enum _ZN6QImage6EndianE {
    BigEndian = 0,
    LittleEndian = 1,
    IgnoreEndian = 2
};
```

17.6.56. QtGui/qimageiohandler.h

```
class QImageIOHandler;
enum _ZN15QImageIOHandler11ImageOptionE {
    Size = 0,
    ClipRect = 1,
    Description = 2,
    ScaledClipRect = 3,
    ScaledSize = 4,
    CompressionRatio = 5,
    Gamma = 6,
    Quality = 7,
    Name = 8,
    SubType = 9,
    IncrementalReading = 10,
    Endianness = 11,
    Animation = 12,
    BackgroundColor = 13
};
struct QImageIOHandlerFactoryInterface;
class QImageIOPlugin;
enum _ZN14QImageIOPlugin10CapabilityE {
    CanRead = 1,
    CanWrite = 2,
    CanReadIncremental = 4
};
class QFlags < QImageIOPlugin::Capability >;
typedef class QFlags < QImageIOPlugin::Capability >
    QImageIOPlugin::Capabilities;
```

17.6.57. QtGui/qimagereader.h

```
class QImageReader;
enum _ZN12QImageReader16ImageReaderErrorE {
    UnknownError = 0,
    FileNotFoundError = 1,
    DeviceError = 2,
    UnsupportedFormatError = 3,
    InvalidDataError = 4
};
```

17.6.58. QtGui/qimagewriter.h

```
class QImageWriter;
enum _ZN12QImageWriter16ImageWriterErrorE {
    UnknownError = 0,
    DeviceError = 1,
    UnsupportedFormatError = 2
};
```

17.6.59. QtGui/qinputcontext.h

```
class QInputContext;
enum _ZN13QInputContext14StandardFormatE {
    PreeditFormat = 0,
    SelectionFormat = 1
};
```

17.6.60. QtGui/qinputcontextfactory.h

```
class QInputContextFactory;
```

17.6.61. QtGui/qinputcontextplugin.h

```
struct QInputContextFactoryInterface;
class QInputContextPlugin;
```

17.6.62. QtGui/qinputdialog.h

```
class QInputDialog;
enum _ZN12QInputDialog4TypeE {
    LineEdit = 0,
    SpinBox = 1,
    DoubleSpinBox = 2,
    ComboBox = 3,
    EditableComboBox = 4
};
```

17.6.63. QtGui/qitemdelegate.h

```
class QItemDelegate;
```

17.6.64. QtGui/qitemeditorfactory.h

```
class QItemEditorCreatorBase;
class QItemEditorFactory;
```

17.6.65. QtGui/qitemselectionmodel.h

```
class QItemSelectionRange;
class QItemSelectionModel;
enum _ZN19QItemSelectionModel13SelectionFlagE {
```

```

    NoUpdate = 0,
    Clear = 1,
    Select = 2,
    ClearAndSelect = 3,
    Deselect = 4,
    Toggle = 8,
    Current = 16,
    SelectCurrent = 18,
    ToggleCurrent = 24,
    Rows = 32,
    Columns = 64
};
class QFlags < QItemSelectionModel::SelectionFlag >;
typedef class QFlags < QItemSelectionModel::SelectionFlag >
    QItemSelectionModel::SelectionFlags;
class QItemSelection;

```

17.6.66. QtGui/qkeysequence.h

```

class QKeySequence;
enum _ZN12QKeySequence13SequenceMatchE {
    NoMatch = 0,
    PartialMatch = 1,
    ExactMatch = 2,
    Identical = 2
};
enum _ZN12QKeySequence14SequenceFormatE {
    NativeText = 0,
    PortableText = 1
};

```

17.6.67. QtGui/qlabel.h

```

class QLabel;

```

17.6.68. QtGui/qlayout.h

```

class QLayoutIterator;
class QLayout;
enum _ZN7QLayout14SizeConstraintE {
    SetDefaultConstraint = 0,
    Auto = 0,
    SetNoConstraint = 1,
    FreeResize = 1,
    SetMinimumSize = 2,
    Minimum = 2,
    Fixed = 3,
    SetFixedSize = 3,
    SetMaximumSize = 4,
    SetMinAndMaxSize = 5
};

```

17.6.69. QtGui/qlayoutitem.h

```
class QLayoutItem;
class QSpacerItem;
class QWidgetItem;
```

17.6.70. QtGui/qlcdnumber.h

```
class QLCDNumber;
enum _ZN10QLCDNumber4ModeE {
    Hex = 0,
    HEX = 0,
    Dec = 1,
    DEC = 1,
    Oct = 2,
    OCT = 2,
    Bin = 3,
    BIN = 3
};
enum _ZN10QLCDNumber12SegmentStyleE {
    Outline = 0,
    Filled = 1,
    Flat = 2
};
```

17.6.71. QtGui/qlineedit.h

```
class QLineEdit;
enum _ZN9QLineEdit8EchoModeE {
    Normal = 0,
    NoEcho = 1,
    Password = 2
};
```

17.6.72. QtGui/qlistview.h

```
class QListView;
enum _ZN9QListView8MovementE {
    Static = 0,
    Free = 1,
    Snap = 2
};
enum _ZN9QListView4FlowE {
    LeftToRight = 0,
    TopToBottom = 1
};
enum _ZN9QListView10ResizeModeE {
    Fixed = 0,
    Adjust = 1
};
enum _ZN9QListView10LayoutModeE {
    SinglePass = 0,
    Batched = 1
};
enum _ZN9QListView8ViewModeE {
    ListMode = 0,
    IconMode = 1
};
```

```
};
```

17.6.73. QtGui/qlistwidget.h

```
class QListWidgetItem;
class QListWidget;
```

17.6.74. QtGui/qmainwindow.h

```
class QMainWindow;
```

17.6.75. QtGui/qmatrix.h

```
class QMatrix;
```

17.6.76. QtGui/qmenu.h

```
class QMenu;
```

17.6.77. QtGui/qmenubar.h

```
class QMenuBar;
enum _ZN8QMenuBar9SeparatorE {
    Never = 0,
    InWindowsStyle = 1
};
```

17.6.78. QtGui/qmenudata.h

```
class QMenuItem;
```

17.6.79. QtGui/qmessagebox.h

```
class QMessageBox;
enum _ZN11QMessageBox4IconE {
    NoIcon = 0,
    Information = 1,
    Warning = 2,
    Critical = 3,
    Question = 4
};
enum _ZN11QMessageBox6ButtonE {
    NoButton = 0,
    Ok = 1,
    Cancel = 2,
    Yes = 3,
    No = 4,
    Abort = 5,
    Retry = 6,
    Ignore = 7,
    YesAll = 8,
    NoAll = 9,
```

```

    ButtonMask = 255,
    Default = 256,
    Escape = 512,
    FlagMask = 768
};

```

17.6.80. QtGui/qmime.h

```
class QMimeSource;
```

17.6.81. QtGui/qmotifstyle.h

```
class QMotifStyle;
```

17.6.82. QtGui/qmovie.h

```

class QMovie;
enum _ZN6QMovie10MovieStateE {
    NotRunning = 0,
    Paused = 1,
    Running = 2
};
enum _ZN6QMovie9CacheModeE {
    CacheNone = 0,
    CacheAll = 1
};

```

17.6.83. QtGui/qpagesetupdialog.h

```
class QPageSetupDialog;
```

17.6.84. QtGui/qpaintdevice.h

```

class QPaintDevice;
enum _ZN12QPaintDevice17PaintDeviceMetricE {
    PdmWidth = 1,
    PdmHeight = 2,
    PdmWidthMM = 3,
    PdmHeightMM = 4,
    PdmNumColors = 5,
    PdmDepth = 6,
    PdmDpiX = 7,
    PdmDpiY = 8,
    PdmPhysicalDpiX = 9,
    PdmPhysicalDpiY = 10
};

```

17.6.85. QtGui/qpaintengine.h

```

class QTextItem;
enum _ZN9QTextItem10RenderFlagE {
    Dummy = -1,
    RightToLeft = 1,

```

```

    Overline = 16,
    Underline = 32,
    StrikeOut = 64
};
class QFlags < QTextItem::RenderFlag >;
typedef class QFlags < QTextItem::RenderFlag > QTextItem::RenderFlags;
class QPaintEngine;
enum _ZN12QPaintEngine18PaintEngineFeatureE {
    AllFeatures = -1,
    PrimitiveTransform = 1,
    PatternTransform = 2,
    PixmapTransform = 4,
    PatternBrush = 8,
    LinearGradientFill = 16,
    RadialGradientFill = 32,
    ConicalGradientFill = 64,
    AlphaBlend = 128,
    PorterDuff = 256,
    PainterPaths = 512,
    Antialiasing = 1024,
    BrushStroke = 2048,
    PaintOutsidePaintEvent = 536870912
};
class QFlags < QPaintEngine::PaintEngineFeature >;
typedef class QFlags < QPaintEngine::PaintEngineFeature >
    QPaintEngine::PaintEngineFeatures;
enum _ZN12QPaintEngine9DirtyFlagE {
    DirtyPen = 1,
    DirtyBrush = 2,
    DirtyBrushOrigin = 4,
    DirtyFont = 8,
    DirtyBackground = 16,
    DirtyBackgroundMode = 32,
    DirtyTransform = 64,
    DirtyClipRegion = 128,
    DirtyClipPath = 256,
    DirtyHints = 512,
    DirtyCompositionMode = 1024,
    DirtyClipEnabled = 2048,
    AllDirty = 65535
};
class QFlags < QPaintEngine::DirtyFlag >;
typedef class QFlags < QPaintEngine::DirtyFlag > QPaintEngine::DirtyFlags;
enum _ZN12QPaintEngine15PolygonDrawModeE {
    OddEvenMode = 0,
    WindingMode = 1,
    ConvexMode = 2,
    PolylineMode = 3
};
enum _ZN12QPaintEngine4TypeE {
    X11 = 0,
    Windows = 1,
    QuickDraw = 2,
    CoreGraphics = 3,
    MacPrinter = 4,
    QWindowSystem = 5,
    PostScript = 6,
    OpenGL = 7,
    Picture = 8,
    SVG = 9,
    Raster = 10,
    User = 50,
};

```

```

    MaxUser = 100
};
class QPaintEngineState;

```

17.6.86. QtGui/qpainter.h

```

class QPainter;
enum _ZN8QPainter10RenderHintE {
    Antialiasing = 1,
    TextAntialiasing = 2,
    SmoothPixmapTransform = 4
};
class QFlags < QPainter::RenderHint >;
typedef class QFlags < QPainter::RenderHint > QPainter::RenderHints;
enum _ZN8QPainter15CompositionModeE {
    CompositionMode_SourceOver = 0,
    CompositionMode_DestinationOver = 1,
    CompositionMode_Clear = 2,
    CompositionMode_Source = 3,
    CompositionMode_Destination = 4,
    CompositionMode_SourceIn = 5,
    CompositionMode_DestinationIn = 6,
    CompositionMode_SourceOut = 7,
    CompositionMode_DestinationOut = 8,
    CompositionMode_SourceAtop = 9,
    CompositionMode_DestinationAtop = 10,
    CompositionMode_Xor = 11
};

```

17.6.87. QtGui/qpainterpath.h

```

class QPainterPath;
enum _ZN12QPainterPath11ElementTypeE {
    MoveToElement = 0,
    LineToElement = 1,
    CurveToElement = 2,
    CurveToDataElement = 3
};
class QPainterPath::Element;
class QPainterPathPrivate;
class QPainterPathStroker;

```

17.6.88. QtGui/qpalette.h

```

class QPalette;
enum _ZN8QPalette10ColorGroupE {
    Active = 0,
    Normal = 0,
    Disabled = 1,
    Inactive = 2,
    NColorGroups = 3,
    Current = 4,
    All = 5
};
enum _ZN8QPalette9ColorRoleE {
    WindowText = 0,
    Foreground = 0,
    Button = 1,

```

```

    Light = 2,
    Midlight = 3,
    Dark = 4,
    Mid = 5,
    Text = 6,
    BrightText = 7,
    ButtonText = 8,
    Base = 9,
    Background = 10,
    Window = 10,
    Shadow = 11,
    Highlight = 12,
    HighlightedText = 13,
    Link = 14,
    LinkVisited = 15,
    AlternateBase = 16,
    NColorRoles = 17,
    NoRole = 17
};
class QColorGroup;

```

17.6.89. QtGui/qpen.h

```
class QPen;
```

17.6.90. QtGui/qpicture.h

```

class QPicture;
typedef void picture_io_handler;
class QPictureIO;

```

17.6.91. QtGui/qpictureformatplugin.h

```

struct QPictureFormatInterface;
class QPictureFormatPlugin;

```

17.6.92. QtGui/qpixmap.h

```

class QPixmap;
enum _ZN7QPixmap9ColorModeE {
    Auto = 0,
    Color = 1,
    Mono = 2
};
enum _ZN7QPixmap4TypeE {
    PixmapType = 0,
    BitmapType = 1
};

```

17.6.93. QtGui/qpixmapcache.h

```
class QPixmapCache;
```

17.6.94. QtGui/qplastiquestyle.h

```
class QPlastiqueStyle;
```

17.6.95. QtGui/qpolygon.h

```
class QPolygon;
class QPolygonF;
```

17.6.96. QtGui/qprintdialog.h

```
class QPrintDialog;
```

17.6.97. QtGui/qprintengine.h

```
class QPrintEngine;
enum _ZN12QPrintEngine22PrintEnginePropertyKeyE {
    PPK_CollateCopies = 0,
    PPK_ColorMode = 1,
    PPK_Creator = 2,
    PPK_DocumentName = 3,
    PPK_FullPage = 4,
    PPK_NumberOfCopies = 5,
    PPK_Orientation = 6,
    PPK_OutputFileName = 7,
    PPK_PageOrder = 8,
    PPK_PageRect = 9,
    PPK_PageSize = 10,
    PPK_PaperRect = 11,
    PPK_PaperSource = 12,
    PPK_PrinterName = 13,
    PPK_PrinterProgram = 14,
    PPK_Resolution = 15,
    PPK_SelectionOption = 16,
    PPK_SupportedResolutions = 17,
    PPK_WindowsPageSize = 18,
    PPK_FontEmbedding = 19,
    PPK_SuppressSystemPrintStatus = 20,
    PPK_CustomBase = 65280
};
```

17.6.98. QtGui/qprinter.h

```
class QPrinter;
enum _ZN8QPrinter11PrinterModeE {
    ScreenResolution = 0,
    PrinterResolution = 1,
    HighResolution = 2
};
enum _ZN8QPrinter11OrientationE {
    Portrait = 0,
    Landscape = 1
};
enum _ZN8QPrinter8PageSizeE {
    A4 = 0,
```

```

    B5 = 1,
    Letter = 2,
    Legal = 3,
    Executive = 4,
    A0 = 5,
    A1 = 6,
    A2 = 7,
    A3 = 8,
    A5 = 9,
    A6 = 10,
    A7 = 11,
    A8 = 12,
    A9 = 13,
    B0 = 14,
    B1 = 15,
    B10 = 16,
    B2 = 17,
    B3 = 18,
    B4 = 19,
    B6 = 20,
    B7 = 21,
    B8 = 22,
    B9 = 23,
    C5E = 24,
    Comm10E = 25,
    DLE = 26,
    Folio = 27,
    Ledger = 28,
    Tabloid = 29,
    Custom = 30,
    NPageSize = 30
};
enum _ZN8QPrinter9PageOrderE {
    FirstPageFirst = 0,
    LastPageFirst = 1
};
enum _ZN8QPrinter9ColorModeE {
    GrayScale = 0,
    Color = 1
};
enum _ZN8QPrinter11PaperSourceE {
    OnlyOne = 0,
    Lower = 1,
    Middle = 2,
    Manual = 3,
    Envelope = 4,
    EnvelopeManual = 5,
    Auto = 6,
    Tractor = 7,
    SmallFormat = 8,
    LargeFormat = 9,
    LargeCapacity = 10,
    Cassette = 11,
    FormSource = 12
};
enum _ZN8QPrinter12PrinterStateE {
    Idle = 0,
    Active = 1,
    Aborted = 2,
    Error = 3
};
enum _ZN8QPrinter12OutputFormatE {

```



```

    NativeFormat = 0,
    PdfFormat = 1
};
enum _ZN8QPrinter10PrintRangeE {
    AllPages = 0,
    Selection = 1,
    PageRange = 2
};
enum _ZN8QPrinter13PrinterOptionE {
    PrintToFile = 0,
    PrintSelection = 1,
    PrintPageRange = 2
};

```

17.6.99. QtGui/qprogressbar.h

```

class QProgressBar;
enum _ZN12QProgressBar9DirectionE {
    TopToBottom = 0,
    BottomToTop = 1
};

```

17.6.100. QtGui/qprogressdialog.h

```

class QProgressDialog;

```

17.6.101. QtGui/qproxymodel.h

```

class QProxyModel;

```

17.6.102. QtGui/qpushbutton.h

```

class QPushButton;

```

17.6.103. QtGui/qradiobutton.h

```

class QRadioButton;

```

17.6.104. QtGui/qregion.h

```

class QRegion;
enum _ZN7QRegion10RegionTypeE {
    Rectangle = 0,
    Ellipse = 1
};
struct QRegion::QRegionData;

```

17.6.105. QtGui/qrgb.h

```

typedef unsigned int QRgb;

```

17.6.106. QtGui/qrubberband.h

```
class QRubberBand;
enum _ZN11QRubberBand5ShapeE {
    Line = 0,
    Rectangle = 1
};
```

17.6.107. QtGui/qscrollarea.h

```
class QScrollArea;
```

17.6.108. QtGui/qscrollbar.h

```
class QScrollBar;
```

17.6.109. QtGui/qsessionmanager.h

```
class QSessionManager;
enum _ZN15QSessionManager11RestartHintE {
    RestartIfRunning = 0,
    RestartAnyway = 1,
    RestartImmediately = 2,
    RestartNever = 3
};
```

17.6.110. QtGui/qshortcut.h

```
class QShortcut;
```

17.6.111. QtGui/qsizegrip.h

```
class QSizeGrip;
```

17.6.112. QtGui/qsizepolicy.h

```
class QSizePolicy;
enum _ZN11QSizePolicy15SizePolicyMasksE {
    HSize = 4,
    HMask = 15,
    VMask = 240
};
enum _ZN11QSizePolicy10PolicyFlagE {
    GrowFlag = 1,
    ExpandFlag = 2,
    ShrinkFlag = 4,
    IgnoreFlag = 8
};
enum _ZN11QSizePolicy6PolicyE {
    Fixed = 0,
    Minimum = 1,
    MinimumExpanding = 3,
    Maximum = 4,
```

```

    Preferred = 5,
    Expanding = 7,
    Ignored = 13
};
typedef enum _ZN11QSizePolicy6PolicyE {
    Fixed = 0,
    Minimum = 1,
    MinimumExpanding = 3,
    Maximum = 4,
    Preferred = 5,
    Expanding = 7,
    Ignored = 13
} QSizePolicy::SizeType;
typedef Qt::Orientations QSizePolicy::ExpandData;

```

17.6.113. QtGui/qlslider.h

```

class QSlider;
enum _ZN7QSlider12TickPositionE {
    NoTicks = 0,
    NoMarks = 0,
    TicksLeft = 1,
    Left = 1,
    Above = 1,
    TicksAbove = 1,
    TicksRight = 2,
    TicksBelow = 2,
    Below = 2,
    Right = 2,
    TicksBothSides = 3,
    Both = 3
};

```

17.6.114. QtGui/qsortfilterproxymodel.h

```

class QSortFilterProxyModel;

```

17.6.115. QtGui/qsound.h

```

class QSound;

```

17.6.116. QtGui/qspinbox.h

```

class QSpinBox;
class QDoubleSpinBox;

```

17.6.117. QtGui/qsplashscreen.h

```

class QSplashScreen;

```

17.6.118. QtGui/qsplitter.h

```
class QSplitter;
enum _ZN9QSplitter10ResizeModeE {
    Stretch = 0,
    KeepSize = 1,
    FollowSizeHint = 2,
    Auto = 3
};
class QSplitterHandle;
```

17.6.119. QtGui/qstackedlayout.h

```
class QStackedLayout;
```

17.6.120. QtGui/qstackedwidget.h

```
class QStackedWidget;
```

17.6.121. QtGui/qstandarditemmodel.h

```
class QStandardItemModel;
```

17.6.122. QtGui/qstatusbar.h

```
class QStatusBar;
```

17.6.123. QtGui/qstringlistmodel.h

```
class QStringListModel;
```

17.6.124. QtGui/qstyle.h

```
class QStyle;
enum _ZN6QStyle9StateFlagE {
    State_None = 0,
    State_Default = 0,
    State_Enabled = 1,
    State_Raised = 2,
    State_Sunken = 4,
    State_Off = 8,
    State_NoChange = 16,
    State_On = 32,
    State_DownArrow = 64,
    State_Horizontal = 128,
    State_HasFocus = 256,
    State_Top = 512,
    State_Bottom = 1024,
    State_FocusAtBorder = 2048,
    State_AutoRaise = 4096,
    State_MouseOver = 8192,
    State_UpArrow = 16384,
    State_Selected = 32768,
```

```

    State_Active = 65536,
    State_Open = 262144,
    State_Children = 524288,
    State_Item = 1048576,
    State_Sibling = 2097152,
    State_Editing = 4194304,
    State_KeyboardFocusChange = 8388608,
    State_ReadOnly = 33554432
};

class QFlags < QStyle::StateFlag >;
typedef class QFlags < QStyle::StateFlag > QStyle::State;
typedef QStyle::State QStyle::SFlags;
enum _ZN6QStyle16PrimitiveElementE {
    PE_Q3CheckListController = 0,
    PE_Q3CheckListExclusiveIndicator = 1,
    PE_Q3CheckListIndicator = 2,
    PE_Q3DockWindowSeparator = 3,
    PE_Q3Separator = 4,
    PE_Frame = 5,
    PE_FrameDefaultButton = 6,
    PE_FrameDockWidget = 7,
    PE_FrameFocusRect = 8,
    PE_FrameGroupBox = 9,
    PE_FrameLineEdit = 10,
    PE_FrameMenu = 11,
    PE_FrameStatusBar = 12,
    PE_FrameTabWidget = 13,
    PE_FrameWindow = 14,
    PE_FrameButtonBevel = 15,
    PE_FrameButtonTool = 16,
    PE_FrameTabBarBase = 17,
    PE_PanelButtonCommand = 18,
    PE_PanelButtonBevel = 19,
    PE_PanelButtonTool = 20,
    PE_PanelMenuBar = 21,
    PE_PanelToolBar = 22,
    PE_PanelLineEdit = 23,
    PE_IndicatorArrowDown = 24,
    PE_IndicatorArrowLeft = 25,
    PE_IndicatorArrowRight = 26,
    PE_IndicatorArrowUp = 27,
    PE_IndicatorBranch = 28,
    PE_IndicatorButtonDropDown = 29,
    PE_IndicatorViewItemCheck = 30,
    PE_IndicatorCheckBox = 31,
    PE_IndicatorDockWidgetResizeHandle = 32,
    PE_IndicatorHeaderArrow = 33,
    PE_IndicatorMenuCheckMark = 34,
    PE_IndicatorProgressChunk = 35,
    PE_IndicatorRadioButton = 36,
    PE_IndicatorSpinDown = 37,
    PE_IndicatorSpinMinus = 38,
    PE_IndicatorSpinPlus = 39,
    PE_IndicatorSpinUp = 40,
    PE_IndicatorToolBarHandle = 41,
    PE_IndicatorToolBarSeparator = 42,
    PE_PanelTipLabel = 43,
    PE_IndicatorTabTear = 44,
    PE_CustomBase = 251658240
};
enum _ZN6QStyle14ControlElementE {
    CE_CustomBase = -268435456,

```

```

CE_PushButton = 0,
CE_PushButtonBevel = 1,
CE_PushButtonLabel = 2,
CE_CheckBox = 3,
CE_CheckBoxLabel = 4,
CE_RadioButton = 5,
CE_RadioButtonLabel = 6,
CE_TabBarTab = 7,
CE_TabBarTabShape = 8,
CE_TabBarTabLabel = 9,
CE_ProgressBar = 10,
CE_ProgressBarGroove = 11,
CE_ProgressBarContents = 12,
CE_ProgressBarLabel = 13,
CE_MenuItem = 14,
CE_MenuScroller = 15,
CE_MenuVMargin = 16,
CE_MenuHMargin = 17,
CE_MenuTearoff = 18,
CE_MenuEmptyArea = 19,
CE_MenuBarItem = 20,
CE_MenuBarEmptyArea = 21,
CE_ToolButtonLabel = 22,
CE_Header = 23,
CE_HeaderSection = 24,
CE_HeaderLabel = 25,
CE_Q3DockWindowEmptyArea = 26,
CE_ToolBoxTab = 27,
CE_SizeGrip = 28,
CE_Splitter = 29,
CE_RubberBand = 30,
CE_DockWidgetTitle = 31,
CE_ScrollBarAddLine = 32,
CE_ScrollBarSubLine = 33,
CE_ScrollBarAddPage = 34,
CE_ScrollBarSubPage = 35,
CE_ScrollBarSlider = 36,
CE_ScrollBarFirst = 37,
CE_ScrollBarLast = 38,
CE_FocusFrame = 39,
CE_ComboBoxLabel = 40,
CE_ToolBar = 41
};
enum _ZN6QStyle10SubElementE {
    SE_CustomBase = -268435456,
    SE_PushButtonContents = 0,
    SE_PushButtonFocusRect = 1,
    SE_CheckBoxIndicator = 2,
    SE_CheckBoxContents = 3,
    SE_CheckBoxFocusRect = 4,
    SE_CheckBoxClickRect = 5,
    SE_RadioButtonIndicator = 6,
    SE_RadioButtonContents = 7,
    SE_RadioButtonFocusRect = 8,
    SE_RadioButtonClickRect = 9,
    SE_ComboBoxFocusRect = 10,
    SE_SliderFocusRect = 11,
    SE_Q3DockWindowHandleRect = 12,
    SE_ProgressBarGroove = 13,
    SE_ProgressBarContents = 14,
    SE_ProgressBarLabel = 15,
    SE_DialogButtonAccept = 16,

```

```

SE_DialogButtonReject = 17,
SE_DialogButtonApply = 18,
SE_DialogButtonHelp = 19,
SE_DialogButtonAll = 20,
SE_DialogButtonAbort = 21,
SE_DialogButtonIgnore = 22,
SE_DialogButtonRetry = 23,
SE_DialogButtonCustom = 24,
SE_ToolBoxTabContents = 25,
SE_HeaderLabel = 26,
SE_HeaderArrow = 27,
SE_TabWidgetTabBar = 28,
SE_TabWidgetTabPane = 29,
SE_TabWidgetTabContents = 30,
SE_TabWidgetLeftCorner = 31,
SE_TabWidgetRightCorner = 32,
SE_ViewItemCheckIndicator = 33,
SE_TabBarTearIndicator = 34,
SE_TreeViewDisclosureItem = 35
};
enum _ZN6QStyle14ComplexControlE {
    CC_CustomBase = -268435456,
    CC_SpinBox = 0,
    CC_ComboBox = 1,
    CC_ScrollBar = 2,
    CC_Slider = 3,
    CC_ToolButton = 4,
    CC_TitleBar = 5,
    CC_Q3ListView = 6,
    CC_Dial = 7,
    CC_GroupBox = 8
};
enum _ZN6QStyle10SubControlE {
    SC_All = -1,
    SC_None = 0,
    SC_SliderGroove = 1,
    SC_ToolButton = 1,
    SC_ComboBoxFrame = 1,
    SC_TitleBarSysMenu = 1,
    SC_SpinBoxUp = 1,
    SC_ScrollBarAddLine = 1,
    SC_DialGroove = 1,
    SC_Q3ListView = 1,
    SC_GroupBoxCheckBox = 1,
    SC_Q3ListViewBranch = 2,
    SC_TitleBarMinButton = 2,
    SC_SpinBoxDown = 2,
    SC_DialHandle = 2,
    SC_SliderHandle = 2,
    SC_GroupBoxLabel = 2,
    SC_ToolButtonMenu = 2,
    SC_ScrollBarSubLine = 2,
    SC_ComboBoxEditField = 2,
    SC_GroupBoxContents = 4,
    SC_ScrollBarAddPage = 4,
    SC_Q3ListViewExpand = 4,
    SC_DialTickmarks = 4,
    SC_TitleBarMaxButton = 4,
    SC_SpinBoxFrame = 4,
    SC_ComboBoxArrow = 4,
    SC_SliderTickmarks = 4,
    SC_GroupBoxFrame = 8,

```

```

SC_SpinBoxEditField = 8,
SC_ComboBoxListBoxPopup = 8,
SC_ScrollBarSubPage = 8,
SC_TitleBarCloseButton = 8,
SC_ScrollBarFirst = 16,
SC_TitleBarNormalButton = 16,
SC_ScrollBarLast = 32,
SC_TitleBarShadeButton = 32,
SC_ScrollBarSlider = 64,
SC_TitleBarUnshadeButton = 64,
SC_ScrollBarGroove = 128,
SC_TitleBarContextHelpButton = 128,
SC_TitleBarLabel = 256
};
class QFlags < QStyle::SubControl >;
typedef class QFlags < QStyle::SubControl > QStyle::SubControls;
typedef QStyle::SubControls QStyle::SCFlags;
enum _ZN6QStyle11PixelMetricE {
    PM_CustomBase = -268435456,
    PM_ButtonMargin = 0,
    PM_ButtonDefaultIndicator = 1,
    PM_MenuButtonIndicator = 2,
    PM_ButtonShiftHorizontal = 3,
    PM_ButtonShiftVertical = 4,
    PM_DefaultFrameWidth = 5,
    PM_SpinBoxFrameWidth = 6,
    PM_ComboBoxFrameWidth = 7,
    PM_MaximumDragDistance = 8,
    PM_ScrollBarExtent = 9,
    PM_ScrollBarSliderMin = 10,
    PM_SliderThickness = 11,
    PM_SliderControlThickness = 12,
    PM_SliderLength = 13,
    PM_SliderTickmarkOffset = 14,
    PM_SliderSpaceAvailable = 15,
    PM_DockWidgetSeparatorExtent = 16,
    PM_DockWidgetHandleExtent = 17,
    PM_DockWidgetFrameWidth = 18,
    PM_TabBarTabOverlap = 19,
    PM_TabBarTabHSpace = 20,
    PM_TabBarTabVSpace = 21,
    PM_TabBarBaseHeight = 22,
    PM_TabBarBaseOverlap = 23,
    PM_ProgressBarChunkWidth = 24,
    PM_SplitterWidth = 25,
    PM_TitleBarHeight = 26,
    PM_MenuScrollerHeight = 27,
    PM_MenuHMargin = 28,
    PM_MenuVMargin = 29,
    PM_MenuPanelWidth = 30,
    PM_MenuTearoffHeight = 31,
    PM_MenuDesktopFrameWidth = 32,
    PM_MenuBarPanelWidth = 33,
    PM_MenuBarItemSpacing = 34,
    PM_MenuBarVMargin = 35,
    PM_MenuBarHMargin = 36,
    PM_IndicatorWidth = 37,
    PM_IndicatorHeight = 38,
    PM_ExclusiveIndicatorWidth = 39,
    PM_ExclusiveIndicatorHeight = 40,
    PM_CheckListButtonSize = 41,
    PM_CheckListControllerSize = 42,

```



```

PM_DialogButtonsSeparator = 43,
PM_DialogButtonsButtonWidth = 44,
PM_DialogButtonsButtonHeight = 45,
PM_MDIFrameWidth = 46,
PM_MDIMinimizedWidth = 47,
PM_HeaderMargin = 48,
PM_HeaderMarkSize = 49,
PM_HeaderGripMargin = 50,
PM_TabBarTabShiftHorizontal = 51,
PM_TabBarTabShiftVertical = 52,
PM_TabBarScrollButtonWidth = 53,
PM_ToolBarFrameWidth = 54,
PM_ToolBarHandleExtent = 55,
PM_ToolBarItemSpacing = 56,
PM_ToolBarItemMargin = 57,
PM_ToolBarSeparatorExtent = 58,
PM_ToolBarExtensionExtent = 59,
PM_SpinBoxSliderHeight = 60,
PM_DefaultTopLevelMargin = 61,
PM_DefaultChildMargin = 62,
PM_DefaultLayoutSpacing = 63,
PM_ToolBarIconSize = 64,
PM_ListViewIconSize = 65,
PM_IconViewIconSize = 66,
PM_SmallIconSize = 67,
PM_LargeIconSize = 68,
PM_FocusFrameVMargin = 69,
PM_FocusFrameHMargin = 70,
PM_ToolTipLabelFrameWidth = 71,
PM_CheckBoxLabelSpacing = 72,
PM_TabBarIconSize = 73,
PM_SizeGripSize = 74,
PM_DockWidgetTitleMargin = 75
};
enum _ZN6QStyle12ContentsTypeE {
    CT_CustomBase = -268435456,
    CT_PushButton = 0,
    CT_CheckBox = 1,
    CT_RadioButton = 2,
    CT_ToolButton = 3,
    CT_ComboBox = 4,
    CT_Splitter = 5,
    CT_Q3DockWindow = 6,
    CT_ProgressBar = 7,
    CT_MenuItem = 8,
    CT_MenuBarItem = 9,
    CT_MenuBar = 10,
    CT_Menu = 11,
    CT_TabBarTab = 12,
    CT_Slider = 13,
    CT_ScrollBar = 14,
    CT_Q3Header = 15,
    CT_LineEdit = 16,
    CT_SpinBox = 17,
    CT_SizeGrip = 18,
    CT_TabWidget = 19,
    CT_DialogButtons = 20,
    CT_HeaderSection = 21,
    CT_GroupBox = 22
};
enum _ZN6QStyle9StyleHintE {
    SH_CustomBase = -268435456,

```

```

SH_EtchDisabledText = 0,
SH_DitherDisabledText = 1,
SH_ScrollBar_MiddleClickAbsolutePosition = 2,
SH_ScrollBar_ScrollWhenPointerLeavesControl = 3,
SH_TabBar_SelectMouseType = 4,
SH_TabBar_Alignment = 5,
SH_Header_ArrowAlignment = 6,
SH_Slider_SnapToValue = 7,
SH_Slider_SloppyKeyEvents = 8,
SH_ProgressDialog_CenterCancelButton = 9,
SH_ProgressDialog_TextLabelAlignment = 10,
SH_PrintDialog_RightAlignButtons = 11,
SH_MainWindow_SpaceBelowMenuBar = 12,
SH_FontDialog_SelectAssociatedText = 13,
SH_Menu_AllowActiveAndDisabled = 14,
SH_Menu_SpaceActivatesItem = 15,
SH_Menu_SubMenuPopupDelay = 16,
SH_ScrollView_FrameOnlyAroundContents = 17,
SH_MenuBar_AltKeyNavigation = 18,
SH_ComboBox_ListMouseTracking = 19,
SH_Menu_MouseTracking = 20,
SH_MenuBar_MouseTracking = 21,
SH_ItemView_ChangeHighlightOnFocus = 22,
SH_Widget_ShareActivation = 23,
SH_Workspace_FillSpaceOnMaximize = 24,
SH_ComboBox_Popup = 25,
SH_TitleBar_NoBorder = 26,
SH_ScrollBar_StopMouseOverSlider = 27,
SH_BlinkCursorWhenTextSelected = 28,
SH_RichText_FullWidthSelection = 29,
SH_Menu_Scrollable = 30,
SH_GroupBox_TextLabelVerticalAlignment = 31,
SH_GroupBox_TextLabelColor = 32,
SH_Menu_SloppySubMenus = 33,
SH_Table_GridLineColor = 34,
SH_LineEdit_PasswordCharacter = 35,
SH_DialogButtons_DefaultButton = 36,
SH_ToolBox_SelectedPageTitleBold = 37,
SH_TabBar_PreferNoArrows = 38,
SH_ScrollBar_LeftClickAbsolutePosition = 39,
SH_Q3ListViewExpand_SelectMouseType = 40,
SH_UnderlineShortcut = 41,
SH_UnderlineAccelerator = 41,
SH_SpinBox_AnimateButton = 42,
SH_SpinBox_KeyPressAutoRepeatRate = 43,
SH_SpinBox_ClickAutoRepeatRate = 44,
SH_Menu_FillScreenWithScroll = 45,
SH_ToolTipLabel_Opacity = 46,
SH_DrawMenuBarSeparator = 47,
SH_TitleBar_ModifyNotification = 48,
SH_Button_FocusPolicy = 49,
SH_MenuBar_DismissOnSecondClick = 50,
SH_MessageBox_UseBorderForButtonSpacing = 51,
SH_TitleBar_AutoRaise = 52,
SH_ToolButton_PopupDelay = 53,
SH_FocusFrame_Mask = 54,
SH_RubberBand_Mask = 55,
SH_WindowFrame_Mask = 56,
SH_SpinControls_DisableOnBounds = 57,
SH_Dial_BackgroundRole = 58,
SH_ComboBox_LayoutDirection = 59,
SH_ItemView_EllipsisLocation = 60,

```

```

SH_ItemView_ShowDecorationSelected = 61,
SH_ItemView_ActivateItemOnSingleClick = 62,
SH_ScrollBar_ContextMenu = 63,
SH_ScrollBar_RollBetweenButtons = 64,
SH_GUIStyle = 256,
SH_ScrollBar_BackgroundMode = 257
};
enum _ZN6QStyle14StandardPixmapE {
    SP_CustomBase = -268435456,
    SP_TitleBarMenuButton = 0,
    SP_TitleBarMinButton = 1,
    SP_TitleBarMaxButton = 2,
    SP_TitleBarCloseButton = 3,
    SP_TitleBarNormalButton = 4,
    SP_TitleBarShadeButton = 5,
    SP_TitleBarUnshadeButton = 6,
    SP_TitleBarContextHelpButton = 7,
    SP_DockWidgetCloseButton = 8,
    SP_MessageBoxInformation = 9,
    SP_MessageBoxWarning = 10,
    SP_MessageBoxCritical = 11,
    SP_MessageBoxQuestion = 12,
    SP_DesktopIcon = 13,
    SP_TrashIcon = 14,
    SP_ComputerIcon = 15,
    SP_DriveFDIcon = 16,
    SP_DriveHDIcon = 17,
    SP_DriveCDIcon = 18,
    SP_DriveDVDIcon = 19,
    SP_DriveNetIcon = 20,
    SP_DirOpenIcon = 21,
    SP_DirClosedIcon = 22,
    SP_DirLinkIcon = 23,
    SP_FileIcon = 24,
    SP_FileLinkIcon = 25,
    SP_ToolBarHorizontalExtensionButton = 26,
    SP_ToolBarVerticalExtensionButton = 27,
    SP_FileDialogStart = 28,
    SP_FileDialogEnd = 29,
    SP_FileDialogToParent = 30,
    SP_FileDialogNewFolder = 31,
    SP_FileDialogDetailedView = 32,
    SP_FileDialogInfoView = 33,
    SP_FileDialogContentsView = 34,
    SP_FileDialogListView = 35,
    SP_FileDialogBack = 36
};

```

17.6.125. QtGui/qstylefactory.h

```
class QStyleFactory;
```

17.6.126. QtGui/qstyleoption.h

```

class QStyleOption;
enum _ZN12QStyleOption10OptionTypeE {
    SO_Default = 0,
    SO_FocusRect = 1,
    SO_Button = 2,

```

```

SO_Tab = 3,
SO_MenuItem = 4,
SO_Frame = 5,
SO_ProgressBar = 6,
SO_ToolBox = 7,
SO_Header = 8,
SO_Q3DockWindow = 9,
SO_DockWidget = 10,
SO_Q3ListViewItem = 11,
SO_ViewItem = 12,
SO_TabWidgetFrame = 13,
SO_TabBarBase = 14,
SO_RubberBand = 15,
SO_ToolBar = 16,
SO_CustomBase = 3840,
SO_Complex = 983040,
SO_Slider = 983041,
SO_SpinBox = 983042,
SO_ToolButton = 983043,
SO_ComboBox = 983044,
SO_Q3ListView = 983045,
SO_TitleBar = 983046,
SO_GroupBox = 983047,
SO_ComplexCustomBase = 251658240
};
class QStyleOptionFocusRect;
class QStyleOptionFrame;
class QStyleOptionFrameV2;
enum _ZN19QStyleOptionFrameV212FrameFeatureE {
    None = 0,
    Flat = 1
};
class QFlags < QStyleOptionFrameV2::FrameFeature >;
typedef class QFlags < QStyleOptionFrameV2::FrameFeature >
    QStyleOptionFrameV2::FrameFeatures;
class QStyleOptionTabWidgetFrame;
class QStyleOptionTabBarBase;
class QStyleOptionHeader;
enum _ZN18QStyleOptionHeader15SectionPositionE {
    Beginning = 0,
    Middle = 1,
    End = 2,
    OnlyOneSection = 3
};
enum _ZN18QStyleOptionHeader16SelectedPositionE {
    NotAdjacent = 0,
    NextIsSelected = 1,
    PreviousIsSelected = 2,
    NextAndPreviousAreSelected = 3
};
enum _ZN18QStyleOptionHeader13SortIndicatorE {
    None = 0,
    SortUp = 1,
    SortDown = 2
};
class QStyleOptionButton;
enum _ZN18QStyleOptionButton13ButtonFeatureE {
    None = 0,
    Flat = 1,
    HasMenu = 2,
    DefaultButton = 4,
    AutoDefaultButton = 8
};

```

```

};
class QFlags < QStyleOptionButton::ButtonFeature >;
typedef class QFlags < QStyleOptionButton::ButtonFeature >
    QStyleOptionButton::ButtonFeatures;
class QStyleOptionTab;
enum _ZN15QStyleOptionTab11TabPositionE {
    Beginning = 0,
    Middle = 1,
    End = 2,
    OnlyOneTab = 3
};
enum _ZN15QStyleOptionTab16SelectedPositionE {
    NotAdjacent = 0,
    NextIsSelected = 1,
    PreviousIsSelected = 2
};
enum _ZN15QStyleOptionTab12CornerWidgetE {
    NoCornerWidgets = 0,
    LeftCornerWidget = 1,
    RightCornerWidget = 2
};
class QFlags < QStyleOptionTab::CornerWidget >;
typedef class QFlags < QStyleOptionTab::CornerWidget >
    QStyleOptionTab::CornerWidgets;
class QStyleOptionTabV2;
class QStyleOptionToolBar;
enum _ZN19QStyleOptionToolBar15ToolBarPositionE {
    Beginning = 0,
    Middle = 1,
    End = 2,
    OnlyOne = 3
};
enum _ZN19QStyleOptionToolBar14ToolBarFeatureE {
    None = 0,
    Movable = 1
};
class QFlags < QStyleOptionToolBar::ToolBarFeature >;
typedef class QFlags < QStyleOptionToolBar::ToolBarFeature >
    QStyleOptionToolBar::ToolBarFeatures;
class QStyleOptionProgressBar;
class QStyleOptionProgressBarV2;
class QStyleOptionMenuItem;
enum _ZN20QStyleOptionMenuItem12MenuItemTypeE {
    Normal = 0,
    DefaultItem = 1,
    Separator = 2,
    SubMenu = 3,
    Scroller = 4,
    TearOff = 5,
    Margin = 6,
    EmptyArea = 7
};
enum _ZN20QStyleOptionMenuItem9CheckTypeE {
    NotCheckable = 0,
    Exclusive = 1,
    NonExclusive = 2
};
class QStyleOptionQ3ListViewItem;
enum _ZN26QStyleOptionQ3ListViewItem21Q3ListViewItemFeatureE {
    None = 0,
    Expandable = 1,
    MultiLine = 2,

```

```

    Visible = 4,
    ParentControl = 8
};
class QFlags < QStyleOptionQ3ListViewItem::Q3ListViewItemFeature >;
typedef class QFlags < QStyleOptionQ3ListViewItem::Q3ListViewItemFeature >
    QStyleOptionQ3ListViewItem::Q3ListViewItemFeatures;
class QStyleOptionQ3DockWindow;
class QStyleOptionDockWidget;
class QStyleOptionViewItem;
enum _ZN20QStyleOptionViewItem8PositionE {
    Left = 0,
    Right = 1,
    Top = 2,
    Bottom = 3
};
class QStyleOptionToolBox;
class QStyleOptionRubberBand;
class QStyleOptionComplex;
class QStyleOptionSlider;
class QStyleOptionSpinBox;
class QStyleOptionQ3ListView;
class QStyleOptionToolButton;
enum _ZN22QStyleOptionToolButton17ToolButtonFeatureE {
    None = 0,
    Arrow = 1,
    Menu = 4,
    PopupDelay = 8
};
class QFlags < QStyleOptionToolButton::ToolButtonFeature >;
typedef class QFlags < QStyleOptionToolButton::ToolButtonFeature >
    QStyleOptionToolButton::ToolButtonFeatures;
class QStyleOptionComboBox;
class QStyleOptionTitleBar;
class QStyleOptionGroupBox;
class QStyleHintReturn;
enum _ZN16QStyleHintReturn14HintReturnTypeE {
    SH_Default = 61440,
    SH_Mask = 61441
};
class QStyleHintReturnMask;

```

17.6.127. QtGui/qstylepainter.h

```
class QStylePainter;
```

17.6.128. QtGui/qstyleplugin.h

```
struct QStyleFactoryInterface;
class QStylePlugin;
```

17.6.129. QtGui/qsyntaxhighlighter.h

```
class QSyntaxHighlighter;
```

17.6.130. QtGui/qtabbar.h

```
class QTabBar;
enum _ZN7QTabBar5ShapeE {
    RoundedNorth = 0,
    RoundedAbove = 0,
    RoundedSouth = 1,
    RoundedBelow = 1,
    RoundedWest = 2,
    RoundedEast = 3,
    TriangularNorth = 4,
    TriangularAbove = 4,
    TriangularBelow = 5,
    TriangularSouth = 5,
    TriangularWest = 6,
    TriangularEast = 7
};
```

17.6.131. QtGui/qtableview.h

```
class QTableView;
```

17.6.132. QtGui/qtablewidget.h

```
class QTableWidgetSelectionRange;
class QTableWidgetItem;
class QTableWidget;
```

17.6.133. QtGui/qtabwidget.h

```
class QTabWidget;
enum _ZN10QTabWidget11TabPositionE {
    North = 0,
    Top = 0,
    South = 1,
    Bottom = 1,
    West = 2,
    East = 3
};
enum _ZN10QTabWidget8TabShapeE {
    Rounded = 0,
    Triangular = 1
};
```

17.6.134. QtGui/qtextbrowser.h

```
class QTextBrowser;
```

17.6.135. QtGui/qtextcursor.h

```
class QTextCursor;
enum _ZN11QTextCursor8MoveModeE {
    MoveAnchor = 0,
    KeepAnchor = 1
};
```

```

};
enum _ZN11QTextCursor13MoveOperationE {
    NoMove = 0,
    Start = 1,
    Up = 2,
    StartOfLine = 3,
    StartOfBlock = 4,
    StartOfWord = 5,
    PreviousBlock = 6,
    PreviousCharacter = 7,
    PreviousWord = 8,
    Left = 9,
    WordLeft = 10,
    End = 11,
    Down = 12,
    EndOfLine = 13,
    EndOfWord = 14,
    EndOfBlock = 15,
    NextBlock = 16,
    NextCharacter = 17,
    NextWord = 18,
    Right = 19,
    WordRight = 20
};
enum _ZN11QTextCursor13SelectionTypeE {
    WordUnderCursor = 0,
    LineUnderCursor = 1,
    BlockUnderCursor = 2
};

```

17.6.136. QtGui/qtextdocument.h

```

enum _ZN2Qt15HitTestAccuracyE {
    ExactHit = 0,
    FuzzyHit = 1
};
enum _ZN2Qt14WhiteSpaceModeE {
    WhiteSpaceModeUndefined = -1,
    WhiteSpaceNormal = 0,
    WhiteSpacePre = 1,
    WhiteSpaceNoWrap = 2
};
class QAbstractUndoItem;
class QTextDocument;
enum _ZN13QTextDocument15MetaInformationE {
    DocumentTitle = 0
};
enum _ZN13QTextDocument8FindFlagE {
    FindBackward = 1,
    FindCaseSensitively = 2,
    FindWholeWords = 4
};
class QFlags < QTextDocument::FindFlag >;
typedef class QFlags < QTextDocument::FindFlag > QTextDocument::FindFlags;
enum _ZN13QTextDocument12ResourceTypeE {
    HtmlResource = 1,
    ImageResource = 2,
    UserResource = 100
};

```


17.6.137. QtGui/qttextdocumentfragment.h

```
class QTextDocumentFragment;
```

17.6.138. QtGui/qttextedit.h

```
class QTextEdit;
enum _ZN9QTextEditl2LineWrapModeE {
    NoWrap = 0,
    WidgetWidth = 1,
    FixedPixelWidth = 2,
    FixedColumnWidth = 3
};
enum _ZN9QTextEditl8AutoFormattingFlagE {
    AutoAll = -1,
    AutoNone = 0,
    AutoBulletList = 1
};
class QFlags < QTextEdit::AutoFormattingFlag >;
typedef class QFlags < QTextEdit::AutoFormattingFlag >
    QTextEdit::AutoFormatting;
enum _ZN9QTextEditl2CursorActionE {
    MoveBackward = 0,
    MoveForward = 1,
    MoveWordBackward = 2,
    MoveWordForward = 3,
    MoveUp = 4,
    MoveDown = 5,
    MoveLineStart = 6,
    MoveLineEnd = 7,
    MoveHome = 8,
    MoveEnd = 9,
    MovePageUp = 10,
    MovePgUp = 10,
    MovePageDown = 11,
    MovePgDown = 11
};
enum _ZN9QTextEditl4KeyboardActionE {
    ActionBackspace = 0,
    ActionDelete = 1,
    ActionReturn = 2,
    ActionKill = 3,
    ActionWordBackspace = 4,
    ActionWordDelete = 5
};
```

17.6.139. QtGui/qttextformat.h

```
class QTextLength;
enum _ZN11QTextLength4TypeE {
    VariableLength = 0,
    FixedLength = 1,
    PercentageLength = 2
};
class QTextFormat;
enum _ZN11QTextFormatl0FormatTypeE {
    InvalidFormat = -1,
    BlockFormat = 1,
```

```

    CharFormat = 2,
    ListFormat = 3,
    TableFormat = 4,
    FrameFormat = 5,
    UserFormat = 100
};
enum _ZN11QTextFormat8PropertyE {
    ObjectIndex = 0,
    CssFloat = 2048,
    LayoutDirection = 2049,
    OutlinePen = 2064,
    BackgroundBrush = 2080,
    ForegroundBrush = 2081,
    BlockAlignment = 4112,
    BlockTopMargin = 4144,
    BlockBottomMargin = 4145,
    BlockLeftMargin = 4146,
    BlockRightMargin = 4147,
    TextIndent = 4148,
    BlockIndent = 4160,
    BlockNonBreakableLines = 4176,
    BlockTrailingHorizontalRulerWidth = 4192,
    FontFamily = 8192,
    FontPointSize = 8193,
    FontSizeAdjustment = 8194,
    FontSizeIncrement = 8194,
    FontWeight = 8195,
    FontItalic = 8196,
    FontUnderline = 8197,
    FontOverline = 8198,
    FontStrikeOut = 8199,
    FontFixedPitch = 8200,
    FontPixelSize = 8201,
    TextUnderlineColor = 8208,
    TextVerticalAlignment = 8225,
    TextOutline = 8226,
    IsAnchor = 8240,
    AnchorHref = 8241,
    AnchorName = 8242,
    ObjectType = 12032,
    ListStyle = 12288,
    ListIndent = 12289,
    FrameBorder = 16384,
    FrameMargin = 16385,
    FramePadding = 16386,
    FrameWidth = 16387,
    FrameHeight = 16388,
    TableColumns = 16640,
    TableColumnWidthConstraints = 16641,
    TableCellSpacing = 16642,
    TableCellPadding = 16643,
    TableCellRowSpan = 18448,
    TableCellColumnSpan = 18449,
    ImageName = 20480,
    ImageWidth = 20496,
    ImageHeight = 20497,
    UserProperty = 1048576
};
enum _ZN11QTextFormat11ObjectTypesE {
    NoObject = 0,
    ImageObject = 1,
    TableObject = 2,

```

```

    UserObject = 4096
};
class QTextCharFormat;
enum _ZN15QTextCharFormat17VerticalAlignmentE {
    AlignNormal = 0,
    AlignSuperScript = 1,
    AlignSubScript = 2
};
class QTextBlockFormat;
class QTextListFormat;
enum _ZN15QTextListFormat5StyleE {
    ListUpperAlpha = -6,
    ListLowerAlpha = -5,
    ListDecimal = -4,
    ListSquare = -3,
    ListCircle = -2,
    ListDisc = -1,
    ListStyleUndefined = 0
};
class QTextImageFormat;
class QTextFrameFormat;
enum _ZN16QTextFrameFormat8PositionE {
    InFlow = 0,
    FloatLeft = 1,
    FloatRight = 2
};
class QTextTableFormat;

```

17.6.140. QtGui/qttextlayout.h

```

class QTextInlineObject;
class QTextLayout;
struct QTextLayout::FormatRange;
enum _ZN11QTextLayout10CursorModeE {
    SkipCharacters = 0,
    SkipWords = 1
};
class QTextLine;
enum _ZN9QTextLine4EdgeE {
    Leading = 0,
    Trailing = 1
};
enum _ZN9QTextLine14CursorPositionE {
    CursorBetweenCharacters = 0,
    CursorOnCharacter = 1
};

```

17.6.141. QtGui/qtextlist.h

```

class QTextList;

```

17.6.142. QtGui/qtextobject.h

```

class QTextObject;
class QTextBlockGroup;
class QTextFrameLayoutData;
class QTextFrame;
class QTextFrame::iterator;

```

```
typedef class QTextFrame::iteratorQTextFrame::Iterator;
class QTextBlockUserData;
class QTextBlock;
class QTextBlock::iterator;
typedef class QTextBlock::iteratorQTextBlock::Iterator;
class QTextFragment;
```

17.6.143. QtGui/qtextoption.h

```
class QTextOption;
enum _ZN11QTextOption8WrapModeE {
    NoWrap = 0,
    WordWrap = 1,
    ManualWrap = 2,
    WrapAnywhere = 3,
    WrapAtWordBoundaryOrAnywhere = 4
};
enum _ZN11QTextOption4FlagE {
    IncludeTrailingSpaces = -2147483648
};
class QFlags < QTextOption::Flag >;
typedef class QFlags < QTextOption::Flag > QTextOption::Flags;
```

17.6.144. QtGui/qtexttable.h

```
class QTextTableCell;
class QTextTable;
```

17.6.145. QtGui/qtoolbar.h

```
class QToolBar;
```

17.6.146. QtGui/qtoolbox.h

```
class QToolBox;
```

17.6.147. QtGui/qtoolbutton.h

```
class QToolButton;
enum _ZN11QToolButton19ToolButtonPopupModeE {
    DelayedPopup = 0,
    MenuButtonPopup = 1,
    InstantPopup = 2
};
enum _ZN11QToolButton12TextPositionE {
    BesideIcon = 0,
    Right = 0,
    BelowIcon = 1,
    Under = 1
};
```

17.6.148. QtGui/qtoltip.h

```
class QToolTip;
```

17.6.149. QtGui/qtreeview.h

```
class QTreeView;
```

17.6.150. QtGui/qtreewidget.h

```
class QTreeWidgetItem;
class QTreeWidget;
```

17.6.151. QtGui/qtreewidgetitemiterator.h

```
class QTreeWidgetItemIterator;
enum _ZN23QTreeWidgetItemIterator12IteratorFlagE {
    All = 0,
    Hidden = 1,
    NotHidden = 2,
    Selected = 4,
    Unselected = 8,
    Selectable = 16,
    NotSelectable = 32,
    DragEnabled = 64,
    DragDisabled = 128,
    DropEnabled = 256,
    DropDisabled = 512,
    HasChildren = 1024,
    NoChildren = 2048,
    Checked = 4096,
    NotChecked = 8192,
    Enabled = 16384,
    Disabled = 32768,
    Editable = 65536,
    NotEditable = 131072,
    UserFlag = 16777216
};
class QFlags < QTreeWidgetItemIterator::IteratorFlag >;
typedef class QFlags < QTreeWidgetItemIterator::IteratorFlag >
    QTreeWidgetItemIterator::IteratorFlags;
```

17.6.152. QtGui/qvalidator.h

```
class QValidator;
enum _ZN10QValidator5StateE {
    Invalid = 0,
    Intermediate = 1,
    Valid = 1,
    Acceptable = 2
};
class QIntValidator;
class QDoubleValidator;
class QRegExpValidator;
```

17.6.153. QtGui/qvfbhdr.h

```
struct QVfbHeader;
struct QVfbKeyData;
```

17.6.154. QtGui/qwhatsthis.h

```
class QWhatsThis;
```

17.6.155. QtGui/qwidget.h

```
class QWidgetData;
class QWidget;
enum _ZN7QWidget16BackgroundOriginE {
    WidgetOrigin = 0,
    ParentOrigin = 1,
    WindowOrigin = 2,
    AncestorOrigin = 3
};
```

17.6.156. QtGui/qwindowdefs.h

```
typedef class QList < QWidget * > QWidgetList;
typedef unsigned long int WId;
```

17.6.157. QtGui/qwindowsstyle.h

```
class QWindowsStyle;
```

17.6.158. QtGui/qwmatrix.h

```
typedef class QMatrix QWMatrix;
```

17.6.159. QtGui/qworkspace.h

```
class QWorkspace;
enum _ZN10QWorkspace11WindowOrderE {
    CreationOrder = 0,
    StackingOrder = 1
};
```

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ZN23QGraphicsSceneHelpEvent11setScenePosERK7QPointF -- set the event mouse position relative to the scene
ZN23QGraphicsSceneHelpEvent12setScreenPosERK6QPoint -- set the event mouse position relative to the screen
ZN23QGraphicsSceneHelpEventC1EN6QEvent4TypeE
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ZN24QGraphicsSceneHoverEvent12setScreenPosERK6QPoint -- set the event mouse position relative to the screen
ZN24QGraphicsSceneHoverEvent6setPosERK7QPointF -- set the event mouse position relative to the widget that generated the event

ZN24QGraphicsSceneHoverEventC1EN6QEvent4TypeE.
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ZN24QGraphicsSceneMouseEvent10setButtonsE6QFlagsIN2Qt11MouseButtonEE -- set the mouse buttons that were pressed when the event was created
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[_ZN30QGraphicsSceneContextMenuEvent12setScreenPosERK6QPoint](#) -- set the event mouse position relative to the scene

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ZNK19QGraphicsPixmapItem9extensionERK8QVariant -- get the item's extension
ZNK20QGraphicsEllipseItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension
ZNK20QGraphicsEllipseItem9extensionERK8QVariant -- get the item's extension
ZNK20QGraphicsPolygonItem17supportsExtensionEN13QGraphicsItem9ExtensionE -- check if the item supports the extension
ZNK20QGraphicsPolygonItem9extensionERK8QVariant -- get the item's extension
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ZNK8QMenuBar12cornerWidgetEN2Qt6CornerE -- get the widget in the left of the first or the right of the last menu
ZNK8QMenuBar14actionGeometryEP7QAction -- get geometry of an action
ZNK8QMenuBar8actionAtERK6QPoint -- get the item at the given point
ZNK8QPainter3mapEiiPiS0 -- apply the painter's transformation on the given point
ZNK8QPicture7devTypeEv -- get identifier designating that the object is a QPicture
ZNK8QPrinter7devTypeEv -- get identifier designating that the object is a QPrinter
ZNK8QToolBar14actionGeometryEP7QAction -- get geometry of the toolbar item associated with the given action
ZNK9QFontInfo8overlineEv -- get the overline value of the matched window system font
ZNK9QFontInfo9strikeOutEv -- get the underline value of the matched window system font
ZNK9QFontInfo9underlineEv -- get the underline value of the matched window system font

The interfaces defined on the following pages are included in libQtGui and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 17.5](#) shall behave as described in the referenced base document.

`_ZN11QGridLayout21setDefaultPositioningEiN2Qt11OrientationE`

Name

`QGridLayout::setDefaultPositioning` -- set the positioning mode

Synopsis

```
#include <QtGui/qgridlayout.h>
void QGridLayout::setDefaultPositioning (int n, Qt::Orientation orient);
```

Description

The `QGridLayout::setDefaultPositioning()` function shall set the positioning mode used by `QGridLayout::addItem()`.

If *orient* is `Qt::Horizontal`, the layout is expanded to *n* columns, and items will be added columns-first. Otherwise it is expanded to *n* rows and items will be added rows-first.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN11QHeaderView13updateSectionEi

Name

QHeaderView::updateSection -- update HeaderView section

Synopsis

```
#include <QtGui/qheaderview.h>
void QHeaderView::updateSection (int logicalIndex);
```

Description

The `QHeaderView::updateSection()` function shall update the section specified by the given *logicalIndex*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN12QPaintEngine13setSystemClipERK7QRegion

Name

QPaintEngine::setSystemClip -- set the system clip for the engine

Synopsis

```
#include <QtGui/qpaintengine.h>
void QPaintEngine::setSystemClip (const QRegion &region);
```

Description

The `QPaintEngine::setSystemClip()` function shall set the system clip for the engine. The system clip defines the basis area that the engine has to draw in. All clips that are set must be an intersection with the system clip.

The system clip can be reset to no clip by setting an empty region.

The function takes effect only if the engine is not active.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN12QPaintEngine13setSystemRectERK5QRect

Name

QPaintEngine::setSystemRect -- set the target rect for drawing within the backing store

Synopsis

```
#include <QtGui/qpaintengine.h>
void QPaintEngine::setSystemRect (const QRect &rect);
```

Description

The `QPaintEngine::setSystemRect()` function shall set the target rect for drawing within the backing store.

The function takes effect only if the engine is not active.

This function should only be used by the backing store, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN12QPaintEngine14setPaintDeviceEP12QPaintDevice

Name

QPaintEngine::setPaintDevice -- set the paintdevice that the engine operates on

Synopsis

```
#include <QtGui/qpaintengine.h>
void QPaintEngine::setPaintDevice (QPaintDevice *device);
```

Description

The `QPaintEngine::setPaintDevice()` function shall set the paint device that this engine operates on to *device*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

QPixmapCache::cacheLimit

Name

QPixmapCache::cacheLimit -- UUID greater-than comparison operator

Synopsis

```
public class QPixmapCache {  
    bool operator >(const QPixmapCache & other); }
```

Description

QPixmapCache::cacheLimit has the same specification as in [QtGui 4.2.0](#), except for differences noted below.

Default Value

Default value of the cache limit is unspecified.

_ZN13QGraphicsItem10addToIndexEv

Name

QGraphicsItem::addToIndex -- add the item from the scene's index

Synopsis

```
#include <QtGui/qgraphicsitem.h>
void QGraphicsItem::addToIndex (void);
```

Description

The `QGraphicsItem::addToIndex()` function shall add the calling object to the scene's index.

This function can be called in conjunction with the `removeFromIndex()` function to ensure the index bookkeeping is correct when the item's position, transformation or shape changes.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN13QGraphicsItem12setExtensionENS_9ExtensionE

Name

QGraphicsItem::setExtension -- set extension for the item

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual void QGraphicsItem::setExtension(Extension extension, const
QVariant & variant);
```

Description

The `QGraphicsItem::setExtension()` function doesn't do anything. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN13QGraphicsItem15removeFromIndexEv

Name

QGraphicsItem::removeFromIndex -- remove the item from the scene's index

Synopsis

```
#include <QtGui/qgraphicsitem.h>
void QGraphicsItem::removeFromIndex (void);
```

Description

The `QGraphicsItem::removeFromIndex()` function shall remove the calling object from the scene's index.

This function can be called in conjunction with the `addToIndex()` function to ensure the index bookkeeping is correct when the item's position, transformation or shape changes.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN13QInputContext14setFocusWidgetEP7QWidget

Name

QInputContext::setFocusWidget -- set the input focus for the current context

Synopsis

```
#include <QtGui/qinputcontext.h>
void QInputContext::setFocusWidget(QWidget * w);
```

Description

The `QInputContext::setFocusWidget()` shall set the widget that has an input focus for this input context to `w`.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

See Also

`focusWidget()`

_ZN13QTextDocument14appendUndoItemEP17QAbstractUndoItem

Name

QTextDocument::appendUndoItem -- append an item to the undo stack

Synopsis

```
#include <QtGui/qtextdocument.h>
void QTextDocument::appendUndoItem(QAbstractUndoItem * item);
```

Description

The `QTextDocument::appendUndoItem()` function shall append a custom undo *item* to the undo stack.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN17QAbstractItemView13doItemsLayoutEv

Name

QAbstractItemView::doItemsLayout -- lay out the items in the view

Synopsis

```
#include <QtGui/qabstractitemview.h>
virtual void QAbstractItemView::doItemsLayout(void);
```

Description

The `QAbstractItemView::doItemsLayout()` function shall lay out the items in the view.

Inheritors of the `QAbstractItemView` class are intended to overload this function. The default implementation just calls `updateGeometries()` function and update the viewport.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN17QAbstractItemView16updateEditorDataEv

Name

QAbstractItemView::updateEditorData -- update the data shown in the open editor widgets in the view

Synopsis

```
#include <QtGui/qabstractitemview.h>
virtual void QAbstractItemView::updateEditorData(void);
```

Description

The `QAbstractItemView::updateEditorData()` function shall update the data shown in the open editor widgets in the view.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN17QAbstractItemView2updateEditorGeometriesEv

Name

QAbstractItemView::updateEditorGeometries -- update geometry of open editor widgets in the view

Synopsis

```
#include <QtGui/qabstractitemview.h>
virtual void QAbstractItemView::updateEditorGeometries(void);
```

Description

The `QAbstractItemView::updateEditorGeometries()` function shall update the geometry of the open editor widgets in the view.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN17QAbstractItemView23verticalScrollbarActionEi

Name

QAbstractItemView::verticalScrollbarAction -- dummy hook

Synopsis

```
#include <QtGui/qabstractitemview.h>
virtual void QAbstractItemView::verticalScrollbarAction(int action);
```

Description

The `QAbstractItemView::verticalScrollbarAction()` function doesn't do anything. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN17QAbstractItemView25horizontalScrollbarActionE

Name

QAbstractItemView::horizontalScrollbarAction -- dummy hook

Synopsis

```
#include <QtGui/qabstractitemview.h>
virtual void QAbstractItemView::horizontalScrollbarAction(int action);
```

Description

The `QAbstractItemView::horizontalScrollbarAction()` function doesn't do anything. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN17QGraphicsLineItem12setExtensionEN13QGraphi

Name

QGraphicsLineItem::setExtension -- set extension for the item

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual void QGraphicsLineItem::setExtension(Extension extension, const
QVariant & variant);
```

Description

The `QGraphicsLineItem::setExtension()` function does nothing. It is provided as a hook to avoid problems with adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN17QGraphicsPathItem12setExtensionEN13QGraphi

Name

QGraphicsPathItem::setExtension -- set extension for the item

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual void QGraphicsPathItem::setExtension(Extension extension, const
QVariant & variant);
```

Description

The `QGraphicsPathItem::setExtension()` function does nothing. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN17QGraphicsRectItem12setExtensionEN13QGraphi

Name

QGraphicsRectItem::setExtension -- set extension for the item

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual void QGraphicsRectItem::setExtension(Extension extension, const
QVariant & variant);
```

Description

The `QGraphicsRectItem::setExtension()` function does nothing. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN17QGraphicsTextItem12setExtensionEN13QGraphi

Name

QGraphicsTextItem::setExtension -- set extension for the item

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual void QGraphicsTextItem::setExtension(Extension extension, const
QVariant & variant);
```

Description

The `QGraphicsTextItem::setExtension()` function does nothing. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN18QDragResponseEventC1Eb, _ZN18QDragResponseEventC2Eb

Name

QDragResponseEvent::QDragResponseEvent -- QDragResponseEvent constructor

Synopsis

```
#include <QtGui/qevent.h>  
QDragResponseEvent::QDragResponseEvent (bool accepted);
```

Description

The `QDragResponseEvent::QDragResponseEvent ()` function shall construct a drag response event containing the *accepted* value, indicating whether the drag and drop operation was accepted by the recipient.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN19QGraphicsPixmapItem12setExtensionEN13QGra

Name

QGraphicsPixmapItem::setExtension -- set extension for the item

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual void QGraphicsPixmapItem::setExtension(Extension extension, const
QVariant & variant);
```

Description

The `QGraphicsPixmapItem::setExtension()` function does nothing. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN19QGraphicsSceneEvent9setWidgetEP7QWidget

Name

QGraphicsSceneEvent::setWidget -- Sets the widget related to the event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneEvent::setWidget (QWidget *widget);
```

Description

The `QGraphicsSceneEvent::setWidget()` function shall set the widget related to the event to *source*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN19QGraphicsSceneEventC1EN6QEvent4TypeE, _ZN19QGraphicsSceneEventC2EN6QEvent4TypeE

Name

QGraphicsSceneEvent::QGraphicsSceneEvent -- QGraphicsSceneEvent constructor

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>  
QGraphicsSceneEvent::QGraphicsSceneEvent (QEvent::Type type);
```

Description

Constructs a new QGraphicsSceneEvent of the specified type *type*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN19QToolBarChangeEventC1Eb, _ZN19QToolBarChangeEventC2Eb

Name

QToolBarChangeEvent::QToolBarChangeEvent -- QToolBarChangeEvent constructor

Synopsis

```
#include <QtGui/qevent.h>
QToolBarChangeEvent::QToolBarChangeEvent (bool state);
```

Description

The `QToolBarChangeEvent::QToolBarChangeEvent ()` function shall construct a `QToolBarChangeEvent` object given the current button state in *state*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN20QGraphicsEllipseItem12setExtensionEN13QGrap

Name

QGraphicsEllipseItem::setExtension -- set extension for the item

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual void QGraphicsEllipseItem::setExtension(Extension extension,
const QVariant & variant);
```

Description

The `QGraphicsEllipseItem::setExtension()` function does nothing. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN20QGraphicsPolygonItem12setExtensionEN13QGra

Name

QGraphicsPolygonItem::setExtension -- set extension for the item

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual void QGraphicsPolygonItem::setExtension(Extension extension,
const QVariant & variant);
```

Description

The `QGraphicsPolygonItem::setExtension()` does nothing. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN23QGraphicsSceneHelpEvent11setScenePosERK7Q

Name

QGraphicsSceneHelpEvent::setScenePos -- set the event mouse position relative to the scene

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneHelpEvent::setScenePos (const QPointF &pos);
```

Description

The `QGraphicsSceneHelpEvent::setScenePos()` function shall set the position of the cursor associated with the event (i.e. the position where the event occurred) to the given point *pos* relative to the scene.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN23QGraphicsSceneHelpEvent12setScreenPosERK6

Name

QGraphicsSceneHelpEvent::setScreenPos -- set the event mouse position relative to the screen

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneHelpEvent::setScreenPos (const QPoint &pos);
```

Description

The `QGraphicsSceneHelpEvent::setScreenPos()` function shall set the position of the mouse cursor associated with the event (i.e. the position where the event occurred) to the given point *pos* relative to the screen.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN23QGraphicsSceneHelpEventC1EN6QEvent4TypeE
_ZN23QGraphicsSceneHelpEventC2EN6QEvent4TypeE

Name

QGraphicsSceneHelpEvent::QGraphicsSceneHelpEvent -- QGraphicsSceneHelpEvent constructor

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
QGraphicsSceneHelpEvent::QGraphicsSceneHelpEvent (QEvent::Type type);
```

Description

Constructs a new QGraphicsSceneHelpEvent of the specified type *type*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN23QGraphicsSceneHelpEventC1EN6QEvent4TypeE, **_ZN23QGraphicsSceneHelpEventC2EN6QEvent4TypeE**

_ZN23QGraphicsSimpleTextItem12setExtensionEN13Q

Name

QGraphicsSimpleTextItem::setExtension -- set extension for the item

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual void QGraphicsSimpleTextItem::setExtension(Extension extension,
const QVariant & variant);
```

Description

The `QGraphicsSimpleTextItem::setExtension()` function does nothing. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QAbstractPageSetupDialog7printerEv

Name

QAbstractPageSetupDialog::printer -- get the printer that this page setup dialog is operating on

Synopsis

```
#include <QtGui/qabstractpagesetupdialog.h>
QPrinter * QAbstractPageSetupDialog::printer(void);
```

Description

The `QAbstractPageSetupDialog::printer()` function shall return the printer that this page setup dialog is operating on.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

ZN24QAbstractPageSetupDialogC1EP8QPrinterP7QWidget, _ZN24QAbstractPageSetupDialogC1EP8QPrinterP7QWidget

_ZN24QGraphicsSceneHoverEvent11setScenePosERK

Name

QGraphicsSceneHoverEvent::setScenePos -- set the event mouse position relative to the scene

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneHoverEvent::setScenePos (const QPointF &pos);
```

Description

The `QGraphicsSceneHoverEvent::setScenePos()` function shall set the position of the cursor associated with the event (i.e. the position where the event occurred) to the given point *pos* relative to the scene.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneHoverEvent12setScreenPosERK6QPoint

Name

QGraphicsSceneHoverEvent::setScreenPos -- set the event mouse position relative to the screen

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneHoverEvent::setScreenPos (const QPoint &pos);
```

Description

The `QGraphicsSceneHoverEvent::setScreenPos()` function shall set the position of the mouse cursor associated with the event (i.e. the position where the event occurred) to the given point *pos* relative to the screen.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneHoverEvent6setPosERK7QPointF

Name

`QGraphicsSceneHoverEvent::setPos` -- set the event mouse position relative to the widget that generated the event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneHoverEvent::setPos (const QPointF &pos);
```

Description

The `QGraphicsSceneHoverEvent::setPos()` function shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos*. The position should be relative to the widget that generated the event.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneHoverEventC1EN6QEvent4Type
_ZN24QGraphicsSceneHoverEventC2EN6QEvent4Type

Name

QGraphicsSceneHoverEvent::QGraphicsSceneHoverEvent -- QGraphicsSceneHoverEvent constructor

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>  
QGraphicsSceneHoverEvent::QGraphicsSceneHoverEvent (QEvent::Type type);
```

Description

Constructs a new QGraphicsSceneHoverEvent of the specified type *type*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneHoverEventC1EN6QEvent4TypeE, _ZN24QGraphicsSceneHoverEventC2EN6QEvent4TypeE

_ZN24QGraphicsSceneMouseEvent10setButtonsE6QFI

Name

QGraphicsSceneMouseEvent::setButtons -- set the mouse buttons that were pressed when the event was created

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setButtons (Qt::MouseButtonss buttons);
```

Description

The `QGraphicsSceneMouseEvent::setButtons()` function shall set the mouse buttons associated with the event (i.e. buttons that were pressed when the event was created) to *buttons*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent10setLastPosERK7QPointF

Name

`QGraphicsSceneMouseEvent::setLastPos` -- set the last recorded mouse cursor position in item coordinates

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setLastPos (const QPointF &pos);
```

Description

The `QGraphicsSceneMouseEvent::setLastPos()` function shall set the last recorded mouse cursor position associated with the event to the given point *pos* in item coordinates.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent11setScenePosERK

Name

QGraphicsSceneMouseEvent::setScenePos -- set the event mouse position relative to the scene

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setScenePos (const QPointF &pos);
```

Description

The `QGraphicsSceneMouseEvent::setScenePos()` function shall set the position of the cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos* relative to the scene.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent12setModifiersE6Q

Name

`QGraphicsSceneMouseEvent::setModifiers` -- set the keyboard modifiers that were active when the event was created

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setModifiers (Qt::KeyboardModifiers
modifiers);
```

Description

The `QGraphicsSceneMouseEvent::setModifiers()` function shall set the keyboard modifiers associated with the event (i.e. modifiers that were active when the event was created) to *modifiers*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent12setScreenPosER

Name

QGraphicsSceneMouseEvent::setScreenPos -- set the event mouse position relative to the screen

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setScreenPos (const QPoint &pos);
```

Description

The `QGraphicsSceneMouseEvent::setScreenPos()` function shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos* relative to the screen.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent15setLastScenePos

Name

`QGraphicsSceneMouseEvent::setLastScenePos` -- set the last recorded mouse cursor position in scene coordinates

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setLastScenePos (const QPointF &pos);
```

Description

The `QGraphicsSceneMouseEvent::setLastScenePos()` function shall set the last recorded mouse cursor position associated with the event to the given point *pos* in scene coordinates.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent16setButtonDownP

Name

QGraphicsSceneMouseEvent::setButtonDownPos -- set the mouse position where the specified button was clicked in item coordinates

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setButtonDownPos (Qt::MouseButton button,
const QPointF &pos);
```

Description

The `QGraphicsSceneMouseEvent::setButtonDownPos()` function shall set the mouse cursor position where the specified button *button* was clicked to the given point *pos* in item coordinates.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent16setLastScreenPos

Name

`QGraphicsSceneMouseEvent::setLastScreenPos` -- set the last recorded mouse cursor position in screen coordinates

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setLastScreenPos (const QPoint &pos);
```

Description

The `QGraphicsSceneMouseEvent::setLastScreenPos()` function shall set the last recorded mouse cursor position associated with the event to the given point *pos* in screen coordinates.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent21setButtonDownScenePos

Name

`QGraphicsSceneMouseEvent::setButtonDownScenePos` -- set the mouse position where the specified button was clicked in scene coordinates

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>

void QGraphicsSceneMouseEvent::setButtonDownScenePos (Qt::MouseButton
button, const QPointF &pos);
```

Description

The `QGraphicsSceneMouseEvent::setButtonDownScenePos()` function shall set the mouse cursor position where the specified button *button* was clicked to the given point *pos* in scene coordinates.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

`_ZN24QGraphicsSceneMouseEvent22setButtonDownScreenPos`

Name

`QGraphicsSceneMouseEvent::setButtonDownScreenPos` -- set the mouse position where the specified button was clicked in screen coordinates

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>

void QGraphicsSceneMouseEvent::setButtonDownScreenPos (Qt::MouseButton
button, const QPoint &pos);
```

Description

The `QGraphicsSceneMouseEvent::setButtonDownScreenPos()` function shall set the mouse cursor position where the specified button *button* was clicked to the given point *pos* in screen coordinates.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent6setPosERK7QPointF

Name

`QGraphicsSceneMouseEvent::setPos` -- set the event mouse position relative to the widget that generated the event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setPos (const QPointF &pos);
```

Description

The `QGraphicsSceneMouseEvent::setPos()` function shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos*. The position should be relative to the widget that generated the event.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEvent9setButtonEN2Qt11

Name

QGraphicsSceneMouseEvent::setButton -- set the mouse button associated with event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneMouseEvent::setButton (Qt::MouseButton button);
```

Description

The `QGraphicsSceneMouseEvent::setButton()` function shall set the mouse button associated with the event (i.e. the button that caused the event) to *button*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEventC1EN6QEvent4Type
_ZN24QGraphicsSceneMouseEventC2EN6QEvent4Type

Name

QGraphicsSceneMouseEvent::QGraphicsSceneMouseEvent -- QGraphicsSceneMouseEvent constructor

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
QGraphicsSceneMouseEvent::QGraphicsSceneMouseEvent (QEvent::Type type);
```

Description

Constructs a new QGraphicsSceneMouseEvent of the specified type *type*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneMouseEventC1EN6QEvent4TypeE, _ZN24QGraphicsSceneMouseEventC2EN6QEvent4TypeE

_ZN24QGraphicsSceneWheelEvent10setButtonsE6QFla

Name

QGraphicsSceneWheelEvent::setButtons -- set the mouse buttons that were pressed when the event was created

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneWheelEvent::setButtons (Qt::MouseButtonss buttons);
```

Description

The `QGraphicsSceneWheelEvent::setButtons()` function shall set the mouse buttons associated with the event (i.e. buttons that were pressed when the event was created) to *buttons*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneWheelEvent11setScenePosERK

Name

QGraphicsSceneWheelEvent::setScenePos -- set the event mouse position relative to the scene

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneWheelEvent::setScenePos (const QPointF &pos);
```

Description

The `QGraphicsSceneWheelEvent::setScenePos()` function shall set the position of the cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos* relative to the scene.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneWheelEvent12setModifiersE6QF

Name

QGraphicsSceneWheelEvent::setModifiers -- set the keyboard modifiers that were active when the event was created

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneWheelEvent::setModifiers (Qt::KeyboardModifiers
modifiers);
```

Description

The `QGraphicsSceneWheelEvent::setModifiers()` function shall set the keyboard modifiers associated with the event (i.e. modifiers that were active when the event occurred) to *modifiers*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneWheelEvent12setScreenPosERK6QPoint

Name

QGraphicsSceneWheelEvent::setScreenPos -- set the event mouse position relative to the screen

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneWheelEvent::setScreenPos (const QPoint &pos);
```

Description

The `QGraphicsSceneWheelEvent::setScreenPos()` function shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos* relative to the screen.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneWheelEvent6setPosERK7QPointF

Name

`QGraphicsSceneWheelEvent::setPos` -- set the event mouse position relative to the widget that generated the event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneWheelEvent::setPos (const QPointF &pos);
```

Description

The `QGraphicsSceneWheelEvent::setPos()` function shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos*. The position should be relative to the widget that generated the event.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneWheelEvent8setDeltaEi

Name

QGraphicsSceneWheelEvent::setDelta -- set the distance that the wheel is rotated

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneWheelEvent::setDelta (int delta);
```

Description

The `QGraphicsSceneWheelEvent::setDelta()` function shall set the distance that the wheel is rotated to *delta*, in eighths (1/8s) of a degree.

A positive value indicates that the wheel was rotated forwards away from the user; a negative value indicates that the wheel was rotated backwards toward the user.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneWheelEventC1EN6QEvent4TypeE
_ZN24QGraphicsSceneWheelEventC2EN6QEvent4TypeE

Name

QGraphicsSceneWheelEvent::QGraphicsSceneWheelEvent -- QGraphicsSceneWheelEvent constructor

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
QGraphicsSceneWheelEvent::QGraphicsSceneWheelEvent (QEvent::Type type);
```

Description

Constructs a new QGraphicsSceneWheelEvent of the specified type *type* which should be always QEvent::GraphicsSceneWheel.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN24QGraphicsSceneWheelEventC1EN6QEvent4TypeE, **_ZN24QGraphicsSceneWheelEventC2EN6QEvent4TypeE**

_ZN27QGraphicsSceneDragDropEvent10setButtonsE6

Name

QGraphicsSceneDragDropEvent::setButtons -- set the mouse buttons that were pressed when the event was created

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneDragDropEvent::setButtons (Qt::MouseButtonss buttons);
```

Description

The `QGraphicsSceneDragDropButtons()` function shall set the mouse buttons associated with the event (i.e. buttons that were pressed when the event was created) to *buttons*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN27QGraphicsSceneDragDropEvent11setMimeDataE

Name

QGraphicsSceneDragDropEvent::setMimeData -- set the MIME data for the event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneDragDropEvent::setMimeData (const QMimeData *data);
```

Description

The `QGraphicsSceneDragDropEvent::setMimeData()` function shall set the MIME data for the event *data*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN27QGraphicsSceneDragDropEvent11setScenePosE

Name

QGraphicsSceneDragDropEvent::setScenePos -- set the event mouse position relative to the scene

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneDragDropEvent::setScenePos (const QPointF &pos);
```

Description

The `QGraphicsSceneDragDropEvent::setScenePos()` function shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos* relative to the scene.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN27QGraphicsSceneDragDropEvent12setModifiersE

Name

`QGraphicsSceneDragDropEvent::setModifiers` -- set the keyboard modifiers that were active when the event was created

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>

void QGraphicsSceneDragDropEvent::setModifiers (Qt::KeyboardModifiers
modifiers);
```

Description

The `QGraphicsSceneDragDropEvent::setModifiers()` function shall set the keyboard modifiers associated with the event (i.e. modifiers that were active when the event was created) to *modifiers*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN27QGraphicsSceneDragDropEvent12setScreenPos

Name

QGraphicsSceneDragDropEvent::setScreenPos -- set the event mouse position relative to the screen

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneDragDropEvent::setScreenPos (const QPoint &pos);
```

Description

The `QGraphicsSceneDragDropEvent::setScreenPos()` function shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos* relative to the screen.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN27QGraphicsSceneDragDropEvent17setProposedA

Name

QGraphicsSceneDragDropEvent::setProposedAction -- set the proposed action for the event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneDragDropEvent::setProposedAction (Qt::DropAction
action);
```

Description

The `QGraphicsSceneDragDropEvent::setProposedAction()` function shall set the proposed action to *action*.

The *action* should be one of the possible actions set using the `QGraphicsSceneDragDropEvent::setPossibleActions()` function.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN27QGraphicsSceneDragDropEvent18setPossibleAc

Name

QGraphicsSceneDragDropEvent::setPossibleActions -- set the possible drop actions that the drag can result in

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneDragDropEvent::setPossibleActions (Qt::DropActions
actions);
```

Description

The `QGraphicsSceneDragDropEvent::setPossibleActions()` function shall set the possible drop actions that the drag can result in to *actions*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN27QGraphicsSceneDragDropEvent6setPosERK7QF

Name

`QGraphicsSceneDragDropEvent::setPos` -- set the event mouse position relative to the widget that generated the event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneDragDropEvent::setPos (const QPointF &pos);
```

Description

The `QGraphicsSceneDragDropEvent::setPos()` function shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos*. The position should be relative to the widget that generated the event.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN27QGraphicsSceneDragDropEvent9setSourceEP7Q

Name

QGraphicsSceneDragDropEvent::setSource -- set the source widget for the event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneDragDropEvent::setSource (QWidget *source);
```

Description

The `QGraphicsSceneDragDropEvent::setSource()` function shall set the source widget (i.e. the widget that created the drop event) to *source*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN27QGraphicsSceneDragDropEventC1EN6QEvent4T _ZN27QGraphicsSceneDragDropEventC2EN6QEvent4T

Name

QGraphicsSceneDragDropEvent::QGraphicsSceneDragDropEvent -- QGraphicsSceneDragDropEvent constructor

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
QGraphicsSceneDragDropEvent::QGraphicsSceneDragDropEvent (QEvent::Type
type = None);
```

Description

Constructs a new QGraphicsSceneDragDropEvent of the specified type. The type should have one of the following values:

- QEvent::GraphicsSceneDragEnter
- QEvent::GraphicsSceneDragLeave
- QEvent::GraphicsSceneDragMove
- QEvent::GraphicsSceneDrop

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN2Qt12codecForHtmlERK10QByteArray

Name

Qt::codecForHtml -- detect encoding of the provided snippet of html

Synopsis

```
#include <QtGui/qtextdocument.h>
QTextCodec * Qt::codecForHtml (const QByteArray &ba);
```

Description

The `Qt::codecForHtml()` function has the same behavior as the `QTextCodec::codecForHtml()` function described in [QtCore 4.2.0](#).

_ZN30QGraphicsSceneContextMenuEvent11setScenePos

Name

QGraphicsSceneContextMenuEvent::setScenePos -- set the event mouse position relative to the scene

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneContextMenuEvent::setScenePos (const QPointF &pos);
```

Description

The `QGraphicsSceneContextMenuEvent::setScenePos()` function shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos* relative to the scene.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN30QGraphicsSceneContextMenuEvent12setModifie

Name

`QGraphicsSceneContextMenuEvent::setModifiers` -- set the keyboard modifiers that were active when the event was created

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneContextMenuEvent::setModifiers (Qt::KeyboardModifiers
modifiers);
```

Description

The `QGraphicsSceneContextMenuEvent::setModifiers()` function shall set the keyboard modifiers associated with the event (i.e. modifiers that were active when the event occurred) to *modifiers*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN30QGraphicsSceneContextMenuEvent12setScreen

Name

QGraphicsSceneContextMenuEvent::setScreenPos -- set the event mouse position relative to the scene

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneContextMenuEvent::setScreenPos (const QPoint &pos);
```

Description

The `QGraphicsSceneContextMenuEvent::setScreenPos()` shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos* relative to the screen.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN30QGraphicsSceneContextMenuEvent6setPosERK

Name

`QGraphicsSceneContextMenuEvent::setPos` -- set the event mouse position relative to the widget that generated the event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneContextMenuEvent::setPos (const QPointF &pos);
```

Description

The `QGraphicsSceneContextMenuEvent::setPos()` shall set the position of the mouse cursor associated with the event (i.e. the position at the moment when the event occurred) to the given point *pos*. The position should be relative to the widget that generated the event.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN30QGraphicsSceneContextMenuEvent9setReasonE

Name

QGraphicsSceneContextMenuEvent::setReason -- set the reason for the context menu event

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
void QGraphicsSceneContextMenuEvent::setReason (Reason reason);
```

Description

The `QGraphicsSceneContextMenuEvent::setReason()` function shall set the reason for the context menu to *reason*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN30QGraphicsSceneContextMenuEventC1EN6QEvent4TypeE, _ZN30QGraphicsSceneContextMenuEventC2EN6QEvent4TypeE

Name

QGraphicsSceneContextMenuEvent::QGraphicsSceneContextMenuEvent -- QGraphicsSceneContextMenuEvent constructor

Synopsis

```
#include <QtGui/qgraphicssceneevent.h>
QGraphicsSceneContextMenuEvent::QGraphicsSceneContextMenuEvent
(QEvent::Type type = None);
```

Description

Constructs the graphics scene context menu event of the specified type.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN30QGraphicsSceneContextMenuEventC1EN6QEvent4TypeE, _ZN30QGraphicsSceneContextMenuEventC2EN6QEvent4TypeE

_ZN5QFont7cleanupEv

Name

QFont::cleanup -- cleanup the font system

Synopsis

```
#include <QtGui/qfont.h>
void QFont::cleanup(void);
```

Description

The `QFont::cleanup()` function shall cleanup the font system. This function should be called automatically when the application is finished.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN6QColor10invalidateEv

Name

QColor::invalidate -- mark the color as invalid

Synopsis

```
#include <QtGui/qcolor.h>
void QColor::invalidate (void);
```

Description

The `QColor::invalidate()` function shall mark the color as invalid and set. all components to zero. Alpha channel should be set to fully opaque (for compatibility with Qt3).

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN7QLayout11widgetEventEP6QEvent

Name

QLayout::widgetEvent -- perform child widget layout when the parent widget is resized

Synopsis

```
#include <QtGui/qlayout.h>
void QLayout::widgetEvent (QEvent *e);
```

Description

The `QLayout::widgetEvent()` function shall perform child widget layout when the parent widget is resized. It should also handle removal of widgets.

The event `e` should have one of the following values:

- `QEvent::Resize`
- `QEvent::ChildRemoved`
- `QEvent::LayoutRequest`

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN7QPixmap19x11SetDefaultScreenEi

Name

QPixmap::x11SetDefaultScreen -- sets the default screen of the QPixmap object

Synopsis

```
#include <QtGui/qpixmap.h>
static int QPixmap::x11SetDefaultScreen (int screen);
```

Description

The `QPixmap::x11SetDefaultScreen()` function shall set the internal 'defaultScreen' property of the QPixmap object to *screen*.

The function shall return the previous defaultScreen value.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN7QWidget11createWinIdEv

Name

QWidget::createWinId -- ensure that the widget is known to the windowing system

Synopsis

```
#include <QtGui/qwidget.h>
void QWidget::createWinId(void);
```

Description

The `QWidget::createWinId()` function shall ensure that the widget has a window system identifier (that is, known to the windowing system) and create such and identifier if it doesn't exist.

Value of the internal identifier can be checked by the inline `internalWinId()` member of the `QWidget` class.

_ZN7QWidget19overrideWindowStateE6QFlagsIN2Qt11

Name

QWidget::overrideWindowState -- set the window state on child widgets

Synopsis

```
#include <QtGui/qwidget.h>
void QWidget::overrideWindowState(Qt::WindowStates state);
```

Description

The `QWidget::overrideWindowState()` function shall set the window state on child widgets similar to the `setWindowState()`.

The difference is that the window state changed event has the `isOverride()` flag set.

This function is provided mainly to keep old applications that use `Q3Workspace` working.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

Name

QMenuBar::setCornerWidget -- set the position of the widget

Synopsis

```
#include <QtGui/qmenubar.h>
void QMenuBar::setCornerWidget(QWidget * w, Qt::Corner corner =
Qt::TopRightCorner);
```

Description

The `QMenuBar::setCornerWidget()` function shall set widget *w* to be shown directly on the left of the first or the right of the last menu item, depending on *corner*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN9QListView13doItemsLayoutEv

Name

QListView::doItemsLayout -- layout items

Synopsis

```
#include <QtGui/qListView.h>
void QListView::doItemsLayout(void);
```

Description

The `QListView::doItemsLayout()` function shall layout the items according to the flow and wrapping properties.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZN9QListView14resizeContentsEii

Name

QListView::resizeContents -- resize the internal contents of the view

Synopsis

```
#include <QtGui/qListView.h>
void QListView::resizeContents(int width, int height);
```

Description

The `QListView::resizeContents()` function shall resize the internal contents to *width* and *height* and set the scroll bar ranges accordingly.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK11QProxyModel13setProxyModelERK11QModelIndex

Name

QProxyModel::setProxyModel -- change the model pointer to point to the proxy model

Synopsis

```
#include <QtGui/qproxymodel.h>
QModelIndex QProxyModel::setProxyModel(const QModelIndex & source_index);
```

Description

The `QProxyModel::setProxyModel()` function shall change the model pointer in the given *source_index* to point to the proxy model.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK11QProxyModel14connectToModelEPK18QAbstra

Name

QProxyModel::connectToModel -- connect to all the signals emitted by the model

Synopsis

```
#include <QtGui/qproxymodel.h>
void QProxyModel::connectToModel(const QAbstractItemModel * model);
```

Description

The `QProxyModel::connectToModel()` function shall connect to all the signals emitted by given *model*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK11QProxyModel14setSourceModelERK11QModelIndex

Name

QProxyModel::setSourceModel -- INSERT PURPOSE HERE

Synopsis

```
#include <QtGui/qproxymodel.h>
QModelIndex QProxyModel::setSourceModel(const QModelIndex & proxy_index);
```

Description

The `QProxyModel::setSourceModel()` function shall change the model pointer in the given `proxy_index` to point to the source model.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK11QProxyModel19disconnectFromModelEPK18Q/

Name

QProxyModel::disconnectFromModel -- disconnect from all signals emitted by the model

Synopsis

```
#include <QtGui/qproxymodel.h>
void QProxyModel::disconnectFromModel(const QAbstractItemModel * model);
```

Description

The `QProxyModel::disconnectFromModel()` function shall disconnect from all the signals emitted by the given *model*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK12QPaintEngine10systemClipEv

Name

QPaintEngine::systemClip -- get the system clip

Synopsis

```
#include <QtGui/qpaintengine.h>
QRegion QPaintEngine::systemClip (void);
```

Description

The `QPaintEngine::systemClip()` function shall return the system clip. The system clip is read only while the painter is active. An empty region indicates that system clip is not in use.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK12QPaintEngine10systemRectEv

Name

QPaintEngine::systemRect -- retrieve the rect for drawing within the backing store

Synopsis

```
#include <QtGui/qpaintengine.h>
QRect QPaintEngine::systemRect (void);
```

Description

The `QPaintEngine::systemRect()` function shall retrieve the rectangle for drawing within the backing store.

This function should only be used by the backing store, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK12QPaintEngine16coordinateOffsetEv

Name

QPaintEngine::coordinateOffset -- get the offset from the painters origo to the engines origo

Synopsis

```
#include <QtGui/qpaintengine.h>
virtual QPoint QPaintEngine::coordinateOffset (void);
```

Description

The `QPaintEngine::coordinateOffset()` function shall return the offset from the painters origo to the engines origo. This value is used by `QPainter` for engines who have internal double buffering.

This function only makes sense when the engine is active.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK13QGraphicsItem17supportsExtensionENS_9Exte

Name

QGraphicsItem::supportsExtension -- check if the item supports the extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual bool QGraphicsItem::supportsExtension(Extension extension);
```

Description

The `QGraphicsItem::supportsExtension()` function is provided as a hook to avoid problems related to adding virtual functions.

This function does nothing and should always return false.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK13QGraphicsItem9extensionERK8QVariant

Name

QGraphicsItem::extension -- auxiliary virtual function

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual QVariant QGraphicsItem::extension (const QVariant &variant);
```

Description

The `QGraphicsItem::extension()` function shall simply return its argument. It is provided as a hook to avoid problems related to adding virtual functions.

_ZNK13QInputContext11focusWidgetEv

Name

`QInputContext::focusWidget` -- get the widget that has an input focus for this input context

Synopsis

```
#include <QtGui/qinputcontext.h>
QWidget * QInputContext::focusWidget(void);
```

Description

The `QInputContext::focusWidget()` function shall return the widget that has an input focus for this input context.

The return value may differ from `holderWidget()` if the input context is shared between several text widgets.

Ordinary input methods should not call this function directly to keep platform independence and flexible configuration possibility.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

See Also

`setFocusWidget()`, `holderWidget()`

_ZNK13QItemDelegate10decorationERK20QStyleOption

Name

QItemDelegate::decoration -- get the pixmap used to decorate the root of the item view

Synopsis

```
#include <QtGui/qitemdelegate.h>
QPixmap QItemDelegate::decoration(const QStyleOptionViewItem & option,
const QVariant & variant);
```

Description

The `QItemDelegate::decoration()` function shall return the pixmap used to decorate the root of the item view.

The style *option* controls the appearance of the root; the *variant* refers to the data associated with an item.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK13QItemDelegate8selectedERK7QPixmapRK8QPa

Name

QItemDelegate::selected -- get the selected version of the given pixmap using the given palette

Synopsis

```
#include <QtGui/qitemdelegate.h>
QPixmap * QItemDelegate::selected(const QPixmap & pixmap, const QPalette
& palette, bool enabled);
```

Description

The `QItemDelegate::selected()` function shall return the selected version of the given *pixmap* using the given *palette*.

The *enabled* argument decides whether the normal or disabled highlight color of the palette is used.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK13QTextDocument7frameAtEi

Name

QTextDocument::frameAt -- get the frame that contains the given cursor position

Synopsis

```
#include <QtGui/qtextdocument.h>
QTextFrame * QTextDocument::frameAt(int pos);
```

Description

The `QTextDocument::frameAt()` function shall return the frame that contains the text cursor position *pos*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK14QTextTableCell12lastPositionEv

Name

QTextTableCell::lastPosition -- get the last position in the cell's document

Synopsis

```
#include <QtGui/qtexttable.h>
int QTextTableCell::lastPosition(void);
```

Description

The `QTextTableCell::lastPosition()` function shall return the last valid position in the document occupied by this cell.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK14QTextTableCell13firstPositionEv

Name

QTextTableCell::firstPosition -- get the first position in the cell's document

Synopsis

```
#include <QtGui/qtexttable.h>
int QTextTableCell::firstPosition(void);
```

Description

The `QTextTableCell::firstPosition()` function shall return the first valid position in the document occupied by this cell.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK17QGraphicsLineItem17supportsExtensionEN13Q

Name

QGraphicsLineItem::supportsExtension -- check if the item supports the extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual bool QGraphicsLineItem::supportsExtension(Extension extension);
```

Description

The `QGraphicsLineItem::supportsExtension()` function is provided as a hook to avoid problems related to adding virtual functions. This functions shall always return false.

This function is not intended to be used used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK17QGraphicsLineItem9extensionERK8QVariant

Name

QGraphicsLineItem::extension -- get the item's extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual QVariant QGraphicsLineItem::extension(const QVariant & variant);
```

Description

The `QGraphicsLineItem::extension()` function shall simply return its argument. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK17QGraphicsPathItem17supportsExtensionEN13C

Name

QGraphicsPathItem::supportsExtension -- check if the item supports the extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual bool QGraphicsPathItem::supportsExtension(Extension extension);
```

Description

The `QGraphicsPathItem::supportsExtension()` function is provided as a hook to avoid problems related to adding virtual functions. This functions shall always return false.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK17QGraphicsPathItem9extensionERK8QVariant

Name

QGraphicsPathItem::extension -- get the item's extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual QVariant QGraphicsPathItem::extension(const QVariant & variant);
```

Description

The `QGraphicsPathItem::extension()` function shall simply return its argument. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK17QGraphicsRectItem17supportsExtensionEN13C

Name

QGraphicsRectItem::supportsExtension -- check if the item supports the extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual bool QGraphicsRectItem::supportsExtension(Extension extension);
```

Description

The `QGraphicsRectItem::supportsExtension()` function is provided as a hook to avoid problems related to adding virtual functions. This functions shall always return false.

This function is not intended to be used used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK17QGraphicsRectItem9extensionERK8QVariant

Name

QGraphicsRectItem::extension -- get the item's extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual QVariant QGraphicsRectItem::extension(const QVariant & variant);
```

Description

The `QGraphicsRectItem::extension()` function shall simply return its argument. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK17QGraphicsTextItem17supportsExtensionEN13Q

Name

QGraphicsTextItem::supportsExtension -- check if the item supports the extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual bool QGraphicsTextItem::supportsExtension(Extension extension);
```

Description

The `QGraphicsTextItem::supportsExtension()` function is provided as a hook to avoid problems related to adding virtual functions. This functions shall always return false.

This function is not intended to be used used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK17QGraphicsTextItem9extensionERK8QVariant

Name

QGraphicsTextItem::extension -- get the item's extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual QVariant QGraphicsTextItem::extension(const QVariant & variant);
```

Description

The `QGraphicsTextItem::extension()` function shall simply return its argument. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK19QGraphicsPixmapItem17supportsExtensionEN

Name

QGraphicsPixmapItem::supportsExtension -- check if the item supports the extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual bool QGraphicsPixmapItem::supportsExtension(Extension extension);
```

Description

The `QGraphicsPixmapItem::supportsExtension()` is provided as a hook to avoid problems related to adding virtual functions. This functions shall always return false.

This function is not intended to be used used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK19QGraphicsPixmapItem9extensionERK8QVariant

Name

QGraphicsPixmapItem::extension -- get the item's extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual QVariant QGraphicsPixmapItem::extension(const QVariant &
variant);
```

Description

The `QGraphicsPixmapItem::extension()` function shall simply return its argument. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK20QGraphicsEllipseItem17supportsExtensionEN1

Name

QGraphicsEllipseItem::supportsExtension -- check if the item supports the extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual bool QGraphicsEllipseItem::supportsExtension(Extension
extension);
```

Description

The `QGraphicsEllipseItem::supportsExtension()` function is provided as a hook to avoid problems related to adding virtual functions. This function shall always return false.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK20QGraphicsEllipseItem9extensionERK8QVariant

Name

QGraphicsEllipseItem::extension -- get the item's extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual QVariant QGraphicsEllipseItem::extension(const QVariant &
variant);
```

Description

The `QGraphicsEllipseItem::extension()` function shall simply return its argument. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK20QGraphicsPolygonItem17supportsExtensionEN

Name

QGraphicsPolygonItem::supportsExtension -- check if the item supports the extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual bool QGraphicsPolygonItem::supportsExtension(Extension
extension);
```

Description

The `QGraphicsPolygonItem::supportsExtension()` function is provided as a hook to a void problems related to adding virtual functions. This functions shall always return false.

This function is not intended to be used used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK20QGraphicsPolygonItem9extensionERK8QVariant

Name

QGraphicsPolygonItem::extension -- get the item's extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual QVariant QGraphicsPolygonItem::extension(const QVariant &
variant);
```

Description

The `QGraphicsPolygonItem::extension()` function shall simply return its argument. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK23QGraphicsSimpleTextItem17supportsExtension

Name

QGraphicsSimpleTextItem::supportsExtension -- check if the item supports the extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual bool QGraphicsSimpleTextItem::supportsExtension(Extension
extension);
```

Description

The `QGraphicsSimpleTextItem::supportsExtension()` function is provided as a hook to avoid problems related to adding virtual functions. This function shall always return false.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK23QGraphicsSimpleTextItem9extensionERK8QVa

Name

QGraphicsSimpleTextItem::extension -- get the item's extension

Synopsis

```
#include <QtGui/qgraphicsitem.h>
virtual QVariant QGraphicsSimpleTextItem::extension(const QVariant &
variant);
```

Description

The `QGraphicsSimpleTextItem::extension()` function shall simply return its argument. It is provided as a hook to avoid problems related to adding virtual functions.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK6QImage7devTypeEv

Name

QImage::devType -- get identifier designating that the object is a QImage

Synopsis

```
#include <QtGui/qimage.h>
int QImage::devType(void);
```

Description

The `QImage::devType()` shall always return the `QInternal::Image` value.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK7QLayout13totalSizeHintEv

Name

QLayout::totalSizeHint -- get the preferred size for the layout

Synopsis

```
#include <QtGui/qlayout.h>
QSize QLayout::totalSizeHint (void);
```

Description

The `QLayout::totalSizeHint()` function shall return the preferred size of the layout. The result shall be the same as for the `sizeHint()`, but with `contentsMargins` and menu bar taken into account.

Note that all inheritors of the `QLayoutItem` class should provide their own implementation of the `sizeHint()` function.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK7QLayout16totalMaximumSizeEv

Name

QLayout::totalMaximumSize -- get the maximum size of the layout

Synopsis

```
#include <QtGui/qlayout.h>
QSize QLayout::totalMaximumSize (void);
```

Description

The `QLayout::totalMaximumSize()` function has the same behavior as the `QLayout::maximumSize()` function described in [QtGui 4.2.0](#), but also takes `contentsMargins` and `menu bar` into account.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK7QLayout16totalMinimumSizeEv

Name

QLayout::totalMinimumSize -- get the minimum size of the layout

Synopsis

```
#include <QtGui/qlayout.h>
QSize QLayout::totalMinimumSize (void);
```

Description

The `QLayout::totalMinimumSize()` function has the same behavior as the `QLayout::minimumSize()` function described in [QtGui 4.2.0](#), but also takes `contentsMargins` and `menu bar` into account.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK7QLayout19totalHeightForWidthEi

Name

QLayout::totalHeightForWidth -- get the preferred height for the layout

Synopsis

```
#include <QtGui/qlayout.h>
int QLayout::totalHeightForWidth (int w);
```

Description

The `QLayout::totalHeightForWidth()` function has the same behavior as the `QLayoutItem::heightForWidth()` function described in [QtGui 4.2.0](#), but also takes contentsMargins and menu bar into account (`heightForWidth()` is inherited by `QLayout` from `QLayoutItem`).

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK7QPixmap7devTypeEv

Name

QPixmap::devType -- get identifier designating that the object is a QPixmap

Synopsis

```
#include <QtGui/qixmap.h>
int QPixmap::devType(void);
```

Description

The QPixmap::devType() function shall always return the QInternal::Pixmap value.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK7QWidget7devTypeEv

Name

`QWidget::devType` -- get identifier designating that the object is a `QWidget`

Synopsis

```
#include <QtGui/qwidget.h>
int  QWidget::devType(void);
```

Description

The `QWidget::devType()` function shall always return the `QInternal::Widget` value.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK8QMenuBar12cornerWidgetEN2Qt6CornerE

Name

QMenuBar::cornerWidget -- get the widget in the left of the first or the right of the last menu

Synopsis

```
#include <QtGui/qmenubar.h>
QWidget * QMenuBar::cornerWidget (Qt::Corner corner = Qt::TopRightCorner);
```

Description

The `QMenuBar::cornerWidget()` function shall return the widget in the left of the first or the right of the last menu item, depending on *corner*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK8QMenuBar14actionGeometryEP7QAction

Name

QMenuBar::actionGeometry -- get geometry of an action

Synopsis

```
#include <QtGui/qmenubar.h>
QRect QMenuBar::actionGeometry(QAction * act);
```

Description

The `QMenuBar::actionGeometry()` function shall return the geometry of action *act*.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK8QMenuBar8actionAtERK6QPoint

Name

QMenuBar::actionAt -- get the item at the given point

Synopsis

```
#include <QtGui/qmenubar.h>
QAction * QMenuBar::actionAt(const QPoint & pt);
```

Description

The `QMenuBar::actionAt()` function shall return the item at the given point *pt*

If there is no item there or if it is a separator item then the function shall return 0.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

ZNK8QPainter3mapEiiPiS0

Name

QPainter::map -- apply the painter's transformation on the given point

Synopsis

```
#include <QtGui/qpainter.h>
void QPainter::map (int x, int y, int *rx, int *ry);
```

Description

The `QPainter::map()` function shall set (*rx* and *ry*) to the point that results from applying the painter's current transformation on the point (*x*, *y*).

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK8QPicture7devTypeEv

Name

QPicture::devType -- get identifier designating that the object is a QPicture

Synopsis

```
#include <QtGui/qpicture.h>
int QPicture::devType(void);
```

Description

The `QPicture::devType()` function shall always return the `QInternal::Picture` value.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK8QPrinter7devTypeEv

Name

QPrinter::devType -- get identifier designating that the object is a QPrinter

Synopsis

```
#include <QtGui/qprinter.h>
int QPrinter::devType(void);
```

Description

The `QPrinter::devType()` function shall always return the `QInternal::Printer` value.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK8QToolBar14actionGeometryEP7QAction

Name

QToolBar::actionGeometry -- get geometry of the toolbar item associated with the given action

Synopsis

```
#include <QtGui/qtoolbar.h>
QRect QToolBar::actionGeometry(QAction * action);
```

Description

The `QToolBar::actionGeometry()` function shall return the geometry of the toolbar item associated with the given *action*.

If no matching item is found, then the function shall return an invalid `QRect`.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK9QFontInfo8overlineEv

Name

QFontInfo::overline -- get the overline value of the matched window system font

Synopsis

```
#include <QtGui/qfontinfo.h>
bool QFontInfo::overline (void);
```

Description

The `QFontInfo::overline()` function shall return the overline value of the matched window system font.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK9QFontInfo9strikeOutEv

Name

QFontInfo::strikeOut -- get the underline value of the matched window system font

Synopsis

```
#include <QtGui/qfontinfo.h>
bool QFontInfo::strikeOut (void);
```

Description

The `QFontInfo::strikeOut()` function shall return the strikethrough value of the matched window system font.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK9QFontInfo9underlineEv

Name

QFontInfo::underline -- get the underline value of the matched window system font

Synopsis

```
#include <QtGui/qfontinfo.h>
bool QFontInfo::underline (void);
```

Description

The QFontInfo::underline() function shall return the underline value of the matched window system font.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

17.8. Interfaces for libQtXml

[Table 17-521](#) defines the library name and shared object name for the libQtXml library

Table 17-521. libQtXml Definition

Library:	libQtXml
SONAME:	libQtXml.so.4

The behavior of the interfaces in this library is specified by the following specifications:

[CXXABI-1.86] [Itanium™ C++ ABI](#)

[QtXml] [QtXml 4.2.0](#)

17.8.1. Qt4 XML

17.8.1.1. Class data for QXmlAttributes

The virtual table for the QXmlAttributes class is described by [Table 17-522](#)

Table 17-522. Primary vtable for QXmlAttributes

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlAttributes
vfunc[0]:	NULL or QXmlAttributes::~~QXmlAttributes()
vfunc[1]:	NULL or QXmlAttributes::~~QXmlAttributes()

The Run Time Type Information for the QXmlAttributes class is described by [Table 17-523](#)

Table 17-523. typeinfo for QXmlAttributes

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlAttributes

17.8.1.2. Class data for QXmlInputSource

The virtual table for the QXmlInputSource class is described by [Table 17-524](#)

Table 17-524. Primary vtable for QXmlInputSource

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlInputSource
vfunc[0]:	QXmlInputSource::~~QXmlInputSource()
vfunc[1]:	QXmlInputSource::~~QXmlInputSource()
vfunc[2]:	QXmlInputSource::setData(QString const&)
vfunc[3]:	QXmlInputSource::setData(QByteArray const&)
vfunc[4]:	QXmlInputSource::fetchData()
vfunc[5]:	QXmlInputSource::data() const
vfunc[6]:	QXmlInputSource::next()
vfunc[7]:	QXmlInputSource::reset()
vfunc[8]:	QXmlInputSource::fromRawData(QByteArray const&, bool)

The Run Time Type Information for the QXmlInputSource class is described by [Table 17-525](#)

Table 17-525. typeinfo for QXmlInputSource

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlInputSource

17.8.1.3. Class data for QXmlReader

The virtual table for the QXmlReader class is described by [Table 17-526](#)

Table 17-526. Primary vtable for QXmlReader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlReader
vfunc[0]:	NULL or QXmlReader::~~QXmlReader()
vfunc[1]:	NULL or QXmlReader::~~QXmlReader()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	__cxa_pure_virtual
vfunc[10]:	__cxa_pure_virtual
vfunc[11]:	__cxa_pure_virtual
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	__cxa_pure_virtual
vfunc[17]:	__cxa_pure_virtual
vfunc[18]:	__cxa_pure_virtual
vfunc[19]:	__cxa_pure_virtual
vfunc[20]:	__cxa_pure_virtual
vfunc[21]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlReader class is described by [Table 17-527](#)

Table 17-527. typeinfo for QXmlReader

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QDomReader

17.8.1.4. Class data for QDomSimpleReader

The virtual table for the QDomSimpleReader class is described by [Table 17-528](#)

Table 17-528. Primary vtable for QDomSimpleReader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomSimpleReader
vfunc[0]:	QDomSimpleReader::~~QDomSimpleReader()
vfunc[1]:	QDomSimpleReader::~~QDomSimpleReader()
vfunc[2]:	QDomSimpleReader::feature(QString const&, bool*) const
vfunc[3]:	QDomSimpleReader::setFeature(QString const&, bool)
vfunc[4]:	QDomSimpleReader::hasFeature(QString const&) const
vfunc[5]:	QDomSimpleReader::property(QString const&, bool*) const
vfunc[6]:	QDomSimpleReader::setProperty(QString const&, void*)
vfunc[7]:	QDomSimpleReader::hasProperty(QString const&) const
vfunc[8]:	QDomSimpleReader::setEntityResolver(QDomEntityResolver*)
vfunc[9]:	QDomSimpleReader::entityResolver() const
vfunc[10]:	QDomSimpleReader::setDTDHandler(QDomDTDHandler*)
vfunc[11]:	QDomSimpleReader::DTDHandler() const
vfunc[12]:	QDomSimpleReader::setContentHandler(QDomContentHandler*)
vfunc[13]:	QDomSimpleReader::contentHandler() const
vfunc[14]:	QDomSimpleReader::setErrorHandler(QDomErrorHandler*)
vfunc[15]:	QDomSimpleReader::errorHandler() const
vfunc[16]:	QDomSimpleReader::setLexicalHandler(QDomLexicalHandler*)
vfunc[17]:	QDomSimpleReader::lexicalHandler() const
vfunc[18]:	QDomSimpleReader::setDeclHandler(QDomDeclHandler*)
vfunc[19]:	QDomSimpleReader::declHandler() const
vfunc[20]:	QDomSimpleReader::parse(QDomInputSource const&)
vfunc[21]:	QDomSimpleReader::parse(QDomInputSource const*)

vfunc[22]:	QXmlSimpleReader::parse(QXmlInputSource const*, bool)
vfunc[23]:	QXmlSimpleReader::parseContinue()

The Run Time Type Information for the QXmlSimpleReader class is described by [Table 17-529](#)

Table 17-529. typeinfo for QXmlSimpleReader

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QXmlSimpleReader
basetype:	typeinfo for QXmlReader

17.8.1.5. Class data for QXmlLocator

The virtual table for the QXmlLocator class is described by [Table 17-530](#)

Table 17-530. Primary vtable for QXmlLocator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlLocator
vfunc[0]:	QXmlLocator::~~QXmlLocator()
vfunc[1]:	QXmlLocator::~~QXmlLocator()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlLocator class is described by [Table 17-531](#)

Table 17-531. typeinfo for QXmlLocator

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlLocator

17.8.1.6. Class data for QXmlContentHandler

The virtual table for the QXmlContentHandler class is described by [Table 17-532](#)

Table 17-532. Primary vtable for QXmlContentHandler

Base Offset	0
Virtual Base Offset	0

RTTI	typeid for QDomContentHandler
vfunc[0]:	NULL or QDomContentHandler::~~QDomContentHandler()
vfunc[1]:	NULL or QDomContentHandler::~~QDomContentHandler()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	__cxa_pure_virtual
vfunc[10]:	__cxa_pure_virtual
vfunc[11]:	__cxa_pure_virtual
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual

The Run Time Type Information for the QDomContentHandler class is described by [Table 17-533](#)

Table 17-533. typeid for QDomContentHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QDomContentHandler

17.8.1.7. Class data for QDomErrorHandler

The virtual table for the QDomErrorHandler class is described by [Table 17-534](#)

Table 17-534. Primary vtable for QDomErrorHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QDomErrorHandler
vfunc[0]:	NULL or QDomErrorHandler::~~QDomErrorHandler()
vfunc[1]:	NULL or QDomErrorHandler::~~QDomErrorHandler()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlErrorHandler class is described by [Table 17-535](#)

Table 17-535. typeinfo for QXmlErrorHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlErrorHandler

17.8.1.8. Class data for QXmlDTDHandler

The virtual table for the QXmlDTDHandler class is described by [Table 17-536](#)

Table 17-536. Primary vtable for QXmlDTDHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlDTDHandler
vfunc[0]:	NULL or QXmlDTDHandler::~~QXmlDTDHandler()
vfunc[1]:	NULL or QXmlDTDHandler::~~QXmlDTDHandler()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlDTDHandler class is described by [Table 17-537](#)

Table 17-537. typeinfo for QXmlDTDHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlDTDHandler

17.8.1.9. Class data for QXmlEntityResolver

The virtual table for the QXmlEntityResolver class is described by [Table 17-538](#)

Table 17-538. Primary vtable for QXmlEntityResolver

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QXmlEntityResolver
vfunc[0]:	NULL or QXmlEntityResolver::~~QXmlEntityResolver()
vfunc[1]:	NULL or QXmlEntityResolver::~~QXmlEntityResolver()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlEntityResolver class is described by [Table 17-539](#)

Table 17-539. typeinfo for QXmlEntityResolver

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlEntityResolver

17.8.1.10. Class data for QXmlLexicalHandler

The virtual table for the QXmlLexicalHandler class is described by [Table 17-540](#)

Table 17-540. Primary vtable for QXmlLexicalHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlLexicalHandler
vfunc[0]:	NULL or QXmlLexicalHandler::~~QXmlLexicalHandler()
vfunc[1]:	NULL or QXmlLexicalHandler::~~QXmlLexicalHandler()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlLexicalHandler class is described by [Table 17-541](#)

Table 17-541. typeinfo for QXmlLexicalHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info

Name	typeinfo name for QXmlLexicalHandler

17.8.1.11. Class data for QXmlDeclHandler

The virtual table for the QXmlDeclHandler class is described by [Table 17-542](#)

Table 17-542. Primary vtable for QXmlDeclHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlDeclHandler
vfunc[0]:	NULL or QXmlDeclHandler::~~QXmlDeclHandler()
vfunc[1]:	NULL or QXmlDeclHandler::~~QXmlDeclHandler()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlDeclHandler class is described by [Table 17-543](#)

Table 17-543. typeinfo for QXmlDeclHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlDeclHandler

17.8.1.12. Class data for QXmlDefaultHandler

The virtual table for the QXmlDefaultHandler class is described by [Table 17-544](#)

Table 17-544. Primary vtable for QXmlDefaultHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlDefaultHandler
vfunc[0]:	NULL or QXmlDefaultHandler::~~QXmlDefaultHandler()
vfunc[1]:	NULL or QXmlDefaultHandler::~~QXmlDefaultHandler()
vfunc[2]:	QXmlDefaultHandler::setDocumentLocator(QXmlLocator*)

vfunc[3]:	QXmlDefaultHandler::startDocument()
vfunc[4]:	QXmlDefaultHandler::endDocument()
vfunc[5]:	QXmlDefaultHandler::startPrefixMapping(QString const&, QString const&)
vfunc[6]:	QXmlDefaultHandler::endPrefixMapping(QString const&)
vfunc[7]:	QXmlDefaultHandler::startElement(QString const&, QString const&, QString const&, QXmlAttributes const&)
vfunc[8]:	QXmlDefaultHandler::endElement(QString const&, QString const&, QString const&)
vfunc[9]:	QXmlDefaultHandler::characters(QString const&)
vfunc[10]:	QXmlDefaultHandler::ignorableWhitespace(QString const&)
vfunc[11]:	QXmlDefaultHandler::processingInstruction(QString const&, QString const&)
vfunc[12]:	QXmlDefaultHandler::skippedEntity(QString const&)
vfunc[13]:	QXmlDefaultHandler::errorString() const
vfunc[14]:	QXmlDefaultHandler::warning(QXmlParseException const&)
vfunc[15]:	QXmlDefaultHandler::error(QXmlParseException const&)
vfunc[16]:	QXmlDefaultHandler::fatalError(QXmlParseException const&)
vfunc[17]:	QXmlDefaultHandler::notationDecl(QString const&, QString const&, QString const&)
vfunc[18]:	QXmlDefaultHandler::unparsedEntityDecl(QString const&, QString const&, QString const&, QString const&)
vfunc[19]:	QXmlDefaultHandler::resolveEntity(QString const&, QString const&, QXmlInputSource*&)
vfunc[20]:	QXmlDefaultHandler::startDTD(QString const&, QString const&, QString const&)
vfunc[21]:	QXmlDefaultHandler::endDTD()
vfunc[22]:	QXmlDefaultHandler::startEntity(QString const&)
vfunc[23]:	QXmlDefaultHandler::endEntity(QString const&)
vfunc[24]:	QXmlDefaultHandler::startCDATA()
vfunc[25]:	QXmlDefaultHandler::endCDATA()
vfunc[26]:	QXmlDefaultHandler::comment(QString const&)
vfunc[27]:	QXmlDefaultHandler::attributeDecl(QString const&, QString const&, QString const&, QString const&, QString const&)
vfunc[28]:	QXmlDefaultHandler::internalEntityDecl(QString const&, QString const&)
vfunc[29]:	QXmlDefaultHandler::externalEntityDecl(QString const&, QString const&, QString const&)

The Run Time Type Information for the QXmlDefaultHandler class is described by [Table 17-545](#)

Table 17-545. typeinfo for QXmlDefaultHandler

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QDomDefaultHandler	
flags:	0	
basetype:	typeinfo for QDomContentHandler	2
basetype:	typeinfo for QDomErrorHandler	1026
basetype:	typeinfo for QDomErrorHandler	2050
basetype:	typeinfo for QDomErrorHandler	1026
basetype:	typeinfo for QDomErrorHandler	2050
basetype:	typeinfo for QDomErrorHandler	1026

17.8.1.13. Interfaces for Qt4 XML

An LSB conforming implementation shall provide the generic functions for Qt4 XML specified in [Table 17-546](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-546. libQtXml - Qt4 XML Function Interfaces

ZN10QDomEntityC1ERKS [QtXml]	_ZN10QDomEntityC1ERKS_ [QtXml]
ZN10QDomEntityC2ERKS [QtXml]	_ZN10QDomEntityC2ERKS_ [QtXml]
ZN10QDomEntityaSERKS [QtXml]	_ZN10QDomEntityaSERKS_ [QtXml]
_ZN11QDomCommentC1Ev [QtXml]	_ZN11QDomCommentC1Ev [QtXml]
_ZN11QDomCommentC2Ev [QtXml]	_ZN11QDomCommentC2Ev [QtXml]
_ZN11QDomElement10setTagNameERK7QString [QtXml]	_ZN11QDomElement10setTagNameERK7QString [QtXml]
_ZN11QDomElement12setAttributeERK7QStringd [QtXml]	_ZN11QDomElement12setAttributeERK7QStringd [QtXml]
_ZN11QDomElement12setAttributeERK7QStringx [QtXml]	_ZN11QDomElement12setAttributeERK7QStringx [QtXml]
_ZN11QDomElement13attributeNodeERK7QString [QtXml]	_ZN11QDomElement13attributeNodeERK7QString [QtXml]
_ZN11QDomElement14setAttributeNSE7QStringRKS0_d [QtXml]	_ZN11QDomElement14setAttributeNSE7QStringRKS0_d [QtXml]
_ZN11QDomElement14setAttributeNSE7QStringRKS0_y [QtXml]	_ZN11QDomElement14setAttributeNSE7QStringRKS0_y [QtXml]
_ZN11QDomElement15removeAttributeERK7QString [QtXml]	_ZN11QDomElement15removeAttributeERK7QString [QtXml]
ZN11QDomElement17removeAttributeNSERK7QStringS2 [QtXml]	_ZN11QDomElement17removeAttributeNSERK7QStringS2_ [QtXml]
_ZN11QDomElement19removeAttributeNodeERK8QDomAttr [QtXml]	_ZN11QDomElement19removeAttributeNodeERK8QDomAttr [QtXml]
_ZN11QDomElementC1Ev [QtXml]	_ZN11QDomElementC1Ev [QtXml]
_ZN11QDomElementC2Ev [QtXml]	_ZN11QDomElementC2Ev [QtXml]
_ZN11QXmlLocatorC1Ev [QtXml]	_ZN11QXmlLocatorC1Ev [QtXml]
_ZN11QXmlLocatorD0Ev [QtXml]	_ZN11QXmlLocatorD0Ev [QtXml]

_ZN11QXmlLocatorD2Ev [QtXml]	_ZN12QDomDocum
ZN12QDomDocument10setContentEP15QXmlInputSourceP10QXmlReaderP7QStringPiS6 [QtXml]	_ZN12QDomDocum
ZN12QDomDocument10setContentEP9QIODevicebP7QStringPiS4 [QtXml]	_ZN12QDomDocum
ZN12QDomDocument10setContentERK10QByteArraybP7QStringPiS5 [QtXml]	_ZN12QDomDocum
_ZN12QDomDocument10setContentERK7QStringbPS0_PiS4_ [QtXml]	_ZN12QDomDocum
_ZN12QDomDocument13createCommentERK7QString [QtXml]	_ZN12QDomDocum
_ZN12QDomDocument14createTextNodeERK7QString [QtXml]	_ZN12QDomDocum
ZN12QDomDocument15createElementNSERK7QStringS2 [QtXml]	_ZN12QDomDocum
_ZN12QDomDocument18createCDATASectionERK7QString [QtXml]	_ZN12QDomDocum
_ZN12QDomDocument21createEntityReferenceERK7QString [QtXml]	_ZN12QDomDocum
ZN12QDomDocument27createProcessingInstructionERK7QStringS2 [QtXml]	_ZN12QDomDocum
_ZN12QDomDocumentC1ERK7QString [QtXml]	_ZN12QDomDocum
_ZN12QDomDocumentC1Ev [QtXml]	_ZN12QDomDocum
_ZN12QDomDocumentC2ERK7QString [QtXml]	_ZN12QDomDocum
_ZN12QDomDocumentC2Ev [QtXml]	_ZN12QDomDocum
_ZN12QDomDocumentD2Ev [QtXml]	_ZN12QDomDocum
ZN12QDomNodeListC1ERKS [QtXml]	_ZN12QDomNodeLi
ZN12QDomNodeListC2ERKS [QtXml]	_ZN12QDomNodeLi
_ZN12QDomNodeListD1Ev [QtXml]	_ZN12QDomNodeLi
ZN12QDomNodeListaSERKS [QtXml]	_ZN12QDomNotatio
_ZN12QDomNotationC1Ev [QtXml]	_ZN12QDomNotatio
_ZN12QDomNotationC2Ev [QtXml]	_ZN12QDomNotatio
_ZN14QXmlAttributes5clearEv [QtXml]	_ZN14QXmlAttribut
_ZN15QXmlInputSource11fromRawDataERK10QByteArrayb [QtXml]	_ZN15QXmlInputSo
_ZN15QXmlInputSource5resetEv [QtXml]	_ZN15QXmlInputSo
_ZN15QXmlInputSource7setDataERK7QString [QtXml]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceC1EP9QIODevice [QtXml]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceC1ER5QFile [QtXml]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceC2EP9QIODevice [QtXml]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceC2ER5QFile [QtXml]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceD0Ev [QtXml]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceD2Ev [QtXml]	_ZN16QDomCDATA

_ZN16QDomCDATASectionC1Ev [QtXml]	_ZN16QDomCDATASectionC1Ev [QtXml]
_ZN16QDomCDATASectionC2Ev [QtXml]	_ZN16QDomCDATASectionC2Ev [QtXml]
ZN16QDomDocumentTypeC1ERKS [QtXml]	_ZN16QDomDocumentTypeC1ERKS_ [QtXml]
ZN16QDomDocumentTypeC2ERKS [QtXml]	_ZN16QDomDocumentTypeC2ERKS_ [QtXml]
ZN16QDomDocumentTypeeaSERKS [QtXml]	_ZN16QDomDocumentTypeeaSERKS_ [QtXml]
_ZN16QDomNamedNodeMap14setNamedItemNSERK8QDomNode [QtXml]	_ZN16QDomNamedNodeMap14setNamedItemNSERK8QDomNode [QtXml]
ZN16QDomNamedNodeMap17removeNamedItemNSERK7QStringS2 [QtXml]	_ZN16QDomNamedNodeMap17removeNamedItemNSERK7QStringS2_ [QtXml]
_ZN16QDomNamedNodeMapC1Ev [QtXml]	_ZN16QDomNamedNodeMapC1Ev [QtXml]
_ZN16QDomNamedNodeMapC2Ev [QtXml]	_ZN16QDomNamedNodeMapC2Ev [QtXml]
_ZN16QDomNamedNodeMapD2Ev [QtXml]	_ZN16QDomNamedNodeMapD2Ev [QtXml]
_ZN16QXmlSimpleReader10setFeatureERK7QStringb [QtXml]	_ZN16QXmlSimpleReader10setFeatureERK7QStringb [QtXml]
_ZN16QXmlSimpleReader13parseContinueEv [QtXml]	_ZN16QXmlSimpleReader13parseContinueEv [QtXml]
_ZN16QXmlSimpleReader14setDeclHandlerEP15QXmlDeclHandler [QtXml]	_ZN16QXmlSimpleReader14setDeclHandlerEP15QXmlDeclHandler [QtXml]
_ZN16QXmlSimpleReader17setContentHandlerEP18QXmlContentHandler [QtXml]	_ZN16QXmlSimpleReader17setContentHandlerEP18QXmlContentHandler [QtXml]
_ZN16QXmlSimpleReader17setLexicalHandlerEP18QXmlLexicalHandler [QtXml]	_ZN16QXmlSimpleReader17setLexicalHandlerEP18QXmlLexicalHandler [QtXml]
_ZN16QXmlSimpleReader5parseEPK15QXmlInputSourceb [QtXml]	_ZN16QXmlSimpleReader5parseEPK15QXmlInputSourceb [QtXml]
_ZN16QXmlSimpleReaderC1Ev [QtXml]	_ZN16QXmlSimpleReaderC1Ev [QtXml]
_ZN16QXmlSimpleReaderD0Ev [QtXml]	_ZN16QXmlSimpleReaderD0Ev [QtXml]
_ZN16QXmlSimpleReaderD2Ev [QtXml]	_ZN16QXmlSimpleReaderD2Ev [QtXml]
_ZN17QDomCharacterData10deleteDataEmm [QtXml]	_ZN17QDomCharacterData10deleteDataEmm [QtXml]
_ZN17QDomCharacterData11replaceDataEmmRK7QString [QtXml]	_ZN17QDomCharacterData11replaceDataEmmRK7QString [QtXml]
_ZN17QDomCharacterData7setDataERK7QString [QtXml]	_ZN17QDomCharacterData7setDataERK7QString [QtXml]
_ZN17QDomCharacterDataC1Ev [QtXml]	_ZN17QDomCharacterDataC1Ev [QtXml]
_ZN17QDomCharacterDataC2Ev [QtXml]	_ZN17QDomCharacterDataC2Ev [QtXml]
_ZN18QDomImplementation14createDocumentERK7QStringS2_RK16QDomDocumentType [QtXml]	_ZN18QDomImplementation14createDocumentERK7QStringS2_RK16QDomDocumentType [QtXml]
_ZN18QDomImplementation18createDocumentTypeERK7QStringS2_S2_ [QtXml]	_ZN18QDomImplementation18createDocumentTypeERK7QStringS2_S2_ [QtXml]
_ZN18QDomImplementation6isNullEv [QtXml]	_ZN18QDomImplementation6isNullEv [QtXml]
_ZN18QDomImplementationC1Ev [QtXml]	_ZN18QDomImplementationC1Ev [QtXml]
_ZN18QDomImplementationC2Ev [QtXml]	_ZN18QDomImplementationC2Ev [QtXml]
_ZN18QDomImplementationD2Ev [QtXml]	_ZN18QDomImplementationD2Ev [QtXml]
_ZN18QXmlDefaultHandler10charactersERK7QString [QtXml]	_ZN18QXmlDefaultHandler10charactersERK7QString [QtXml]

_ZN18QXmlDefaultHandler10fatalErrorERK18QXmlParseException [QtXml]	_ZN18QXmlDefaultt
_ZN18QXmlDefaultHandler11endDocumentEv [QtXml]	_ZN18QXmlDefaultt
_ZN18QXmlDefaultHandler12notationDeclERK7QStringS2_S2_ [QtXml]	_ZN18QXmlDefaultt [QtXml]
_ZN18QXmlDefaultHandler13attributeDeclERK7QStringS2_S2_S2_S2_ [QtXml]	_ZN18QXmlDefaultt [QtXml]
_ZN18QXmlDefaultHandler13skippedEntityERK7QString [QtXml]	_ZN18QXmlDefaultt
_ZN18QXmlDefaultHandler16endPrefixMappingERK7QString [QtXml]	_ZN18QXmlDefaultt
ZN18QXmlDefaultHandler18internalEntityDeclERK7QStringS2 [QtXml]	_ZN18QXmlDefaultt
ZN18QXmlDefaultHandler18startPrefixMappingERK7QStringS2 [QtXml]	_ZN18QXmlDefaultt
_ZN18QXmlDefaultHandler19ignorableWhitespaceERK7QString [QtXml]	_ZN18QXmlDefaultt
_ZN18QXmlDefaultHandler5errorERK18QXmlParseException [QtXml]	_ZN18QXmlDefaultt
_ZN18QXmlDefaultHandler7commentERK7QString [QtXml]	_ZN18QXmlDefaultt
_ZN18QXmlDefaultHandler8endCDATAEv [QtXml]	_ZN18QXmlDefaultt
_ZN18QXmlDefaultHandler9endEntityERK7QString [QtXml]	_ZN18QXmlParseEx
_ZN18QXmlParseExceptionC2ERK7QStringiiS2_S2_ [QtXml]	_ZN18QXmlParseEx
_ZN18QXmlParseExceptionD2Ev [QtXml]	_ZN19QDomEntityR
_ZN19QDomEntityReferenceC1Ev [QtXml]	_ZN19QDomEntityR
_ZN19QDomEntityReferenceC2Ev [QtXml]	_ZN19QDomEntityR
ZN20QDomDocumentFragmentC1ERKS [QtXml]	_ZN20QDomDocum
ZN20QDomDocumentFragmentC2ERKS [QtXml]	_ZN20QDomDocum
ZN20QDomDocumentFragmentaSERKS [QtXml]	_ZN20QXmlNamesp
_ZN20QXmlNamespaceSupport11pushContextEv [QtXml]	_ZN20QXmlNamesp
ZN20QXmlNamespaceSupport9setPrefixERK7QStringS2 [QtXml]	_ZN20QXmlNamesp
_ZN20QXmlNamespaceSupportC2Ev [QtXml]	_ZN20QXmlNamesp
_ZN20QXmlNamespaceSupportD2Ev [QtXml]	_ZN25QDomProcess
ZN25QDomProcessingInstructionC1ERKS [QtXml]	_ZN25QDomProcess
ZN25QDomProcessingInstructionC2ERKS [QtXml]	_ZN25QDomProcess
ZN25QDomProcessingInstructionaSERKS [QtXml]	_ZN8QDomAttr8setV
ZN8QDomAttrC1ERKS [QtXml]	_ZN8QDomAttrC1E
ZN8QDomAttrC2ERKS [QtXml]	_ZN8QDomAttrC2E
ZN8QDomAttraSERKS [QtXml]	_ZN8QDomNode11a
_ZN8QDomNode11insertAfterERKS_S1_ [QtXml]	_ZN8QDomNode11r

ZN8QDomNode12insertBeforeERKS S1_ [QtXml]	_ZN8QDomNode12r
_ZN8QDomNode12setNodeValueERK7QString [QtXml]	_ZN8QDomNode5cl
_ZN8QDomNode9normalizeEv [QtXml]	_ZN8QDomNode9se
ZN8QDomNodeC1ERKS [QtXml]	_ZN8QDomNodeC1
ZN8QDomNodeC2ERKS [QtXml]	_ZN8QDomNodeC2
_ZN8QDomNodeD1Ev [QtXml]	_ZN8QDomNodeD2
ZN8QDomNodeaSERKS [QtXml]	_ZN8QDomText9spl
ZN8QDomTextC1ERKS [QtXml]	_ZN8QDomTextC1E
ZN8QDomTextC2ERKS [QtXml]	_ZN8QDomTextC2E
ZN8QDomTextaSERKS [QtXml]	_ZNK10QDomEntity
_ZNK10QDomEntity8publicIdEv [QtXml]	_ZNK10QDomEntity
_ZNK11QDomElement10attributesEv [QtXml]	_ZNK11QDomElem
_ZNK11QDomElement12hasAttributeERK7QString [QtXml]	_ZNK11QDomElem
_ZNK11QDomElement17elementsByTagNameERK7QString [QtXml]	_ZNK11QDomElem
_ZNK11QDomElement4textEv [QtXml]	_ZNK11QDomElem
ZNK11QDomElement9attributeERK7QStringS2 [QtXml]	_ZNK12QDomDocu
_ZNK12QDomDocument14implementationEv [QtXml]	_ZNK12QDomDocu
_ZNK12QDomDocument17elementsByTagNameERK7QString [QtXml]	_ZNK12QDomDocu
_ZNK12QDomDocument8toStringEi [QtXml]	_ZNK12QDomNode
_ZNK12QDomNodeList6lengthEv [QtXml]	_ZNK12QDomNode
ZNK12QDomNodeListneERKS [QtXml]	_ZNK12QDomNotat
_ZNK12QDomNotation8systemIdEv [QtXml]	_ZNK14QXmlAttrib
_ZNK14QXmlAttributes4typeERK7QString [QtXml]	_ZNK14QXmlAttrib
_ZNK14QXmlAttributes4typeEi [QtXml]	_ZNK14QXmlAttrib
ZNK14QXmlAttributes5indexERK7QStringS2 [QtXml]	_ZNK14QXmlAttrib
_ZNK14QXmlAttributes5valueERK7QString [QtXml]	_ZNK14QXmlAttrib
_ZNK14QXmlAttributes5valueEi [QtXml]	_ZNK14QXmlAttrib
_ZNK14QXmlAttributes9localNameEi [QtXml]	_ZNK15QXmlInputS
_ZNK16QDomDocumentType14internalSubsetEv [QtXml]	_ZNK16QDomDocu
_ZNK16QDomDocumentType8entitiesEv [QtXml]	_ZNK16QDomDocu
_ZNK16QDomDocumentType8systemIdEv [QtXml]	_ZNK16QDomDocu
ZNK16QDomNamedNodeMap11namedItemNSERK7QStringS2 [QtXml]	_ZNK16QDomName
_ZNK16QDomNamedNodeMap6lengthEv [QtXml]	_ZNK16QDomName

_ZNK16QDomNamedNodeMap9namedItemERK7QString [QtXml]	_ZNK16QDomName
ZNK16QDomNamedNodeMapneERKS [QtXml]	_ZNK16QXmlSimple
_ZNK16QXmlSimpleReader10hasFeatureERK7QString [QtXml]	_ZNK16QXmlSimple
_ZNK16QXmlSimpleReader11hasPropertyERK7QString [QtXml]	_ZNK16QXmlSimple
_ZNK16QXmlSimpleReader14contentHandlerEv [QtXml]	_ZNK16QXmlSimple
_ZNK16QXmlSimpleReader14lexicalHandlerEv [QtXml]	_ZNK16QXmlSimple
_ZNK16QXmlSimpleReader8propertyERK7QStringPb [QtXml]	_ZNK17QDomChara
_ZNK17QDomCharacterData6lengthEv [QtXml]	_ZNK17QDomChara
ZNK18QDomImplementation10hasFeatureERK7QStringS2 [QtXml]	_ZNK18QDomImple
ZNK18QDomImplementationneERKS [QtXml]	_ZNK18QXmlDefau
_ZNK18QXmlParseException10lineNumberEv [QtXml]	_ZNK18QXmlParseE
_ZNK18QXmlParseException7messageEv [QtXml]	_ZNK18QXmlParseE
_ZNK18QXmlParseException8systemIdEv [QtXml]	_ZNK20QXmlName
_ZNK20QXmlNamespaceSupport3uriERK7QString [QtXml]	_ZNK20QXmlName
_ZNK20QXmlNamespaceSupport8prefixesERK7QString [QtXml]	_ZNK20QXmlName
_ZNK20QXmlNamespaceSupport9splitNameERK7QStringRS0_S3_ [QtXml]	_ZNK25QDomProce
_ZNK25QDomProcessingInstruction6targetEv [QtXml]	_ZNK8QDomAttr12
_ZNK8QDomAttr4nameEv [QtXml]	_ZNK8QDomAttr5v
_ZNK8QDomAttr9specifiedEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode10childNodesEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode10isDocumentEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode10lineNumberEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode10toDocumentEv [QtXml]	_ZNK8QDomNode1
ZNK8QDomNode11isSupportedERK7QStringS2 [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode12columnNumberEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode13hasAttributesEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode13ownerDocumentEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode14isDocumentTypeEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode14toDocumentTypeEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode15previousSiblingEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode16lastChildElementERK7QString [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode17isEntityReferenceEv [QtXml]	_ZNK8QDomNode1
_ZNK8QDomNode18isDocumentFragmentEv [QtXml]	_ZNK8QDomNode1

_ZNK8QDomNode18toDocumentFragmentEv [QtXml]	_ZNK8QDomNode2
_ZNK8QDomNode23isProcessingInstructionEv [QtXml]	_ZNK8QDomNode2
_ZNK8QDomNode4saveER11QTextStreami [QtXml]	_ZNK8QDomNode6
_ZNK8QDomNode6isNullEv [QtXml]	_ZNK8QDomNode6
_ZNK8QDomNode6prefixEv [QtXml]	_ZNK8QDomNode6
_ZNK8QDomNode6toTextEv [QtXml]	_ZNK8QDomNode8
_ZNK8QDomNode8nodeNameEv [QtXml]	_ZNK8QDomNode8
_ZNK8QDomNode8toEntityEv [QtXml]	_ZNK8QDomNode9
_ZNK8QDomNode9isCommentEv [QtXml]	_ZNK8QDomNode9
_ZNK8QDomNode9lastChildEv [QtXml]	_ZNK8QDomNode9
_ZNK8QDomNode9namedItemERK7QString [QtXml]	_ZNK8QDomNode9
_ZNK8QDomNode9toCommentEv [QtXml]	_ZNK8QDomNode9
ZNK8QDomNodeeqERKS [QtXml]	_ZNK8QDomNode
_ZlsR11QTextStreamRK8QDomNode [QtXml]	

An LSB conforming implementation shall provide the generic data interfaces for Qt4 XML specified in [Table 17-547](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-547. libQtXml - Qt4 XML Data Interfaces

_ZN15QXmlInputSource13EndOfDocumentE [QtXml]	_ZN15QXmlInputSource9EndOfDataE [QtXml]
_ZTI10QXmlReader [CXXABI-1.86]	_ZTI11QXmlLocator [CXXABI-1.86]
_ZTI14QXmlAttributes [CXXABI-1.86]	_ZTI14QXmlDTDHandler [CXXABI-1.86]
_ZTI15QXmlDeclHandler [CXXABI-1.86]	_ZTI15QXmlInputSource [CXXABI-1.86]
_ZTI16QXmlErrorHandler [CXXABI-1.86]	_ZTI16QXmlSimpleReader [CXXABI-1.86]
_ZTI18QXmlContentHandler [CXXABI-1.86]	_ZTI18QXmlDefaultHandler [CXXABI-1.86]
_ZTI18QXmlEntityResolver [CXXABI-1.86]	_ZTI18QXmlLexicalHandler [CXXABI-1.86]
_ZTV10QXmlReader [CXXABI-1.86]	_ZTV11QXmlLocator [CXXABI-1.86]
_ZTV14QXmlAttributes [CXXABI-1.86]	_ZTV14QXmlDTDHandler [CXXABI-1.86]
_ZTV15QXmlDeclHandler [CXXABI-1.86]	_ZTV15QXmlInputSource [CXXABI-1.86]
_ZTV16QXmlErrorHandler [CXXABI-1.86]	_ZTV16QXmlSimpleReader [CXXABI-1.86]
_ZTV18QXmlContentHandler [CXXABI-1.86]	_ZTV18QXmlDefaultHandler [CXXABI-1.86]
_ZTV18QXmlEntityResolver [CXXABI-1.86]	_ZTV18QXmlLexicalHandler [CXXABI-1.86]

17.9. Data Definitions for libQtXml

This section defines global identifiers and their values that are associated with interfaces contained in libQtXml. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

17.9.1. QtXml/qdom.h

```
class QDomImplementation;
enum _ZN18QDomImplementation17InvalidDataPolicyE {
    AcceptInvalidChars = 0,
    DropInvalidChars = 1,
    ReturnNullNode = 2
};
class QDomNode;
enum _ZN8QDomNode8NodeTypeE {
    ElementNode = 1,
    AttributeNode = 2,
    TextNode = 3,
    CDATASectionNode = 4,
    EntityReferenceNode = 5,
    EntityNode = 6,
    ProcessingInstructionNode = 7,
    CommentNode = 8,
    DocumentNode = 9,
    DocumentTypeNode = 10,
    DocumentFragmentNode = 11,
    NotationNode = 12,
    BaseNode = 21,
    CharacterDataNode = 22
};
class QDomNodeList;
class QDomDocumentType;
class QDomDocument;
class QDomNamedNodeMap;
class QDomDocumentFragment;
class QDomCharacterData;
class QDomAttr;
class QDomElement;
class QDomText;
class QDomComment;
class QDomCDATASection;
class QDomNotation;
class QDomEntity;
class QDomEntityReference;
class QDomProcessingInstruction;
```

17.9.2. QtXml/qxml.h

```
typedef enum QtValidLicenseForXmlModule QtXmlModule;
class QXmlNamespaceSupport;
class QXmlAttributes;
struct QXmlAttributes::Attribute;
class QXmlInputSource;
class QXmlParseException;
class QXmlReader;
class QXmlSimpleReader;
class QXmlLocator;
class QXmlContentHandler;
class QXmlErrorHandler;
class QXmlDTDHandler;
class QXmlEntityResolver;
class QXmlLexicalHandler;
class QXmlDeclHandler;
class QXmlDefaultHandler;
```

17.10. Interfaces for libQtOpenGL

[Table 17-548](#) defines the library name and shared object name for the libQtOpenGL library

Table 17-548. libQtOpenGL Definition

Library:	libQtOpenGL
SONAME:	libQtOpenGL.so.4

The behavior of the interfaces in this library is specified by the following specifications:

[CXXABI-1.86] [Itanium™ C++ ABI](#)

[LSB] [This Specification](#)

[QtOpenGL] [QtOpenGL 4.2.0](#)

[QtXml] [QtXml 4.2.0](#)

17.10.1. Qt4 OpenGL

17.10.1.1. Class data for QGLContext

The virtual table for the QGLContext class is described by [Table 17-549](#)

Table 17-549. Primary vtable for QGLContext

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGLContext

vfunc[0]:	QGLContext::~~QGLContext()
vfunc[1]:	QGLContext::~~QGLContext()
vfunc[2]:	QGLContext::create(QGLContext const*)
vfunc[3]:	QGLContext::makeCurrent()
vfunc[4]:	QGLContext::doneCurrent()
vfunc[5]:	QGLContext::swapBuffers() const
vfunc[6]:	QGLContext::chooseContext(QGLContext const*)
vfunc[7]:	QGLContext::tryVisual(QGLFormat const&, int)
vfunc[8]:	QGLContext::chooseVisual()

The Run Time Type Information for the QGLContext class is described by [Table 17-550](#)

Table 17-550. typeinfo for QGLContext

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QGLContext

17.10.1.2. Class data for QGLWidget

The virtual table for the QGLWidget class is described by [Table 17-551](#)

Table 17-551. Primary vtable for QGLWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGLWidget
vfunc[0]:	QGLWidget::metaObject() const
vfunc[1]:	QGLWidget::qt_metacast(char const*)
vfunc[2]:	QGLWidget::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QGLWidget::~~QGLWidget()
vfunc[4]:	QGLWidget::~~QGLWidget()
vfunc[5]:	QGLWidget::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)

vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QGLWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QGLWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QGLWidget::resizeEvent(QResizeEvent*)
vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)

vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()
vfunc[54]:	QGLWidget::updateGL()
vfunc[55]:	QGLWidget::updateOverlayGL()
vfunc[56]:	QGLWidget::initializeGL()
vfunc[57]:	QGLWidget::resizeGL(int, int)
vfunc[58]:	QGLWidget::paintGL()
vfunc[59]:	QGLWidget::initializeOverlayGL()
vfunc[60]:	QGLWidget::resizeOverlayGL(int, int)
vfunc[61]:	QGLWidget::paintOverlayGL()
vfunc[62]:	QGLWidget::glInit()
vfunc[63]:	QGLWidget::glDraw()

The Run Time Type Information for the QGLWidget class is described by [Table 17-552](#)

Table 17-552. typeinfo for QGLWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGLWidget
basetype:	typeinfo for QWidget

17.10.1.3. Class data for QGLPixelBuffer

The virtual table for the QGLPixelBuffer class is described by [Table 17-553](#)

Table 17-553. Primary vtable for QGLPixelBuffer

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGLPixelBuffer
vfunc[0]:	QGLPixelBuffer::~~QGLPixelBuffer()
vfunc[1]:	QGLPixelBuffer::~~QGLPixelBuffer()
vfunc[2]:	NULL or QGLPixelBuffer::devType() const
vfunc[3]:	QGLPixelBuffer::paintEngine() const
vfunc[4]:	QGLPixelBuffer::metric(QPaintDevice::PaintDeviceMetric) const

The Run Time Type Information for the QGLPixelBuffer class is described by [Table 17-554](#)

Table 17-554. typeinfo for QGLPixelBuffer

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGLPixelBuffer
basetype:	typeinfo for QPaintDevice

17.10.1.4. Class data for QGLFramebufferObject

The virtual table for the QGLFramebufferObject class is described by [Table 17-555](#)

Table 17-555. Primary vtable for QGLFramebufferObject

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGLFramebufferObject
vfunc[0]:	QGLFramebufferObject::~~QGLFramebufferObject()
vfunc[1]:	QGLFramebufferObject::~~QGLFramebufferObject()
vfunc[2]:	NULL or QGLFramebufferObject::devType() const
vfunc[3]:	QGLFramebufferObject::paintEngine() const
vfunc[4]:	QGLFramebufferObject::metric(QPaintDevice::PaintDeviceMetric) const

The Run Time Type Information for the QGLFramebufferObject class is described by [Table 17-556](#)

Table 17-556. typeinfo for QGLFramebufferObject

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGLFramebufferObject

basetype:	typeinfo for QPaintDevice

17.10.1.5. Interfaces for Qt4 OpenGL

An LSB conforming implementation shall provide the generic functions for Qt4 OpenGL specified in [Table 17-557](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-557. libQtOpenGL - Qt4 OpenGL Function Interfaces

_ZN10QGLContext11bindTextureERK6QImageji [QtOpenGL]	_ZN10QGLContext11bindTextureERK7QString [QtOpenGL]
_ZN10QGLContext11makeCurrentEv [QtOpenGL]	_ZN10QGLContext12chooseContextEPKS_ [QtOpenGL]
ZN10QGLContext13chooseContextEPKS [QtOpenGL]	_ZN10QGLContext14currentContextEv [QtOpenGL]
_ZN10QGLContext16setWindowCreatedEb [QtOpenGL]	_ZN10QGLContext20setTextureCacheLimitEi [QtOpenGL]
_ZN10QGLContext20setTextureCacheLimitEi [QtOpenGL]	_ZN10QGLContext5resetEv [QtOpenGL]
_ZN10QGLContext8setValidEb [LSB]	_ZN10QGLContext9setFormatERK9QGLFormat [QtOpenGL]
_ZN10QGLContext9setFormatERK9QGLFormat [QtOpenGL]	_ZN10QGLContextC1ERK9QGLFormat [QtOpenGL]
_ZN10QGLContextC1ERK9QGLFormat [QtOpenGL]	_ZN10QGLContextC2ERK9QGLFormat [QtOpenGL]
_ZN10QGLContextD0Ev [QtOpenGL]	_ZN10QGLContextD1Ev [QtOpenGL]
_ZN10QGLContextD2Ev [QtOpenGL]	_ZN11QGLColormap10setEntryEiRK6QColor [QtOpenGL]
_ZN11QGLColormap8setEntryEiRK6QColor [QtOpenGL]	_ZN11QGLColormapC1ERKS_ [QtOpenGL]
ZN11QGLColormapC1ERKS [QtOpenGL]	_ZN11QGLColormapC2ERKS_ [QtOpenGL]
ZN11QGLColormapC2ERKS [QtOpenGL]	_ZN11QGLColormapD1Ev [QtOpenGL]
_ZN11QGLColormapD1Ev [QtOpenGL]	_ZN11QGLColormapD2Ev [QtOpenGL]
_ZN11QGLColormapD2Ev [QtOpenGL]	_ZN14QGLPixelBuffer11bindTextureERK7QPixmapj [QtOpenGL]
_ZN14QGLPixelBuffer11bindTextureERK7QPixmapj [QtOpenGL]	_ZN14QGLPixelBuffer11doneCurrentEv [QtOpenGL]
_ZN14QGLPixelBuffer11doneCurrentEv [QtOpenGL]	_ZN14QGLPixelBuffer13deleteTextureEj [QtOpenGL]
_ZN14QGLPixelBuffer13deleteTextureEj [QtOpenGL]	_ZN14QGLPixelBuffer20bindToDynamicTextureEj [QtOpenGL]
_ZN14QGLPixelBuffer20bindToDynamicTextureEj [QtOpenGL]	_ZN14QGLPixelBufferC1ERK5QSizeRK9QGLFormatP9QGLWidget [QtOpenGL]
_ZN14QGLPixelBufferC1ERK5QSizeRK9QGLFormatP9QGLWidget [QtOpenGL]	_ZN14QGLPixelBufferC2ERK5QSizeRK9QGLFormatP9QGLWidget [QtOpenGL]
_ZN14QGLPixelBufferC2ERK5QSizeRK9QGLFormatP9QGLWidget [QtOpenGL]	_ZN14QGLPixelBufferD0Ev [QtOpenGL]
_ZN14QGLPixelBufferD0Ev [QtOpenGL]	

_ZN14QGLPixelBufferD2Ev [QtOpenGL]	_ZN20QGLFramebufferObject4bindEv [QtXml]
_ZN20QGLFramebufferObjectC1ERK5QSizej [QtXml]	_ZN20QGLFramebufferObjectC2ERK5QSizej [QtXml]
_ZN20QGLFramebufferObjectD0Ev [QtXml]	_ZN20QGLFramebufferObjectD2Ev [QtXml]
_ZN9QGLFormat10setSamplesEi [QtOpenGL]	_ZN9QGLFormat13defaultFormatEv [QtOpenGL]
_ZN9QGLFormat15setSwapIntervalEi [QtXml]	_ZN9QGLFormat16setRedBufferSizeEi [QtXml]
_ZN9QGLFormat17hasOpenGLOverlaysEv [QtOpenGL]	_ZN9QGLFormat18openGLVersionFlagsEv [QtXml]
_ZN9QGLFormat18setAlphaBufferSizeEi [QtOpenGL]	_ZN9QGLFormat18setDirectRenderingEb [QtOpenGL]
_ZN9QGLFormat20defaultOverlayFormatEv [QtOpenGL]	_ZN9QGLFormat23setDefaultOverlayFormatERKS_ [QtOpenGL]
_ZN9QGLFormat8setAccumEb [QtOpenGL]	_ZN9QGLFormat8setDepthEb [QtOpenGL]
_ZN9QGLFormat9hasOpenGLEv [QtOpenGL]	_ZN9QGLFormat9setStereoEb [QtOpenGL]
ZN9QGLFormatC1ERKS [QtOpenGL]	_ZN9QGLFormatC2E6QFlagsIN3QGL12FormatOptionEEi [QtOpenGL]
_ZN9QGLFormatC2Ev [QtOpenGL]	_ZN9QGLFormatD1Ev [QtOpenGL]
_ZN9QGLFormatD2Ev [QtOpenGL]	_ZN9QGLWidget10paintEventEP11QPaintEvent [QtOpenGL]
_ZN9QGLWidget10renderTextEiiRK7QStringRK5QFonti [QtOpenGL]	_ZN9QGLWidget11bindTextureERK6QImageji [QtOpenGL]
_ZN9QGLWidget11bindTextureERK7QString [QtOpenGL]	_ZN9QGLWidget11makeCurrentEv [QtOpenGL]
_ZN9QGLWidget11qt_metacastEPKc [QtOpenGL]	_ZN9QGLWidget11setColormapERK11QGLColormap [QtOpenGL]
_ZN9QGLWidget12initializeGLEv [QtOpenGL]	_ZN9QGLWidget13deleteTextureEj [QtOpenGL]

_ZN9QGLWidget15grabFrameBufferEb [QtOpenGL]	_ZN9QGLWidget15resizeGL
_ZN9QGLWidget15updateOverlayGLEv [QtOpenGL]	_ZN9QGLWidget16setMouseButtons
_ZN9QGLWidget17convertToGLFormatERK6QImage [QtOpenGL]	_ZN9QGLWidget17setMouseButtons
_ZN9QGLWidget18makeOverlayCurrentEv [QtOpenGL]	_ZN9QGLWidget19fontMetrics
_ZN9QGLWidget19initializeOverlayGLEv [QtOpenGL]	_ZN9QGLWidget5event
_ZN9QGLWidget6glDrawEv [QtOpenGL]	_ZN9QGLWidget6glInit
_ZN9QGLWidget7paintGLEv [QtOpenGL]	_ZN9QGLWidget8resizeGL
_ZN9QGLWidget8updateGLEv [QtOpenGL]	_ZN9QGLWidget9setFocus
_ZN9QGLWidgetC1EP10QGLContextP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]	_ZN9QGLWidgetC1EP10QGLContextP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]
_ZN9QGLWidgetC1EP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]	_ZN9QGLWidgetC1EP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]
_ZN9QGLWidgetC1ERK9QGLFormatP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]	_ZN9QGLWidgetC1ERK9QGLFormatP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]
_ZN9QGLWidgetC2EP10QGLContextP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]	_ZN9QGLWidgetC2EP10QGLContextP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]
_ZN9QGLWidgetC2EP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]	_ZN9QGLWidgetC2EP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]
_ZN9QGLWidgetC2ERK9QGLFormatP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]	_ZN9QGLWidgetC2ERK9QGLFormatP7QWidgetPKS_6QFlagsIN2Qt10WindowTypeEE [QtOpenGL]
_ZN9QGLWidgetD0Ev [QtOpenGL]	_ZN9QGLWidgetD1Ev
_ZN9QGLWidgetD2Ev [QtOpenGL]	_ZNK10QGLContext10createGL
_ZNK10QGLContext11initializedEv [QtOpenGL]	_ZNK10QGLContext11isInitialized
_ZNK10QGLContext13windowCreatedEv [QtOpenGL]	_ZNK10QGLContext14getProcAddress
_ZNK10QGLContext14getProcAddressERK7QString [QtOpenGL]	_ZNK10QGLContext15getProcAddress
_ZNK10QGLContext23overlayTransparentColorEv [QtOpenGL]	_ZNK10QGLContext6drawGL
_ZNK10QGLContext6formatEv [QtOpenGL]	_ZNK10QGLContext7isSharing
_ZNK10QGLContext9isSharingEv [QtOpenGL]	_ZNK11QGLColormap11findNearestEj [QtOpenGL]
_ZNK11QGLColormap11findNearestEj [QtOpenGL]	_ZNK11QGLColormap4sizeEv [QtOpenGL]
_ZNK11QGLColormap4sizeEv [QtOpenGL]	_ZNK11QGLColormap7isSharing
_ZNK11QGLColormap8entryRgbEi [QtOpenGL]	_ZNK14QGLPixelBuffer20updateDynamicTextureEj [QtOpenGL]
_ZNK14QGLPixelBuffer20updateDynamicTextureEj [QtOpenGL]	_ZNK14QGLPixelBuffer4sizeEv [QtOpenGL]
_ZNK14QGLPixelBuffer4sizeEv [QtOpenGL]	_ZNK14QGLPixelBuffer6handleEv [QtOpenGL]
_ZNK14QGLPixelBuffer6handleEv [QtOpenGL]	_ZNK14QGLPixelBuffer7isValidEv [QtOpenGL]
_ZNK14QGLPixelBuffer7isValidEv [QtOpenGL]	_ZNK20QGLFramebufferObject11paintEngineEv [QtXml]
_ZNK20QGLFramebufferObject11paintEngineEv [QtXml]	_ZNK20QGLFramebufferObject11paintEngineEv [QtXml]

_ZNK20QGLFramebufferObject6handleEv [QtXml]	_ZNK20QGLFramebufferObject7isValidEv [QtXml]
_ZNK20QGLFramebufferObject7toImageEv [QtXml]	_ZNK9QGLFormat10testEv [QtXml]
_ZNK9QGLFormat12swapIntervalEv [QtXml]	_ZNK9QGLFormat13redBufferEv [QtXml]
_ZNK9QGLFormat14blueBufferSizeEv [QtXml]	_ZNK9QGLFormat15alphaBufferSizeEv [QtOpenGL]
_ZNK9QGLFormat15greenBufferSizeEv [QtXml]	_ZNK9QGLFormat17stencilBufferSizeEv [QtXml]
_ZNK9QGLFormat5planeEv [QtOpenGL]	_ZNK9QGLFormat7samplesEv [QtOpenGL]
_ZNK9QGLWidget10metaObjectEv [QtOpenGL]	_ZNK9QGLWidget11paintEngineEv [QtOpenGL]
_ZNK9QGLWidget12doubleBufferEv [QtOpenGL]	_ZNK9QGLWidget13qglColorERK6QColor [QtOpenGL]
_ZNK9QGLWidget14autoBufferSwapEv [QtOpenGL]	_ZNK9QGLWidget14autoBufferSwapEv [QtOpenGL]
_ZNK9QGLWidget6formatEv [QtOpenGL]	_ZNK9QGLWidget7contextEv [QtOpenGL]
_ZNK9QGLWidget7isValidEv [QtOpenGL]	_ZNK9QGLWidget8colorERK6QColor [QtOpenGL]
_ZNK9QGLWidget8qglColorERK6QColor [QtOpenGL]	_ZNK9QGLWidget9isStaticMetaObjectEv [QtOpenGL]
ZeqRK9QGLFormatS1 [QtOpenGL]	_ZneRK9QGLFormatS1_ [QtOpenGL]

An LSB conforming implementation shall provide the generic data interfaces for Qt4 OpenGL specified in [Table 17-558](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-558. libQtOpenGL - Qt4 OpenGL Data Interfaces

_ZN10QGLContext10currentCtxE [QtOpenGL]	_ZN9QGLWidget16staticMetaObjectE [QtOpenGL]
_ZTI10QGLContext [CXXABI-1.86]	_ZTI14QGLPixelBuffer [CXXABI-1.86]
_ZTI20QGLFramebufferObject [CXXABI-1.86]	_ZTI9QGLWidget [CXXABI-1.86]
_ZTV10QGLContext [CXXABI-1.86]	_ZTV14QGLPixelBuffer [CXXABI-1.86]
_ZTV20QGLFramebufferObject [CXXABI-1.86]	_ZTV9QGLWidget [CXXABI-1.86]

17.11. Data Definitions for libQtOpenGL

This section defines global identifiers and their values that are associated with interfaces contained in libQtOpenGL. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

17.11.1. QtOpenGL/qgl.h

```
enum _ZN3QGL12FormatOptionE {
    DoubleBuffer = 1,
    DepthBuffer = 2,
    Rgba = 4,
    AlphaChannel = 8,
    AccumBuffer = 16,
    StencilBuffer = 32,
    StereoBuffers = 64,
    DirectRendering = 128,
    HasOverlay = 256,
    SampleBuffers = 512,
    SingleBuffer = 65536,
    NoDepthBuffer = 131072,
    ColorIndex = 262144,
    NoAlphaChannel = 524288,
    NoAccumBuffer = 1048576,
    NoStencilBuffer = 2097152,
    NoStereoBuffers = 4194304,
    IndirectRendering = 8388608,
    NoOverlay = 16777216,
    NoSampleBuffers = 33554432
};
class QFlags < QGL::FormatOption >;
typedef class QFlags < QGL::FormatOption > QGL::FormatOptions;
class QGLFormat;
class QGLContext;
class QGLWidget;
```

17.11.2. QtOpenGL/qglcolormap.h

```
class QGLColormap;
struct QGLColormap::QGLColormapData;
```

17.11.3. QtOpenGL/qglpixelbuffer.h

```
typedef enum QtValidLicenseForOpenGLModule QtOpenGLModule;
class QGLPixelBuffer;
```

17.12. Interface Definitions for libQtOpenGL

Table of Contents

[_ZN10QGLContext8setValidEb](#) -- set validity of the GL rendering context

The interfaces defined on the following pages are included in libQtOpenGL and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 17.10](#) shall behave as described in the referenced base document.

_ZN10QGLContext8setValidEb

Name

QGLContext::setValid -- set validity of the GL rendering context

Synopsis

```
#include <QtOpenGL/qgl.h>
void QGLContext::setValid (bool valid);
```

Description

The `QGLContext::setValid()` function shall set validity of the GL rendering context to *validity* (i.e. force the context to be either valid or not valid).

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

17.13. Interfaces for libQtSql

[Table 17-559](#) defines the library name and shared object name for the libQtSql library

Table 17-559. libQtSql Definition

Library:	libQtSql
SONAME:	libQtSql.so.4

The behavior of the interfaces in this library is specified by the following specifications:

[CXXABI-1.86] [Itanium™ C++ ABI](#)

[LSB] [This Specification](#)

[QtSql] [QtSql 4.2.0](#)

[QtXml] [QtXml 4.2.0](#)

17.13.1. Qt4 SQL

17.13.1.1. Class data for QSqlResult

The virtual table for the QSqlResult class is described by [Table 17-560](#)

Table 17-560. Primary vtable for QSqlResult

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlResult
vfunc[0]:	QSqlResult::~~QSqlResult()
vfunc[1]:	QSqlResult::~~QSqlResult()
vfunc[2]:	QSqlResult::handle() const
vfunc[3]:	QSqlResult::setAt(int)
vfunc[4]:	QSqlResult::setActive(bool)
vfunc[5]:	QSqlResult::setLastError(QSqlError const&)
vfunc[6]:	QSqlResult::setQuery(QString const&)
vfunc[7]:	QSqlResult::setSelect(bool)
vfunc[8]:	QSqlResult::setForwardOnly(bool)
vfunc[9]:	QSqlResult::exec()
vfunc[10]:	QSqlResult::prepare(QString const&)
vfunc[11]:	QSqlResult::savePrepare(QString const&)
vfunc[12]:	QSqlResult::bindValue(int, QVariant const&, QFlags<QSql::ParamTypeFlag>)
vfunc[13]:	QSqlResult::bindValue(QString const&, QVariant const&, QFlags<QSql::ParamTypeFlag>)
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	__cxa_pure_virtual
vfunc[17]:	__cxa_pure_virtual
vfunc[18]:	QSqlResult::fetchNext()
vfunc[19]:	QSqlResult::fetchPrevious()
vfunc[20]:	__cxa_pure_virtual
vfunc[21]:	__cxa_pure_virtual
vfunc[22]:	__cxa_pure_virtual
vfunc[23]:	__cxa_pure_virtual
vfunc[24]:	QSqlResult::record() const
vfunc[25]:	QSqlResult::lastInsertId() const
vfunc[26]:	QSqlResult::virtual_hook(int, void*)

The Run Time Type Information for the QSqlResult class is described by [Table 17-561](#)

Table 17-561. typeinfo for QSqlResult

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QSqlResult

17.13.1.2. Class data for QSqlDriverFactoryInterface

The virtual table for the QSqlDriverFactoryInterface class is described by [Table 17-562](#)

Table 17-562. Primary vtable for QSqlDriverFactoryInterface

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlDriverFactoryInterface
vfunc[0]:	NULL or QSqlDriverFactoryInterface::~~QSqlDriverFactoryInterface()
vfunc[1]:	NULL or QSqlDriverFactoryInterface::~~QSqlDriverFactoryInterface()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QSqlDriverFactoryInterface class is described by [Table 17-563](#)

Table 17-563. typeinfo for QSqlDriverFactoryInterface

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlDriverFactoryInterface
basetype:	typeinfo for QFactoryInterface

17.13.1.3. Class data for QSqlDriverPlugin

The virtual table for the QSqlDriverPlugin class is described by [Table 17-564](#)

Table 17-564. Primary vtable for QSqlDriverPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlDriverPlugin
vfunc[0]:	QSqlDriverPlugin::metaObject() const

vfunc[1]:	QSqlDriverPlugin::qt_metacast(char const*)
vfunc[2]:	QSqlDriverPlugin::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSqlDriverPlugin::~QSqlDriverPlugin()
vfunc[4]:	QSqlDriverPlugin::~QSqlDriverPlugin()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual

The Run Time Type Information for the QSqlDriverPlugin class is described by [Table 17-565](#)

Table 17-565. typeinfo for QSqlDriverPlugin

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QSqlDriverPlugin	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QSqlDriverFactoryInterface	2050

17.13.1.4. Class data for QSqlDriver

The virtual table for the QSqlDriver class is described by [Table 17-566](#)

Table 17-566. Primary vtable for QSqlDriver

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlDriver
vfunc[0]:	QSqlDriver::metaObject() const
vfunc[1]:	QSqlDriver::qt_metacast(char const*)
vfunc[2]:	QSqlDriver::qt_metacall(QMetaObject::Call, int, void**)

vfunc[3]:	QSqlDriver::~~QSqlDriver()
vfunc[4]:	QSqlDriver::~~QSqlDriver()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QSqlDriver::isOpen() const
vfunc[13]:	QSqlDriver::beginTransaction()
vfunc[14]:	QSqlDriver::commitTransaction()
vfunc[15]:	QSqlDriver::rollbackTransaction()
vfunc[16]:	QSqlDriver::tables(QSql::TableType) const
vfunc[17]:	QSqlDriver::primaryIndex(QString const&) const
vfunc[18]:	QSqlDriver::record(QString const&) const
vfunc[19]:	QSqlDriver::formatValue(QSqlField const&, bool) const
vfunc[20]:	QSqlDriver::escapeIdentifier(QString const&, QSqlDriver::IdentifierType) const
vfunc[21]:	QSqlDriver::sqlStatement(QSqlDriver::StatementType, QString const&, QSqlRecord const&, bool) const
vfunc[22]:	QSqlDriver::handle() const
vfunc[23]:	__cxa_pure_virtual
vfunc[24]:	__cxa_pure_virtual
vfunc[25]:	__cxa_pure_virtual
vfunc[26]:	__cxa_pure_virtual
vfunc[27]:	QSqlDriver::setOpen(bool)
vfunc[28]:	QSqlDriver::setOpenError(bool)
vfunc[29]:	QSqlDriver::setLastError(QSqlError const&)

The Run Time Type Information for the QSqlDriver class is described by [Table 17-567](#)

Table 17-567. typeid for QSqlDriver

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QSqlDriver

basetype:	typeinfo for QObject

17.13.1.5. Class data for QSqlQueryModel

The virtual table for the QSqlQueryModel class is described by [Table 17-568](#)

Table 17-568. Primary vtable for QSqlQueryModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlQueryModel
vfunc[0]:	QSqlQueryModel::metaObject() const
vfunc[1]:	QSqlQueryModel::qt_metacast(char const*)
vfunc[2]:	QSqlQueryModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSqlQueryModel::~~QSqlQueryModel()
vfunc[4]:	QSqlQueryModel::~~QSqlQueryModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QAbstractTableModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QAbstractTableModel::parent(QModelIndex const&) const
vfunc[14]:	QSqlQueryModel::rowCount(QModelIndex const&) const
vfunc[15]:	QSqlQueryModel::columnCount(QModelIndex const&) const
vfunc[16]:	QAbstractTableModel::hasChildren(QModelIndex const&) const
vfunc[17]:	QSqlQueryModel::data(QModelIndex const&, int) const
vfunc[18]:	QAbstractItemModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QSqlQueryModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QSqlQueryModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)

vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QAbstractItemModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QAbstractTableModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QAbstractItemModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QSqlQueryModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QAbstractItemModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QSqlQueryModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QSqlQueryModel::fetchMore(QModelIndex const&)
vfunc[32]:	QSqlQueryModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QAbstractItemModel::flags(QModelIndex const&) const
vfunc[34]:	QAbstractItemModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QAbstractItemModel::submit()
vfunc[39]:	QAbstractItemModel::revert()
vfunc[40]:	QSqlQueryModel::clear()
vfunc[41]:	QSqlQueryModel::queryChange()

The Run Time Type Information for the QSqlQueryModel class is described by [Table 17-569](#)

Table 17-569. typeinfo for QSqlQueryModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlQueryModel
basetype:	typeinfo for QAbstractTableModel

17.13.1.6. Class data for QSqlTableModel

The virtual table for the QSqlTableModel class is described by [Table 17-570](#)

Table 17-570. Primary vtable for QSqlTableModel

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QSqlTableModel
vfunc[0]:	QSqlTableModel::metaObject() const
vfunc[1]:	QSqlTableModel::qt_metacast(char const*)
vfunc[2]:	QSqlTableModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSqlTableModel::~QSqlTableModel()
vfunc[4]:	QSqlTableModel::~QSqlTableModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QAbstractTableModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QAbstractTableModel::parent(QModelIndex const&) const
vfunc[14]:	QSqlTableModel::rowCount(QModelIndex const&) const
vfunc[15]:	QSqlQueryModel::columnCount(QModelIndex const&) const
vfunc[16]:	QAbstractTableModel::hasChildren(QModelIndex const&) const
vfunc[17]:	QSqlTableModel::data(QModelIndex const&, int) const
vfunc[18]:	QSqlTableModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QSqlTableModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QSqlQueryModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QAbstractItemModel::mimeData(QList<QModelIndex> const&) const
vfunc[25]:	QAbstractTableModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QSqlTableModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QSqlQueryModel::insertColumns(int, int, QModelIndex const&)

vfunc[29]:	QSqlTableModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QSqlTableModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QSqlQueryModel::fetchMore(QModelIndex const&)
vfunc[32]:	QSqlQueryModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QSqlTableModel::flags(QModelIndex const&) const
vfunc[34]:	QSqlTableModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QSqlTableModel::submit()
vfunc[39]:	QSqlTableModel::revert()
vfunc[40]:	QSqlTableModel::clear()
vfunc[41]:	QSqlQueryModel::queryChange()
vfunc[42]:	QSqlTableModel::select()
vfunc[43]:	QSqlTableModel::setTable(QString const&)
vfunc[44]:	QSqlTableModel::setEditStrategy(QSqlTableModel::EditStrategy)
vfunc[45]:	QSqlTableModel::setSort(int, Qt::SortOrder)
vfunc[46]:	QSqlTableModel::setFilter(QString const&)
vfunc[47]:	QSqlTableModel::revertRow(int)
vfunc[48]:	QSqlTableModel::updateRowInTable(int, QSqlRecord const&)
vfunc[49]:	QSqlTableModel::insertRowIntoTable(QSqlRecord const&)
vfunc[50]:	QSqlTableModel::deleteRowFromTable(int)
vfunc[51]:	QSqlTableModel::orderByClause() const
vfunc[52]:	QSqlTableModel::selectStatement() const

The Run Time Type Information for the QSqlTableModel class is described by [Table 17-571](#)

Table 17-571. typeinfo for QSqlTableModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlTableModel
basetype:	typeinfo for QSqlQueryModel

17.13.1.7. Class data for QSqlRelationalTableModel

The virtual table for the QSqlRelationalTableModel class is described by [Table 17-572](#)

Table 17-572. Primary vtable for QSqlRelationalTableModel

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QSqlRelationalTableModel
vfunc[0]:	QSqlRelationalTableModel::metaObject() const
vfunc[1]:	QSqlRelationalTableModel::qt_metacast(char const*)
vfunc[2]:	QSqlRelationalTableModel::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSqlRelationalTableModel::~QSqlRelationalTableModel()
vfunc[4]:	QSqlRelationalTableModel::~QSqlRelationalTableModel()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QAbstractTableModel::index(int, int, QModelIndex const&) const
vfunc[13]:	QAbstractTableModel::parent(QModelIndex const&) const
vfunc[14]:	QSqlTableModel::rowCount(QModelIndex const&) const
vfunc[15]:	QSqlQueryModel::columnCount(QModelIndex const&) const
vfunc[16]:	QAbstractTableModel::hasChildren(QModelIndex const&) const
vfunc[17]:	QSqlRelationalTableModel::data(QModelIndex const&, int) const
vfunc[18]:	QSqlRelationalTableModel::setData(QModelIndex const&, QVariant const&, int)
vfunc[19]:	QSqlTableModel::headerData(int, Qt::Orientation, int) const
vfunc[20]:	QSqlQueryModel::setHeaderData(int, Qt::Orientation, QVariant const&, int)
vfunc[21]:	QAbstractItemModel::itemData(QModelIndex const&) const
vfunc[22]:	QAbstractItemModel::setItemData(QModelIndex const&, QMap<int, QVariant> const&)
vfunc[23]:	QAbstractItemModel::mimeTypes() const
vfunc[24]:	QAbstractItemModel::mimeData(QList<QModelIndex> const&) const

vfunc[25]:	QAbstractTableModel::dropMimeData(QMimeData const*, Qt::DropAction, int, int, QModelIndex const&)
vfunc[26]:	QAbstractItemModel::supportedDropActions() const
vfunc[27]:	QSqlTableModel::insertRows(int, int, QModelIndex const&)
vfunc[28]:	QSqlQueryModel::insertColumns(int, int, QModelIndex const&)
vfunc[29]:	QSqlTableModel::removeRows(int, int, QModelIndex const&)
vfunc[30]:	QSqlTableModel::removeColumns(int, int, QModelIndex const&)
vfunc[31]:	QSqlQueryModel::fetchMore(QModelIndex const&)
vfunc[32]:	QSqlQueryModel::canFetchMore(QModelIndex const&) const
vfunc[33]:	QSqlTableModel::flags(QModelIndex const&) const
vfunc[34]:	QSqlTableModel::sort(int, Qt::SortOrder)
vfunc[35]:	QAbstractItemModel::buddy(QModelIndex const&) const
vfunc[36]:	QAbstractItemModel::match(QModelIndex const&, int, QVariant const&, int, QFlags<Qt::MatchFlag>) const
vfunc[37]:	QAbstractItemModel::span(QModelIndex const&) const
vfunc[38]:	QSqlTableModel::submit()
vfunc[39]:	QSqlTableModel::revert()
vfunc[40]:	QSqlRelationalTableModel::clear()
vfunc[41]:	QSqlQueryModel::queryChange()
vfunc[42]:	QSqlRelationalTableModel::select()
vfunc[43]:	QSqlRelationalTableModel::setTable(QString const&)
vfunc[44]:	QSqlTableModel::setEditStrategy(QSqlTableModel::EditStrategy)
vfunc[45]:	QSqlTableModel::setSort(int, Qt::SortOrder)
vfunc[46]:	QSqlTableModel::setFilter(QString const&)
vfunc[47]:	QSqlRelationalTableModel::revertRow(int)
vfunc[48]:	QSqlRelationalTableModel::updateRowInTable(int, QSqlRecord const&)
vfunc[49]:	QSqlTableModel::insertRowIntoTable(QSqlRecord const&)
vfunc[50]:	QSqlTableModel::deleteRowFromTable(int)
vfunc[51]:	QSqlRelationalTableModel::orderByClause() const
vfunc[52]:	QSqlRelationalTableModel::selectStatement() const
vfunc[53]:	QSqlRelationalTableModel::setRelation(int, QSqlRelation const&)
vfunc[54]:	QSqlRelationalTableModel::relationModel(int) const

The Run Time Type Information for the QSqlRelationalTableModel class is described by [Table 17-573](#)

Table 17-573. typeinfo for QSqlRelationalTableModel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlRelationalTableModel
basetype:	typeinfo for QSqlTableModel

17.13.1.8. Interfaces for Qt4 SQL

An LSB conforming implementation shall provide the generic functions for Qt4 SQL specified in [Table 17-574](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-574. libQtSql - Qt4 SQL Function Interfaces

_ZN10QSqlDriver11qt_metacallEN11QMetaObject4CallEiPPv [QtSql]	_ZN10QSqlDriver11qt_me
_ZN10QSqlDriver12setLastErrorERK9QSqlError [QtSql]	_ZN10QSqlDriver12setOpe
_ZN10QSqlDriver16beginTransactionEv [QtSql]	_ZN10QSqlDriver17comm
_ZN10QSqlDriver19rollbackTransactionEv [QtSql]	_ZN10QSqlDriver7setOper
_ZN10QSqlDriverC1EP7QObject [QtSql]	_ZN10QSqlDriverC2EP7Q
_ZN10QSqlDriverD0Ev [QtSql]	_ZN10QSqlDriverD1Ev [Q
_ZN10QSqlDriverD2Ev [QtSql]	_ZN10QSqlRecord11clearV
_ZN10QSqlRecord12setGeneratedERK7QStringb [QtSql]	_ZN10QSqlRecord12setGe
_ZN10QSqlRecord5clearEv [QtSql]	_ZN10QSqlRecord6append
_ZN10QSqlRecord6insertEiRK9QSqlField [QtSql]	_ZN10QSqlRecord6remove
_ZN10QSqlRecord7replaceEiRK9QSqlField [QtSql]	_ZN10QSqlRecord7setNull
_ZN10QSqlRecord7setNullEi [QtSql]	_ZN10QSqlRecord8setValu
_ZN10QSqlRecord8setValueEiRK8QVariant [QtSql]	_ZN10QSqlRecordC1ERK5
_ZN10QSqlRecordC1Ev [QtSql]	_ZN10QSqlRecordC2ERK5
_ZN10QSqlRecordC2Ev [QtSql]	_ZN10QSqlRecordD1Ev [Q
_ZN10QSqlRecordD2Ev [QtSql]	_ZN10QSqlRecordaSERKS
_ZN10QSqlResult11savePrepareERK7QString [QtSql]	_ZN10QSqlResult12addBin [QtSql]
_ZN10QSqlResult12setLastErrorERK9QSqlError [QtSql]	_ZN10QSqlResult12virtual
_ZN10QSqlResult13fetchPreviousEv [QtSql]	_ZN10QSqlResult14setFor
_ZN10QSqlResult4execEv [QtSql]	_ZN10QSqlResult5clearEv
_ZN10QSqlResult5setAtEi [QtSql]	_ZN10QSqlResult7prepare
_ZN10QSqlResult8setQueryERK7QString [QtSql]	

	_ZN10QSqlResult9bindValueEiRK8QVariant6QFlagsIN4QSql13ParamTypeFlagEE [QtSql]
_ZN10QSqlResult9bindValueEiRK8QVariant6QFlagsIN4QSql13ParamTypeFlagEE [QtSql]	_ZN10QSqlResult9execBatch [QtSql]
_ZN10QSqlResult9fetchNextEv [QtSql]	_ZN10QSqlResult9setActive [QtSql]
_ZN10QSqlResult9setSelectEb [QtSql]	_ZN10QSqlResultC1EPK10QSqlDriver [QtSql]
_ZN10QSqlResultC2EPK10QSqlDriver [QtSql]	_ZN10QSqlResultD0Ev [QtSql]
_ZN10QSqlResultD1Ev [QtSql]	_ZN10QSqlResultD2Ev [QtSql]
_ZN12QSqlDatabase11addDatabaseEP10QSqlDriverRK7QString [QtSql]	_ZN12QSqlDatabase11addDatabase [QtSql]
_ZN12QSqlDatabase11setHostNameERK7QString [QtSql]	_ZN12QSqlDatabase11setPort [QtSql]
_ZN12QSqlDatabase11setUserNameERK7QString [QtSql]	_ZN12QSqlDatabase11transaction [QtSql]
ZN12QSqlDatabase13cloneDatabaseERKS RK7QString [QtSql]	_ZN12QSqlDatabase14removeDatabase [QtSql]
_ZN12QSqlDatabase15connectionNamesEv [QtSql]	_ZN12QSqlDatabase15setDriver [QtSql]
_ZN12QSqlDatabase17isDriverAvailableERK7QString [QtSql]	_ZN12QSqlDatabase17registerDriver [QtSql]
_ZN12QSqlDatabase17setConnectOptionsERK7QString [QtSql]	_ZN12QSqlDatabase4open [QtSql]
_ZN12QSqlDatabase4openEv [QtSql]	_ZN12QSqlDatabase5close [QtSql]
_ZN12QSqlDatabase6commitEv [QtSql]	_ZN12QSqlDatabase7driver [QtSql]
_ZN12QSqlDatabase7setPortEi [QtSql]	_ZN12QSqlDatabase8connect [QtSql]
_ZN12QSqlDatabase8databaseERK7QStringb [QtSql]	_ZN12QSqlDatabase8rollback [QtSql]
_ZN12QSqlDatabaseC1EP10QSqlDriver [QtSql]	_ZN12QSqlDatabaseC1ERKS_ [QtSql]
ZN12QSqlDatabaseC1ERKS [QtSql]	_ZN12QSqlDatabaseC1Ev [QtSql]
_ZN12QSqlDatabaseC2EP10QSqlDriver [QtSql]	_ZN12QSqlDatabaseC2ERKS_ [QtSql]
ZN12QSqlDatabaseC2ERKS [QtSql]	_ZN12QSqlDatabaseC2Ev [QtSql]
_ZN12QSqlDatabaseD1Ev [QtSql]	_ZN12QSqlDatabaseD2Ev [QtSql]
ZN12QSqlDatabaseaSERKS [QtSql]	_ZN14QSqlQueryModel11qt_metacastEPKc [QtSql]
_ZN14QSqlQueryModel11qt_metacastEPKc [QtSql]	_ZN14QSqlQueryModel11setLastErrorERK9QSqlError [QtSql]
_ZN14QSqlQueryModel12setLastErrorERK9QSqlError [QtSql]	_ZN14QSqlQueryModel13removeColumnsEiiRK11QModelIndex [QtSql]
_ZN14QSqlQueryModel13removeColumnsEiiRK11QModelIndex [QtSql]	_ZN14QSqlQueryModel13setQueryERK9QSqlQuery [QtSql]
_ZN14QSqlQueryModel15clearEv [QtSql]	_ZN14QSqlQueryModel18setQueryERK9QSqlQuery [QtSql]
_ZN14QSqlQueryModel18setQueryERK9QSqlQuery [QtSql]	_ZN14QSqlQueryModel19fetchNext [QtSql]
_ZN14QSqlQueryModelC1EP7QObject [QtSql]	_ZN14QSqlQueryModelC2EPK10QSqlDriver [QtSql]
_ZN14QSqlQueryModelD0Ev [QtSql]	_ZN14QSqlQueryModelD1Ev [QtSql]
_ZN14QSqlQueryModelD2Ev [QtSql]	_ZN14QSqlTableModel10insertRow [QtSql]

_ZN14QSqlTableModel10removeRowsEiiRK11QModelIndex [QtSql]	_ZN14QSqlTableModel11p
_ZN14QSqlTableModel11qt_metacallEN11QMetaObject4CallEiPPv [QtSql]	_ZN14QSqlTableModel11c
_ZN14QSqlTableModel12beforeDeleteEi [QtSql]	_ZN14QSqlTableModel12b
_ZN14QSqlTableModel12beforeUpdateEiR10QSqlRecord [QtSql]	_ZN14QSqlTableModel12i
_ZN14QSqlTableModel13removeColumnsEiiRK11QModelIndex [QtSql]	_ZN14QSqlTableModel13s
_ZN14QSqlTableModel15setEditStrategyENS_12EditStrategyE [QtSql]	_ZN14QSqlTableModel16u
_ZN14QSqlTableModel18deleteRowFromTableEi [QtSql]	_ZN14QSqlTableModel18i
_ZN14QSqlTableModel4sortEiN2Qt9SortOrderE [QtSql]	_ZN14QSqlTableModel5cl
_ZN14QSqlTableModel6revertEv [QtSql]	_ZN14QSqlTableModel6se
_ZN14QSqlTableModel6submitEv [QtSql]	_ZN14QSqlTableModel7se
_ZN14QSqlTableModel7setSortEiN2Qt9SortOrderE [QtSql]	_ZN14QSqlTableModel8se
_ZN14QSqlTableModel8setTableERK7QString [QtSql]	_ZN14QSqlTableModel9re
_ZN14QSqlTableModel9revertRowEi [QtSql]	_ZN14QSqlTableModel9se
_ZN14QSqlTableModel9setRecordEiRK10QSqlRecord [QtSql]	_ZN14QSqlTableModel9su
_ZN14QSqlTableModelC1EP7QObjectI2QSqlDatabase [QtSql]	_ZN14QSqlTableModelC2
_ZN14QSqlTableModelD0Ev [QtSql]	_ZN14QSqlTableModelD1
_ZN14QSqlTableModelD2Ev [QtSql]	_ZN16QSqlDriverPlugin11
_ZN16QSqlDriverPlugin11qt_metacastEPKc [QtSql]	_ZN16QSqlDriverPluginC1
_ZN16QSqlDriverPluginC2EP7QObject [QtSql]	_ZN16QSqlDriverPluginD0
_ZN16QSqlDriverPluginD1Ev [QtSql]	_ZN16QSqlDriverPluginD2
_ZN24QSqlRelationalTableModel11qt_metacallEN11QMetaObject4CallEiPPv [QtSql]	_ZN24QSqlRelationalTable
_ZN24QSqlRelationalTableModel11setRelationEiRK12QSqlRelation [QtSql]	_ZN24QSqlRelationalTable
_ZN24QSqlRelationalTableModel16updateRowInTableEiRK10QSqlRecord [QtSql]	_ZN24QSqlRelationalTable
_ZN24QSqlRelationalTableModel5clearEv [QtSql]	_ZN24QSqlRelationalTable
_ZN24QSqlRelationalTableModel7setDataERK11QModelIndexRK8QVarianti [QtSql]	_ZN24QSqlRelationalTable
_ZN24QSqlRelationalTableModel9revertRowEi [QtSql]	_ZN24QSqlRelationalTable
_ZN24QSqlRelationalTableModelC2EP7QObjectI2QSqlDatabase [QtSql]	_ZN24QSqlRelationalTable
_ZN24QSqlRelationalTableModelD1Ev [QtSql]	_ZN24QSqlRelationalTable
_ZN9QSqlError13setDriverTextERK7QString [QtSql]	_ZN9QSqlError15setDatab
_ZN9QSqlError7setTypeENS_9ErrorTypeE [QtSql]	_ZN9QSqlError9setNumbe
_ZN9QSqlErrorC1ERK7QStringS2_NS_9ErrorTypeEi [QtSql]	_ZN9QSqlErrorC1ERKS_
_ZN9QSqlErrorC2ERK7QStringS2_NS_9ErrorTypeEi [QtSql]	_ZN9QSqlErrorC2ERKS_
_ZN9QSqlErrorD1Ev [QtSql]	_ZN9QSqlErrorD2Ev [QTS

ZN9QSqlErroraSERKS [QtSql]	_ZN9QSqlField10setSqlType [QtSql]
_ZN9QSqlField11setReadOnlyEb [QtSql]	_ZN9QSqlField12setAutoV [QtSql]
_ZN9QSqlField12setGeneratedEb [QtSql]	_ZN9QSqlField12setPrecis [QtSql]
_ZN9QSqlField15setDefaultValueERK8QVariant [QtSql]	_ZN9QSqlField17setRequir [QtSql]
_ZN9QSqlField5clearEv [QtSql]	_ZN9QSqlField7setNameE [QtSql]
_ZN9QSqlField7setTypeEN8QVariant4TypeE [QtSql]	_ZN9QSqlField8setValueE [QtSql]
_ZN9QSqlField9setLengthEi [QtSql]	_ZN9QSqlFieldC1ERK7QSt [QtSql]
ZN9QSqlFieldC1ERKS [QtSql]	_ZN9QSqlFieldC2ERK7QSt [QtSql]
ZN9QSqlFieldC2ERKS [QtSql]	_ZN9QSqlFieldD1Ev [QtSql]
_ZN9QSqlFieldD2Ev [QtSql]	_ZN9QSqlFieldaSERKS_ [QtSql]
_ZN9QSqlIndex13setCursorNameERK7QString [QtSql]	_ZN9QSqlIndex13setDesce [QtSql]
_ZN9QSqlIndex6appendERK9QSqlField [QtSql]	_ZN9QSqlIndex6appendER [QtSql]
_ZN9QSqlIndex7setNameERK7QString [QtSql]	_ZN9QSqlIndexC1ERK7QSt [QtSql]
ZN9QSqlIndexC1ERKS [QtSql]	_ZN9QSqlIndexC2ERK7QSt [QtSql]
ZN9QSqlIndexC2ERKS [QtSql]	_ZN9QSqlIndexD1Ev [QtSql]
_ZN9QSqlIndexD2Ev [QtSql]	_ZN9QSqlIndexaSERKS_ [QtSql]
_ZN9QSqlQuery12addBindValueERK8QVariant6QFlagsIN4QSql13ParamTypeFlagEE [QtSql]	_ZN9QSqlQuery14setForw [QtSql]
_ZN9QSqlQuery4execERK7QString [QtSql]	_ZN9QSqlQuery4execEv [QtSql]
_ZN9QSqlQuery4lastEv [QtSql]	_ZN9QSqlQuery4nextEv [QtSql]
_ZN9QSqlQuery4seekEib [QtSql]	_ZN9QSqlQuery5clearEv [QtSql]
_ZN9QSqlQuery5firstEv [QtSql]	_ZN9QSqlQuery7prepareE [QtSql]
_ZN9QSqlQuery8previousEv [QtSql]	_ZN9QSqlQuery9bindValue [QtSql]
_ZN9QSqlQuery9bindValueEiRK8QVariant6QFlagsIN4QSql13ParamTypeFlagEE [QtSql]	_ZN9QSqlQuery9execBatc [QtSql]
_ZN9QSqlQueryC1E12QSqlDatabase [QtSql]	_ZN9QSqlQueryC1EP10QSt [QtSql]
_ZN9QSqlQueryC1ERK7QString12QSqlDatabase [QtSql]	_ZN9QSqlQueryC1ERKS_ [QtSql]
_ZN9QSqlQueryC2E12QSqlDatabase [QtSql]	_ZN9QSqlQueryC2EP10QSt [QtSql]
_ZN9QSqlQueryC2ERK7QString12QSqlDatabase [QtSql]	_ZN9QSqlQueryC2ERKS_ [QtSql]
_ZN9QSqlQueryD1Ev [QtSql]	_ZN9QSqlQueryD2Ev [QtSql]
ZN9QSqlQueryaSERKS [QtSql]	_ZNK10QSqlDriver10meta [QtSql]
_ZNK10QSqlDriver11formatValueERK9QSqlFieldb [QtSql]	_ZNK10QSqlDriver11isOp [QtSql]
_ZNK10QSqlDriver12primaryIndexERK7QString [QtSql]	

	_ZNK10QSqlDriver12sqlSt [QtSql]
_ZNK10QSqlDriver16escapeIdentifierERK7QStringNS_14IdentifierTypeE [QtSql]	_ZNK10QSqlDriver6handle [QtSql]
_ZNK10QSqlDriver6isOpenEv [QtSql]	_ZNK10QSqlDriver6record [QtSql]
_ZNK10QSqlDriver6tablesEN4QSql9TableTypeE [QtSql]	_ZNK10QSqlDriver9lastEr [QtSql]
_ZNK10QSqlRecord11isGeneratedERK7QString [QtSql]	_ZNK10QSqlRecord11isGe [QtSql]
_ZNK10QSqlRecord12toStringListERK7QString [QtSql]	_ZNK10QSqlRecord5count [QtSql]
_ZNK10QSqlRecord5fieldERK7QString [QtSql]	_ZNK10QSqlRecord5fieldE [QtSql]
_ZNK10QSqlRecord5valueERK7QString [QtSql]	_ZNK10QSqlRecord5value [QtSql]
_ZNK10QSqlRecord6isNullERK7QString [QtSql]	_ZNK10QSqlRecord6isNul [QtSql]
_ZNK10QSqlRecord7indexOfERK7QString [QtSql]	_ZNK10QSqlRecord7isEm [QtSql]
_ZNK10QSqlRecord8containsERK7QString [QtSql]	_ZNK10QSqlRecord8fieldE [QtSql]
_ZNK10QSqlRecord8fieldPtrEi [QtSql]	_ZNK10QSqlRecord8toStr [QtSql]
_ZNK10QSqlRecord9fieldNameEi [QtSql]	_ZNK10QSqlReordeqERK [QtSql]
_ZNK10QSqlResult10boundValueERK7QString [QtSql]	_ZNK10QSqlResult10boun [QtSql]
_ZNK10QSqlResult11boundValuesEv [QtSql]	_ZNK10QSqlResult12hasO [QtSql]
_ZNK10QSqlResult12lastInsertIdEv [QtSql]	_ZNK10QSqlResult13bind [QtSql]
_ZNK10QSqlResult13bindValueTypeEi [QtSql]	_ZNK10QSqlResult13bind [QtSql]
_ZNK10QSqlResult13executedQueryEv [QtSql]	_ZNK10QSqlResult13isFo [QtSql]
_ZNK10QSqlResult14boundValueNameEi [QtSql]	_ZNK10QSqlResult15boun [QtSql]
_ZNK10QSqlResult2atEv [QtSql]	_ZNK10QSqlResult6driver [QtSql]
_ZNK10QSqlResult6handleEv [QtSql]	_ZNK10QSqlResult6record [QtSql]
_ZNK10QSqlResult7isValidEv [QtSql]	_ZNK10QSqlResult8isActi [QtSql]
_ZNK10QSqlResult8isSelectEv [QtSql]	_ZNK10QSqlResult9lastEr [QtSql]
_ZNK10QSqlResult9lastQueryEv [QtSql]	_ZNK12QSqlDatabase10dr [QtSql]
_ZNK12QSqlDatabase10recordInfoERK9QSqlQuery [QtSql]	_ZNK12QSqlDatabase11lis [QtSql]
_ZNK12QSqlDatabase12databaseNameEv [QtSql]	_ZNK12QSqlDatabase12pr [QtSql]
_ZNK12QSqlDatabase14connectOptionsEv [QtSql]	_ZNK12QSqlDatabase4exe [QtSql]
_ZNK12QSqlDatabase4portEv [QtSql]	_ZNK12QSqlDatabase6driv [QtSql]
_ZNK12QSqlDatabase6isOpenEv [QtSql]	_ZNK12QSqlDatabase6rec [QtSql]
_ZNK12QSqlDatabase6recordERK9QSqlQuery [QtSql]	_ZNK12QSqlDatabase6tabl [QtSql]
_ZNK12QSqlDatabase7isValidEv [QtSql]	_ZNK12QSqlDatabase8hos [QtSql]
_ZNK12QSqlDatabase8passwordEv [QtSql]	_ZNK12QSqlDatabase8use [QtSql]

_ZNK12QSqlDatabase9lastErrorEv [QtSql]	_ZNK14QSqlQueryModel11metaObjectEv [QtSql]
_ZNK14QSqlQueryModel10metaObjectEv [QtSql]	_ZNK14QSqlQueryModel12canFetchMoreERK11QModelIndex [QtSql]
_ZNK14QSqlQueryModel12canFetchMoreERK11QModelIndex [QtSql]	_ZNK14QSqlQueryModel4dataERK11QModelIndexi [QtSql]
_ZNK14QSqlQueryModel4dataERK11QModelIndexi [QtSql]	_ZNK14QSqlQueryModel6recordEi [QtSql]
_ZNK14QSqlQueryModel6recordEi [QtSql]	_ZNK14QSqlQueryModel8rowCountERK11QModelIndex [QtSql]
_ZNK14QSqlQueryModel8rowCountERK11QModelIndex [QtSql]	_ZNK14QSqlTableModel10fieldIndexERK7QString [QtSql]
_ZNK14QSqlTableModel10fieldIndexERK7QString [QtSql]	_ZNK14QSqlTableModel10metaObjectEv [QtSql]
_ZNK14QSqlTableModel10metaObjectEv [QtSql]	_ZNK14QSqlTableModel12editStrategyEv [QtSql]
_ZNK14QSqlTableModel12editStrategyEv [QtSql]	_ZNK14QSqlTableModel13orderByClauseEv [QtSql]
_ZNK14QSqlTableModel13orderByClauseEv [QtSql]	_ZNK14QSqlTableModel4dataERK11QModelIndexi [QtSql]
_ZNK14QSqlTableModel4dataERK11QModelIndexi [QtSql]	_ZNK14QSqlTableModel6filterEv [QtSql]
_ZNK14QSqlTableModel6filterEv [QtSql]	_ZNK14QSqlTableModel8databaseEv [QtSql]
_ZNK14QSqlTableModel8databaseEv [QtSql]	_ZNK14QSqlTableModel9tableNameEv [QtSql]
_ZNK14QSqlTableModel9tableNameEv [QtSql]	_ZNK16QSqlDriverPlugin10metaObjectEv [QtSql]
_ZNK24QSqlRelationalTableModel10metaObjectEv [QtSql]	_ZNK24QSqlRelationalTableModel13relationModelEi [QtSql]
_ZNK24QSqlRelationalTableModel13relationModelEi [QtSql]	_ZNK24QSqlRelationalTableModel4dataERK11QModelIndexi [QtSql]
_ZNK24QSqlRelationalTableModel4dataERK11QModelIndexi [QtSql]	_ZNK9QSqlError10driverTextEv [QtSql]
_ZNK9QSqlError10driverTextEv [QtSql]	_ZNK9QSqlError4textEv [QtSql]
_ZNK9QSqlError4textEv [QtSql]	_ZNK9QSqlError6numberEv [QtSql]
_ZNK9QSqlError6numberEv [QtSql]	_ZNK9QSqlError7isValidEv [QtSql]
_ZNK9QSqlField10isReadOnlyEv [QtSql]	_ZNK9QSqlField11isAutoValueEv [QtSql]
_ZNK9QSqlField11isAutoValueEv [QtSql]	_ZNK9QSqlField12defaultValueEv [QtSql]
_ZNK9QSqlField12defaultValueEv [QtSql]	_ZNK9QSqlField14requiredStatusEv [QtSql]
_ZNK9QSqlField14requiredStatusEv [QtSql]	_ZNK9QSqlField4typeEv [QtSql]
_ZNK9QSqlField4typeEv [QtSql]	_ZNK9QSqlField6isNullEv [QtSql]
_ZNK9QSqlField6isNullEv [QtSql]	_ZNK9QSqlField6lengthEv [QtSql]
_ZNK9QSqlField6lengthEv [QtSql]	_ZNK9QSqlField7isValidEv [QtSql]
_ZNK9QSqlField7isValidEv [QtSql]	_ZNK9QSqlField9precisionEv [QtSql]
_ZNK9QSqlField9precisionEv [QtSql]	_ZNK9QSqlFieldeqERKS_ [QtSql]
ZNK9QSqlFieldeqERKS [QtSql]	_ZNK9QSqlIndex12toStringListERK7QStringb [QtSql]
_ZNK9QSqlIndex12toStringListERK7QStringb [QtSql]	_ZNK9QSqlIndex8toStringEv [QtSql]
_ZNK9QSqlIndex8toStringEv [QtSql]	_ZNK9QSqlQuery10bindValueERK7QString [QtSql]
_ZNK9QSqlQuery10bindValueERK7QString [QtSql]	_ZNK9QSqlQuery11bindValueValuesEv [QtSql]
_ZNK9QSqlQuery11bindValueValuesEv [QtSql]	_ZNK9QSqlQuery12lastInsertIdEv [QtSql]
_ZNK9QSqlQuery12lastInsertIdEv [QtSql]	_ZNK9QSqlQuery13executedQueryEv [QtSql]
_ZNK9QSqlQuery13executedQueryEv [QtSql]	_ZNK9QSqlQuery15numRowsAffectedEv [QtSql]
_ZNK9QSqlQuery15numRowsAffectedEv [QtSql]	_ZNK9QSqlQuery2atEv [QtSql]
_ZNK9QSqlQuery2atEv [QtSql]	_ZNK9QSqlQuery4sizeEv [QtSql]
_ZNK9QSqlQuery4sizeEv [QtSql]	_ZNK9QSqlQuery5valueEi [QtSql]

_ZNK9QSqlQuery6driverEv [QtSql]	_ZNK9QSqlQuery6isNullEv [QtSql]
_ZNK9QSqlQuery6recordEv [QtSql]	_ZNK9QSqlQuery6resultEv [QtSql]
_ZNK9QSqlQuery7isValidEv [QtSql]	_ZNK9QSqlQuery8isActiveEv [QtSql]
_ZNK9QSqlQuery8isSelectEv [QtSql]	_ZNK9QSqlQuery9lastErrorEv [QtSql]
_ZNK9QSqlQuery9lastQueryEv [QtSql]	_Zls6QDebugRK10QSqlRecord [QtSql]
_Zls6QDebugRK12QSqlDatabase [QtSql]	_Zls6QDebugRK9QSqlError [QtSql]
_Zls6QDebugRK9QSqlField [QtSql]	

An LSB conforming implementation shall provide the generic data interfaces for Qt4 SQL specified in [Table 17-575](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-575. libQtSql - Qt4 SQL Data Interfaces

_ZN10QSqlDriver16staticMetaObjectE [QtSql]	_ZN12QSqlDatabase17defaultConnectionE [QtSql]
_ZN14QSqlQueryModel16staticMetaObjectE [QtSql]	_ZN14QSqlTableModel16staticMetaObjectE [QtSql]
_ZN16QSqlDriverPlugin16staticMetaObjectE [QtSql]	_ZN24QSqlRelationalTableModel16staticMetaObjectE [QtSql]
_ZTI10QSqlDriver [CXXABI-1.86]	_ZTI10QSqlResult [CXXABI-1.86]
_ZTI14QSqlQueryModel [CXXABI-1.86]	_ZTI14QSqlTableModel [CXXABI-1.86]
_ZTI16QSqlCachedResult [CXXABI-1.86]	_ZTI16QSqlDriverPlugin [CXXABI-1.86]
_ZTI17QFactoryInterface [CXXABI-1.86]	_ZTI24QSqlRelationalTableModel [CXXABI-1.86]
_ZTI26QSqlDriverFactoryInterface [CXXABI-1.86]	_ZTV10QSqlDriver [CXXABI-1.86]
_ZTV10QSqlResult [CXXABI-1.86]	_ZTV14QSqlQueryModel [CXXABI-1.86]
_ZTV14QSqlTableModel [CXXABI-1.86]	_ZTV16QSqlCachedResult [CXXABI-1.86]
_ZTV16QSqlDriverPlugin [CXXABI-1.86]	_ZTV17QFactoryInterface [CXXABI-1.86]
_ZTV24QSqlRelationalTableModel [CXXABI-1.86]	_ZTV26QSqlDriverFactoryInterface [CXXABI-1.86]

17.14. Data Definitions for libQtSql

This section defines global identifiers and their values that are associated with interfaces contained in libQtSql. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to

supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

17.14.1. QtSql/qsq.h

```
enum _ZN4QSql8LocationE {
    AfterLastRow = -2,
    AfterLast = -2,
    BeforeFirstRow = -1,
    BeforeFirst = -1
};
enum _ZN4QSql13ParamTypeFlagE {
    In = 1,
    Out = 2,
    InOut = 3,
    Binary = 4
};
class QFlags < QSql::ParamTypeFlag >;
typedef class QFlags < QSql::ParamTypeFlag > QSql::ParamType;
enum _ZN4QSql9TableTypeE {
    Tables = 1,
    SystemTables = 2,
    Views = 4,
    AllTables = 255
};
enum _ZN4QSql2OpE {
    None = -1,
    Insert = 0,
    Update = 1,
    Delete = 2
};
enum _ZN4QSql7ConfirmE {
    Cancel = -1,
    No = 0,
    Yes = 1
};
```

17.14.2. QtSql/qsqldatabase.h

```
class QSqlDriverCreatorBase;
class QSqlDatabase;
```

17.14.3. QtSql/qsqldriver.h

```
class QSqlDriver;
enum _ZN10QSqlDriver13DriverFeatureE {
    Transactions = 0,
    QuerySize = 1,
    BLOB = 2,
    Unicode = 3,
    PreparedQueries = 4,
    NamedPlaceholders = 5,
    PositionalPlaceholders = 6,
    LastInsertId = 7,
```

```

    BatchOperations = 8
};
enum _ZN10QSqlDriver13StatementTypeE {
    WhereStatement = 0,
    SelectStatement = 1,
    UpdateStatement = 2,
    InsertStatement = 3,
    DeleteStatement = 4
};
enum _ZN10QSqlDriver14IdentifierTypeE {
    FieldName = 0,
    TableName = 1
};

```

17.14.4. QSql/qsqldriverplugin.h

```

struct QSqlDriverFactoryInterface;
class QSqlDriverPlugin;

```

17.14.5. QSql/qsqLError.h

```

class QSqlError;
enum _ZN9QSqlError9ErrorTypeE {
    NoError = 0,
    None = 0,
    ConnectionError = 1,
    Connection = 1,
    StatementError = 2,
    Statement = 2,
    TransactionError = 3,
    Transaction = 3,
    UnknownError = 4,
    Unknown = 4
};

```

17.14.6. QSql/qsqffield.h

```

class QSqlField;
enum _ZN9QSqlField14RequiredStatusE {
    Unknown = -1,
    Optional = 0,
    Required = 1
};

```

17.14.7. QSql/qsqldataindex.h

```

class QSqlIndex;

```

17.14.8. QSql/qsqldataquery.h

```

class QSqlQuery;

```

17.14.9. QSql/qsqquerymodel.h

```
class QSqlQueryModel;
```

17.14.10. QSql/qsqrecord.h

```
class QSqlRecord;
```

17.14.11. QSql/qsqrelationaltablemodel.h

```
typedef enum QtValidLicenseForSqlModule QSqlModule;
class QSqlRelation;
class QSqlRelationalTableModel;
```

17.14.12. QSql/qsqresult.h

```
class QSqlResult;
enum _ZN10QSqlResult13BindingSyntaxE {
    PositionalBinding = 0,
    BindByPosition = 0,
    NamedBinding = 1,
    BindByName = 1
};
enum _ZN10QSqlResult20VirtualHookOperationE {
    BatchOperation = 0
};
```

17.14.13. QSql/qsqtablemodel.h

```
class QSqlTableModel;
enum _ZN14QSqlTableModel12EditStrategyE {
    OnFieldChange = 0,
    OnRowChange = 1,
    OnManualSubmit = 2
};
```

17.15. Interface Definitions for libQtSql

Table of Contents

[_ZN10QSqlResult9execBatchEb](#) -- executes a prepared query in batch mode

[_ZNK9QSqlField6typeIDEv](#) -- get the type identifier for the field

The interfaces defined on the following pages are included in libQtSql and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 17.13](#) shall behave as described in the referenced base document.

_ZN10QSqlResult9execBatchEb

Name

QSqlResult::execBatch -- executes a prepared query in batch mode

Synopsis

```
#include <QtSql/qsqlresult.h>
bool QSqlResult::execBatch (bool arrayBind);
```

Description

The `QSqlResult::execBatch()` function shall execute a prepared query in batch mode if the driver supports it, otherwise it should emulate a batch execution (for example, using `bindValue()` and `exec()` functions).

The `QSqlDriver::hasFeature()` can be used to find out whether a driver supports batch execution.

Batch execution can be faster for large amounts of data since it reduces network roundtrips.

For batch executions, bound values have to be provided as lists of variants (`QVariantList`). Each list must contain values of the same type. All lists must contain equal amount of values (rows).

NULL values should be passed in as typed `QVariants`, for example `QVariant(QVariant::Int)` should be used for an integer NULL value.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

_ZNK9QSqlField6typeIDEv

Name

QSqlField::typeID -- get the type identifier for the field

Synopsis

```
#include <QtSql/qsqldatabase.h>
int QSqlField::typeID(void);
```

Description

The `QSqlField::typeID()` function shall return the type ID for the field represented by the calling object.

If the returned value is negative, it means that the information is not available from the database.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

17.16. Interfaces for libQtSvg

Table 17-576 defines the library name and shared object name for the libQtSvg library

Table 17-576. libQtSvg Definition

Library:	libQtSvg
SONAME:	libQtSvg.so.4

The behavior of the interfaces in this library is specified by the following specifications:

[CXXABI-1.86] Itanium™ C++ ABI

[QtSvg] QtSvg 4.2.0

[QtXml] QtXml 4.2.0

17.16.1. Qt4 Svg

17.16.1.1. Class data for QSvgRenderer

The virtual table for the QSvgRenderer class is described by [Table 17-577](#)

Table 17-577. Primary vtable for QSvgRenderer

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSvgRenderer
vfunc[0]:	QSvgRenderer::metaObject() const
vfunc[1]:	QSvgRenderer::qt_metacast(char const*)
vfunc[2]:	QSvgRenderer::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSvgRenderer::~~QSvgRenderer()
vfunc[4]:	QSvgRenderer::~~QSvgRenderer()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QSvgRenderer class is described by [Table 17-578](#)

Table 17-578. typeinfo for QSvgRenderer

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSvgRenderer
basetype:	typeinfo for QObject

17.16.1.2. Class data for QSvgWidget

The virtual table for the QSvgWidget class is described by [Table 17-579](#)

Table 17-579. Primary vtable for QSvgWidget

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QSvgWidget
vfunc[0]:	QSvgWidget::metaObject() const
vfunc[1]:	QSvgWidget::qt_metacast(char const*)
vfunc[2]:	QSvgWidget::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QSvgWidget::~~QSvgWidget()
vfunc[4]:	QSvgWidget::~~QSvgWidget()
vfunc[5]:	QWidget::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QWidget::devType() const
vfunc[13]:	QWidget::setVisible(bool)
vfunc[14]:	QSvgWidget::sizeHint() const
vfunc[15]:	QWidget::minimumSizeHint() const
vfunc[16]:	QWidget::heightForWidth(int) const
vfunc[17]:	QWidget::paintEngine() const
vfunc[18]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[19]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[20]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[21]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[22]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[23]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[24]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[25]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[26]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[27]:	QWidget::enterEvent(QEvent*)
vfunc[28]:	QWidget::leaveEvent(QEvent*)
vfunc[29]:	QSvgWidget::paintEvent(QPaintEvent*)
vfunc[30]:	QWidget::moveEvent(QMoveEvent*)
vfunc[31]:	QWidget::resizeEvent(QResizeEvent*)

vfunc[32]:	QWidget::closeEvent(QCloseEvent*)
vfunc[33]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[34]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[35]:	QWidget::actionEvent(QActionEvent*)
vfunc[36]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[37]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[38]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[39]:	QWidget::dropEvent(QDropEvent*)
vfunc[40]:	QWidget::showEvent(QShowEvent*)
vfunc[41]:	QWidget::hideEvent(QHideEvent*)
vfunc[42]:	QWidget::x11Event(_XEvent*)
vfunc[43]:	QWidget::changeEvent(QEvent*)
vfunc[44]:	QWidget::metric(QPaintDevice::PaintDeviceMetric) const
vfunc[45]:	QWidget::inputMethodEvent(QInputMethodEvent*)
vfunc[46]:	QWidget::inputMethodQuery(Qt::InputMethodQuery) const
vfunc[47]:	QWidget::focusNextPrevChild(bool)
vfunc[48]:	QWidget::styleChange(QStyle&)
vfunc[49]:	QWidget::enabledChange(bool)
vfunc[50]:	QWidget::paletteChange(QPalette const&)
vfunc[51]:	QWidget::fontChange(QFont const&)
vfunc[52]:	QWidget::windowActivationChange(bool)
vfunc[53]:	QWidget::languageChange()

The Run Time Type Information for the `QSvgWidget` class is described by [Table 17-580](#)

Table 17-580. typeinfo for `QSvgWidget`

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for <code>QSvgWidget</code>
basetype:	typeinfo for <code>QWidget</code>

17.16.1.3. Interfaces for Qt4 Svg

An LSB conforming implementation shall provide the generic functions for Qt4 Svg specified in [Table 17-581](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-581. libQtSvg - Qt4 Svg Function Interfaces

_ZN10QSvgWidget10paintEventEP11QPaintEvent [QtSvg]	_ZN10QSvgWidget11qt_metacallEN11QMetaOb
_ZN10QSvgWidget11qt_metacastEPKc [QtSvg]	_ZN10QSvgWidget4loadERK10QByteArray [Q
_ZN10QSvgWidget4loadERK7QString [QtSvg]	_ZN10QSvgWidgetC1EP7QWidget [QtSvg]
_ZN10QSvgWidgetC1ERK7QStringP7QWidget [QtSvg]	_ZN10QSvgWidgetC2EP7QWidget [QtSvg]
_ZN10QSvgWidgetC2ERK7QStringP7QWidget [QtSvg]	_ZN10QSvgWidgetD0Ev [QtSvg]
_ZN10QSvgWidgetD1Ev [QtSvg]	_ZN10QSvgWidgetD2Ev [QtSvg]
_ZN12QSvgRenderer10setViewBoxERK5QRect [QtSvg]	_ZN12QSvgRenderer10setViewBoxERK6QRect
_ZN12QSvgRenderer11qt_metacallEN11QMetaObject4CallEiPPv [QtSvg]	_ZN12QSvgRenderer11qt_metacastEPKc [QtSv
_ZN12QSvgRenderer13repaintNeededEv [QtSvg]	_ZN12QSvgRenderer15setCurrentFrameEi [QtS
_ZN12QSvgRenderer18setFramesPerSecondEi [QtSvg]	_ZN12QSvgRenderer4loadERK10QByteArray [
_ZN12QSvgRenderer4loadERK7QString [QtSvg]	_ZN12QSvgRenderer6renderEP8QPainter [QtSv
_ZN12QSvgRenderer6renderEP8QPainterRK6QRectF [QtXml]	_ZN12QSvgRenderer6renderEP8QPainterRK7Q
_ZN12QSvgRendererC1EP7QObject [QtSvg]	_ZN12QSvgRendererC1ERK10QByteArrayP7Q
_ZN12QSvgRendererC1ERK7QStringP7QObject [QtSvg]	_ZN12QSvgRendererC2EP7QObject [QtSvg]
_ZN12QSvgRendererC2ERK10QByteArrayP7QObject [QtSvg]	_ZN12QSvgRendererC2ERK7QStringP7QObjec
_ZN12QSvgRendererD0Ev [QtSvg]	_ZN12QSvgRendererD1Ev [QtSvg]
_ZN12QSvgRendererD2Ev [QtSvg]	_ZN16QGraphicsSvgItem11qt_metacallEN11QM
_ZN16QGraphicsSvgItem11qt_metacastEPKc [QtXml]	_ZN16QGraphicsSvgItem12setElementIdERK7Q
_ZN16QGraphicsSvgItem17setCachingEnabledEb [QtXml]	_ZN16QGraphicsSvgItem17setSharedRendererE
_ZN16QGraphicsSvgItem19setMaximumCacheSizeERK5QSize [QtXml]	_ZN16QGraphicsSvgItem5paintEP8QPainterPK [QtXml]
_ZN16QGraphicsSvgItemC1EP13QGraphicsItem [QtXml]	_ZN16QGraphicsSvgItemC1ERK7QStringP13Q
_ZN16QGraphicsSvgItemC2EP13QGraphicsItem [QtXml]	_ZN16QGraphicsSvgItemC2ERK7QStringP13Q
_ZNK10QSvgWidget10metaObjectEv [QtSvg]	_ZNK10QSvgWidget8rendererEv [QtSvg]
_ZNK10QSvgWidget8sizeHintEv [QtSvg]	_ZNK12QSvgRenderer10metaObjectEv [QtSvg]
_ZNK12QSvgRenderer11defaultSizeEv [QtSvg]	_ZNK12QSvgRenderer12currentFrameEv [QtSv
_ZNK12QSvgRenderer13elementExistsERK7QString [QtXml]	_ZNK12QSvgRenderer15boundsOnElementERK
_ZNK12QSvgRenderer15framesPerSecondEv [QtSvg]	_ZNK12QSvgRenderer16matrixForElementERK
_ZNK12QSvgRenderer17animationDurationEv [QtSvg]	_ZNK12QSvgRenderer7isValidEv [QtSvg]
_ZNK12QSvgRenderer7viewBoxEv [QtSvg]	_ZNK12QSvgRenderer8animatedEv [QtSvg]
_ZNK12QSvgRenderer8viewBoxFEv [QtXml]	_ZNK16QGraphicsSvgItem10metaObjectEv [Qt

_ZNK16QGraphicsSvgItem12boundingRectEv [QtXml]	_ZNK16QGraphicsSvgItem16isCachingEnabledEv [QtXml]
_ZNK16QGraphicsSvgItem16maximumCacheSizeEv [QtXml]	_ZNK16QGraphicsSvgItem4typeEv [QtXml]
_ZNK16QGraphicsSvgItem8rendererEv [QtXml]	_ZNK16QGraphicsSvgItem9elementIdEv [QtXml]

An LSB conforming implementation shall provide the generic data interfaces for Qt4 Svg specified in [Table 17-582](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-582. libQtSvg - Qt4 Svg Data Interfaces

_ZN10QSvgWidget16staticMetaObjectE [QtSvg]	_ZN12QSvgRenderer16staticMetaObjectE [QtSvg]
_ZN16QGraphicsSvgItem16staticMetaObjectE [QtXml]	_ZTI10QSvgWidget [CXXABI-1.86]
_ZTI12QSvgRenderer [CXXABI-1.86]	_ZTI16QGraphicsSvgItem [CXXABI-1.86]
_ZTI16QSvgTinyDocument [CXXABI-1.86]	_ZTV10QSvgWidget [CXXABI-1.86]
_ZTV12QSvgRenderer [CXXABI-1.86]	_ZTV16QGraphicsSvgItem [CXXABI-1.86]
_ZTV16QSvgTinyDocument [CXXABI-1.86]	

17.17. Data Definitions for libQtSvg

This section defines global identifiers and their values that are associated with interfaces contained in libQtSvg. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

17.17.1. QtSvg/qsvgrenderer.h

```
class QSvgRenderer;
```

17.17.2. QtSvg/qsvgwidget.h

```
typedef enum QtValidLicenseForSvgModule QtSvgModule;
class QSvgWidget;
```

17.18. Interfaces for libQtNetwork

[Table 17-583](#) defines the library name and shared object name for the libQtNetwork library

Table 17-583. libQtNetwork Definition

Library:	libQtNetwork
SONAME:	libQtNetwork.so.4

The behavior of the interfaces in this library is specified by the following specifications:

[CXXABI-1.86] [Itanium™ C++ ABI](#)

[LSB] [This Specification](#)

[QtNetwork] [QtNetwork 4.2.0](#)

[QtXml] [QtXml 4.2.0](#)

17.18.1. Qt4 Network

17.18.1.1. Class data for QHttpHeader

The virtual table for the QHttpHeader class is described by [Table 17-584](#)

Table 17-584. Primary vtable for QHttpHeader

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QHttpHeader
vfunc[0]:	QHttpHeader::~~QHttpHeader()
vfunc[1]:	QHttpHeader::~~QHttpHeader()
vfunc[2]:	QHttpHeader::toString() const
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	QHttpHeader::parseLine(QString const&, int)

The Run Time Type Information for the QHttpHeader class is described by [Table 17-585](#)

Table 17-585. typeid for QHttpHeader

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QHttpHeader

17.18.1.2. Class data for QHttpResponseHeader

The virtual table for the QHttpResponseHeader class is described by [Table 17-586](#)

Table 17-586. Primary vtable for QHttpResponseHeader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHttpResponseHeader
vfunc[0]:	NULL or QHttpResponseHeader::~~QHttpResponseHeader()
vfunc[1]:	NULL or QHttpResponseHeader::~~QHttpResponseHeader()
vfunc[2]:	QHttpResponseHeader::toString() const
vfunc[3]:	QHttpResponseHeader::majorVersion() const
vfunc[4]:	QHttpResponseHeader::minorVersion() const
vfunc[5]:	QHttpResponseHeader::parseLine(QString const&, int)

The Run Time Type Information for the QHttpResponseHeader class is described by [Table 17-587](#)

Table 17-587. typeinfo for QHttpResponseHeader

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHttpResponseHeader
basetype:	typeinfo for QHttpHeader

17.18.1.3. Class data for QHttpRequestHeader

The virtual table for the QHttpRequestHeader class is described by [Table 17-588](#)

Table 17-588. Primary vtable for QHttpRequestHeader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHttpRequestHeader
vfunc[0]:	NULL or QHttpRequestHeader::~~QHttpRequestHeader()
vfunc[1]:	NULL or QHttpRequestHeader::~~QHttpRequestHeader()
vfunc[2]:	QHttpRequestHeader::toString() const
vfunc[3]:	QHttpRequestHeader::majorVersion() const
vfunc[4]:	QHttpRequestHeader::minorVersion() const

vfunc[5]:	QHttpRequestHeader::parseLine(QString const&, int)

The Run Time Type Information for the QHttpRequestHeader class is described by [Table 17-589](#)

Table 17-589. typeinfo for QHttpRequestHeader

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHttpRequestHeader
basetype:	typeinfo for QHttpHeader

17.18.1.4. Class data for QHttp

The virtual table for the QHttp class is described by [Table 17-590](#)

Table 17-590. Primary vtable for QHttp

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHttp
vfunc[0]:	QHttp::metaObject() const
vfunc[1]:	QHttp::qt_metacast(char const*)
vfunc[2]:	QHttp::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QHttp::~QHttp()
vfunc[4]:	QHttp::~QHttp()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QHttp class is described by [Table 17-591](#)

Table 17-591. typeinfo for QHttp

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHttp

basetype:	typeinfo for QObject

17.18.1.5. Class data for QAbstractSocket

The virtual table for the QAbstractSocket class is described by [Table 17-592](#)

Table 17-592. Primary vtable for QAbstractSocket

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAbstractSocket
vfunc[0]:	QAbstractSocket::metaObject() const
vfunc[1]:	QAbstractSocket::qt_metacast(char const*)
vfunc[2]:	QAbstractSocket::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QAbstractSocket::~QAbstractSocket()
vfunc[4]:	QAbstractSocket::~QAbstractSocket()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QAbstractSocket::isSequential() const
vfunc[13]:	QIODevice::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[14]:	QAbstractSocket::close()
vfunc[15]:	QIODevice::pos() const
vfunc[16]:	QIODevice::size() const
vfunc[17]:	QIODevice::seek(long long)
vfunc[18]:	QAbstractSocket::atEnd() const
vfunc[19]:	QIODevice::reset()
vfunc[20]:	QAbstractSocket::bytesAvailable() const
vfunc[21]:	QAbstractSocket::bytesToWrite() const
vfunc[22]:	QAbstractSocket::canReadLine() const

vfunc[23]:	QAbstractSocket::waitForReadyRead(int)
vfunc[24]:	QAbstractSocket::waitForBytesWritten(int)
vfunc[25]:	QAbstractSocket::readData(char*, long long)
vfunc[26]:	QAbstractSocket::readLineData(char*, long long)
vfunc[27]:	QAbstractSocket::writeData(char const*, long long)

The Run Time Type Information for the QAbstractSocket class is described by [Table 17-593](#)

Table 17-593. typeinfo for QAbstractSocket

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAbstractSocket
basetype:	typeinfo for QIODevice

17.18.1.6. Class data for QUrlInfo

The virtual table for the QUrlInfo class is described by [Table 17-594](#)

Table 17-594. Primary vtable for QUrlInfo

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QUrlInfo
vfunc[0]:	QUrlInfo::~~QUrlInfo()
vfunc[1]:	QUrlInfo::~~QUrlInfo()
vfunc[2]:	QUrlInfo::setName(QString const&)
vfunc[3]:	QUrlInfo::setDir(bool)
vfunc[4]:	QUrlInfo::setFile(bool)
vfunc[5]:	QUrlInfo::setSymLink(bool)
vfunc[6]:	QUrlInfo::setOwner(QString const&)
vfunc[7]:	QUrlInfo::setGroup(QString const&)
vfunc[8]:	QUrlInfo::setSize(long long)
vfunc[9]:	QUrlInfo::setWritable(bool)
vfunc[10]:	QUrlInfo::setReadable(bool)
vfunc[11]:	QUrlInfo::setPermissions(int)
vfunc[12]:	QUrlInfo::setLastModified(QDateTime const&)

The Run Time Type Information for the QUrlInfo class is described by [Table 17-595](#)

Table 17-595. typeinfo for QUrlInfo

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QUrlInfo

17.18.1.7. Class data for QFtp

The virtual table for the QFtp class is described by [Table 17-596](#)

Table 17-596. Primary vtable for QFtp

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFtp
vfunc[0]:	QFtp::metaObject() const
vfunc[1]:	QFtp::qt_metacast(char const*)
vfunc[2]:	QFtp::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QFtp::~~QFtp()
vfunc[4]:	QFtp::~~QFtp()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)

The Run Time Type Information for the QFtp class is described by [Table 17-597](#)

Table 17-597. typeinfo for QFtp

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFtp
basetype:	typeinfo for QObject

17.18.1.8. Class data for QTcpServer

The virtual table for the QTcpServer class is described by [Table 17-598](#)

Table 17-598. Primary vtable for QTcpServer

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTcpServer
vfunc[0]:	QTcpServer::metaObject() const
vfunc[1]:	QTcpServer::qt_metacast(char const*)
vfunc[2]:	QTcpServer::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTcpServer::~QTcpServer()
vfunc[4]:	QTcpServer::~~QTcpServer()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QTcpServer::hasPendingConnections() const
vfunc[13]:	QTcpServer::nextPendingConnection()
vfunc[14]:	QTcpServer::incomingConnection(int)

The Run Time Type Information for the QTcpServer class is described by [Table 17-599](#)

Table 17-599. typeinfo for QTcpServer

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTcpServer
basetype:	typeinfo for QObject

17.18.1.9. Class data for QUdpSocket

The virtual table for the QUdpSocket class is described by [Table 17-600](#)

Table 17-600. Primary vtable for QUdpSocket

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QUdpSocket
vfunc[0]:	QUdpSocket::metaObject() const
vfunc[1]:	QUdpSocket::qt_metacast(char const*)
vfunc[2]:	QUdpSocket::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QUdpSocket::~~QUdpSocket()
vfunc[4]:	QUdpSocket::~~QUdpSocket()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QAbstractSocket::isSequential() const
vfunc[13]:	QIODevice::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[14]:	QAbstractSocket::close()
vfunc[15]:	QIODevice::pos() const
vfunc[16]:	QIODevice::size() const
vfunc[17]:	QIODevice::seek(long long)
vfunc[18]:	QAbstractSocket::atEnd() const
vfunc[19]:	QIODevice::reset()
vfunc[20]:	QAbstractSocket::bytesAvailable() const
vfunc[21]:	QAbstractSocket::bytesToWrite() const
vfunc[22]:	QAbstractSocket::canReadLine() const
vfunc[23]:	QAbstractSocket::waitForReadyRead(int)
vfunc[24]:	QAbstractSocket::waitForBytesWritten(int)
vfunc[25]:	QAbstractSocket::readData(char*, long long)
vfunc[26]:	QAbstractSocket::readLineData(char*, long long)
vfunc[27]:	QAbstractSocket::writeData(char const*, long long)

The Run Time Type Information for the QUdpSocket class is described by [Table 17-601](#)

Table 17-601. typeinfo for QUdpSocket

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QUdpSocket
basetype:	typeinfo for QAbstractSocket

17.18.1.10. Class data for QTcpSocket

The virtual table for the QTcpSocket class is described by [Table 17-602](#)

Table 17-602. Primary vtable for QTcpSocket

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTcpSocket
vfunc[0]:	QTcpSocket::metaObject() const
vfunc[1]:	QTcpSocket::qt_metacast(char const*)
vfunc[2]:	QTcpSocket::qt_metacall(QMetaObject::Call, int, void**)
vfunc[3]:	QTcpSocket::~~QTcpSocket()
vfunc[4]:	QTcpSocket::~~QTcpSocket()
vfunc[5]:	QObject::event(QEvent*)
vfunc[6]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[7]:	QObject::timerEvent(QTimerEvent*)
vfunc[8]:	QObject::childEvent(QChildEvent*)
vfunc[9]:	QObject::customEvent(QEvent*)
vfunc[10]:	QObject::connectNotify(char const*)
vfunc[11]:	QObject::disconnectNotify(char const*)
vfunc[12]:	QAbstractSocket::isSequential() const
vfunc[13]:	QIODevice::open(QFlags<QIODevice::OpenModeFlag>)
vfunc[14]:	QAbstractSocket::close()
vfunc[15]:	QIODevice::pos() const
vfunc[16]:	QIODevice::size() const
vfunc[17]:	QIODevice::seek(long long)
vfunc[18]:	QAbstractSocket::atEnd() const
vfunc[19]:	QIODevice::reset()

vfunc[20]:	QAbstractSocket::bytesAvailable() const
vfunc[21]:	QAbstractSocket::bytesToWrite() const
vfunc[22]:	QAbstractSocket::canReadLine() const
vfunc[23]:	QAbstractSocket::waitForReadyRead(int)
vfunc[24]:	QAbstractSocket::waitForBytesWritten(int)
vfunc[25]:	QAbstractSocket::readData(char*, long long)
vfunc[26]:	QAbstractSocket::readLineData(char*, long long)
vfunc[27]:	QAbstractSocket::writeData(char const*, long long)

The Run Time Type Information for the QTcpSocket class is described by [Table 17-603](#)

Table 17-603. typeinfo for QTcpSocket

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTcpSocket
basetype:	typeinfo for QAbstractSocket

17.18.1.11. Interfaces for Qt4 Network

An LSB conforming implementation shall provide the generic functions for Qt4 Network specified in [Table 17-604](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-604. libQtNetwork - Qt4 Network Function Interfaces

_Z5qHashRK12QHostAddress [QtXml]	_ZN10
_ZN10QTcpServer11qt_metacastEPKc [QtNetwork]	_ZN10
_ZN10QTcpServer18incomingConnectionEi [QtNetwork]	_ZN10
_ZN10QTcpServer20waitForNewConnectionEiPb [QtNetwork]	_ZN10
_ZN10QTcpServer24setMaxPendingConnectionsEi [QtNetwork]	_ZN10
_ZN10QTcpServer6listenERK12QHostAddress [QtNetwork]	_ZN10
_ZN10QTcpServerC1EP7QObject [QtNetwork]	_ZN10
_ZN10QTcpServerD0Ev [QtNetwork]	_ZN10
_ZN10QTcpServerD2Ev [QtNetwork]	_ZN10
_ZN10QTcpSocket11qt_metacastEPKc [QtNetwork]	_ZN10
_ZN10QTcpSocketC2EP7QObject [QtNetwork]	_ZN10
_ZN10QTcpSocketD1Ev [QtNetwork]	_ZN10
_ZN10QUdpSocket11qt_metacallEN11QMetaObject4CallEiPPv [QtNetwork]	_ZN10

_ZN10QUdpSocket12readDatagramEPcxP12QHostAddressPt [QtNetwork]	_ZN10
_ZN10QUdpSocket4bindERK12QHostAddress [QtNetwork]	_ZN10
_ZN10QUdpSocket4bindEt [QtNetwork]	_ZN10
_ZN10QUdpSocketC1EP7QObject [QtNetwork]	_ZN10
_ZN10QUdpSocketD0Ev [QtNetwork]	_ZN10
_ZN10QUdpSocketD2Ev [QtNetwork]	_ZN10
_ZN11QHttpHeader14setContentTypesERK7QString [QtNetwork]	_ZN11
_ZN11QHttpHeader16setContentLengthEi [QtNetwork]	_ZN11
ZN11QHttpHeader8addValueERK7QStringS2 [QtNetwork]	_ZN11
ZN11QHttpHeader8setValueERK7QStringS2 [QtNetwork]	_ZN11
_ZN11QHttpHeader9setValuesERK5QListI5QPairI7QStringS2_EE [QtNetwork]	_ZN11
ZN11QHttpHeaderC1ERKS [QtNetwork]	_ZN11
_ZN11QHttpHeaderC2ERK7QString [QtNetwork]	_ZN11
_ZN11QHttpHeaderC2Ev [QtNetwork]	_ZN11
_ZN11QHttpHeaderD1Ev [QtNetwork]	_ZN11
ZN11QHttpHeaderaSERKS [QtNetwork]	_ZN12
_ZN12QHostAddress10setAddressEPh [QtNetwork]	_ZN12
_ZN12QHostAddress10setAddressERK7QString [QtNetwork]	_ZN12
_ZN12QHostAddress10setScopeIdERK7QString [QtNetwork]	_ZN12
_ZN12QHostAddressC1ENS_14SpecialAddressE [QtNetwork]	_ZN12
_ZN12QHostAddressC1EPh [QtNetwork]	_ZN12
_ZN12QHostAddressC1ERK7QString [QtNetwork]	_ZN12
_ZN12QHostAddressC1Ej [QtNetwork]	_ZN12
_ZN12QHostAddressC2ENS_14SpecialAddressE [QtNetwork]	_ZN12
_ZN12QHostAddressC2EPh [QtNetwork]	_ZN12
_ZN12QHostAddressC2ERK7QString [QtNetwork]	_ZN12
_ZN12QHostAddressC2Ej [QtNetwork]	_ZN12
_ZN12QHostAddressD1Ev [QtNetwork]	_ZN12
_ZN12QHostAddressaSERK7QString [QtNetwork]	_ZN12
_ZN13QNetworkProxy11setHostNameERK7QString [QtNetwork]	_ZN13
_ZN13QNetworkProxy16applicationProxyEv [QtNetwork]	_ZN13
_ZN13QNetworkProxy7setPortEt [QtNetwork]	_ZN13
_ZN13QNetworkProxy7setUserERK7QString [QtNetwork]	_ZN13

ZN13QNetworkProxyC1ERKS [QtNetwork]	_ZN13
_ZN13QNetworkProxyC2ENS_9ProxyTypeERK7QStringS3_S3_ [QtNetwork]	_ZN13
_ZN13QNetworkProxyC2Ev [QtNetwork]	_ZN13
_ZN13QNetworkProxyD2Ev [QtNetwork]	_ZN13
_ZN15QAbstractSocket11qt_metacallEN11QMetaObject4CallEiPPv [QtNetwork]	_ZN15
_ZN15QAbstractSocket11setPeerNameERK7QString [QtNetwork]	_ZN15
_ZN15QAbstractSocket12disconnectedEv [QtNetwork]	_ZN15
_ZN15QAbstractSocket12setLocalPortEt [QtNetwork]	_ZN15
_ZN15QAbstractSocket13connectToHostERK12QHostAddresst6QFlagsIN9QIODevice12OpenModeFlagEE [QtNetwork]	_ZN15
_ZN15QAbstractSocket14setPeerAddressERK12QHostAddress [QtNetwork]	_ZN15
_ZN15QAbstractSocket14setSocketStateENS_11SocketStateE [QtNetwork]	_ZN15
_ZN15QAbstractSocket16connectionClosedEv [QtNetwork]	_ZN15
_ZN15QAbstractSocket16waitForReadyReadEi [QtNetwork]	_ZN15
_ZN15QAbstractSocket18disconnectFromHostEv [QtNetwork]	_ZN15 [QtNet]
_ZN15QAbstractSocket19waitForBytesWrittenEi [QtNetwork]	_ZN15
_ZN15QAbstractSocket20delayedCloseFinishedEv [QtNetwork]	_ZN15 [QtNet]
_ZN15QAbstractSocket32disconnectFromHostImplementationEv [QtNetwork]	_ZN15
_ZN15QAbstractSocket5closeEv [QtNetwork]	_ZN15
_ZN15QAbstractSocket5flushEv [QtNetwork]	_ZN15
_ZN15QAbstractSocket8setProxyERK13QNetworkProxy [QtNetwork]	_ZN15
_ZN15QAbstractSocket9hostFoundEv [QtNetwork]	_ZN15
_ZN15QAbstractSocketC1ENS_10SocketTypeEP7QObject [QtNetwork]	_ZN15
_ZN15QAbstractSocketD0Ev [QtNetwork]	_ZN15
_ZN15QAbstractSocketD2Ev [QtNetwork]	_ZN17
_ZN17QNetworkInterface13allInterfacesEv [QtXml]	_ZN17
_ZN17QNetworkInterface18interfaceFromIndexEi [QtXml]	_ZN17
_ZN17QNetworkInterfaceC1Ev [QtXml]	_ZN17
_ZN17QNetworkInterfaceC2Ev [QtXml]	_ZN17
_ZN17QNetworkInterfaceD2Ev [QtXml]	_ZN17
_ZN18QHttpRequestHeader10setRequestERK7QStringS2_ii [QtNetwork]	_ZN18
_ZN18QHttpRequestHeaderC1ERK7QString [QtNetwork]	_ZN18

ZN18QHttpRequestHeaderC1ERKS [QtNetwork]	_ZN18
_ZN18QHttpRequestHeaderC2ERK7QString [QtNetwork]	_ZN18
ZN18QHttpRequestHeaderC2ERKS [QtNetwork]	_ZN18
ZN18QHttpRequestHeaderaSERKS [QtNetwork]	_ZN19
_ZN19QHttpResponseHeader9parseLineERK7QStringi [QtNetwork]	_ZN19
ZN19QHttpResponseHeaderC1ERKS [QtNetwork]	_ZN19
_ZN19QHttpResponseHeaderC1Ev [QtNetwork]	_ZN19
ZN19QHttpResponseHeaderC2ERKS [QtNetwork]	_ZN19
_ZN19QHttpResponseHeaderC2Ev [QtNetwork]	_ZN19
_ZN20QNetworkAddressEntry10setNetmaskERK12QHostAddress [QtXml]	_ZN20
_ZN20QNetworkAddressEntry5setIpERK12QHostAddress [QtXml]	_ZN20
_ZN20QNetworkAddressEntryC1Ev [QtXml]	_ZN20
_ZN20QNetworkAddressEntryC2Ev [QtXml]	_ZN20
_ZN20QNetworkAddressEntryD2Ev [QtXml]	_ZN20
_ZN4QFtp10rawCommandERK7QString [QtNetwork]	_ZN40
_ZN4QFtp11qt_metacastEPKc [QtNetwork]	_ZN40
_ZN4QFtp13connectToHostERK7QStringt [QtNetwork]	_ZN40
_ZN4QFtp15commandFinishedEib [QtNetwork]	_ZN40
_ZN4QFtp15setTransferModeENS_12TransferModeE [QtNetwork]	_ZN40
_ZN4QFtp20dataTransferProgressExx [QtNetwork]	_ZN40
_ZN4QFtp3getERK7QStringP9QIODeviceNS_12TransferTypeE [QtNetwork]	_ZN40
_ZN4QFtp3putERK10QByteArrayRK7QStringNS_12TransferTypeE [QtNetwork]	_ZN40
_ZN4QFtp4listERK7QString [QtNetwork]	_ZN40
_ZN4QFtp5abortEv [QtNetwork]	_ZN40
ZN4QFtp5loginERK7QStringS2 [QtNetwork]	_ZN40
_ZN4QFtp5rmdirERK7QString [QtNetwork]	_ZN40
ZN4QFtp6renameERK7QStringS2 [QtNetwork]	_ZN40
_ZN4QFtp8listInfoERK8QUrlInfo [QtNetwork]	_ZN40
_ZN4QFtp9readyReadEv [QtNetwork]	_ZN40
_ZN4QFtpC1EP7QObjectPKc [QtNetwork]	_ZN40
_ZN4QFtpC2EP7QObjectPKc [QtNetwork]	_ZN40
_ZN4QFtpD1Ev [QtNetwork]	_ZN40
_ZN5QHttp11qt_metacallEN11QMetaObject4CallEiPPv [QtNetwork]	_ZN50

_ZN5QHttp12stateChangedEi [QtNetwork]	_ZN5Q
_ZN5QHttp15closeConnectionEv [QtNetwork]	_ZN5Q
_ZN5QHttp16dataReadProgressEii [QtNetwork]	_ZN5Q
_ZN5QHttp20clearPendingRequestsEv [QtNetwork]	_ZN5Q
_ZN5QHttp3getERK7QStringP9QIODevice [QtNetwork]	_ZN5Q
_ZN5QHttp4headERK7QString [QtNetwork]	_ZN5Q
_ZN5QHttp4postERK7QStringRK10QByteArrayP9QIODevice [QtNetwork]	_ZN5Q
_ZN5QHttp5abortEv [QtNetwork]	_ZN5Q
_ZN5QHttp7readAllEv [QtNetwork]	_ZN5Q
_ZN5QHttp7requestERK18QHttpRequestHeaderRK10QByteArrayP9QIODevice [QtNetwork]	_ZN5Q
ZN5QHttp7setUserERK7QStringS2 [QtNetwork]	_ZN5Q
_ZN5QHttp9readyReadERK19QHttpResponseHeader [QtNetwork]	_ZN5Q
_ZN5QHttpC1EP7QObject [QtNetwork]	_ZN5Q
_ZN5QHttpC2EP7QObject [QtNetwork]	_ZN5Q
_ZN5QHttpD0Ev [QtNetwork]	_ZN5Q
_ZN5QHttpD2Ev [QtNetwork]	_ZN8Q
_ZN8QUrlInfo11greaterThanERKS_S1_i [QtNetwork]	_ZN8Q
_ZN8QUrlInfo11setWritableEb [QtNetwork]	_ZN8Q
_ZN8QUrlInfo15setLastModifiedERK9QDateTime [QtNetwork]	_ZN8Q
_ZN8QUrlInfo6setDirEb [QtNetwork]	_ZN8Q
_ZN8QUrlInfo7setNameERK7QString [QtNetwork]	_ZN8Q
_ZN8QUrlInfo8lessThanERKS_S1_i [QtNetwork]	_ZN8Q
_ZN8QUrlInfo8setOwnerERK7QString [QtNetwork]	_ZN8Q
_ZN8QUrlInfoC1ERK7QStringiS2_S2_xRK9QDateTimeS5_bbbbbbb [QtNetwork]	_ZN8Q
_ZN8QUrlInfoC1Ev [QtNetwork]	_ZN8Q
_ZN8QUrlInfoC2ERK7QStringiS2_S2_xRK9QDateTimeS5_bbbbbbb [QtNetwork]	_ZN8Q
_ZN8QUrlInfoC2Ev [QtNetwork]	_ZN8Q
_ZN8QUrlInfoD1Ev [QtNetwork]	_ZN8Q
ZN8QUrlInfoaSERKS [QtNetwork]	_ZN9Q
_ZN9QHostInfo11setHostNameERK7QString [QtNetwork]	_ZN9Q
_ZN9QHostInfo12setAddressesERK5QListI12QHostAddressE [QtNetwork]	_ZN9Q
_ZN9QHostInfo14setErrorStringERK7QString [QtNetwork]	_ZN9Q
_ZN9QHostInfo8fromNameERK7QString [QtNetwork]	_ZN9Q

ZN9QHostInfoC1ERKS [QtNetwork]	_ZN9QHostInfoC1ERKS_ [QtNetwork]
ZN9QHostInfoC2ERKS [QtNetwork]	_ZN9QHostInfoC2ERKS_ [QtNetwork]
_ZN9QHostInfoD1Ev [QtNetwork]	_ZN9QHostInfoD1Ev [QtNetwork]
ZN9QHostInfoaSERKS [QtNetwork]	_ZN9QHostInfoaSERKS_ [QtNetwork]
_ZNK10QTcpServer10serverPortEv [QtNetwork]	_ZNK10QTcpServer10serverPortEv [QtNetwork]
_ZNK10QTcpServer11isListeningEv [QtNetwork]	_ZNK10QTcpServer11isListeningEv [QtNetwork]
_ZNK10QTcpServer13serverAddressEv [QtNetwork]	_ZNK10QTcpServer13serverAddressEv [QtNetwork]
_ZNK10QTcpServer21hasPendingConnectionsEv [QtNetwork]	_ZNK10QTcpServer21hasPendingConnectionsEv [QtNetwork]
_ZNK10QTcpServer5proxyEv [QtNetwork]	_ZNK10QTcpServer5proxyEv [QtNetwork]
_ZNK10QUdpSocket10metaObjectEv [QtNetwork]	_ZNK10QUdpSocket10metaObjectEv [QtNetwork]
_ZNK10QUdpSocket19pendingDatagramSizeEv [QtNetwork]	_ZNK10QUdpSocket19pendingDatagramSizeEv [QtNetwork]
_ZNK11QHttpHeader13contentLengthEv [QtNetwork]	_ZNK11QHttpHeader13contentLengthEv [QtNetwork]
_ZNK11QHttpHeader16hasContentLengthEv [QtNetwork]	_ZNK11QHttpHeader16hasContentLengthEv [QtNetwork]
_ZNK11QHttpHeader5valueERK7QString [QtNetwork]	_ZNK11QHttpHeader5valueERK7QString [QtNetwork]
_ZNK11QHttpHeader6valuesEv [QtNetwork]	_ZNK11QHttpHeader6valuesEv [QtNetwork]
_ZNK11QHttpHeader8toStringEv [QtNetwork]	_ZNK11QHttpHeader8toStringEv [QtNetwork]
_ZNK12QHostAddress13toIPv4AddressEv [QtNetwork]	_ZNK12QHostAddress13toIPv4AddressEv [QtNetwork]
_ZNK12QHostAddress6isNullEv [QtNetwork]	_ZNK12QHostAddress6isNullEv [QtNetwork]
_ZNK12QHostAddress8protocolEv [QtNetwork]	_ZNK12QHostAddress8protocolEv [QtNetwork]
_ZNK12QHostAddressseqENS_14SpecialAddressE [QtNetwork]	_ZNK12QHostAddressseqENS_14SpecialAddressE [QtNetwork]
_ZNK13QNetworkProxy4portEv [QtNetwork]	_ZNK13QNetworkProxy4portEv [QtNetwork]
_ZNK13QNetworkProxy4userEv [QtNetwork]	_ZNK13QNetworkProxy4userEv [QtNetwork]
_ZNK13QNetworkProxy8passwordEv [QtNetwork]	_ZNK13QNetworkProxy8passwordEv [QtNetwork]
_ZNK15QAbstractSocket10socketTypeEv [QtNetwork]	_ZNK15QAbstractSocket10socketTypeEv [QtNetwork]
_ZNK15QAbstractSocket11peerAddressEv [QtNetwork]	_ZNK15QAbstractSocket11peerAddressEv [QtNetwork]
_ZNK15QAbstractSocket12isSequentialEv [QtNetwork]	_ZNK15QAbstractSocket12isSequentialEv [QtNetwork]
_ZNK15QAbstractSocket14bytesAvailableEv [QtNetwork]	_ZNK15QAbstractSocket14bytesAvailableEv [QtNetwork]
_ZNK15QAbstractSocket16socketDescriptorEv [QtNetwork]	_ZNK15QAbstractSocket16socketDescriptorEv [QtNetwork]
_ZNK15QAbstractSocket5errorEv [QtNetwork]	_ZNK15QAbstractSocket5errorEv [QtNetwork]
_ZNK15QAbstractSocket5stateEv [QtNetwork]	_ZNK15QAbstractSocket5stateEv [QtNetwork]
_ZNK15QAbstractSocket8peerNameEv [QtNetwork]	_ZNK15QAbstractSocket8peerNameEv [QtNetwork]
_ZNK15QAbstractSocket9localPortEv [QtNetwork]	_ZNK15QAbstractSocket9localPortEv [QtNetwork]
_ZNK17QNetworkInterface15hardwareAddressEv [QtXml]	_ZNK17QNetworkInterface15hardwareAddressEv [QtXml]

_ZNK17QNetworkInterface5flagsEv [QtXml]	_ZNK
_ZNK18QHttpRequestHeader12majorVersionEv [QtNetwork]	_ZNK
_ZNK18QHttpRequestHeader4pathEv [QtNetwork]	_ZNK
_ZNK18QHttpRequestHeader8toStringEv [QtNetwork]	_ZNK
_ZNK19QHttpResponseHeader12majorVersionEv [QtNetwork]	_ZNK
_ZNK19QHttpResponseHeader12reasonPhraseEv [QtNetwork]	_ZNK
_ZNK20QNetworkAddressEntry2ipEv [QtXml]	_ZNK
_ZNK20QNetworkAddressEntry9broadcastEv [QtXml]	_ZNK
_ZNK4QFtp11errorStringEv [QtNetwork]	_ZNK
_ZNK4QFtp14bytesAvailableEv [QtNetwork]	_ZNK
_ZNK4QFtp18hasPendingCommandsEv [QtNetwork]	_ZNK
_ZNK4QFtp5stateEv [QtNetwork]	_ZNK
_ZNK5QHttp10metaObjectEv [QtNetwork]	_ZNK
_ZNK5QHttp12lastResponseEv [QtNetwork]	_ZNK
_ZNK5QHttp14currentRequestEv [QtNetwork]	_ZNK
_ZNK5QHttp19currentSourceDeviceEv [QtNetwork]	_ZNK
_ZNK5QHttp5errorEv [QtNetwork]	_ZNK
_ZNK5QHttp9currentIdEv [QtNetwork]	_ZNK
_ZNK8QUrlInfo10isWritableEv [QtNetwork]	_ZNK
_ZNK8QUrlInfo12isExecutableEv [QtNetwork]	_ZNK
_ZNK8QUrlInfo4nameEv [QtNetwork]	_ZNK
_ZNK8QUrlInfo5groupEv [QtNetwork]	_ZNK
_ZNK8QUrlInfo5ownerEv [QtNetwork]	_ZNK
_ZNK8QUrlInfo7isValidEv [QtNetwork]	_ZNK
_ZNK8QUrlInfo9isSymLinkEv [QtNetwork]	_ZNK
_ZNK9QHostInfo11errorStringEv [QtNetwork]	_ZNK
_ZNK9QHostInfo8hostNameEv [QtNetwork]	_ZNK
_ZNK9QHostInfo9addressesEv [QtNetwork]	_Zls6C
_Zls6QDebugRK17QNetworkInterface [QtXml]	_ZlsR
_ZrsR11QDataStreamR12QHostAddress [QtXml]	

An LSB conforming implementation shall provide the generic deprecated functions for Qt4 Network specified in [Table 17-605](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These

interfaces may be withdrawn in future releases of this specification.

Table 17-605. libQtNetwork - Qt4 Network Deprecated Function Interfaces

<u>_ZN5QHttp15closeConnectionEv</u> [QtNetwork]	

An LSB conforming implementation shall provide the generic data interfaces for Qt4 Network specified in [Table 17-606](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 17-606. libQtNetwork - Qt4 Network Data Interfaces

<u>_ZN10QTcpServer16staticMetaObjectE</u> [QtNetwork]	<u>_ZN10QTcpSocket16staticMetaObjectE</u> [QtNetwork]
<u>_ZN10QUdpSocket16staticMetaObjectE</u> [QtNetwork]	<u>_ZN15QAbstractSocket16staticMetaObjectE</u> [QtNetwork]
<u>_ZN4QFtp16staticMetaObjectE</u> [QtNetwork]	<u>_ZN5QHttp16staticMetaObjectE</u> [QtNetwork]
<u>_ZTI10QTcpServer</u> [CXXABI-1.86]	<u>_ZTI10QTcpSocket</u> [CXXABI-1.86]
<u>_ZTI10QUdpSocket</u> [CXXABI-1.86]	<u>_ZTI11QHttpHeader</u> [CXXABI-1.86]
<u>_ZTI15QAbstractSocket</u> [CXXABI-1.86]	<u>_ZTI18QHttpRequestHeader</u> [CXXABI-1.86]
<u>_ZTI19QHttpResponseHeader</u> [CXXABI-1.86]	<u>_ZTI4QFtp</u> [CXXABI-1.86]
<u>_ZTI5QHttp</u> [CXXABI-1.86]	<u>_ZTI8QUrlInfo</u> [CXXABI-1.86]
<u>_ZTV10QTcpServer</u> [CXXABI-1.86]	<u>_ZTV10QTcpSocket</u> [CXXABI-1.86]
<u>_ZTV10QUdpSocket</u> [CXXABI-1.86]	<u>_ZTV11QHttpHeader</u> [CXXABI-1.86]
<u>_ZTV15QAbstractSocket</u> [CXXABI-1.86]	<u>_ZTV18QHttpRequestHeader</u> [CXXABI-1.86]
<u>_ZTV19QHttpResponseHeader</u> [CXXABI-1.86]	<u>_ZTV4QFtp</u> [CXXABI-1.86]
<u>_ZTV5QHttp</u> [CXXABI-1.86]	<u>_ZTV8QUrlInfo</u> [CXXABI-1.86]

17.19. Data Definitions for libQtNetwork

This section defines global identifiers and their values that are associated with interfaces contained in libQtNetwork. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C

language description of these data objects does not preclude their use by other programming languages.

17.19.1. QtNetwork/qabstractsocket.h

```
class QAbstractSocket;
enum _ZN15QAbstractSocket10SocketTypeE {
    UnknownSocketType = -1,
    TcpSocket = 0,
    UdpSocket = 1
};
enum _ZN15QAbstractSocket20NetworkLayerProtocolE {
    UnknownNetworkLayerProtocol = -1,
    IPv4Protocol = 0,
    IPv6Protocol = 1
};
enum _ZN15QAbstractSocket11SocketErrorE {
    UnknownSocketError = -1,
    ConnectionRefusedError = 0,
    RemoteHostClosedError = 1,
    HostNotFoundError = 2,
    SocketAccessError = 3,
    SocketResourceError = 4,
    SocketTimeoutError = 5,
    DatagramTooLargeError = 6,
    NetworkError = 7,
    AddressInUseError = 8,
    SocketAddressNotAvailableError = 9,
    UnsupportedSocketOperationError = 10
};
enum _ZN15QAbstractSocket11SocketStateE {
    UnconnectedState = 0,
    Idle = 0,
    HostLookupState = 1,
    HostLookup = 1,
    ConnectingState = 2,
    Connecting = 2,
    Connected = 3,
    Connection = 3,
    ConnectedState = 3,
    BoundState = 4,
    ListeningState = 5,
    Closing = 6,
    ClosingState = 6
};
enum _ZN15QAbstractSocket5ErrorE {
    ErrSocketRead = -1,
    ErrConnectionRefused = 0,
    ErrHostNotFound = 2
};
typedef enum _ZN15QAbstractSocket11SocketStateE {
    UnconnectedState = 0,
    Idle = 0,
    HostLookupState = 1,
    HostLookup = 1,
    ConnectingState = 2,
    Connecting = 2,
    Connected = 3,
    Connection = 3,
    ConnectedState = 3,
    BoundState = 4,
    ListeningState = 5,
```

```

        Closing = 6,
        ClosingState = 6
    } QAbstractSocket::State;

```

17.19.2. QtNetwork/qftp.h

```

class QFtp;
enum _ZN4QFtp5StateE {
    Unconnected = 0,
    HostLookup = 1,
    Connecting = 2,
    Connected = 3,
    LoggedIn = 4,
    Closing = 5
};
enum _ZN4QFtp5ErrorE {
    NoError = 0,
    UnknownError = 1,
    HostNotFound = 2,
    ConnectionRefused = 3,
    NotConnected = 4
};
enum _ZN4QFtp7CommandE {
    None = 0,
    SetTransferMode = 1,
    SetProxy = 2,
    ConnectToHost = 3,
    Login = 4,
    Close = 5,
    List = 6,
    Cd = 7,
    Get = 8,
    Put = 9,
    Remove = 10,
    Mkdir = 11,
    Rmdir = 12,
    Rename = 13,
    RawCommand = 14
};
enum _ZN4QFtp12TransferModeE {
    Active = 0,
    Passive = 1
};
enum _ZN4QFtp12TransferTypeE {
    Binary = 0,
    Ascii = 1
};

```

17.19.3. QtNetwork/qhostaddress.h

```

class QIPv6Address;
typedef class QIPv6Address Q_IPV6ADDR;
class QHostAddress;
enum _ZN12QHostAddress14SpecialAddressE {
    Null = 0,
    Broadcast = 1,
    LocalHost = 2,
    LocalHostIPv6 = 3,
    Any = 4,

```

```
AnyIPv6 = 5
};
```

17.19.4. QtNetwork/qhostinfo.h

```
class QHostInfo;
enum _ZN9QHostInfo13HostInfoErrorE {
    NoError = 0,
    HostNotFound = 1,
    UnknownError = 2
};
```

17.19.5. QtNetwork/qhttp.h

```
class QHttpHeader;
class QHttpResponseHeader;
class QHttpRequestHeader;
class QHttp;
enum _ZN5QHttp5StateE {
    Unconnected = 0,
    HostLookup = 1,
    Connecting = 2,
    Sending = 3,
    Reading = 4,
    Connected = 5,
    Closing = 6
};
enum _ZN5QHttp5ErrorE {
    NoError = 0,
    UnknownError = 1,
    HostNotFound = 2,
    ConnectionRefused = 3,
    UnexpectedClose = 4,
    InvalidResponseHeader = 5,
    WrongContentLength = 6,
    Aborted = 7
};
```

17.19.6. QtNetwork/qnetworkproxy.h

```
class QNetworkProxy;
enum _ZN13QNetworkProxy9ProxyTypeE {
    DefaultProxy = 0,
    Socks5Proxy = 1,
    NoProxy = 2
};
```

17.19.7. QtNetwork/qtcpserver.h

```
class QTcpServer;
```

17.19.8. QtNetwork/qtcpsocket.h

```
typedef enum QtValidLicenseForNetworkModule QtNetworkModule;
class QTcpSocket;
```

17.19.9. QtNetwork/qudpsocket.h

```
class QUdpSocket;
enum _ZN10QUdpSocket8BindFlagE {
    DefaultForPlatform = 0,
    ShareAddress = 1,
    DontShareAddress = 2,
    ReuseAddressHint = 4
};
class QFlags < QUdpSocket::BindFlag >;
typedef class QFlags < QUdpSocket::BindFlag > QUdpSocket::BindMode;
```

17.19.10. QtNetwork/qurlinfo.h

```
class QUrlInfo;
enum _ZN8QUrlInfo14PermissionSpecE {
    ExeOther = 1,
    WriteOther = 2,
    ReadOther = 4,
    ExeGroup = 8,
    WriteGroup = 16,
    ReadGroup = 32,
    ExeOwner = 64,
    WriteOwner = 128,
    ReadOwner = 256
};
```

17.20. Interface Definitions for libQtNetwork

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[_ZN11QHttpHeader5parseERK7QString](#) -- parse the HTTP header string

[_ZN11QHttpHeader9parseLineERK7QStringi](#) -- parse the HTTP header line

The interfaces defined on the following pages are included in libQtNetwork and are defined by this specification. Unless otherwise noted, these interfaces shall be included in the source standard.

Other interfaces listed in [Section 17.18](#) shall behave as described in the referenced base document.

_ZN11QHttpHeader5parseERK7QString

Name

QHttpHeader::parse -- parse the HTTP header string

Synopsis

```
#include <QtNetwork/qhttp.h>
bool QHttpHeader::parse(const QString & str);
```

Description

The `QHttpHeader::parse()` function shall parse the HTTP header string *str* for header fields and add the keys/values it finds to the header's values.

If the string is not parsed successfully the `QHttpHeader` becomes invalid (that can be checked using the `isValid()` function).

The function shall return true if *str* was successfully parsed; otherwise it shall return false.

This function is not intended to be used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

See Also

`toString()`

_ZN11QHttpHeader9parseLineERK7QStringi

Name

QHttpHeader::parseLine -- parse the HTTP header line

Synopsis

```
#include <QtNetwork/qhttp.h>
bool QHttpHeader::parseLine(const QString & line, int number);
```

Description

The `QHttpHeader::parseLine()` function shall parse the single HTTP header line *line* which has the format "key, colon, space, value", and shall add key/value to the headers. The line number is a *number*.

The function shall return true if the line was successfully parsed and the key/value added; otherwise the function shall return false.

This function is not intended to be used used by applications directly, but may appear among application dependencies as a result of usage of other functions and macros.

See Also

`parse()`

XIII. Qt3 Library

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Chapter 18. Library

18.1. Introduction

An conforming implementation shall support the following Qt library which provide interfaces for creating rich user applications, either graphical or console.

qt-mt A general-purpose application development library. Provides a GUI-independent layer of tool classes, network support, SQL database support, XML handling and a GUI layer featuring a device-independent drawing API for printing, screen output and OpenGL support.

There are three main parts to the definition of each of this library.

The "Interfaces" section defines the required library name and version, and the required public symbols (interfaces and global data), as well as symbol versions, if any.

The "Interface Definitions" section provides complete or partial definitions of certain interfaces where either this specification is the source specification, or where there are variations from the source specification. If an interface definition requires one or more header files, one of those headers shall include the function prototype for the interface.

For source definitions of interfaces which include a reference to a header file, the contents of such header files form a part of the specification. The "Data Definitions" section provides the binary-level details for the header files from the source specifications, such as values for macros and enumerated types, as well as structure layouts, sizes and padding, etc. These data definitions, although presented in the form of header files for convenience, should not be taken as representing complete header files, as they are a supplement to the source specifications. Application developers should follow the guidelines of the source specifications when determining which header files need to be included to completely resolve all references.

Note: While the Data Definitions supplement the source specifications, this specification itself does not require conforming implementations to supply any header files.

18.2. Interfaces for libqt-mt

Table 18-1 defines the library name and shared object name for the libqt-mt library

Table 18-1. libqt-mt Definition

Library:	libqt-mt
SONAME:	libqt-mt.so.3

The behavior of the interfaces in this library is specified by the following specifications:

[CXXABI-1.86] Itanium™ C++ ABI

[qt-mt] Qt 3.3.6

18.2.1. Qt

18.2.1.1. Class data for QNetworkProtocolFactoryBase

The virtual table for the QNetworkProtocolFactoryBase class is described by [Table 18-2](#)

Table 18-2. Primary vtable for QNetworkProtocolFactoryBase

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QNetworkProtocolFactoryBase
vfunc[0]:	__cxa_pure_virtual

The Run Time Type Information for the QNetworkProtocolFactoryBase class is described by [Table 18-3](#)

Table 18-3. typeinfo for QNetworkProtocolFactoryBase

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QNetworkProtocolFactoryBase

18.2.1.2. Interfaces for Qt

An LSB conforming implementation shall provide the generic functions for Qt specified in [Table 18-4](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-4. libqt-mt - Qt Function Interfaces

_Z10qDrawArrowP8QPainterN2Qt9ArrowTypeENS1_8GUIStyleEbiiiiRK11QColorGroupb [qt-mt]	_Z10qt_
_Z11qFadeEffectP7QWidgeti [qt-mt]	_Z11qU
_Z11qt_xdisplayv [qt-mt]	_Z11qt_
_Z11qt_xrootwinv [qt-mt]	_Z12qIn
_Z12qSharedBuildv [qt-mt]	_Z12qt_
_Z13qDrawWinPanelP8QPainterRK5QRectRK11QColorGroupbPK6QBrush [qt-mt]	_Z13qD
_Z13qScrollEffectP7QWidgetji [qt-mt]	_Z13qS
_Z13qSmartMaxSizePK11QWidgetItemi [qt-mt]	_Z13qS
_Z13qSmartMinSizePK11QWidgetItem [qt-mt]	_Z14qD
_Z14qDrawPlainRectP8QPainteriiiiRK6QColoriPK6QBrush [qt-mt]	_Z14qD
_Z14qDrawShadeLineP8QPainteriiiiRK11QColorGroupbii [qt-mt]	_Z14qD [qt-mt]

_Z14qDrawShadeRectP8QPainteriiiiRK11QColorGroupbiiPK6QBrush [qt-mt]	_Z14qD [qt-mt]
_Z14qDrawWinButtonP8QPainteriiiiRK11QColorGroupbPK6QBrush [qt-mt]	_Z14qS
_Z14qt_enter_modalP7QWidget [qt-mt]	_Z14qt
_Z14qt_leave_modalP7QWidget [qt-mt]	_Z14qt
_Z15qAddPostRoutinePFvvE [qt-mt]	_Z15qD [qt-mt]
_Z15qDrawShadePanelP8QPainteriiiiRK11QColorGroupbiPK6QBrush [qt-mt]	_Z15qS
_Z15qt_xget_temp_gcib [qt-mt]	_Z16qIn
_Z16qInstallPathDatav [qt-mt]	_Z16qIn
_Z16qInstallPathLibsv [qt-mt]	_Z16qt
_Z16qt_generate_epsfb [qt-mt]	_Z16qt
_Z17qSqlDriverExtDictv [qt-mt]	_Z17qt
_Z17qt_tryModalHelperP7QWidgetPS0_ [qt-mt]	_Z17qt
_Z18qInstallMsgHandlerPFv9QtMsgTypePKcE [qt-mt]	_Z18qR
_Z19qInstallPathHeadersv [qt-mt]	_Z19qIn
_Z19qInstallPathSysconfv [qt-mt]	_Z19qt
_Z20qt_tryComposeUnicodeP7QWidgetP9QKeyEvent [qt-mt]	_Z21qIn
_Z21qt_dispatchAccelEventP7QWidgetP9QKeyEvent [qt-mt]	_Z21qt
_Z21qt_x11_enforce_cursorP7QWidget [qt-mt]	_Z23qt
_Z24qInstallPathTranslationsv [qt-mt]	_Z24qt
_Z25qSuppressObsoleteWarningsb [qt-mt]	_Z26qt
_Z28qt_get_application_thread_idv [qt-mt]	_Z28qt
_Z2wsR11QTextStream [qt-mt]	_Z3binI
_Z3decR11QTextStream [qt-mt]	_Z3hex
_Z3octR11QTextStream [qt-mt]	_Z4end
_Z5debugPKcz [qt-mt]	_Z5fata
_Z5flushR11QTextStream [qt-mt]	_Z5rese
_Z6bitBltP12QPaintDeviceiiPK6QImageiiii [qt-mt]	_Z6bitB
_Z6bitBltP6QImageiiPKS_iiii [qt-mt]	_Z6qDe
_Z6qFatalPKcz [qt-mt]	_Z7cop
_Z7qstrdupPKc [qt-mt]	_Z7war
_Z8qAppNamev [qt-mt]	_Z8qSy

_Z8qVersionv [qt-mt]	_Z8qW
_Z8qmemmovePvPKvj [qt-mt]	_Z8qstr
_Z8qstrncpyPcPKcj [qt-mt]	_Z9qAp
_Z9qChecksumPKcj [qt-mt]	_Z9qCo
_Z9qDrawItemP8QPainterN2Qt8GUIStyleEiiiiRK11QColorGroupbPK7QPixmapRK7QStringiPK6QColor [qt-mt]	_Z9qGe
_Z9qItemRectP8QPainterN2Qt8GUIStyleEiiiiibPK7QPixmapRK7QStringi [qt-mt]	_Z9qOb
Z9qObsoletePKcS0 [qt-mt]	_Z9qOb
_Z9qstrnicmpPKcS0_j [qt-mt]	_ZanRK
ZeoRK9QBitArrayS1 [qt-mt]	_ZeqPK
ZeqRK5QRectS1 [qt-mt]	_ZeqRK
ZeqRK7QStringS1 [qt-mt]	_ZeqRK
_ZgePKcRK7QString [qt-mt]	_ZgeRK
ZgeRK7QStringS1 [qt-mt]	_ZgtRK
ZgtRK7QStringS1 [qt-mt]	_ZlePK
_ZleRK7QStringPKc [qt-mt]	_ZleRK
_ZlsR11QDataStreamN8QVariant4TypeE [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK11QPointArray [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK12QKeySequence [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK5QDate [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK5QRect [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK5QTime [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK6QBrush [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK6QGList [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK6QPoint [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK7QPixmap [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK7QString [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK8QGVector [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK8QPicture [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK8QWMatrix [qt-mt]	_ZlsR1
_ZlsR11QDataStreamRK9QDateTime [qt-mt]	_ZlsR1
_ZlsR11QTextStreamRK11QMainWindow [qt-mt]	_ZlsR1
_ZlsR11QTextStreamRK9QDockArea [qt-mt]	_ZlsR1

_ZltPKcRK7QString [qt-mt]	_ZltRK
ZltRK7QStringS1 [qt-mt]	_ZmlRK
_ZnePKcRK7QString [qt-mt]	_ZneRK
_ZneRK7QStringPKc [qt-mt]	_ZneRK
ZneRK9QGLFormatS1 [qt-mt]	_ZorRK
_ZrsR11QDataStreamR11QColorGroup [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR11QStringList [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR4QPen [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR5QFont [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR5QSize [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR5QUuid [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR6QColor [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR6QImage [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR7QCursor [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR7QRegion [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR8QCString [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR8QPalette [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR8QVariant [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR9QBitArray [qt-mt]	_ZrsR1
_ZrsR11QDataStreamR9QMemArrayIcE [qt-mt]	_ZrsR1
_ZrsR11QTextStreamR11QMainWindow [qt-mt]	_ZrsR1
_ZrsR11QTextStreamR9QSplitter [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt specified in [Table 18-5](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-5. libqt-mt - Qt Data Interfaces

TID_QUType_Null [qt-mt]	TID_QUType_bool [qt-mt]
TID_QUType_charstar [qt-mt]	TID_QUType_double [qt-mt]
TID_QUType_enum [qt-mt]	TID_QUType_idisp [qt-mt]
TID_QUType_iface [qt-mt]	TID_QUType_int [qt-mt]
TID_QUType_ptr [qt-mt]	TID_QUType_varptr [qt-mt]
_ZN2Qt10busyCursorE [qt-mt]	_ZN2Qt10darkYellowE [qt-mt]
_ZN2Qt10waitCursorE [qt-mt]	_ZN2Qt11arrowCursorE [qt-mt]

_ZN2Qt11blankCursorE [qt-mt]	_ZN2Qt11crossCursorE [qt-mt]
_ZN2Qt11darkMagentaE [qt-mt]	_ZN2Qt11ibeamCursorE [qt-mt]
_ZN2Qt12splitHCursorE [qt-mt]	_ZN2Qt12splitVCursorE [qt-mt]
_ZN2Qt13sizeAllCursorE [qt-mt]	_ZN2Qt13sizeHorCursorE [qt-mt]
_ZN2Qt13sizeVerCursorE [qt-mt]	_ZN2Qt13upArrowCursorE [qt-mt]
_ZN2Qt15forbiddenCursorE [qt-mt]	_ZN2Qt15sizeBDiagCursorE [qt-mt]
_ZN2Qt15sizeFDiagCursorE [qt-mt]	_ZN2Qt15whatsThisCursorE [qt-mt]
_ZN2Qt18pointingHandCursorE [qt-mt]	_ZN2Qt3redE [qt-mt]
_ZN2Qt4blueE [qt-mt]	_ZN2Qt4cyanE [qt-mt]
_ZN2Qt4grayE [qt-mt]	_ZN2Qt5blackE [qt-mt]
_ZN2Qt5greenE [qt-mt]	_ZN2Qt5whiteE [qt-mt]
_ZN2Qt6color0E [qt-mt]	_ZN2Qt6color1E [qt-mt]
_ZN2Qt6yellowE [qt-mt]	_ZN2Qt7darkRedE [qt-mt]
_ZN2Qt7magentaE [qt-mt]	_ZN2Qt8darkBlueE [qt-mt]
_ZN2Qt8darkCyanE [qt-mt]	_ZN2Qt8darkGrayE [qt-mt]
_ZN2Qt9darkGreenE [qt-mt]	_ZN2Qt9lightGrayE [qt-mt]
_ZTI11QMemberDict [CXXABI-1.86]	_ZTI14QPostEventList [CXXABI-1.86]
_ZTI17QLibraryInterface [CXXABI-1.86]	_ZTI17QUnknownInterface [CXXABI-1.86]
_ZTI21QFeatureListInterface [CXXABI-1.86]	_ZTI21QImageFormatInterface [CXXABI-1.86]
_ZTI22QStyleFactoryInterface [CXXABI-1.86]	_ZTI26QSqlDriverFactoryInterface [CXXABI-1.86]
_ZTI26QTextCodecFactoryInterface [CXXABI-1.86]	_ZTI27QNetworkProtocolFactoryBase [CXXABI-1.86]
_ZTV11QMemberDict [CXXABI-1.86]	_ZTV14QPostEventList [CXXABI-1.86]
_ZTV17QLibraryInterface [CXXABI-1.86]	_ZTV17QUnknownInterface [CXXABI-1.86]
_ZTV21QFeatureListInterface [CXXABI-1.86]	_ZTV21QImageFormatInterface [CXXABI-1.86]
_ZTV22QStyleFactoryInterface [CXXABI-1.86]	_ZTV26QSqlDriverFactoryInterface [CXXABI-1.86]
_ZTV26QTextCodecFactoryInterface [CXXABI-1.86]	_ZTV27QNetworkProtocolFactoryBase [CXXABI-1.86]
qApp [qt-mt]	qNetworkProtocolRegister [qt-mt]
qt_global_mutexpool [qt-mt]	qt_has_xft [qt-mt]
qt_preliminary_signal_spy [qt-mt]	qt_qheader_label_return_null_strings [qt-mt]
qt_resolve_symlinks [qt-mt]	qt_sm_client_id [qt-mt]
qt_tab_all_widgets [qt-mt]	qt_use_native_dialogs [qt-mt]

qt_use_xrender [qt-mt]	qt_window_role [qt-mt]
qt_wm_delete_window [qt-mt]	qt_wm_protocols [qt-mt]
qt_wm_state [qt-mt]	qt_wm_take_focus [qt-mt]
qt_x_time [qt-mt]	qt_x_user_time [qt-mt]
static_QUType_Null [qt-mt]	static_QUType_QString [qt-mt]
static_QUType_QVariant [qt-mt]	static_QUType_bool [qt-mt]
static_QUType_charstar [qt-mt]	static_QUType_double [qt-mt]
static_QUType_enum [qt-mt]	static_QUType_idisp [qt-mt]
static_QUType_iface [qt-mt]	static_QUType_int [qt-mt]
static_QUType_ptr [qt-mt]	static_QUType_varptr [qt-mt]

18.2.2. Qt3 Arrays

18.2.2.1. Class data for QPointArray

The virtual table for the QPointArray class is described by [Table 18-6](#)

Table 18-6. Primary vtable for QPointArray

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPointArray
vfunc[0]:	NULL or QPointArray::~~QPointArray()
vfunc[1]:	NULL or QPointArray::~~QPointArray()
vfunc[2]:	NULL or QMemArray<QPoint>::detach()
vfunc[3]:	QGArray::newData()
vfunc[4]:	QGArray::deleteData(QGArray::array_data*)

The Run Time Type Information for the QPointArray class is described by [Table 18-7](#)

Table 18-7. typeinfo for QPointArray

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPointArray
basetype:	typeinfo for QMemArray<QPoint>

18.2.2.2. Class data for QBitArray

The virtual table for the QBitArray class is described by [Table 18-8](#)

Table 18-8. Primary vtable for QBitArray

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QBitArray
vfunc[0]:	NULL or QBitArray::~~QBitArray()
vfunc[1]:	NULL or QBitArray::~~QBitArray()
vfunc[2]:	QBitArray::detach()
vfunc[3]:	NULL or QBitArray::newData()
vfunc[4]:	NULL or QBitArray::deleteData(QGArray::array_data*)

The Run Time Type Information for the QBitArray class is described by [Table 18-9](#)

Table 18-9. typeid for QBitArray

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QBitArray
basetype:	typeid for QMemArray<char>

18.2.2.3. Interfaces for Qt3 Arrays

An LSB conforming implementation shall provide the generic functions for Qt3 Arrays specified in [Table 18-10](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-10. libqt-mt - Qt3 Arrays Function Interfaces

_ZN11QPointArray11makeEllipseEiiii [qt-mt]	_ZN11QPointArray12cleanBuffersEv [qt-mt]
_ZN11QPointArray7makeArcEiiiiii [qt-mt]	_ZN11QPointArray7makeArcEiiiiiiRK8QWMatrix [qt-mt]
_ZN11QPointArray8setPointEjii [qt-mt]	_ZN11QPointArray9putPointsEiiPKi [qt-mt]
_ZN11QPointArray9putPointsEiiRKS_i [qt-mt]	_ZN11QPointArray9putPointsEiiiiz [qt-mt]
_ZN11QPointArray9setPointsEiPKi [qt-mt]	_ZN11QPointArray9setPointsEiiiiz [qt-mt]
_ZN11QPointArray9translateEii [qt-mt]	_ZN11QPointArrayC1ERK5QRectb [qt-mt]
_ZN11QPointArrayC1EiPKi [qt-mt]	_ZN11QPointArrayC2ERK5QRectb [qt-mt]

_ZN11QPointArrayC2EiPKi [qt-mt]	_ZN9QBitArray4fillEbi [qt-mt]
_ZN9QBitArray4pad0Ev [qt-mt]	_ZN9QBitArray6detachEv [qt-mt]
_ZN9QBitArray6resizeEj [qt-mt]	_ZN9QBitArray6setBitEj [qt-mt]
_ZN9QBitArray8clearBitEj [qt-mt]	_ZN9QBitArray9toggleBitEj [qt-mt]
_ZN9QBitArrayC1Ej [qt-mt]	_ZN9QBitArrayC1Ev [qt-mt]
_ZN9QBitArrayC2Ej [qt-mt]	_ZN9QBitArrayC2Ev [qt-mt]
ZN9QBitArrayaNERKS [qt-mt]	_ZN9QBitArrayeOERKS_ [qt-mt]
ZN9QBitArrayoRERKS [qt-mt]	_ZNK11QPointArray11cubicBezierEv [qt-mt]
_ZNK11QPointArray11shortPointsEii [qt-mt]	_ZNK11QPointArray12boundingRectEv [qt-mt]
_ZNK11QPointArray5pointEj [qt-mt]	_ZNK11QPointArray5pointEjPiS0_ [qt-mt]
_ZNK9QBitArray4copyEv [qt-mt]	_ZNK9QBitArray7testBitEj [qt-mt]
_ZNK9QBitArraycoEv [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Arrays specified in [Table 18-11](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-11. libqt-mt - Qt3 Arrays Data Interfaces

_ZN11QPointArray2spE [qt-mt]	_ZN11QPointArray5splenE [qt-mt]
_ZTI11QPointArray [CXXABI-1.86]	_ZTI9QBitArray [CXXABI-1.86]
_ZTV11QPointArray [CXXABI-1.86]	_ZTV9QBitArray [CXXABI-1.86]

18.2.3. Qt3 Pointer Collection

18.2.3.1. Class data for QPtrCollection

The virtual table for the QPtrCollection class is described by [Table 18-12](#)

Table 18-12. Primary vtable for QPtrCollection

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPtrCollection
vfunc[0]:	<code>__cxa_pure_virtual</code>
vfunc[1]:	<code>__cxa_pure_virtual</code>
vfunc[2]:	NULL or <code>QPtrCollection::~~QPtrCollection()</code>
vfunc[3]:	NULL or <code>QPtrCollection::~~QPtrCollection()</code>

vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	__cxa_pure_virtual

The Run Time Type Information for the QPtrCollection class is described by [Table 18-13](#)

Table 18-13. typeinfo for QPtrCollection

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QPtrCollection

18.2.3.2. Class data for QObjectList

The virtual table for the QObjectList class is described by [Table 18-14](#)

Table 18-14. Primary vtable for QObjectList

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QObjectList
vfunc[0]:	NULL or QPtrList<QObject>::count() const
vfunc[1]:	NULL or QPtrList<QObject>::clear()
vfunc[2]:	NULL or QObjectList::~~QObjectList()
vfunc[3]:	NULL or QObjectList::~~QObjectList()
vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	NULL or QPtrList<QObject>::deleteItem(void*)
vfunc[6]:	QGList::compareItems(void*, void*)
vfunc[7]:	QGList::read(QDataStream&, void*&)
vfunc[8]:	QGList::write(QDataStream&, void*) const

The Run Time Type Information for the QObjectList class is described by [Table 18-15](#)

Table 18-15. typeinfo for QObjectList

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QObjectList
basetype:	typeinfo for QPtrList<QObject>

18.2.3.3. Interfaces for Qt3 Pointer Collection

An LSB conforming implementation shall provide the generic functions for Qt3 Pointer Collection specified in [Table 18-16](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-16. libqt-mt - Qt3 Pointer Collection Function Interfaces

_ZN14QPtrCollection7newItemEPv [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Pointer Collection specified in [Table 18-17](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-17. libqt-mt - Qt3 Pointer Collection Data Interfaces

_ZTI11QObjectList [CXXABI-1.86]	_ZTI14QPtrCollection [CXXABI-1.86]
_ZTV11QObjectList [CXXABI-1.86]	_ZTV14QPtrCollection [CXXABI-1.86]

18.2.4. Qt3 Template Library

18.2.4.1. Interfaces for Qt3 Template Library

An LSB conforming implementation shall provide the generic functions for Qt3 Template Library specified in [Table 18-18](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-18. libqt-mt - Qt3 Template Library Function Interfaces

ZN15QMapPrivateBase10rotateLeftEP12QMapNodeBaseRS1 [qt-mt]	_ZN15QMapPrivateBase11rotateRightEP12QMapNodeBaseRS1_ [qt-mt]
_ZN15QMapPrivateBase18removeAndRebalanceEP12QMapNodeBaseRS1_S2_S2_ [qt-mt]	_ZN15QMapPrivateBase9rebalanceEP12QMapNodeBaseRS1_S2_S2_ [qt-mt]

18.2.5. Qt3 COM

18.2.5.1. Interfaces for Qt3 COM

An LSB conforming implementation shall provide the generic functions for Qt3 COM specified in [Table 18-19](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-19. libqt-mt - Qt3 COM Function Interfaces

_ZN10QUType_int11convertFromEP8QUObjectP6QUType [qt-mt]	_ZN10QUType_int11serializeToEP8QUObjectP6QUType [qt-mt]
_ZN10QUType_int12canConvertToEP8QUObjectP6QUType [qt-mt]	_ZN10QUType_int13serializeFromEP8QUObjectP6QUType [qt-mt]

_ZN10QUType_int14canConvertFromEP8QUObjectP6QUType [qt-mt]	_ZN10QUType_int3setEP8QUObjecti [qt-mt]
_ZN10QUType_int9convertToEP8QUObjectP6QUType [qt-mt]	_ZN10QUType_ptr11convertFromEP8QUOb
_ZN10QUType_ptr11serializeToEP8QUObjectP8QUBuffer [qt-mt]	_ZN10QUType_ptr12canConvertToEP8QUO
_ZN10QUType_ptr13serializeFromEP8QUObjectP8QUBuffer [qt-mt]	_ZN10QUType_ptr14canConvertFromEP8QU [qt-mt]
_ZN10QUType_ptr3setEP8QUObjectPKv [qt-mt]	_ZN10QUType_ptr9convertToEP8QUObjecti
_ZN11QUType_Null11convertFromEP8QUObjectP6QUType [qt-mt]	_ZN11QUType_Null11serializeToEP8QUOb
_ZN11QUType_Null12canConvertToEP8QUObjectP6QUType [qt-mt]	_ZN11QUType_Null13serializeFromEP8QUO [qt-mt]
_ZN11QUType_Null14canConvertFromEP8QUObjectP6QUType [qt-mt]	_ZN11QUType_Null5clearEP8QUObject [qt-
_ZN11QUType_Null9convertToEP8QUObjectP6QUType [qt-mt]	_ZN11QUType_bool11convertFromEP8QUO
_ZN11QUType_bool11serializeToEP8QUObjectP8QUBuffer [qt-mt]	_ZN11QUType_bool12canConvertToEP8QU [qt-mt]
_ZN11QUType_bool13serializeFromEP8QUObjectP8QUBuffer [qt-mt]	_ZN11QUType_bool14canConvertFromEP8Q [qt-mt]
_ZN11QUType_bool3setEP8QUObjectb [qt-mt]	_ZN11QUType_bool9convertToEP8QUObje
_ZN11QUType_enum11convertFromEP8QUObjectP6QUType [qt-mt]	_ZN11QUType_enum11serializeToEP8QUO
_ZN11QUType_enum12canConvertToEP8QUObjectP6QUType [qt-mt]	_ZN11QUType_enum13serializeFromEP8QU [qt-mt]
_ZN11QUType_enum14canConvertFromEP8QUObjectP6QUType [qt-mt]	_ZN11QUType_enum3setEP8QUObjecti [qt-
_ZN11QUType_enum9convertToEP8QUObjectP6QUType [qt-mt]	_ZN12QUType_idisp11convertFromEP8QUO
_ZN12QUType_idisp11serializeToEP8QUObjectP8QUBuffer [qt-mt]	_ZN12QUType_idisp12canConvertToEP8QU [qt-mt]
_ZN12QUType_idisp13serializeFromEP8QUObjectP8QUBuffer [qt-mt]	_ZN12QUType_idisp14canConvertFromEP8Q [qt-mt]
_ZN12QUType_idisp3setEP8QUObjectP18QDispatchInterface [qt-mt]	_ZN12QUType_idisp9convertToEP8QUObje
_ZN12QUType_iface11convertFromEP8QUObjectP6QUType [qt-mt]	_ZN12QUType_iface11serializeToEP8QUOb
_ZN12QUType_iface12canConvertToEP8QUObjectP6QUType [qt-mt]	_ZN12QUType_iface13serializeFromEP8QU [qt-mt]
_ZN12QUType_iface14canConvertFromEP8QUObjectP6QUType [qt-mt]	_ZN12QUType_iface3setEP8QUObjectP17Q [qt-mt]

_ZN12QUType_iface9convertToEP8QUObjectP6QUType [qt-mt]	_ZN13QUType_double11convertFromEP8QUObjectP6QUType [qt-mt]
_ZN13QUType_double11serializeToEP8QUObjectP8QUBuffer [qt-mt]	_ZN13QUType_double12canConvertToEP8QUObjectP6QUType [qt-mt]
_ZN13QUType_double13serializeFromEP8QUObjectP8QUBuffer [qt-mt]	_ZN13QUType_double14canConvertFromEP8QUObjectP6QUType [qt-mt]
_ZN13QUType_double3setEP8QUObjectd [qt-mt]	_ZN13QUType_double9convertToEP8QUObjectP6QUType [qt-mt]
_ZN13QUType_varptr11convertFromEP8QUObjectP6QUType [qt-mt]	_ZN13QUType_varptr11serializeToEP8QUObjectP8QUBuffer [qt-mt]
_ZN13QUType_varptr12canConvertToEP8QUObjectP6QUType [qt-mt]	_ZN13QUType_varptr13serializeFromEP8QUObjectP8QUBuffer [qt-mt]
_ZN13QUType_varptr14canConvertFromEP8QUObjectP6QUType [qt-mt]	_ZN13QUType_varptr3setEP8QUObjectPKv [qt-mt]
_ZN13QUType_varptr9convertToEP8QUObjectP6QUType [qt-mt]	_ZN14QUType_QString11convertFromEP8QUObjectP6QUType [qt-mt]
_ZN14QUType_QString11serializeToEP8QUObjectP8QUBuffer [qt-mt]	_ZN14QUType_QString12canConvertToEP8QUObjectP6QUType [qt-mt]
_ZN14QUType_QString13serializeFromEP8QUObjectP8QUBuffer [qt-mt]	_ZN14QUType_QString14canConvertFromEP8QUObjectP6QUType [qt-mt]
_ZN14QUType_QString3setEP8QUObjectRK7QString [qt-mt]	_ZN14QUType_QString5clearEP8QUObjectP6QUType [qt-mt]
_ZN14QUType_QString9convertToEP8QUObjectP6QUType [qt-mt]	_ZN15QUType_QVariant11convertFromEP8QUObjectP6QUType [qt-mt]
_ZN15QUType_QVariant11serializeToEP8QUObjectP8QUBuffer [qt-mt]	_ZN15QUType_QVariant12canConvertToEP8QUObjectP6QUType [qt-mt]
_ZN15QUType_QVariant13serializeFromEP8QUObjectP8QUBuffer [qt-mt]	_ZN15QUType_QVariant14canConvertFromEP8QUObjectP6QUType [qt-mt]
_ZN15QUType_QVariant3getEP8QUObject [qt-mt]	_ZN15QUType_QVariant3setEP8QUObjectRK7QVariant [qt-mt]
_ZN15QUType_QVariant5clearEP8QUObject [qt-mt]	_ZN15QUType_QVariant9convertToEP8QUObjectP6QUType [qt-mt]
_ZN15QUType_charstar11convertFromEP8QUObjectP6QUType [qt-mt]	_ZN15QUType_charstar11serializeToEP8QUObjectP8QUBuffer [qt-mt]
_ZN15QUType_charstar12canConvertToEP8QUObjectP6QUType [qt-mt]	_ZN15QUType_charstar13serializeFromEP8QUObjectP8QUBuffer [qt-mt]
_ZN15QUType_charstar14canConvertFromEP8QUObjectP6QUType [qt-mt]	_ZN15QUType_charstar3setEP8QUObjectPKv [qt-mt]
_ZN15QUType_charstar5clearEP8QUObject [qt-mt]	_ZN15QUType_charstar9convertToEP8QUObjectP6QUType [qt-mt]
_ZN5QUuid10createUuidEv [qt-mt]	_ZN5QUuidC1EPKc [qt-mt]
_ZN5QUuidC1ERK7QString [qt-mt]	_ZN5QUuidC2EPKc [qt-mt]
_ZN5QUuidC2ERK7QString [qt-mt]	_ZNK10QUType_int4descEv [qt-mt]

_ZNK10QUType_int4uuidEv [qt-mt]	_ZNK10QUType_ptr4descEv [qt-mt]
_ZNK10QUType_ptr4uuidEv [qt-mt]	_ZNK11QUType_Null4descEv [qt-mt]
_ZNK11QUType_Null4uuidEv [qt-mt]	_ZNK11QUType_bool4descEv [qt-mt]
_ZNK11QUType_bool4uuidEv [qt-mt]	_ZNK11QUType_enum4descEv [qt-mt]
_ZNK11QUType_enum4uuidEv [qt-mt]	_ZNK12QUType_idisp4descEv [qt-mt]
_ZNK12QUType_idisp4uuidEv [qt-mt]	_ZNK12QUType_iface4descEv [qt-mt]
_ZNK12QUType_iface4uuidEv [qt-mt]	_ZNK13QUType_double4descEv [qt-mt]
_ZNK13QUType_double4uuidEv [qt-mt]	_ZNK13QUType_varptr4descEv [qt-mt]
_ZNK13QUType_varptr4uuidEv [qt-mt]	_ZNK14QUType_QString4descEv [qt-mt]
_ZNK14QUType_QString4uuidEv [qt-mt]	_ZNK15QUType_QVariant4descEv [qt-mt]
_ZNK15QUType_QVariant4uuidEv [qt-mt]	_ZNK15QUType_charstar4descEv [qt-mt]
_ZNK15QUType_charstar4uuidEv [qt-mt]	_ZNK5QUuid6isNullEv [qt-mt]
_ZNK5QUuid7variantEv [qt-mt]	_ZNK5QUuid7versionEv [qt-mt]
_ZNK5QUuid8toStringEv [qt-mt]	_ZNK5QUuidgtERKS_ [qt-mt]
ZNK5QUuidltERKS [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt3 COM specified in [Table 18-20](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-20. libqt-mt - Qt3 COM Data Interfaces

_ZTI10QUType_int [CXXABI-1.86]	_ZTI10QUType_ptr [CXXABI-1.86]
_ZTI11QUType_Null [CXXABI-1.86]	_ZTI11QUType_bool [CXXABI-1.86]
_ZTI11QUType_enum [CXXABI-1.86]	_ZTI12QUType_idisp [CXXABI-1.86]
_ZTI12QUType_iface [CXXABI-1.86]	_ZTI13QUType_double [CXXABI-1.86]
_ZTI13QUType_varptr [CXXABI-1.86]	_ZTI14QUType_QString [CXXABI-1.86]
_ZTI15QUType_QVariant [CXXABI-1.86]	_ZTI15QUType_charstar [CXXABI-1.86]
_ZTI6QUType [CXXABI-1.86]	_ZTV10QUType_int [CXXABI-1.86]
_ZTV10QUType_ptr [CXXABI-1.86]	_ZTV11QUType_Null [CXXABI-1.86]
_ZTV11QUType_bool [CXXABI-1.86]	_ZTV11QUType_enum [CXXABI-1.86]
_ZTV12QUType_idisp [CXXABI-1.86]	_ZTV12QUType_iface [CXXABI-1.86]
_ZTV13QUType_double [CXXABI-1.86]	_ZTV13QUType_varptr [CXXABI-1.86]
_ZTV14QUType_QString [CXXABI-1.86]	_ZTV15QUType_QVariant [CXXABI-1.86]
_ZTV15QUType_charstar [CXXABI-1.86]	_ZTV6QUType [CXXABI-1.86]

18.2.6. Qt3 Date and Time

18.2.6.1. Class data for QTimer

The virtual table for the QTimer class is described by [Table 18-21](#)

Table 18-21. Primary vtable for QTimer

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTimer
vfunc[0]:	NULL or QTimer::metaObject() const
vfunc[1]:	QTimer::className() const
vfunc[2]:	QTimer::qt_cast(char const*)
vfunc[3]:	QTimer::qt_invoke(int, QUObject*)
vfunc[4]:	QTimer::qt_emit(int, QUObject*)
vfunc[5]:	QTimer::qt_property(int, int, QVariant*)
vfunc[6]:	QTimer::~~QTimer()
vfunc[7]:	QTimer::~QTimer()
vfunc[8]:	QTimer::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QTimer class is described by [Table 18-22](#)

Table 18-22. typeinfo for QTimer

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTimer
basetype:	typeinfo for QObject

18.2.6.2. Class data for QDateTimeEdit

The virtual table for the QDateTimeEdit class is described by [Table 18-23](#)

Table 18-23. Primary vtable for QDateTimeEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDateTimeEdit
vfunc[0]:	NULL or QDateTimeEdit::metaObject() const
vfunc[1]:	QDateTimeEdit::className() const
vfunc[2]:	QDateTimeEdit::qt_cast(char const*)
vfunc[3]:	QDateTimeEdit::qt_invoke(int, QUObject*)
vfunc[4]:	QDateTimeEdit::qt_emit(int, QUObject*)
vfunc[5]:	QDateTimeEdit::qt_property(int, int, QVariant*)
vfunc[6]:	QDateTimeEdit::~~QDateTimeEdit()
vfunc[7]:	QDateTimeEdit::~~QDateTimeEdit()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)

vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDateTimeEdit::sizeHint() const
vfunc[59]:	QDateTimeEdit::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDateTimeEdit::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)

vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDateTimeEdit::setDateTime(QDateTime const&)
vfunc[111]:	QDateTimeEdit::setAutoAdvance(bool)

The Run Time Type Information for the QDateTimeEdit class is described by [Table 18-24](#)

Table 18-24. typeinfo for QDateTimeEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDateTimeEdit
basetype:	typeinfo for QWidget

18.2.6.3. Class data for QDateTimeEditBase

The virtual table for the QDateTimeEditBase class is described by [Table 18-25](#)

Table 18-25. Primary vtable for QDateTimeEditBase

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDateTimeEditBase
vfunc[0]:	NULL or QDateTimeEditBase::metaObject() const
vfunc[1]:	QDateTimeEditBase::className() const
vfunc[2]:	QDateTimeEditBase::qt_cast(char const*)
vfunc[3]:	QDateTimeEditBase::qt_invoke(int, QUObject*)
vfunc[4]:	QDateTimeEditBase::qt_emit(int, QUObject*)
vfunc[5]:	QDateTimeEditBase::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QDateTimeEditBase::~~QDateTimeEditBase()
vfunc[7]:	NULL or QDateTimeEditBase::~~QDateTimeEditBase()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	__cxa_pure_virtual
vfunc[111]:	__cxa_pure_virtual
vfunc[112]:	__cxa_pure_virtual
vfunc[113]:	__cxa_pure_virtual
vfunc[114]:	__cxa_pure_virtual
vfunc[115]:	__cxa_pure_virtual

The Run Time Type Information for the QDateTimeEditBase class is described by [Table 18-26](#)

Table 18-26. typeinfo for QDateTimeEditBase

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDateTimeEditBase
basetype:	typeinfo for QWidget

18.2.6.4. Class data for QDateEdit

The virtual table for the QDateEdit class is described by [Table 18-27](#)

Table 18-27. Primary vtable for QDateEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDateEdit
vfunc[0]:	NULL or QDateEdit::metaObject() const
vfunc[1]:	QDateEdit::className() const
vfunc[2]:	QDateEdit::qt_cast(char const*)
vfunc[3]:	QDateEdit::qt_invoke(int, QUObject*)
vfunc[4]:	QDateEdit::qt_emit(int, QUObject*)
vfunc[5]:	QDateEdit::qt_property(int, int, QVariant*)
vfunc[6]:	QDateEdit::~~QDateEdit()
vfunc[7]:	QDateEdit::~~QDateEdit()
vfunc[8]:	QDateEdit::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QDateEdit::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QDateEdit::sizeHint() const
vfunc[59]:	QDateEdit::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDateEdit::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDateEdit::setFocusSection(int)
vfunc[111]:	QDateEdit::sectionFormattedText(int)
vfunc[112]:	QDateEdit::addNumber(int, int)
vfunc[113]:	QDateEdit::removeLastNumber(int)
vfunc[114]:	QDateEdit::stepUp()
vfunc[115]:	QDateEdit::stepDown()
vfunc[116]:	QDateEdit::setDate(QDate const&)
vfunc[117]:	QDateEdit::setOrder(QDateEdit::Order)
vfunc[118]:	QDateEdit::setAutoAdvance(bool)
vfunc[119]:	NULL or QDateEdit::setMinValue(QDate const&)
vfunc[120]:	NULL or QDateEdit::setMaxValue(QDate const&)
vfunc[121]:	QDateEdit::setRange(QDate const&, QDate const&)
vfunc[122]:	QDateEdit::setSeparator(QString const&)
vfunc[123]:	QDateEdit::setYear(int)

vfunc[124]:	QDateEdit::setMonth(int)
vfunc[125]:	QDateEdit::setDay(int)
vfunc[126]:	QDateEdit::fix()
vfunc[127]:	QDateEdit::outOfRange(int, int, int) const

The Run Time Type Information for the QDateEdit class is described by [Table 18-28](#)

Table 18-28. typeinfo for QDateEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDateEdit
basetype:	typeinfo for QDateTimeEditBase

18.2.6.5. Class data for QTimeEdit

The virtual table for the QTimeEdit class is described by [Table 18-29](#)

Table 18-29. Primary vtable for QTimeEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTimeEdit
vfunc[0]:	NULL or QTimeEdit::metaObject() const
vfunc[1]:	QTimeEdit::className() const
vfunc[2]:	QTimeEdit::qt_cast(char const*)
vfunc[3]:	QTimeEdit::qt_invoke(int, QUObject*)
vfunc[4]:	QTimeEdit::qt_emit(int, QUObject*)
vfunc[5]:	QTimeEdit::qt_property(int, int, QVariant*)
vfunc[6]:	QTimeEdit::~~QTimeEdit()
vfunc[7]:	QTimeEdit::~~QTimeEdit()
vfunc[8]:	QTimeEdit::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)

vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QTimeEdit::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)

vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QTimeEdit::sizeHint() const
vfunc[59]:	QTimeEdit::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)

vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QTimeEdit::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QTimeEdit::setFocusSection(int)
vfunc[111]:	QTimeEdit::sectionFormattedText(int)
vfunc[112]:	QTimeEdit::addNumber(int, int)

vfunc[113]:	QTimeEdit::removeLastNumber(int)
vfunc[114]:	QTimeEdit::stepUp()
vfunc[115]:	QTimeEdit::stepDown()
vfunc[116]:	QTimeEdit::setTime(QTime const&)
vfunc[117]:	QTimeEdit::setAutoAdvance(bool)
vfunc[118]:	NULL or QTimeEdit::setMinValue(QTime const&)
vfunc[119]:	NULL or QTimeEdit::setMaxValue(QTime const&)
vfunc[120]:	QTimeEdit::setRange(QTime const&, QTime const&)
vfunc[121]:	QTimeEdit::setSeparator(QString const&)
vfunc[122]:	QTimeEdit::outOfRange(int, int, int) const
vfunc[123]:	QTimeEdit::setHour(int)
vfunc[124]:	QTimeEdit::setMinute(int)
vfunc[125]:	QTimeEdit::setSecond(int)

The Run Time Type Information for the QTimeEdit class is described by [Table 18-30](#)

Table 18-30. typeinfo for QTimeEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTimeEdit
basetype:	typeinfo for QDateTimeEditBase

18.2.6.6. Interfaces for Qt3 Date and Time

An LSB conforming implementation shall provide the generic functions for Qt3 Date and Time specified in [Table 18-31](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-31. libqt-mt - Qt3 Date and Time Function Interfaces

_ZN13QDateTimeEdit11qt_propertyEiiP8QVariant [qt-mt]	_ZN13QDateTimeEdit11resizeEventEP12
_ZN13QDateTimeEdit11setDateTimeERK9QDateTime [qt-mt]	_ZN13QDateTimeEdit12valueChangedE
_ZN13QDateTimeEdit14setAutoAdvanceEb [qt-mt]	_ZN13QDateTimeEdit16staticMetaObject
_ZN13QDateTimeEdit18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN13QDateTimeEdit2trEPKcS1_ [qt-mt]
_ZN13QDateTimeEdit4initEv [qt-mt]	_ZN13QDateTimeEdit6trUtf8EPKcS1_ [qt-mt]
_ZN13QDateTimeEdit7qt_castEPKc [qt-mt]	_ZN13QDateTimeEdit7qt_emitEiP8QUO
_ZN13QDateTimeEdit8newValueERK5QDate [qt-mt]	_ZN13QDateTimeEdit8newValueERK5Q

_ZN13QDateTimeEdit9qt_invokeEiP8QUObject [qt-mt]	_ZN13QDateTimeEditC1EP7QWidgetPKc [qt-mt]
_ZN13QDateTimeEditC1ERK9QDateTimeP7QWidgetPKc [qt-mt]	_ZN13QDateTimeEditC2EP7QWidgetPKc [qt-mt]
_ZN13QDateTimeEditC2ERK9QDateTimeP7QWidgetPKc [qt-mt]	_ZN13QDateTimeEditD0Ev [qt-mt]
_ZN13QDateTimeEditD1Ev [qt-mt]	_ZN13QDateTimeEditD2Ev [qt-mt]
_ZN17QDateTimeEditBase11qt_propertyEiiP8QVariant [qt-mt]	_ZN17QDateTimeEditBase16staticMetaObjectEv [qt-mt]
_ZN17QDateTimeEditBase18qt_static_propertyEP7QObjectiP8QVariant [qt-mt]	_ZN17QDateTimeEditBase2trEPKcS1_ [qt-mt]
ZN17QDateTimeEditBase6trUtf8EPKcS1 [qt-mt]	_ZN17QDateTimeEditBase7qt_castEPKc [qt-mt]
_ZN17QDateTimeEditBase7qt_emitEiP8QUObject [qt-mt]	_ZN17QDateTimeEditBase9qt_invokeEiP8QUObject [qt-mt]
_ZN5QDate10fromStringERK7QStringN2Qt10DateFormatE [qt-mt]	_ZN5QDate11currentDateEN2Qt8TimeSpec [qt-mt]
_ZN5QDate11currentDateEv [qt-mt]	_ZN5QDate11longDayNameEi [qt-mt]
_ZN5QDate12shortDayNameEi [qt-mt]	_ZN5QDate13longMonthNameEi [qt-mt]
_ZN5QDate14shortMonthNameEi [qt-mt]	_ZN5QDate17gregorianToJulianEiii [qt-mt]
_ZN5QDate17julianToGregorianEjRiS0_S0_ [qt-mt]	_ZN5QDate6setYMDEiii [qt-mt]
_ZN5QDate7isValidEiii [qt-mt]	_ZN5QDate8leapYearEi [qt-mt]
_ZN5QDateC1Eiii [qt-mt]	_ZN5QDateC2Eiii [qt-mt]
_ZN5QTime10fromStringERK7QStringN2Qt10DateFormatE [qt-mt]	_ZN5QTime11currentTimeEN2Qt8TimeSpec [qt-mt]
ZN5QTime11currentTimeEPS [qt-mt]	_ZN5QTime11currentTimeEPS_N2Qt8TimeSpec [qt-mt]
_ZN5QTime11currentTimeEv [qt-mt]	_ZN5QTime5startEv [qt-mt]
_ZN5QTime6setHMSSEiii [qt-mt]	_ZN5QTime7isValidEiiii [qt-mt]
_ZN5QTime7restartEv [qt-mt]	_ZN5QTimeC1Eiiii [qt-mt]
_ZN5QTimeC2Eiiii [qt-mt]	_ZN6QTimer10singleShotEiP7QObjectPKc [qt-mt]
_ZN6QTimer11qt_propertyEiiP8QVariant [qt-mt]	_ZN6QTimer14changeIntervalEi [qt-mt]
_ZN6QTimer16staticMetaObjectEv [qt-mt]	_ZN6QTimer18qt_static_propertyEP7QObjectiP8QVariant [qt-mt]
ZN6QTimer2trEPKcS1 [qt-mt]	_ZN6QTimer4stopEv [qt-mt]
_ZN6QTimer5eventEP6QEvent [qt-mt]	_ZN6QTimer5startEib [qt-mt]
ZN6QTimer6trUtf8EPKcS1 [qt-mt]	_ZN6QTimer7qt_castEPKc [qt-mt]
_ZN6QTimer7qt_emitEiP8QUObject [qt-mt]	_ZN6QTimer7timeoutEv [qt-mt]
_ZN6QTimer9qt_invokeEiP8QUObject [qt-mt]	_ZN6QTimerC1EP7QObjectPKc [qt-mt]
_ZN6QTimerC2EP7QObjectPKc [qt-mt]	_ZN6QTimerD0Ev [qt-mt]
_ZN6QTimerD1Ev [qt-mt]	_ZN6QTimerD2Ev [qt-mt]
_ZN9QDateEdit10timerEventEP11QTimerEvent [qt-mt]	_ZN9QDateEdit11qt_propertyEiiP8QVariant [qt-mt]

_ZN9QDateEdit11resizeEventEP12QResizeEvent [qt-mt]	_ZN9QDateEdit12setSeparatorERK7QStr [qt-mt]
_ZN9QDateEdit12valueChangedERK5QDate [qt-mt]	_ZN9QDateEdit13updateButtonsEv [qt-mt]
_ZN9QDateEdit14setAutoAdvanceEb [qt-mt]	_ZN9QDateEdit15setFocusSectionEi [qt-mt]
_ZN9QDateEdit16removeLastNumberEi [qt-mt]	_ZN9QDateEdit16staticMetaObjectEv [qt-mt]
_ZN9QDateEdit17removeFirstNumberEi [qt-mt]	_ZN9QDateEdit18qt_static_propertyEP7QDate [qt-mt]
_ZN9QDateEdit20sectionFormattedTextEi [qt-mt]	_ZN9QDateEdit2trEPKcS1_ [qt-mt]
_ZN9QDateEdit3fixEv [qt-mt]	_ZN9QDateEdit4initEv [qt-mt]
_ZN9QDateEdit5eventEP6QEvent [qt-mt]	_ZN9QDateEdit6setDayEi [qt-mt]
_ZN9QDateEdit6stepUpEv [qt-mt]	_ZN9QDateEdit6trUtf8EPKcS1_ [qt-mt]
_ZN9QDateEdit7qt_castEPKc [qt-mt]	_ZN9QDateEdit7qt_emitEiP8QUObject [qt-mt]
_ZN9QDateEdit7setDateERK5QDate [qt-mt]	_ZN9QDateEdit7setYearEi [qt-mt]
_ZN9QDateEdit8setMonthEi [qt-mt]	_ZN9QDateEdit8setOrderENS_5OrderE [qt-mt]
ZN9QDateEdit8setRangeERK5QDateS2 [qt-mt]	_ZN9QDateEdit8stepDownEv [qt-mt]
_ZN9QDateEdit9addNumberEii [qt-mt]	_ZN9QDateEdit9qt_invokeEiP8QUObject [qt-mt]
_ZN9QDateEditC1EP7QWidgetPKc [qt-mt]	_ZN9QDateEditC1ERK5QDateP7QWidget [qt-mt]
_ZN9QDateEditC2EP7QWidgetPKc [qt-mt]	_ZN9QDateEditC2ERK5QDateP7QWidget [qt-mt]
_ZN9QDateEditD0Ev [qt-mt]	_ZN9QDateEditD1Ev [qt-mt]
_ZN9QDateEditD2Ev [qt-mt]	_ZN9QDateTime10fromStringERK7QStr [qt-mt]
_ZN9QDateTime15currentDateTimeEN2Qt8TimeSpecE [qt-mt]	_ZN9QDateTime15currentDateTimeEv [qt-mt]
_ZN9QDateTime9setTime_tEj [qt-mt]	_ZN9QDateTime9setTime_tEjN2Qt8TimeSpecE [qt-mt]
_ZN9QDateTimeC1ERK5QDate [qt-mt]	_ZN9QDateTimeC1ERK5QDateRK5QTime [qt-mt]
_ZN9QDateTimeC2ERK5QDate [qt-mt]	_ZN9QDateTimeC2ERK5QDateRK5QTime [qt-mt]
_ZN9QTimeEdit10setDisplayEj [qt-mt]	_ZN9QTimeEdit10timerEventEP11QTimer [qt-mt]
_ZN9QTimeEdit11qt_propertyEiiP8QVariant [qt-mt]	_ZN9QTimeEdit11resizeEventEP12QResizeEvent [qt-mt]
_ZN9QTimeEdit11sectionTextEi [qt-mt]	_ZN9QTimeEdit12setSeparatorERK7QStr [qt-mt]
_ZN9QTimeEdit12valueChangedERK5QTime [qt-mt]	_ZN9QTimeEdit13updateButtonsEv [qt-mt]
_ZN9QTimeEdit14setAutoAdvanceEb [qt-mt]	_ZN9QTimeEdit15setFocusSectionEi [qt-mt]
_ZN9QTimeEdit16removeLastNumberEi [qt-mt]	_ZN9QTimeEdit16staticMetaObjectEv [qt-mt]
_ZN9QTimeEdit17removeFirstNumberEi [qt-mt]	_ZN9QTimeEdit18qt_static_propertyEP7QTime [qt-mt]
_ZN9QTimeEdit20sectionFormattedTextEi [qt-mt]	_ZN9QTimeEdit2trEPKcS1_ [qt-mt]
_ZN9QTimeEdit4initEv [qt-mt]	_ZN9QTimeEdit5eventEP6QEvent [qt-mt]

_ZN9QTimeEdit6stepUpEv [qt-mt]	_ZN9QTimeEdit6trUtf8EPKcS1_ [qt-mt]
_ZN9QTimeEdit7qt_castEPKc [qt-mt]	_ZN9QTimeEdit7qt_emitEiP8QUObject [qt-mt]
_ZN9QTimeEdit7setHourEi [qt-mt]	_ZN9QTimeEdit7setTimeERK5QTime [qt-mt]
ZN9QTimeEdit8setRangeERK5QTimeS2 [qt-mt]	_ZN9QTimeEdit8stepDownEv [qt-mt]
_ZN9QTimeEdit9addNumberEii [qt-mt]	_ZN9QTimeEdit9qt_invokeEiP8QUObject [qt-mt]
_ZN9QTimeEdit9setMinuteEi [qt-mt]	_ZN9QTimeEdit9setSecondEi [qt-mt]
_ZN9QTimeEditC1EP7QWidgetPKc [qt-mt]	_ZN9QTimeEditC1ERK5QTimeP7QWidget [qt-mt]
_ZN9QTimeEditC2EP7QWidgetPKc [qt-mt]	_ZN9QTimeEditC2ERK5QTimeP7QWidget [qt-mt]
_ZN9QTimeEditD0Ev [qt-mt]	_ZN9QTimeEditD1Ev [qt-mt]
_ZN9QTimeEditD2Ev [qt-mt]	_ZNK13QDateTimeEdit11autoAdvanceEv [qt-mt]
_ZNK13QDateTimeEdit15minimumSizeHintEv [qt-mt]	_ZNK13QDateTimeEdit8dateTimeEv [qt-mt]
_ZNK13QDateTimeEdit8sizeHintEv [qt-mt]	_ZNK13QDateTimeEdit9classNameEv [qt-mt]
_ZNK17QDateTimeEditBase9classNameEv [qt-mt]	_ZNK5QDate10daysInYearEv [qt-mt]
_ZNK5QDate10weekNumberEPi [qt-mt]	_ZNK5QDate11daysInMonthEv [qt-mt]
_ZNK5QDate3dayEv [qt-mt]	_ZNK5QDate4yearEv [qt-mt]
_ZNK5QDate5monthEv [qt-mt]	_ZNK5QDate6daysToERKS_ [qt-mt]
_ZNK5QDate7addDaysEi [qt-mt]	_ZNK5QDate7isValidEv [qt-mt]
_ZNK5QDate8addYearsEi [qt-mt]	_ZNK5QDate8toStringEN2Qt10DateFormat [qt-mt]
_ZNK5QDate8toStringERK7QString [qt-mt]	_ZNK5QDate9addMonthsEi [qt-mt]
_ZNK5QDate9dayOfWeekEv [qt-mt]	_ZNK5QDate9dayOfYearEv [qt-mt]
_ZNK5QTime4hourEv [qt-mt]	_ZNK5QTime4msecEv [qt-mt]
_ZNK5QTime6minuteEv [qt-mt]	_ZNK5QTime6secondEv [qt-mt]
ZNK5QTime6secsToERKS [qt-mt]	_ZNK5QTime7addSecsEi [qt-mt]
_ZNK5QTime7elapsedEv [qt-mt]	_ZNK5QTime7isValidEv [qt-mt]
ZNK5QTime7msecsToERKS [qt-mt]	_ZNK5QTime8addMsecsEi [qt-mt]
_ZNK5QTime8toStringEN2Qt10DateFormatE [qt-mt]	_ZNK5QTime8toStringERK7QString [qt-mt]
_ZNK6QTimer9classNameEv [qt-mt]	_ZNK9QDateEdit10outOfRangeEiii [qt-mt]
_ZNK9QDateEdit11autoAdvanceEv [qt-mt]	_ZNK9QDateEdit11sectionTextEi [qt-mt]
_ZNK9QDateEdit13sectionLengthEi [qt-mt]	_ZNK9QDateEdit15minimumSizeHintEv [qt-mt]
_ZNK9QDateEdit16sectionOffsetEndEi [qt-mt]	_ZNK9QDateEdit4dateEv [qt-mt]
_ZNK9QDateEdit5orderEv [qt-mt]	_ZNK9QDateEdit8maxValueEv [qt-mt]
_ZNK9QDateEdit8minValueEv [qt-mt]	_ZNK9QDateEdit8sizeHintEv [qt-mt]
_ZNK9QDateEdit9classNameEv [qt-mt]	_ZNK9QDateEdit9separatorEv [qt-mt]

ZNK9QDateTime6daysToERKS [qt-mt]	_ZNK9QDateTime6secsToERKS_ [qt-mt]
_ZNK9QDateTime7addDaysEi [qt-mt]	_ZNK9QDateTime7addSecsEi [qt-mt]
_ZNK9QDateTime8addYearsEi [qt-mt]	_ZNK9QDateTime8toStringEN2Qt10Date [qt-mt]
_ZNK9QDateTime8toStringERK7QString [qt-mt]	_ZNK9QDateTime8toTime_tEv [qt-mt]
_ZNK9QDateTime9addMonthsEi [qt-mt]	_ZNK9QDateTimeeqERKS_ [qt-mt]
ZNK9QDateTimegeERKS [qt-mt]	_ZNK9QDateTimeegtERKS_ [qt-mt]
ZNK9QDateTimeleERKS [qt-mt]	_ZNK9QDateTimeeltERKS_ [qt-mt]
ZNK9QDateTimeeneERKS [qt-mt]	_ZNK9QTimeEdit10outOfRangeEiii [qt-mt]
_ZNK9QTimeEdit11autoAdvanceEv [qt-mt]	_ZNK9QTimeEdit15minimumSizeHintEv [qt-mt]
_ZNK9QTimeEdit4timeEv [qt-mt]	_ZNK9QTimeEdit7displayEv [qt-mt]
_ZNK9QTimeEdit8maxValueEv [qt-mt]	_ZNK9QTimeEdit8minValueEv [qt-mt]
_ZNK9QTimeEdit8sizeHintEv [qt-mt]	_ZNK9QTimeEdit9classNameEv [qt-mt]
_ZNK9QTimeEdit9separatorEv [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Date and Time specified in [Table 18-32](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-32. libqt-mt - Qt3 Date and Time Data Interfaces

_ZN13QDateTimeEdit7metaObjE [qt-mt]	_ZN17QDateTimeEditBase7metaObjE [qt-mt]
_ZN6QTimer7metaObjE [qt-mt]	_ZN9QDateEdit7metaObjE [qt-mt]
_ZN9QTimeEdit7metaObjE [qt-mt]	_ZTI13QDateTimeEdit [CXXABI-1.86]
_ZTI17QDateTimeEditBase [CXXABI-1.86]	_ZTI6QTimer [CXXABI-1.86]
_ZTI9QDateEdit [CXXABI-1.86]	_ZTI9QTimeEdit [CXXABI-1.86]
_ZTV13QDateTimeEdit [CXXABI-1.86]	_ZTV17QDateTimeEditBase [CXXABI-1.86]
_ZTV6QTimer [CXXABI-1.86]	_ZTV9QDateEdit [CXXABI-1.86]
_ZTV9QTimeEdit [CXXABI-1.86]	

18.2.7. Qt3 Canvas

18.2.7.1. Class data for QCanvasItem

The virtual table for the QCanvasItem class is described by [Table 18-33](#)

Table 18-33. Primary vtable for QCanvasItem

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QCanvasItem
vfunc[0]:	QCanvasItem::~~QCanvasItem()
vfunc[1]:	QCanvasItem::~~QCanvasItem()
vfunc[2]:	QCanvasItem::moveBy(double, double)
vfunc[3]:	QCanvasItem::setAnimated(bool)
vfunc[4]:	QCanvasItem::setVelocity(double, double)
vfunc[5]:	QCanvasItem::advance(int)
vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	QCanvasItem::setCanvas(QCanvas*)
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	QCanvasItem::setVisible(bool)
vfunc[10]:	QCanvasItem::setSelected(bool)
vfunc[11]:	QCanvasItem::setEnabled(bool)
vfunc[12]:	QCanvasItem::setActive(bool)
vfunc[13]:	QCanvasItem::rtti() const
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	QCanvasItem::boundingRectAdvanced() const
vfunc[16]:	QCanvasItem::chunks() const
vfunc[17]:	QCanvasItem::addToChunks()
vfunc[18]:	QCanvasItem::removeFromChunks()
vfunc[19]:	QCanvasItem::changeChunks()
vfunc[20]:	__cxa_pure_virtual

The Run Time Type Information for the QCanvasItem class is described by [Table 18-34](#)

Table 18-34. typeinfo for QCanvasItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasItem
basetype:	typeinfo for Qt

18.2.7.2. Class data for QCanvasSprite

The virtual table for the QCanvasSprite class is described by [Table 18-35](#)

Table 18-35. Primary vtable for QCanvasSprite

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasSprite
vfunc[0]:	QCanvasSprite::~~QCanvasSprite()
vfunc[1]:	QCanvasSprite::~~QCanvasSprite()
vfunc[2]:	QCanvasItem::moveBy(double, double)
vfunc[3]:	QCanvasItem::setAnimated(bool)
vfunc[4]:	QCanvasItem::setVelocity(double, double)
vfunc[5]:	QCanvasSprite::advance(int)
vfunc[6]:	QCanvasSprite::collidesWith(QCanvasItem const*) const
vfunc[7]:	QCanvasItem::setCanvas(QCanvas*)
vfunc[8]:	QCanvasSprite::draw(QPainter&)
vfunc[9]:	QCanvasItem::setVisible(bool)
vfunc[10]:	QCanvasItem::setSelected(bool)
vfunc[11]:	QCanvasItem::setEnabled(bool)
vfunc[12]:	QCanvasItem::setActive(bool)
vfunc[13]:	QCanvasSprite::rtti() const
vfunc[14]:	QCanvasSprite::boundingRect() const
vfunc[15]:	QCanvasItem::boundingRectAdvanced() const
vfunc[16]:	QCanvasItem::chunks() const
vfunc[17]:	QCanvasSprite::addToChunks()
vfunc[18]:	QCanvasSprite::removeFromChunks()
vfunc[19]:	QCanvasSprite::changeChunks()
vfunc[20]:	QCanvasSprite::collidesWith(QCanvasSprite const*, QCanvasPolygonalItem const*, QCanvasRectangle const*, QCanvasEllipse const*, QCanvasText const*) const
vfunc[21]:	QCanvasSprite::move(double, double, int)
vfunc[22]:	QCanvasSprite::setFrameAnimation(QCanvasSprite::FrameAnimationType, int, int)
vfunc[23]:	QCanvasSprite::imageAdvanced() const

The Run Time Type Information for the QCanvasSprite class is described by [Table 18-36](#)

Table 18-36. typeinfo for QCanvasSprite

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasSprite
basetype:	typeinfo for QCanvasItem

18.2.7.3. Class data for QCanvasPolygonalItem

The virtual table for the QCanvasPolygonalItem class is described by [Table 18-37](#)

Table 18-37. Primary vtable for QCanvasPolygonalItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasPolygonalItem
vfunc[0]:	QCanvasPolygonalItem::~~QCanvasPolygonalItem()
vfunc[1]:	QCanvasPolygonalItem::~~QCanvasPolygonalItem()
vfunc[2]:	QCanvasItem::moveBy(double, double)
vfunc[3]:	QCanvasItem::setAnimated(bool)
vfunc[4]:	QCanvasItem::setVelocity(double, double)
vfunc[5]:	QCanvasItem::advance(int)
vfunc[6]:	QCanvasPolygonalItem::collidesWith(QCanvasItem const*) const
vfunc[7]:	QCanvasItem::setCanvas(QCanvas*)
vfunc[8]:	QCanvasPolygonalItem::draw(QPainter&)
vfunc[9]:	QCanvasItem::setVisible(bool)
vfunc[10]:	QCanvasItem::setSelected(bool)
vfunc[11]:	QCanvasItem::setEnabled(bool)
vfunc[12]:	QCanvasItem::setActive(bool)
vfunc[13]:	QCanvasPolygonalItem::rtti() const
vfunc[14]:	QCanvasPolygonalItem::boundingRect() const
vfunc[15]:	QCanvasItem::boundingRectAdvanced() const
vfunc[16]:	QCanvasPolygonalItem::chunks() const
vfunc[17]:	QCanvasItem::addToChunks()

vfunc[18]:	QCanvasItem::removeFromChunks()
vfunc[19]:	QCanvasItem::changeChunks()
vfunc[20]:	QCanvasPolygonalItem::collidesWith(QCanvasSprite const*, QCanvasPolygonalItem const*, QCanvasRectangle const*, QCanvasEllipse const*, QCanvasText const*) const
vfunc[21]:	QCanvasPolygonalItem::setPen(QPen)
vfunc[22]:	QCanvasPolygonalItem::setBrush(QBrush)
vfunc[23]:	__cxa_pure_virtual
vfunc[24]:	QCanvasPolygonalItem::areaPointsAdvanced() const
vfunc[25]:	__cxa_pure_virtual

The Run Time Type Information for the QCanvasPolygonalItem class is described by [Table 18-38](#)

Table 18-38. typeinfo for QCanvasPolygonalItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasPolygonalItem
basetype:	typeinfo for QCanvasItem

18.2.7.4. Class data for QCanvasRectangle

The virtual table for the QCanvasRectangle class is described by [Table 18-39](#)

Table 18-39. Primary vtable for QCanvasRectangle

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasRectangle
vfunc[0]:	QCanvasRectangle::~~QCanvasRectangle()
vfunc[1]:	QCanvasRectangle::~~QCanvasRectangle()
vfunc[2]:	QCanvasItem::moveBy(double, double)
vfunc[3]:	QCanvasItem::setAnimated(bool)
vfunc[4]:	QCanvasItem::setVelocity(double, double)
vfunc[5]:	QCanvasItem::advance(int)
vfunc[6]:	QCanvasRectangle::collidesWith(QCanvasItem const*) const
vfunc[7]:	QCanvasItem::setCanvas(QCanvas*)
vfunc[8]:	QCanvasPolygonalItem::draw(QPainter&)

vfunc[9]:	QCanvasItem::setVisible(bool)
vfunc[10]:	QCanvasItem::setSelected(bool)
vfunc[11]:	QCanvasItem::setEnabled(bool)
vfunc[12]:	QCanvasItem::setActive(bool)
vfunc[13]:	QCanvasRectangle::rtti() const
vfunc[14]:	QCanvasPolygonalItem::boundingRect() const
vfunc[15]:	QCanvasItem::boundingRectAdvanced() const
vfunc[16]:	QCanvasRectangle::chunks() const
vfunc[17]:	QCanvasItem::addToChunks()
vfunc[18]:	QCanvasItem::removeFromChunks()
vfunc[19]:	QCanvasItem::changeChunks()
vfunc[20]:	QCanvasRectangle::collidesWith(QCanvasSprite const*, QCanvasPolygonalItem const*, QCanvasRectangle const*, QCanvasEllipse const*, QCanvasText const*) const
vfunc[21]:	QCanvasPolygonalItem::setPen(QPen)
vfunc[22]:	QCanvasPolygonalItem::setBrush(QBrush)
vfunc[23]:	QCanvasRectangle::areaPoints() const
vfunc[24]:	QCanvasPolygonalItem::areaPointsAdvanced() const
vfunc[25]:	QCanvasRectangle::drawShape(QPainter&)

The Run Time Type Information for the QCanvasRectangle class is described by [Table 18-40](#)

Table 18-40. typeinfo for QCanvasRectangle

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasRectangle
basetype:	typeinfo for QCanvasPolygonalItem

18.2.7.5. Class data for QCanvasView

The virtual table for the QCanvasView class is described by [Table 18-41](#)

Table 18-41. Primary vtable for QCanvasView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasView

vfunc[0]:	NULL or QCanvasView::metaObject() const
vfunc[1]:	QCanvasView::className() const
vfunc[2]:	QCanvasView::qt_cast(char const*)
vfunc[3]:	QCanvasView::qt_invoke(int, QUObject*)
vfunc[4]:	QCanvasView::qt_emit(int, QUObject*)
vfunc[5]:	QCanvasView::qt_property(int, int, QVariant*)
vfunc[6]:	QCanvasView::~~QCanvasView()
vfunc[7]:	QCanvasView::~QCanvasView()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QScrollView::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QScrollView::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)

vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QCanvasView::sizeHint() const
vfunc[59]:	QScrollView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)

vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QScrollView::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)

vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QScrollView::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QCanvasView::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QCanvasView::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QScrollView::contentsMouseEvent(QMouseEvent*)
vfunc[130]:	QScrollView::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QScrollView::contentsMouseDoubleClickEvent(QMouseEvent*)

vfunc[132]:	QScrollView::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QScrollView::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QScrollView::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QScrollView::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QScrollView::contentsDropEvent(QDropEvent*)
vfunc[137]:	QScrollView::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QScrollView::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QScrollView::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMousePressEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)

The Run Time Type Information for the QCanvasView class is described by [Table 18-42](#)

Table 18-42. typeinfo for QCanvasView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasView
basetype:	typeinfo for QScrollView

18.2.7.6. Class data for QCanvasEllipse

The virtual table for the QCanvasEllipse class is described by [Table 18-43](#)

Table 18-43. Primary vtable for QCanvasEllipse

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasEllipse
vfunc[0]:	QCanvasEllipse::~~QCanvasEllipse()
vfunc[1]:	QCanvasEllipse::~~QCanvasEllipse()
vfunc[2]:	QCanvasItem::moveBy(double, double)
vfunc[3]:	QCanvasItem::setAnimated(bool)
vfunc[4]:	QCanvasItem::setVelocity(double, double)
vfunc[5]:	QCanvasItem::advance(int)
vfunc[6]:	QCanvasEllipse::collidesWith(QCanvasItem const*) const
vfunc[7]:	QCanvasItem::setCanvas(QCanvas*)
vfunc[8]:	QCanvasPolygonalItem::draw(QPainter&)
vfunc[9]:	QCanvasItem::setVisible(bool)
vfunc[10]:	QCanvasItem::setSelected(bool)
vfunc[11]:	QCanvasItem::setEnabled(bool)
vfunc[12]:	QCanvasItem::setActive(bool)
vfunc[13]:	QCanvasEllipse::rtti() const
vfunc[14]:	QCanvasPolygonalItem::boundingRect() const
vfunc[15]:	QCanvasItem::boundingRectAdvanced() const
vfunc[16]:	QCanvasPolygonalItem::chunks() const
vfunc[17]:	QCanvasItem::addToChunks()
vfunc[18]:	QCanvasItem::removeFromChunks()
vfunc[19]:	QCanvasItem::changeChunks()
vfunc[20]:	QCanvasEllipse::collidesWith(QCanvasSprite const*, QCanvasPolygonalItem const*, QCanvasRectangle const*, QCanvasEllipse const*, QCanvasText const*) const
vfunc[21]:	QCanvasPolygonalItem::setPen(QPen)
vfunc[22]:	QCanvasPolygonalItem::setBrush(QBrush)
vfunc[23]:	QCanvasEllipse::areaPoints() const
vfunc[24]:	QCanvasPolygonalItem::areaPointsAdvanced() const
vfunc[25]:	QCanvasEllipse::drawShape(QPainter&)

The Run Time Type Information for the QCanvasEllipse class is described by [Table 18-44](#)

Table 18-44. typeinfo for QCanvasEllipse

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasEllipse
basetype:	typeinfo for QCanvasPolygonalItem

18.2.7.7. Class data for QCanvasPixmap

The virtual table for the QCanvasPixmap class is described by [Table 18-45](#)

Table 18-45. Primary vtable for QCanvasPixmap

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasPixmap
vfunc[0]:	QCanvasPixmap::~~QCanvasPixmap()
vfunc[1]:	QCanvasPixmap::~~QCanvasPixmap()
vfunc[2]:	QPaintDevice::setResolution(int)
vfunc[3]:	QPaintDevice::resolution() const
vfunc[4]:	QPaintDevice::handle() const
vfunc[5]:	QPaintDevice::x11RenderHandle() const
vfunc[6]:	QPaintDevice::setX11Data(QPaintDeviceX11Data const*)
vfunc[7]:	QPaintDevice::cmd(int, QPainter*, QPDevCmdParam*)
vfunc[8]:	QPixmap::metric(int) const
vfunc[9]:	QPaintDevice::fontMet(QFont*, int, char const*, int) const
vfunc[10]:	QPaintDevice::fontInf(QFont*, int) const
vfunc[11]:	QPixmap::detach()

The Run Time Type Information for the QCanvasPixmap class is described by [Table 18-46](#)

Table 18-46. typeinfo for QCanvasPixmap

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasPixmap
basetype:	typeinfo for QPixmap

18.2.7.8. Class data for QCanvasLine

The virtual table for the QCanvasLine class is described by [Table 18-47](#)

Table 18-47. Primary vtable for QCanvasLine

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasLine
vfunc[0]:	QCanvasLine::~~QCanvasLine()
vfunc[1]:	QCanvasLine::~~QCanvasLine()
vfunc[2]:	QCanvasLine::moveBy(double, double)
vfunc[3]:	QCanvasItem::setAnimated(bool)
vfunc[4]:	QCanvasItem::setVelocity(double, double)
vfunc[5]:	QCanvasItem::advance(int)
vfunc[6]:	QCanvasPolygonalItem::collidesWith(QCanvasItem const*) const
vfunc[7]:	QCanvasItem::setCanvas(QCanvas*)
vfunc[8]:	QCanvasPolygonalItem::draw(QPainter&)
vfunc[9]:	QCanvasItem::setVisible(bool)
vfunc[10]:	QCanvasItem::setSelected(bool)
vfunc[11]:	QCanvasItem::setEnabled(bool)
vfunc[12]:	QCanvasItem::setActive(bool)
vfunc[13]:	QCanvasLine::rtti() const
vfunc[14]:	QCanvasPolygonalItem::boundingRect() const
vfunc[15]:	QCanvasItem::boundingRectAdvanced() const
vfunc[16]:	QCanvasPolygonalItem::chunks() const
vfunc[17]:	QCanvasItem::addToChunks()
vfunc[18]:	QCanvasItem::removeFromChunks()
vfunc[19]:	QCanvasItem::changeChunks()
vfunc[20]:	QCanvasPolygonalItem::collidesWith(QCanvasSprite const*, QCanvasPolygonalItem const*, QCanvasRectangle const*, QCanvasEllipse const*, QCanvasText const*) const
vfunc[21]:	QCanvasLine::setPen(QPen)
vfunc[22]:	QCanvasPolygonalItem::setBrush(QBrush)
vfunc[23]:	QCanvasLine::areaPoints() const

vfunc[24]:	QCanvasPolygonalItem::areaPointsAdvanced() const
vfunc[25]:	QCanvasLine::drawShape(QPainter&)

The Run Time Type Information for the QCanvasLine class is described by [Table 18-48](#)

Table 18-48. typeinfo for QCanvasLine

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasLine
basetype:	typeinfo for QCanvasPolygonalItem

18.2.7.9. Class data for QCanvasSpline

The virtual table for the QCanvasSpline class is described by [Table 18-49](#)

Table 18-49. Primary vtable for QCanvasSpline

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasSpline
vfunc[0]:	QCanvasSpline::~~QCanvasSpline()
vfunc[1]:	QCanvasSpline::~~QCanvasSpline()
vfunc[2]:	QCanvasPolygon::moveBy(double, double)
vfunc[3]:	QCanvasItem::setAnimated(bool)
vfunc[4]:	QCanvasItem::setVelocity(double, double)
vfunc[5]:	QCanvasItem::advance(int)
vfunc[6]:	QCanvasPolygonalItem::collidesWith(QCanvasItem const*) const
vfunc[7]:	QCanvasItem::setCanvas(QCanvas*)
vfunc[8]:	QCanvasPolygonalItem::draw(QPainter&)
vfunc[9]:	QCanvasItem::setVisible(bool)
vfunc[10]:	QCanvasItem::setSelected(bool)
vfunc[11]:	QCanvasItem::setEnabled(bool)
vfunc[12]:	QCanvasItem::setActive(bool)
vfunc[13]:	QCanvasSpline::rtti() const
vfunc[14]:	QCanvasPolygonalItem::boundingRect() const
vfunc[15]:	QCanvasItem::boundingRectAdvanced() const

vfunc[16]:	QCanvasPolygonalItem::chunks() const
vfunc[17]:	QCanvasItem::addToChunks()
vfunc[18]:	QCanvasItem::removeFromChunks()
vfunc[19]:	QCanvasItem::changeChunks()
vfunc[20]:	QCanvasPolygonalItem::collidesWith(QCanvasSprite const*, QCanvasPolygonalItem const*, QCanvasRectangle const*, QCanvasEllipse const*, QCanvasText const*) const
vfunc[21]:	QCanvasPolygonalItem::setPen(QPen)
vfunc[22]:	QCanvasPolygonalItem::setBrush(QBrush)
vfunc[23]:	QCanvasPolygon::areaPoints() const
vfunc[24]:	QCanvasPolygonalItem::areaPointsAdvanced() const
vfunc[25]:	QCanvasPolygon::drawShape(QPainter&)

The Run Time Type Information for the QCanvasSpline class is described by [Table 18-50](#)

Table 18-50. typeinfo for QCanvasSpline

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasSpline
basetype:	typeinfo for QCanvasPolygon

18.2.7.10. Class data for QCanvasText

The virtual table for the QCanvasText class is described by [Table 18-51](#)

Table 18-51. Primary vtable for QCanvasText

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasText
vfunc[0]:	QCanvasText::~~QCanvasText()
vfunc[1]:	QCanvasText::~~QCanvasText()
vfunc[2]:	QCanvasText::moveBy(double, double)
vfunc[3]:	QCanvasItem::setAnimated(bool)
vfunc[4]:	QCanvasItem::setVelocity(double, double)
vfunc[5]:	QCanvasItem::advance(int)

vfunc[6]:	QCanvasText::collidesWith(QCanvasItem const*) const
vfunc[7]:	QCanvasItem::setCanvas(QCanvas*)
vfunc[8]:	QCanvasText::draw(QPainter&)
vfunc[9]:	QCanvasItem::setVisible(bool)
vfunc[10]:	QCanvasItem::setSelected(bool)
vfunc[11]:	QCanvasItem::setEnabled(bool)
vfunc[12]:	QCanvasItem::setActive(bool)
vfunc[13]:	QCanvasText::rtti() const
vfunc[14]:	QCanvasText::boundingRect() const
vfunc[15]:	QCanvasItem::boundingRectAdvanced() const
vfunc[16]:	QCanvasItem::chunks() const
vfunc[17]:	QCanvasText::addToChunks()
vfunc[18]:	QCanvasText::removeFromChunks()
vfunc[19]:	QCanvasText::changeChunks()
vfunc[20]:	QCanvasText::collidesWith(QCanvasSprite const*, QCanvasPolygonalItem const*, QCanvasRectangle const*, QCanvasEllipse const*, QCanvasText const*) const

The Run Time Type Information for the QCanvasText class is described by [Table 18-52](#)

Table 18-52. typeinfo for QCanvasText

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasText
basetype:	typeinfo for QCanvasItem

18.2.7.11. Class data for QCanvasPolygon

The virtual table for the QCanvasPolygon class is described by [Table 18-53](#)

Table 18-53. Primary vtable for QCanvasPolygon

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvasPolygon
vfunc[0]:	QCanvasPolygon::~~QCanvasPolygon()
vfunc[1]:	QCanvasPolygon::~~QCanvasPolygon()
vfunc[2]:	QCanvasPolygon::moveBy(double, double)

vfunc[3]:	QCanvasItem::setAnimated(bool)
vfunc[4]:	QCanvasItem::setVelocity(double, double)
vfunc[5]:	QCanvasItem::advance(int)
vfunc[6]:	QCanvasPolygonalItem::collidesWith(QCanvasItem const*) const
vfunc[7]:	QCanvasItem::setCanvas(QCanvas*)
vfunc[8]:	QCanvasPolygonalItem::draw(QPainter&)
vfunc[9]:	QCanvasItem::setVisible(bool)
vfunc[10]:	QCanvasItem::setSelected(bool)
vfunc[11]:	QCanvasItem::setEnabled(bool)
vfunc[12]:	QCanvasItem::setActive(bool)
vfunc[13]:	QCanvasPolygon::rtti() const
vfunc[14]:	QCanvasPolygonalItem::boundingRect() const
vfunc[15]:	QCanvasItem::boundingRectAdvanced() const
vfunc[16]:	QCanvasPolygonalItem::chunks() const
vfunc[17]:	QCanvasItem::addToChunks()
vfunc[18]:	QCanvasItem::removeFromChunks()
vfunc[19]:	QCanvasItem::changeChunks()
vfunc[20]:	QCanvasPolygonalItem::collidesWith(QCanvasSprite const*, QCanvasPolygonalItem const*, QCanvasRectangle const*, QCanvasEllipse const*, QCanvasText const*) const
vfunc[21]:	QCanvasPolygonalItem::setPen(QPen)
vfunc[22]:	QCanvasPolygonalItem::setBrush(QBrush)
vfunc[23]:	QCanvasPolygon::areaPoints() const
vfunc[24]:	QCanvasPolygonalItem::areaPointsAdvanced() const
vfunc[25]:	QCanvasPolygon::drawShape(QPainter&)

The Run Time Type Information for the QCanvasPolygon class is described by [Table 18-54](#)

Table 18-54. typeinfo for QCanvasPolygon

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvasPolygon
basetype:	typeinfo for QCanvasPolygonalItem

18.2.7.12. Class data for QCanvas

The virtual table for the QCanvas class is described by [Table 18-55](#)

Table 18-55. Primary vtable for QCanvas

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCanvas
vfunc[0]:	NULL or QCanvas::metaObject() const
vfunc[1]:	QCanvas::className() const
vfunc[2]:	QCanvas::qt_cast(char const*)
vfunc[3]:	QCanvas::qt_invoke(int, QUObject*)
vfunc[4]:	QCanvas::qt_emit(int, QUObject*)
vfunc[5]:	QCanvas::qt_property(int, int, QVariant*)
vfunc[6]:	QCanvas::~~QCanvas()
vfunc[7]:	QCanvas::~~QCanvas()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QCanvas::setTiles(QPixmap, int, int, int, int)
vfunc[22]:	QCanvas::setBackgroundPixmap(QPixmap const&)
vfunc[23]:	QCanvas::setBackgroundColors(QColor const&)
vfunc[24]:	QCanvas::setTile(int, int, int)

vfunc[25]:	QCanvas::resize(int, int)
vfunc[26]:	QCanvas::retune(int, int)
vfunc[27]:	QCanvas::setChangedChunk(int, int)
vfunc[28]:	QCanvas::setChangedChunkContaining(int, int)
vfunc[29]:	QCanvas::setAllChanged()
vfunc[30]:	QCanvas::setChanged(QRect const&)
vfunc[31]:	QCanvas::setUnchanged(QRect const&)
vfunc[32]:	QCanvas::addView(QCanvasView*)
vfunc[33]:	QCanvas::removeView(QCanvasView*)
vfunc[34]:	QCanvas::addItem(QCanvasItem*)
vfunc[35]:	QCanvas::addAnimation(QCanvasItem*)
vfunc[36]:	QCanvas::removeItem(QCanvasItem*)
vfunc[37]:	QCanvas::removeAnimation(QCanvasItem*)
vfunc[38]:	QCanvas::setAdvancePeriod(int)
vfunc[39]:	QCanvas::setUpdatePeriod(int)
vfunc[40]:	QCanvas::setDoubleBuffering(bool)
vfunc[41]:	QCanvas::advance()
vfunc[42]:	QCanvas::update()
vfunc[43]:	QCanvas::drawBackground(QPainter&, QRect const&)
vfunc[44]:	QCanvas::drawForeground(QPainter&, QRect const&)

The Run Time Type Information for the QCanvas class is described by [Table 18-56](#)

Table 18-56. typeinfo for QCanvas

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCanvas
basetype:	typeinfo for QObject

18.2.7.13. Interfaces for Qt3 Canvas

An LSB conforming implementation shall provide the generic functions for Qt3 Canvas specified in [Table 18-57](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-57. libqt-mt - Qt3 Canvas Function Interfaces

<code>_ZN11QCanvasItem10setEnabledEb</code> [qt-mt]

_ZN11QCanvasItem11addToChunksEv [qt-mt]
_ZN11QCanvasItem11setSelectedEb [qt-mt]
_ZN11QCanvasItem12changeChunksEv [qt-mt]
_ZN11QCanvasItem4hideEv [qt-mt]
_ZN11QCanvasItem4showEv [qt-mt]
_ZN11QCanvasItem6moveByEdd [qt-mt]
_ZN11QCanvasItem9setActiveEb [qt-mt]
_ZN11QCanvasItemC1EP7QCanvas [qt-mt]
_ZN11QCanvasItemD0Ev [qt-mt]
_ZN11QCanvasItemD2Ev [qt-mt]
_ZN11QCanvasLine6setPenE4QPen [qt-mt]
_ZN11QCanvasLine9setPointsEiiii [qt-mt]
_ZN11QCanvasLineC2EP7QCanvas [qt-mt]
_ZN11QCanvasLineD1Ev [qt-mt]
_ZN11QCanvasText11addToChunksEv [qt-mt]
_ZN11QCanvasText12setTextFlagsEi [qt-mt]
_ZN11QCanvasText4drawER8QPainter [qt-mt]
_ZN11QCanvasText7setFontERK5QFont [qt-mt]
_ZN11QCanvasText7setTextERK7QString [qt-mt]
_ZN11QCanvasTextC1EP7QCanvas [qt-mt]
_ZN11QCanvasTextC1ERK7QStringP7QCanvas [qt-mt]
_ZN11QCanvasTextC2ERK7QString5QFontP7QCanvas [qt-mt]
_ZN11QCanvasTextD0Ev [qt-mt]
_ZN11QCanvasTextD2Ev [qt-mt]
_ZN11QCanvasView12drawContentsEP8QPainter [qt-mt]
_ZN11QCanvasView14setWorldMatrixERK8QWMatrix [qt-mt]
_ZN11QCanvasView18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]
ZN11QCanvasView2trEPKcS1 [qt-mt]
_ZN11QCanvasView7cMovingEii [qt-mt]
_ZN11QCanvasView7qt_emitEiP8QUObject [qt-mt]
_ZN11QCanvasView9setCanvasEP7QCanvas [qt-mt]
_ZN11QCanvasViewC1EP7QWidgetPKcj [qt-mt]
_ZN11QCanvasViewC2EP7QWidgetPKcj [qt-mt]

_ZN11QCanvasViewD1Ev [qt-mt]
_ZN13QCanvasPixmap4initERK6QImage [qt-mt]
_ZN13QCanvasPixmapC1ERK6QImage [qt-mt]
_ZN13QCanvasPixmapC1ERK7QString [qt-mt]
_ZN13QCanvasPixmapC2ERK7QPixmapRK6QPoint [qt-mt]
_ZN13QCanvasPixmapD0Ev [qt-mt]
_ZN13QCanvasPixmapD2Ev [qt-mt]
_ZN13QCanvasSpline16setControlPointsE11QPointArrayb [qt-mt]
_ZN13QCanvasSplineC2EP7QCanvas [qt-mt]
_ZN13QCanvasSplineD1Ev [qt-mt]
_ZN13QCanvasSprite11addToChunksEv [qt-mt]
_ZN13QCanvasSprite12changeChunksEv [qt-mt]
_ZN13QCanvasSprite17setFrameAnimationENS_18FrameAnimationTypeEii [qt-mt]
_ZN13QCanvasSprite4moveEdd [qt-mt]
_ZN13QCanvasSprite7advanceEi [qt-mt]
_ZN13QCanvasSpriteC1EP18QCanvasPixmapArrayP7QCanvas [qt-mt]
_ZN13QCanvasSpriteD0Ev [qt-mt]
_ZN13QCanvasSpriteD2Ev [qt-mt]
_ZN14QCanvasEllipse9drawShapeER8QPainter [qt-mt]
_ZN14QCanvasEllipseC1EP7QCanvas [qt-mt]
_ZN14QCanvasEllipseC1EiiiiP7QCanvas [qt-mt]
_ZN14QCanvasEllipseC2EiiP7QCanvas [qt-mt]
_ZN14QCanvasEllipseD0Ev [qt-mt]
_ZN14QCanvasEllipseD2Ev [qt-mt]
_ZN14QCanvasPolygon9drawShapeER8QPainter [qt-mt]
_ZN14QCanvasPolygonC1EP7QCanvas [qt-mt]
_ZN14QCanvasPolygonD0Ev [qt-mt]
_ZN14QCanvasPolygonD2Ev [qt-mt]
_ZN15QCanvasItemList4sortEv [qt-mt]
_ZN16QCanvasRectangle9drawShapeER8QPainter [qt-mt]
_ZN16QCanvasRectangleC1ERK5QRectP7QCanvas [qt-mt]
_ZN16QCanvasRectangleC2EP7QCanvas [qt-mt]
_ZN16QCanvasRectangleC2EiiiiP7QCanvas [qt-mt]

_ZN16QCanvasRectangleD1Ev [qt-mt]
_ZN18QCanvasPixmapArray11readPixmapsERK7QStringi [qt-mt]
_ZN18QCanvasPixmapArray18readCollisionMasksERK7QString [qt-mt]
_ZN18QCanvasPixmapArray8setImageEiP13QCanvasPixmap [qt-mt]
_ZN18QCanvasPixmapArrayC1E8QPtrListI7QPixmapES0_I6QPointE [qt-mt]
_ZN18QCanvasPixmapArrayC1Ev [qt-mt]
_ZN18QCanvasPixmapArrayC2E8QPtrListI7QPixmapES0_I6QPointE [qt-mt]
_ZN18QCanvasPixmapArrayC2Ev [qt-mt]
_ZN18QCanvasPixmapArrayD2Ev [qt-mt]
_ZN20QCanvasPolygonalItem10invalidateEv [qt-mt]
_ZN20QCanvasPolygonalItem4drawER8QPainter [qt-mt]
_ZN20QCanvasPolygonalItem8setBrushE6QBrush [qt-mt]
_ZN20QCanvasPolygonalItemC2EP7QCanvas [qt-mt]
_ZN20QCanvasPolygonalItemD1Ev [qt-mt]
_ZN7QCanvas10removeItemEP11QCanvasItem [qt-mt]
_ZN7QCanvas10setChangedERK5QRect [qt-mt]
_ZN7QCanvas11qt_propertyEiiP8QVariant [qt-mt]
_ZN7QCanvas12changeBoundsERK5QRect [qt-mt]
_ZN7QCanvas12setUnchangedERK5QRect [qt-mt]
_ZN7QCanvas14addItemToChunkEP11QCanvasItemii [qt-mt]
_ZN7QCanvas14drawCanvasAreaERK5QRectP8QPainterb [qt-mt]
_ZN7QCanvas15removeAnimationEP11QCanvasItem [qt-mt]
_ZN7QCanvas15setUpdatePeriodEi [qt-mt]
_ZN7QCanvas16staticMetaObjectEv [qt-mt]
_ZN7QCanvas18setBackgroundColorERK6QColor [qt-mt]
_ZN7QCanvas19removeItemFromChunkEP11QCanvasItemii [qt-mt]
_ZN7QCanvas24addItemToChunkContainingEP11QCanvasItemii [qt-mt]
_ZN7QCanvas29removeItemFromChunkContainingEP11QCanvasItemii [qt-mt]
_ZN7QCanvas4initEiiii [qt-mt]
_ZN7QCanvas6retuneEii [qt-mt]
_ZN7QCanvas6updateEv [qt-mt]
_ZN7QCanvas7addViewEP11QCanvasView [qt-mt]
_ZN7QCanvas7qt_castEPKc [qt-mt]

_ZN7QCanvas7resizedEv [qt-mt]
_ZN7QCanvas8allItemsEv [qt-mt]
_ZN7QCanvas8setTilesE7QPixmapiiii [qt-mt]
_ZN7QCanvasC1E7QPixmapiiii [qt-mt]
_ZN7QCanvasC1Eii [qt-mt]
_ZN7QCanvasC2EP7QObjectPKc [qt-mt]
_ZN7QCanvasD0Ev [qt-mt]
_ZN7QCanvasD2Ev [qt-mt]
_ZNK11QCanvasItem20boundingRectAdvancedEv [qt-mt]
_ZNK11QCanvasItem6chunksEv [qt-mt]
_ZNK11QCanvasItem9xVelocityEv [qt-mt]
_ZNK11QCanvasLine10areaPointsEv [qt-mt]
_ZNK11QCanvasText12boundingRectEv [qt-mt]
_ZNK11QCanvasText12collidesWithEPK13QCanvasSpritePK20QCanvasPolygonalItemPK16QCanvasRectanglePK [qt-mt]
_ZNK11QCanvasText4rttiEv [qt-mt]
_ZNK11QCanvasText5colorEv [qt-mt]
_ZNK11QCanvasView18inverseWorldMatrixEv [qt-mt]
_ZNK11QCanvasView9classNameEv [qt-mt]
_ZNK13QCanvasSpline4rttiEv [qt-mt]
_ZNK13QCanvasSprite10bottomEdgeEi [qt-mt]
_ZNK13QCanvasSprite12boundingRectEv [qt-mt]
_ZNK13QCanvasSprite12collidesWithEPKS_PK20QCanvasPolygonalItemPK16QCanvasRectanglePK14QCanvasEL [qt-mt]
_ZNK13QCanvasSprite4rttiEv [qt-mt]
_ZNK13QCanvasSprite6heightEv [qt-mt]
_ZNK13QCanvasSprite7topEdgeEv [qt-mt]
_ZNK13QCanvasSprite8leftEdgeEv [qt-mt]
_ZNK13QCanvasSprite9rightEdgeEv [qt-mt]
_ZNK14QCanvasEllipse12collidesWithEPK11QCanvasItem [qt-mt]
_ZNK14QCanvasEllipse4rttiEv [qt-mt]
_ZNK14QCanvasEllipse6heightEv [qt-mt]
_ZNK14QCanvasPolygon4rttiEv [qt-mt]

ZNK15QCanvasItemListplERKS [qt-mt]
_ZNK16QCanvasRectangle12collidesWithEPK11QCanvasItem [qt-mt]
_ZNK16QCanvasRectangle4rttiEv [qt-mt]
_ZNK16QCanvasRectangle6chunksEv [qt-mt]
_ZNK18QCanvasPixmapArray7isValidEv [qt-mt]
_ZNK20QCanvasPolygonalItem12boundingRectEv [qt-mt]
_ZNK20QCanvasPolygonalItem12collidesWithEPK13QCanvasSpritePKS_PK16QCanvasRectanglePK14QCanvasEl [qt-mt]
_ZNK20QCanvasPolygonalItem4rttiEv [qt-mt]
_ZNK20QCanvasPolygonalItem7windingEv [qt-mt]
_ZNK7QCanvas10collisionsERK5QRect [qt-mt]
_ZNK7QCanvas15backgroundColorEv [qt-mt]
_ZNK7QCanvas16backgroundPixmapEv [qt-mt]
_ZNK7QCanvas9classNameEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Canvas specified in [Table 18-58](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-58. libqt-mt - Qt3 Canvas Data Interfaces

_ZN11QCanvasItem4RTTIE [qt-mt]	_ZN11QCanvasLine4RTTIE [qt-mt]
_ZN11QCanvasText4RTTIE [qt-mt]	_ZN11QCanvasView7metaObjE [qt-mt]
_ZN13QCanvasSpline4RTTIE [qt-mt]	_ZN13QCanvasSprite4RTTIE [qt-mt]
_ZN14QCanvasEllipse4RTTIE [qt-mt]	_ZN14QCanvasPolygon4RTTIE [qt-mt]
_ZN16QCanvasRectangle4RTTIE [qt-mt]	_ZN20QCanvasPolygonalItem4RTTIE [qt-mt]
_ZN7QCanvas7metaObjE [qt-mt]	_ZTI11QCanvasItem [CXXABI-1.86]
_ZTI11QCanvasLine [CXXABI-1.86]	_ZTI11QCanvasText [CXXABI-1.86]
_ZTI11QCanvasView [CXXABI-1.86]	_ZTI13QCanvasPixmap [CXXABI-1.86]
_ZTI13QCanvasSpline [CXXABI-1.86]	_ZTI13QCanvasSprite [CXXABI-1.86]
_ZTI14QCanvasEllipse [CXXABI-1.86]	_ZTI14QCanvasPolygon [CXXABI-1.86]
_ZTI16QCanvasRectangle [CXXABI-1.86]	_ZTI20QCanvasPolygonalItem [CXXABI-1.86]
_ZTI7QCanvas [CXXABI-1.86]	_ZTV11QCanvasItem [CXXABI-1.86]
_ZTV11QCanvasLine [CXXABI-1.86]	_ZTV11QCanvasText [CXXABI-1.86]
_ZTV11QCanvasView [CXXABI-1.86]	_ZTV13QCanvasPixmap [CXXABI-1.86]
_ZTV13QCanvasSpline [CXXABI-1.86]	_ZTV13QCanvasSprite [CXXABI-1.86]

_ZTV14QCanvasEllipse [CXXABI-1.86]	_ZTV14QCanvasPolygon [CXXABI-1.86]
_ZTV16QCanvasRectangle [CXXABI-1.86]	_ZTV20QCanvasPolygonalItem [CXXABI-1.86]
_ZTV7QCanvas [CXXABI-1.86]	

18.2.8. Qt3 Drag and Drop

18.2.8.1. Class data for QImageDrag

The virtual table for the QImageDrag class is described by [Table 18-59](#)

Table 18-59. Primary vtable for QImageDrag

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QImageDrag
vfunc[0]:	NULL or QImageDrag::metaObject() const
vfunc[1]:	QImageDrag::className() const
vfunc[2]:	QImageDrag::qt_cast(char const*)
vfunc[3]:	QImageDrag::qt_invoke(int, QUObject*)
vfunc[4]:	QImageDrag::qt_emit(int, QUObject*)
vfunc[5]:	QImageDrag::qt_property(int, int, QVariant*)
vfunc[6]:	QImageDrag::~QImageDrag()
vfunc[7]:	QImageDrag::~QImageDrag()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)

vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QDragObject::setPixmap(QPixmap)
vfunc[22]:	QDragObject::setPixmap(QPixmap, QPoint const&)
vfunc[23]:	QDragObject::drag(QDragObject::DragMode)
vfunc[24]:	QImageDrag::setImage(QImage)
vfunc[25]:	QImageDrag::format(int) const
vfunc[26]:	QImageDrag::encodedData(char const*) const

The Run Time Type Information for the QImageDrag class is described by [Table 18-60](#)

Table 18-60. typeinfo for QImageDrag

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QImageDrag
basetype:	typeinfo for QDragObject

18.2.8.2. Class data for QDragLeaveEvent

The virtual table for the QDragLeaveEvent class is described by [Table 18-61](#)

Table 18-61. Primary vtable for QDragLeaveEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDragLeaveEvent
vfunc[0]:	NULL or QDragLeaveEvent::~~QDragLeaveEvent()
vfunc[1]:	NULL or QDragLeaveEvent::~~QDragLeaveEvent()

The Run Time Type Information for the QDragLeaveEvent class is described by [Table 18-62](#)

Table 18-62. typeinfo for QDragLeaveEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDragLeaveEvent
basetype:	typeinfo for QEvent

18.2.8.3. Class data for QColorDrag

The virtual table for the QColorDrag class is described by [Table 18-63](#)

Table 18-63. Primary vtable for QColorDrag

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QColorDrag
vfunc[0]:	NULL or QColorDrag::metaObject() const
vfunc[1]:	QColorDrag::className() const
vfunc[2]:	QColorDrag::qt_cast(char const*)
vfunc[3]:	QColorDrag::qt_invoke(int, QUObject*)
vfunc[4]:	QColorDrag::qt_emit(int, QUObject*)
vfunc[5]:	QColorDrag::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QColorDrag::~~QColorDrag()
vfunc[7]:	NULL or QColorDrag::~~QColorDrag()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QDragObject::setPixmap(QPixmap)
vfunc[22]:	QDragObject::setPixmap(QPixmap, QPoint const&)
vfunc[23]:	QDragObject::drag(QDragObject::DragMode)
vfunc[24]:	QStoredDrag::setEncodedData(QMemArray<char> const&)

vfunc[25]:	QStoredDrag::format(int) const
vfunc[26]:	QStoredDrag::encodedData(char const*) const

The Run Time Type Information for the QColorDrag class is described by [Table 18-64](#)

Table 18-64. typeinfo for QColorDrag

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QColorDrag
basetype:	typeinfo for QStoredDrag

18.2.8.4. Class data for QDragResponseEvent

The virtual table for the QDragResponseEvent class is described by [Table 18-65](#)

Table 18-65. Primary vtable for QDragResponseEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDragResponseEvent
vfunc[0]:	NULL or QDragResponseEvent::~~QDragResponseEvent()
vfunc[1]:	NULL or QDragResponseEvent::~~QDragResponseEvent()

The Run Time Type Information for the QDragResponseEvent class is described by [Table 18-66](#)

Table 18-66. typeinfo for QDragResponseEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDragResponseEvent
basetype:	typeinfo for QEvent

18.2.8.5. Class data for QIconDrag

The virtual table for the QIconDrag class is described by [Table 18-67](#)

Table 18-67. Primary vtable for QIconDrag

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIconDrag

vfunc[0]:	NULL or QIconDrag::metaObject() const
vfunc[1]:	QIconDrag::className() const
vfunc[2]:	QIconDrag::qt_cast(char const*)
vfunc[3]:	QIconDrag::qt_invoke(int, QUObject*)
vfunc[4]:	QIconDrag::qt_emit(int, QUObject*)
vfunc[5]:	QIconDrag::qt_property(int, int, QVariant*)
vfunc[6]:	QIconDrag::~~QIconDrag()
vfunc[7]:	QIconDrag::~QIconDrag()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QDragObject::setPixmap(QPixmap)
vfunc[22]:	QDragObject::setPixmap(QPixmap, QPoint const&)
vfunc[23]:	QDragObject::drag(QDragObject::DragMode)
vfunc[24]:	QIconDrag::format(int) const
vfunc[25]:	QIconDrag::encodedData(char const*) const

The Run Time Type Information for the QIconDrag class is described by [Table 18-68](#)

Table 18-68. typeinfo for QIconDrag

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIconDrag
basetype:	typeinfo for QDragObject

18.2.8.6. Class data for QUriDrag

The virtual table for the QUriDrag class is described by [Table 18-69](#)

Table 18-69. Primary vtable for QUriDrag

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QUriDrag
vfunc[0]:	NULL or QUriDrag::metaObject() const
vfunc[1]:	QUriDrag::className() const
vfunc[2]:	QUriDrag::qt_cast(char const*)
vfunc[3]:	QUriDrag::qt_invoke(int, QUObject*)
vfunc[4]:	QUriDrag::qt_emit(int, QUObject*)
vfunc[5]:	QUriDrag::qt_property(int, int, QVariant*)
vfunc[6]:	QUriDrag::~QUriDrag()
vfunc[7]:	QUriDrag::~QUriDrag()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QDragObject::setPixmap(QPixmap)
vfunc[22]:	QDragObject::setPixmap(QPixmap, QPoint const&)
vfunc[23]:	QDragObject::drag(QDragObject::DragMode)
vfunc[24]:	QStoredDrag::setEncodedData(QMemArray<char> const&)

vfunc[25]:	QStoredDrag::format(int) const
vfunc[26]:	QStoredDrag::encodedData(char const*) const
vfunc[27]:	QUriDrag::setUris(QStrList)

The Run Time Type Information for the QUriDrag class is described by [Table 18-70](#)

Table 18-70. typeinfo for QUriDrag

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QUriDrag
basetype:	typeinfo for QStoredDrag

18.2.8.7. Class data for QDropSite

The virtual table for the QDropSite class is described by [Table 18-71](#)

Table 18-71. Primary vtable for QDropSite

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDropSite
vfunc[0]:	QDropSite::~~QDropSite()
vfunc[1]:	QDropSite::~~QDropSite()

The Run Time Type Information for the QDropSite class is described by [Table 18-72](#)

Table 18-72. typeinfo for QDropSite

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QDropSite

18.2.8.8. Class data for QStoredDrag

The virtual table for the QStoredDrag class is described by [Table 18-73](#)

Table 18-73. Primary vtable for QStoredDrag

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStoredDrag

vfunc[0]:	NULL or QStoredDrag::metaObject() const
vfunc[1]:	QStoredDrag::className() const
vfunc[2]:	QStoredDrag::qt_cast(char const*)
vfunc[3]:	QStoredDrag::qt_invoke(int, QUObject*)
vfunc[4]:	QStoredDrag::qt_emit(int, QUObject*)
vfunc[5]:	QStoredDrag::qt_property(int, int, QVariant*)
vfunc[6]:	QStoredDrag::~QStoredDrag()
vfunc[7]:	QStoredDrag::~~QStoredDrag()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QDragObject::setPixmap(QPixmap)
vfunc[22]:	QDragObject::setPixmap(QPixmap, QPoint const&)
vfunc[23]:	QDragObject::drag(QDragObject::DragMode)
vfunc[24]:	QStoredDrag::setEncodedData(QMemArray<char> const&)
vfunc[25]:	QStoredDrag::format(int) const
vfunc[26]:	QStoredDrag::encodedData(char const*) const

The Run Time Type Information for the QStoredDrag class is described by [Table 18-74](#)

Table 18-74. typeinfo for QStoredDrag

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStoredDrag

basetype:	typeinfo for QDragObject

18.2.8.9. Class data for QTextDrag

The virtual table for the QTextDrag class is described by [Table 18-75](#)

Table 18-75. Primary vtable for QTextDrag

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextDrag
vfunc[0]:	NULL or QTextDrag::metaObject() const
vfunc[1]:	QTextDrag::className() const
vfunc[2]:	QTextDrag::qt_cast(char const*)
vfunc[3]:	QTextDrag::qt_invoke(int, QUObject*)
vfunc[4]:	QTextDrag::qt_emit(int, QUObject*)
vfunc[5]:	QTextDrag::qt_property(int, int, QVariant*)
vfunc[6]:	QTextDrag::~~QTextDrag()
vfunc[7]:	QTextDrag::~QTextDrag()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QDragObject::setPixmap(QPixmap)
vfunc[22]:	QDragObject::setPixmap(QPixmap, QPoint const&)

vfunc[23]:	QDragObject::drag(QDragObject::DragMode)
vfunc[24]:	QTextDrag::setText(QString const&)
vfunc[25]:	QTextDrag::setSubtype(QCString const&)
vfunc[26]:	QTextDrag::format(int) const
vfunc[27]:	QTextDrag::encodedData(char const*) const

The Run Time Type Information for the QTextDrag class is described by [Table 18-76](#)

Table 18-76. typeinfo for QTextDrag

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextDrag
basetype:	typeinfo for QDragObject

18.2.8.10. Class data for QDragEnterEvent

The virtual table for the QDragEnterEvent class is described by [Table 18-77](#)

Table 18-77. Primary vtable for QDragEnterEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDragEnterEvent
vfunc[0]:	NULL or QDragEnterEvent::~~QDragEnterEvent()
vfunc[1]:	NULL or QDragEnterEvent::~~QDragEnterEvent()
vfunc[2]:	QDropEvent::format(int) const
vfunc[3]:	QDropEvent::encodedData(char const*) const
vfunc[4]:	QDropEvent::provides(char const*) const

The Run Time Type Information for the QDragEnterEvent class is described by [Table 18-78](#)

Table 18-78. typeinfo for QDragEnterEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDragEnterEvent
basetype:	typeinfo for QDragMoveEvent

18.2.8.11. Class data for QDragMoveEvent

The virtual table for the QDragMoveEvent class is described by [Table 18-79](#)

Table 18-79. Primary vtable for QDragMoveEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDragMoveEvent
vfunc[0]:	NULL or QDragMoveEvent::~~QDragMoveEvent()
vfunc[1]:	NULL or QDragMoveEvent::~~QDragMoveEvent()
vfunc[2]:	QDropEvent::format(int) const
vfunc[3]:	QDropEvent::encodedData(char const*) const
vfunc[4]:	QDropEvent::provides(char const*) const

The Run Time Type Information for the QDragMoveEvent class is described by [Table 18-80](#)

Table 18-80. typeinfo for QDragMoveEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDragMoveEvent
basetype:	typeinfo for QDropEvent

18.2.8.12. Class data for QDropEvent

The virtual table for the QDropEvent class is described by [Table 18-81](#)

Table 18-81. Primary vtable for QDropEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDropEvent
vfunc[0]:	NULL or QDropEvent::~~QDropEvent()
vfunc[1]:	NULL or QDropEvent::~~QDropEvent()
vfunc[2]:	QDropEvent::format(int) const
vfunc[3]:	QDropEvent::encodedData(char const*) const
vfunc[4]:	QDropEvent::provides(char const*) const

The Run Time Type Information for the QDropEvent class is described by [Table 18-82](#)

Table 18-82. typeinfo for QDropEvent

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QDropEvent	
flags:	0	
basetype:	typeinfo for QEvent	2
basetype:	typeinfo for QMimeSource	3074

18.2.8.13. Class data for QDragObject

The virtual table for the QDragObject class is described by [Table 18-83](#)

Table 18-83. Primary vtable for QDragObject

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDragObject
vfunc[0]:	NULL or QDragObject::metaObject() const
vfunc[1]:	QDragObject::className() const
vfunc[2]:	QDragObject::qt_cast(char const*)
vfunc[3]:	QDragObject::qt_invoke(int, QUObject*)
vfunc[4]:	QDragObject::qt_emit(int, QUObject*)
vfunc[5]:	QDragObject::qt_property(int, int, QVariant*)
vfunc[6]:	QDragObject::~~QDragObject()
vfunc[7]:	QDragObject::~~QDragObject()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)

vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QDragObject::setPixmap(QPixmap)
vfunc[22]:	QDragObject::setPixmap(QPixmap, QPoint const&)
vfunc[23]:	QDragObject::drag(QDragObject::DragMode)

The Run Time Type Information for the QDragObject class is described by [Table 18-84](#)

Table 18-84. typeinfo for QDragObject

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QDragObject	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QMimeSource	10242

18.2.8.14. Class data for QIconDragItem

The virtual table for the QIconDragItem class is described by [Table 18-85](#)

Table 18-85. Primary vtable for QIconDragItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIconDragItem
vfunc[0]:	QIconDragItem::~~QIconDragItem()
vfunc[1]:	QIconDragItem::~~QIconDragItem()
vfunc[2]:	QIconDragItem::data() const
vfunc[3]:	QIconDragItem::setData(QMemArray<char> const&)

The Run Time Type Information for the QIconDragItem class is described by [Table 18-86](#)

Table 18-86. typeinfo for QIconDragItem

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QIconDragItem

18.2.8.15. Interfaces for Qt3 Drag and Drop

An LSB conforming implementation shall provide the generic functions for Qt3 Drag and Drop specified in [Table 18-87](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-87. libqt-mt - Qt3 Drag and Drop Function Interfaces

_ZN10QColorDrag11qt_propertyEiiP8QVariant [qt-mt]	_ZN10QColorDrag16staticMetaObjectEv [qt-mt]
_ZN10QColorDrag18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN10QColorDrag2trEPKcS1_ [qt-mt]
_ZN10QColorDrag6decodeEP11QMimeSourceR6QColor [qt-mt]	_ZN10QColorDrag6trUtf8EPKcS1_ [qt-mt]
_ZN10QColorDrag7qt_castEPKc [qt-mt]	_ZN10QColorDrag7qt_emitEiP8QUObject [qt-mt]
_ZN10QColorDrag8setColorERK6QColor [qt-mt]	_ZN10QColorDrag9canDecodeEP11QMimeSource [qt-mt]
_ZN10QColorDrag9qt_invokeEiP8QUObject [qt-mt]	_ZN10QColorDragC1EP7QWidgetPKc [qt-mt]
_ZN10QColorDragC1ERK6QColorP7QWidgetPKc [qt-mt]	_ZN10QColorDragC2EP7QWidgetPKc [qt-mt]
_ZN10QColorDragC2ERK6QColorP7QWidgetPKc [qt-mt]	_ZN10QImageDrag11qt_propertyEiiP8QVariant [qt-mt]
_ZN10QImageDrag16staticMetaObjectEv [qt-mt]	_ZN10QImageDrag18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]
ZN10QImageDrag2trEPKcS1 [qt-mt]	_ZN10QImageDrag6decodeEPK11QMimeSource [qt-mt]
_ZN10QImageDrag6decodeEPK11QMimeSourceR7QPixmap [qt-mt]	_ZN10QImageDrag6trUtf8EPKcS1_ [qt-mt]
_ZN10QImageDrag7qt_castEPKc [qt-mt]	_ZN10QImageDrag7qt_emitEiP8QUObject [qt-mt]
_ZN10QImageDrag8setImageE6QImage [qt-mt]	_ZN10QImageDrag9canDecodeEPK11QMimeSource [qt-mt]
_ZN10QImageDrag9qt_invokeEiP8QUObject [qt-mt]	_ZN10QImageDragC1E6QImageP7QWidgetPKc [qt-mt]
_ZN10QImageDragC1EP7QWidgetPKc [qt-mt]	_ZN10QImageDragC2E6QImageP7QWidgetPKc [qt-mt]
_ZN10QImageDragC2EP7QWidgetPKc [qt-mt]	_ZN10QImageDragD0Ev [qt-mt]
_ZN10QImageDragD1Ev [qt-mt]	_ZN10QImageDragD2Ev [qt-mt]
_ZN11QDragObject11qt_propertyEiiP8QVariant [qt-mt]	_ZN11QDragObject16staticMetaObjectEv [qt-mt]
_ZN11QDragObject18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN11QDragObject2trEPKcS1_ [qt-mt]
_ZN11QDragObject4dragENS_8DragModeE [qt-mt]	_ZN11QDragObject4dragEv [qt-mt]
_ZN11QDragObject6sourceEv [qt-mt]	_ZN11QDragObject6targetEv [qt-mt]
ZN11QDragObject6trUtf8EPKcS1 [qt-mt]	_ZN11QDragObject7qt_castEPKc [qt-mt]
_ZN11QDragObject7qt_emitEiP8QUObject [qt-mt]	_ZN11QDragObject8dragCopyEv [qt-mt]
_ZN11QDragObject8dragLinkEv [qt-mt]	_ZN11QDragObject8dragMoveEv [qt-mt]
_ZN11QDragObject9qt_invokeEiP8QUObject [qt-mt]	_ZN11QDragObject9setPixmapE7QPixmap [qt-mt]
_ZN11QDragObject9setPixmapE7QPixmapRK6QPoint [qt-mt]	_ZN11QDragObject9setTargetEP7QWidget [qt-mt]
_ZN11QDragObjectC1EP7QWidgetPKc [qt-mt]	_ZN11QDragObjectC2EP7QWidgetPKc [qt-mt]

_ZN11QDragObjectD0Ev [qt-mt]	_ZN11QDragObjectD1Ev [qt-mt]
_ZN11QDragObjectD2Ev [qt-mt]	_ZN11QStoredDrag11qt_propertyEiiP8QVariant [qt-mt]
_ZN11QStoredDrag14setEncodedDataERK9QMemArrayIcE [qt-mt]	_ZN11QStoredDrag16staticMetaObjectEv [qt-mt]
_ZN11QStoredDrag18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN11QStoredDrag2trEPKcS1_ [qt-mt]
ZN11QStoredDrag6trUtf8EPKcS1 [qt-mt]	_ZN11QStoredDrag7qt_castEPKc [qt-mt]
_ZN11QStoredDrag7qt_emitEiP8QUObject [qt-mt]	_ZN11QStoredDrag9qt_invokeEiP8QUObject [qt-mt]
ZN11QStoredDragC1EPKcP7QWidgetS1 [qt-mt]	_ZN11QStoredDragC2EPKcP7QWidgetS1_ [qt-mt]
_ZN11QStoredDragD0Ev [qt-mt]	_ZN11QStoredDragD1Ev [qt-mt]
_ZN11QStoredDragD2Ev [qt-mt]	_ZN13QIconDragData11setTextRectERK5QRect [qt-mt]
_ZN13QIconDragData13setPixmapRectERK5QRect [qt-mt]	_ZN13QIconDragDataC1ERK5QRectS2_ [qt-mt]
_ZN13QIconDragDataC1Ev [qt-mt]	_ZN13QIconDragDataC2ERK5QRectS2_ [qt-mt]
_ZN13QIconDragDataC2Ev [qt-mt]	_ZN13QIconDragItem7setDataERK9QMemArrayIcE [qt-mt]
_ZN13QIconDragItemC1Ev [qt-mt]	_ZN13QIconDragItemC2Ev [qt-mt]
_ZN13QIconDragItemD0Ev [qt-mt]	_ZN13QIconDragItemD1Ev [qt-mt]
_ZN13QIconDragItemD2Ev [qt-mt]	_ZN8QUriDrag11qt_propertyEiiP8QVariant [qt-mt]
_ZN8QUriDrag12setFileNamesERK11QStringList [qt-mt]	_ZN8QUriDrag14localFileToUriERK7QString [qt-mt]
_ZN8QUriDrag14setUnicodeUriisERK11QStringList [qt-mt]	_ZN8QUriDrag14uriToLocalFileEPKc [qt-mt]
_ZN8QUriDrag15unicodeUriToUriERK7QString [qt-mt]	_ZN8QUriDrag15uriToUnicodeUriEPKc [qt-mt]
_ZN8QUriDrag16decodeLocalFilesEPK11QMimeSourceR11QStringList [qt-mt]	_ZN8QUriDrag16staticMetaObjectEv [qt-mt]
_ZN8QUriDrag18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN8QUriDrag19decodeToUnicodeUriisERK7QString [qt-mt]
ZN8QUriDrag2trEPKcS1 [qt-mt]	_ZN8QUriDrag6decodeEPK11QMimeSource [qt-mt]
ZN8QUriDrag6trUtf8EPKcS1 [qt-mt]	_ZN8QUriDrag7qt_castEPKc [qt-mt]
_ZN8QUriDrag7qt_emitEiP8QUObject [qt-mt]	_ZN8QUriDrag7setUriisE8QStrList [qt-mt]
_ZN8QUriDrag9canDecodeEPK11QMimeSource [qt-mt]	_ZN8QUriDrag9qt_invokeEiP8QUObject [qt-mt]
_ZN8QUriDragC1E8QStrListP7QWidgetPKc [qt-mt]	_ZN8QUriDragC1EP7QWidgetPKc [qt-mt]
_ZN8QUriDragC2E8QStrListP7QWidgetPKc [qt-mt]	_ZN8QUriDragC2EP7QWidgetPKc [qt-mt]
_ZN8QUriDragD0Ev [qt-mt]	_ZN8QUriDragD1Ev [qt-mt]
_ZN8QUriDragD2Ev [qt-mt]	_ZN9QDropSiteC1EP7QWidget [qt-mt]
_ZN9QDropSiteC2EP7QWidget [qt-mt]	_ZN9QDropSiteD0Ev [qt-mt]
_ZN9QDropSiteD1Ev [qt-mt]	_ZN9QDropSiteD2Ev [qt-mt]
_ZN9QIconDrag11qt_propertyEiiP8QVariant [qt-mt]	_ZN9QIconDrag16staticMetaObjectEv [qt-mt]

_ZN9QIconDrag18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN9QIconDrag2trEPKcS1_ [qt-mt]
ZN9QIconDrag6appendERK13QIconDragItemRK5QRectS5 [qt-mt]	_ZN9QIconDrag6trUtf8EPKcS1_ [qt-mt]
_ZN9QIconDrag7qt_castEPKc [qt-mt]	_ZN9QIconDrag7qt_emitEiP8QUObject [qt-mt]
_ZN9QIconDrag9canDecodeEP11QMimeSource [qt-mt]	_ZN9QIconDrag9qt_invokeEiP8QUObject [qt-mt]
_ZN9QIconDragC1EP7QWidgetPKc [qt-mt]	_ZN9QIconDragC2EP7QWidgetPKc [qt-mt]
_ZN9QIconDragD0Ev [qt-mt]	_ZN9QIconDragD1Ev [qt-mt]
_ZN9QIconDragD2Ev [qt-mt]	_ZN9QTextDrag10setSubtypeERK8QCString [qt-mt]
_ZN9QTextDrag11qt_propertyEiiP8QVariant [qt-mt]	_ZN9QTextDrag16staticMetaObjectEv [qt-mt]
_ZN9QTextDrag18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN9QTextDrag2trEPKcS1_ [qt-mt]
_ZN9QTextDrag6decodeEPK11QMimeSourceR7QString [qt-mt]	_ZN9QTextDrag6decodeEPK11QMimeSource [qt-mt]
ZN9QTextDrag6trUtf8EPKcS1 [qt-mt]	_ZN9QTextDrag7qt_castEPKc [qt-mt]
_ZN9QTextDrag7qt_emitEiP8QUObject [qt-mt]	_ZN9QTextDrag7setTextERK7QString [qt-mt]
_ZN9QTextDrag9canDecodeEPK11QMimeSource [qt-mt]	_ZN9QTextDrag9qt_invokeEiP8QUObject [qt-mt]
_ZN9QTextDragC1EP7QWidgetPKc [qt-mt]	_ZN9QTextDragC1ERK7QStringP7QWidget [qt-mt]
_ZN9QTextDragC2EP7QWidgetPKc [qt-mt]	_ZN9QTextDragC2ERK7QStringP7QWidget [qt-mt]
_ZN9QTextDragD0Ev [qt-mt]	_ZN9QTextDragD1Ev [qt-mt]
_ZN9QTextDragD2Ev [qt-mt]	_ZNK10QColorDrag9classNameEv [qt-mt]
_ZNK10QDropEvent11encodedDataEPKc [qt-mt]	_ZNK10QDropEvent6formatEi [qt-mt]
_ZNK10QDropEvent6sourceEv [qt-mt]	_ZNK10QDropEvent8providesEPKc [qt-mt]
_ZNK10QImageDrag11encodedDataEPKc [qt-mt]	_ZNK10QImageDrag6formatEi [qt-mt]
_ZNK10QImageDrag9classNameEv [qt-mt]	_ZNK11QDragObject13pixmapHotSpotEv [qt-mt]
_ZNK11QDragObject6pixmapEv [qt-mt]	_ZNK11QDragObject9classNameEv [qt-mt]
_ZNK11QStoredDrag11encodedDataEPKc [qt-mt]	_ZNK11QStoredDrag6formatEi [qt-mt]
_ZNK11QStoredDrag9classNameEv [qt-mt]	_ZNK13QIconDragData10pixmapRectEv [qt-mt]
_ZNK13QIconDragData8textRectEv [qt-mt]	_ZNK13QIconDragDataeqERKS_ [qt-mt]
_ZNK13QIconDragItem4dataEv [qt-mt]	_ZNK13QIconDragItemeqERKS_ [qt-mt]
ZNK17QIconDragDataItemeqERKS [qt-mt]	_ZNK8QUriDrag9classNameEv [qt-mt]
_ZNK9QIconDrag11encodedDataEPKc [qt-mt]	_ZNK9QIconDrag6formatEi [qt-mt]
_ZNK9QIconDrag9classNameEv [qt-mt]	_ZNK9QTextDrag11encodedDataEPKc [qt-mt]
_ZNK9QTextDrag6formatEi [qt-mt]	_ZNK9QTextDrag9classNameEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Drag and Drop specified in [Table 18-88](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-88. libqt-mt - Qt3 Drag and Drop Data Interfaces

_ZN10QColorDrag7metaObjE [qt-mt]	_ZN10QImageDrag7metaObjE [qt-mt]
_ZN11QDragObject7metaObjE [qt-mt]	_ZN11QStoredDrag7metaObjE [qt-mt]
_ZN8QUriDrag7metaObjE [qt-mt]	_ZN9QIconDrag7metaObjE [qt-mt]
_ZN9QTextDrag7metaObjE [qt-mt]	_ZTI10QColorDrag [CXXABI-1.86]
_ZTI10QDropEvent [CXXABI-1.86]	_ZTI10QImageDrag [CXXABI-1.86]
_ZTI11QDragObject [CXXABI-1.86]	_ZTI11QStoredDrag [CXXABI-1.86]
_ZTI13QIconDragItem [CXXABI-1.86]	_ZTI14QDragMoveEvent [CXXABI-1.86]
_ZTI15QDragEnterEvent [CXXABI-1.86]	_ZTI15QDragLeaveEvent [CXXABI-1.86]
_ZTI18QDragResponseEvent [CXXABI-1.86]	_ZTI8QUriDrag [CXXABI-1.86]
_ZTI9QDropSite [CXXABI-1.86]	_ZTI9QIconDrag [CXXABI-1.86]
_ZTI9QTextDrag [CXXABI-1.86]	_ZTV10QColorDrag [CXXABI-1.86]
_ZTV10QDropEvent [CXXABI-1.86]	_ZTV10QImageDrag [CXXABI-1.86]
_ZTV11QDragObject [CXXABI-1.86]	_ZTV11QStoredDrag [CXXABI-1.86]
_ZTV13QIconDragItem [CXXABI-1.86]	_ZTV14QDragMoveEvent [CXXABI-1.86]
_ZTV15QDragEnterEvent [CXXABI-1.86]	_ZTV15QDragLeaveEvent [CXXABI-1.86]
_ZTV18QDragResponseEvent [CXXABI-1.86]	_ZTV8QUriDrag [CXXABI-1.86]
_ZTV9QDropSite [CXXABI-1.86]	_ZTV9QIconDrag [CXXABI-1.86]
_ZTV9QTextDrag [CXXABI-1.86]	

18.2.9. Qt3 Events

18.2.9.1. Class data for QContextMenuEvent

The virtual table for the QContextMenuEvent class is described by [Table 18-89](#)

Table 18-89. Primary vtable for QContextMenuEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QContextMenuEvent
vfunc[0]:	NULL or QContextMenuEvent::~~QContextMenuEvent()
vfunc[1]:	NULL or QContextMenuEvent::~~QContextMenuEvent()

The Run Time Type Information for the QContextMenuEvent class is described by [Table 18-90](#)

Table 18-90. typeinfo for QContextMenuEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QContextMenuEvent
basetype:	typeinfo for QEvent

18.2.9.2. Class data for QIMEvent

The virtual table for the QIMEvent class is described by [Table 18-91](#)

Table 18-91. Primary vtable for QIMEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIMEvent
vfunc[0]:	NULL or QIMEvent::~~QIMEvent()
vfunc[1]:	NULL or QIMEvent::~~QIMEvent()

The Run Time Type Information for the QIMEvent class is described by [Table 18-92](#)

Table 18-92. typeinfo for QIMEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIMEvent
basetype:	typeinfo for QEvent

18.2.9.3. Class data for QTimerEvent

The virtual table for the QTimerEvent class is described by [Table 18-93](#)

Table 18-93. Primary vtable for QTimerEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTimerEvent
vfunc[0]:	NULL or QTimerEvent::~~QTimerEvent()
vfunc[1]:	NULL or QTimerEvent::~~QTimerEvent()

The Run Time Type Information for the QTimerEvent class is described by [Table 18-94](#)

Table 18-94. typeinfo for QTimerEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTimerEvent
basetype:	typeinfo for QEvent

18.2.9.4. Class data for QKeyEvent

The virtual table for the QKeyEvent class is described by [Table 18-95](#)

Table 18-95. Primary vtable for QKeyEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QKeyEvent
vfunc[0]:	NULL or QKeyEvent::~~QKeyEvent()
vfunc[1]:	NULL or QKeyEvent::~~QKeyEvent()

The Run Time Type Information for the QKeyEvent class is described by [Table 18-96](#)

Table 18-96. typeinfo for QKeyEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QKeyEvent
basetype:	typeinfo for QEvent

18.2.9.5. Class data for QCustomEvent

The virtual table for the QCustomEvent class is described by [Table 18-97](#)

Table 18-97. Primary vtable for QCustomEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCustomEvent
vfunc[0]:	NULL or QCustomEvent::~~QCustomEvent()
vfunc[1]:	NULL or QCustomEvent::~~QCustomEvent()

The Run Time Type Information for the QCustomEvent class is described by [Table 18-98](#)

Table 18-98. typeinfo for QCustomEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCustomEvent
basetype:	typeinfo for QEvent

18.2.9.6. Class data for QEventLoop

The virtual table for the QEventLoop class is described by [Table 18-99](#)

Table 18-99. Primary vtable for QEventLoop

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QEventLoop
vfunc[0]:	NULL or QEventLoop::metaObject() const
vfunc[1]:	QEventLoop::className() const
vfunc[2]:	QEventLoop::qt_cast(char const*)
vfunc[3]:	QEventLoop::qt_invoke(int, QUObject*)
vfunc[4]:	QEventLoop::qt_emit(int, QUObject*)
vfunc[5]:	QEventLoop::qt_property(int, int, QVariant*)
vfunc[6]:	QEventLoop::~~QEventLoop()
vfunc[7]:	QEventLoop::~~QEventLoop()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)

vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QEventLoop::processEvents(unsigned int)
vfunc[22]:	QEventLoop::hasPendingEvents() const
vfunc[23]:	QEventLoop::registerSocketNotifier(QSocketNotifier*)
vfunc[24]:	QEventLoop::unregisterSocketNotifier(QSocketNotifier*)
vfunc[25]:	QEventLoop::exec()
vfunc[26]:	QEventLoop::exit(int)
vfunc[27]:	QEventLoop::enterLoop()
vfunc[28]:	QEventLoop::exitLoop()
vfunc[29]:	QEventLoop::loopLevel() const
vfunc[30]:	QEventLoop::wakeUp()
vfunc[31]:	QEventLoop::appStartingUp()
vfunc[32]:	QEventLoop::appClosingDown()

The Run Time Type Information for the QEventLoop class is described by [Table 18-100](#)

Table 18-100. typeinfo for QEventLoop

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QEventLoop
basetype:	typeinfo for QObject

18.2.9.7. Class data for QHideEvent

The virtual table for the QHideEvent class is described by [Table 18-101](#)

Table 18-101. Primary vtable for QHideEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHideEvent
vfunc[0]:	NULL or QHideEvent::~~QHideEvent()
vfunc[1]:	NULL or QHideEvent::~~QHideEvent()

The Run Time Type Information for the QHideEvent class is described by [Table 18-102](#)

Table 18-102. typeinfo for QHideEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHideEvent
basetype:	typeinfo for QEvent

18.2.9.8. Class data for QResizeEvent

The virtual table for the QResizeEvent class is described by [Table 18-103](#)

Table 18-103. Primary vtable for QResizeEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QResizeEvent
vfunc[0]:	NULL or QResizeEvent::~~QResizeEvent()
vfunc[1]:	NULL or QResizeEvent::~~QResizeEvent()

The Run Time Type Information for the QResizeEvent class is described by [Table 18-104](#)

Table 18-104. typeinfo for QResizeEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QResizeEvent
basetype:	typeinfo for QEvent

18.2.9.9. Class data for QTabletEvent

The virtual table for the QTabletEvent class is described by [Table 18-105](#)

Table 18-105. Primary vtable for QTabletEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTabletEvent
vfunc[0]:	NULL or QTabletEvent::~~QTabletEvent()
vfunc[1]:	NULL or QTabletEvent::~~QTabletEvent()

The Run Time Type Information for the QTabletEvent class is described by [Table 18-106](#)

Table 18-106. typeinfo for QTabletEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTabletEvent
basetype:	typeinfo for QEvent

18.2.9.10. Class data for QFocusEvent

The virtual table for the QFocusEvent class is described by [Table 18-107](#)

Table 18-107. Primary vtable for QFocusEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFocusEvent
vfunc[0]:	NULL or QFocusEvent::~~QFocusEvent()
vfunc[1]:	NULL or QFocusEvent::~~QFocusEvent()

The Run Time Type Information for the QFocusEvent class is described by [Table 18-108](#)

Table 18-108. typeinfo for QFocusEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFocusEvent
basetype:	typeinfo for QEvent

18.2.9.11. Class data for QMouseEvent

The virtual table for the QMouseEvent class is described by [Table 18-109](#)

Table 18-109. Primary vtable for QMouseEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMouseEvent
vfunc[0]:	NULL or QMouseEvent::~~QMouseEvent()
vfunc[1]:	NULL or QMouseEvent::~~QMouseEvent()

The Run Time Type Information for the QMouseEvent class is described by [Table 18-110](#)

Table 18-110. typeinfo for QMouseEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMouseEvent
basetype:	typeinfo for QEvent

18.2.9.12. Class data for QChildEvent

The virtual table for the QChildEvent class is described by [Table 18-111](#)

Table 18-111. Primary vtable for QChildEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QChildEvent
vfunc[0]:	NULL or QChildEvent::~~QChildEvent()
vfunc[1]:	NULL or QChildEvent::~~QChildEvent()

The Run Time Type Information for the QChildEvent class is described by [Table 18-112](#)

Table 18-112. typeinfo for QChildEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QChildEvent
basetype:	typeinfo for QEvent

18.2.9.13. Class data for QEvent

The virtual table for the QEvent class is described by [Table 18-113](#)

Table 18-113. Primary vtable for QEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QEvent
vfunc[0]:	QEvent::~~QEvent()
vfunc[1]:	QEvent::~~QEvent()

The Run Time Type Information for the QEvent class is described by [Table 18-114](#)

Table 18-114. typeinfo for QEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QEvent
basetype:	typeinfo for Qt

18.2.9.14. Class data for QIMComposeEvent

The virtual table for the QIMComposeEvent class is described by [Table 18-115](#)

Table 18-115. Primary vtable for QIMComposeEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIMComposeEvent
vfunc[0]:	NULL or QIMComposeEvent::~~QIMComposeEvent()
vfunc[1]:	NULL or QIMComposeEvent::~~QIMComposeEvent()

The Run Time Type Information for the QIMComposeEvent class is described by [Table 18-116](#)

Table 18-116. typeinfo for QIMComposeEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIMComposeEvent
basetype:	typeinfo for QIMEvent

18.2.9.15. Class data for QShowEvent

The virtual table for the QShowEvent class is described by [Table 18-117](#)

Table 18-117. Primary vtable for QShowEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QShowEvent
vfunc[0]:	NULL or QShowEvent::~~QShowEvent()
vfunc[1]:	NULL or QShowEvent::~~QShowEvent()

The Run Time Type Information for the QShowEvent class is described by [Table 18-118](#)

Table 18-118. typeinfo for QShowEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QShowEvent
basetype:	typeinfo for QEvent

18.2.9.16. Class data for QPaintEvent

The virtual table for the QPaintEvent class is described by [Table 18-119](#)

Table 18-119. Primary vtable for QPaintEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPaintEvent
vfunc[0]:	NULL or QPaintEvent::~~QPaintEvent()
vfunc[1]:	NULL or QPaintEvent::~~QPaintEvent()

The Run Time Type Information for the QPaintEvent class is described by [Table 18-120](#)

Table 18-120. typeinfo for QPaintEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPaintEvent
basetype:	typeinfo for QEvent

18.2.9.17. Class data for QWheelEvent

The virtual table for the QWheelEvent class is described by [Table 18-121](#)

Table 18-121. Primary vtable for QWheelEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWheelEvent
vfunc[0]:	NULL or QWheelEvent::~~QWheelEvent()
vfunc[1]:	NULL or QWheelEvent::~~QWheelEvent()

The Run Time Type Information for the QWheelEvent class is described by [Table 18-122](#)

Table 18-122. typeinfo for QWheelEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWheelEvent
basetype:	typeinfo for QEvent

18.2.9.18. Class data for QMoveEvent

The virtual table for the QMoveEvent class is described by [Table 18-123](#)

Table 18-123. Primary vtable for QMoveEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMoveEvent
vfunc[0]:	NULL or QMoveEvent::~~QMoveEvent()
vfunc[1]:	NULL or QMoveEvent::~~QMoveEvent()

The Run Time Type Information for the QMoveEvent class is described by [Table 18-124](#)

Table 18-124. typeinfo for QMoveEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMoveEvent
basetype:	typeinfo for QEvent

18.2.9.19. Class data for QCloseEvent

The virtual table for the QCloseEvent class is described by [Table 18-125](#)

Table 18-125. Primary vtable for QCloseEvent

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCloseEvent
vfunc[0]:	NULL or QCloseEvent::~~QCloseEvent()
vfunc[1]:	NULL or QCloseEvent::~~QCloseEvent()

The Run Time Type Information for the QCloseEvent class is described by [Table 18-126](#)

Table 18-126. typeinfo for QCloseEvent

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCloseEvent
basetype:	typeinfo for QEvent

18.2.9.20. Interfaces for Qt3 Events

An LSB conforming implementation shall provide the generic functions for Qt3 Events specified in [Table 18-127](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-127. libqt-mt - Qt3 Events Function Interfaces

_ZN10QEventLoop11qt_propertyEiiP8QVariant [qt-mt]	_ZN10QEventLoop12aboutToBlockEv
_ZN10QEventLoop13appStartingUpEv [qt-mt]	_ZN10QEventLoop13processEventsEj
_ZN10QEventLoop13processEventsEji [qt-mt]	_ZN10QEventLoop14activateTimersEv
_ZN10QEventLoop14appClosingDownEv [qt-mt]	_ZN10QEventLoop16staticMetaObject
_ZN10QEventLoop18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN10QEventLoop22registerSocketNotif
_ZN10QEventLoop23activateSocketNotifiersEv [qt-mt]	_ZN10QEventLoop24setSocketNotifier [qt-mt]
_ZN10QEventLoop24unregisterSocketNotifierEP15QSocketNotifier [qt-mt]	_ZN10QEventLoop2trEPKcS1_ [qt-mt]
_ZN10QEventLoop4execEv [qt-mt]	_ZN10QEventLoop4exitEi [qt-mt]
_ZN10QEventLoop4initEv [qt-mt]	_ZN10QEventLoop5awakeEv [qt-mt]
ZN10QEventLoop6trUtf8EPKcS1 [qt-mt]	_ZN10QEventLoop6wakeUpEv [qt-mt]
_ZN10QEventLoop7cleanupEv [qt-mt]	_ZN10QEventLoop7qt_castEPKc [qt-mt]
_ZN10QEventLoop7qt_emitEiP8QUObject [qt-mt]	_ZN10QEventLoop8exitLoopEv [qt-mt]
_ZN10QEventLoop9enterLoopEv [qt-mt]	_ZN10QEventLoop9qt_invokeEiP8QUObject [qt-mt]
_ZN10QEventLoopC1EP7QObjectPKc [qt-mt]	_ZN10QEventLoopC2EP7QObjectPKc [qt-mt]
_ZN10QEventLoopD0Ev [qt-mt]	_ZN10QEventLoopD1Ev [qt-mt]
_ZN10QEventLoopD2Ev [qt-mt]	_ZN11QFocusEvent11resetReasonEv [qt-mt]
_ZN11QFocusEvent6reasonEv [qt-mt]	_ZN11QFocusEvent9setReasonENS_6Reason [qt-mt]
_ZN11QMouseEventC1EN6QEvent4TypeERK6QPointii [qt-mt]	_ZN11QMouseEventC2EN6QEvent4TypeERK6QPointii [qt-mt]
_ZN11QWheelEventC1ERK6QPointiiN2Qt11OrientationE [qt-mt]	_ZN11QWheelEventC2ERK6QPointiiN2Qt11OrientationE [qt-mt]
_ZN12QCustomEventC1Ei [qt-mt]	_ZN12QCustomEventC2Ei [qt-mt]
_ZN12QTabletEventC1EN6QEvent4TypeERK6QPointS4_iiiiRK5QPairIiiE [qt-mt]	_ZN12QTabletEventC2EN6QEvent4TypeERK6QPointS4_iiiiRK5QPairIiiE [qt-mt]
_ZN17QContextMenuEventC1ENS_6ReasonERK6QPointi [qt-mt]	_ZN17QContextMenuEventC2ENS_6ReasonERK6QPointi [qt-mt]

_ZN6QEventD0Ev [qt-mt]	_ZN6QEventD1Ev [qt-mt]
_ZN6QEventD2Ev [qt-mt]	_ZNK10QEventLoop10timeToWaitEv
_ZNK10QEventLoop16hasPendingEventsEv [qt-mt]	_ZNK10QEventLoop9classNameEv [qt-mt]
_ZNK10QEventLoop9loopLevelEv [qt-mt]	_ZNK11QMouseEvent10stateAfterEv
_ZNK9QKeyEvent10stateAfterEv [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Events specified in [Table 18-128](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-128. libqt-mt - Qt3 Events Data Interfaces

_ZN10QEventLoop7metaObjE [qt-mt]	_ZN11QFocusEvent11prev_reasonE [qt-mt]
_ZN11QFocusEvent8m_reasonE [qt-mt]	_ZTI10QEventLoop [CXXABI-1.86]
_ZTI10QHideEvent [CXXABI-1.86]	_ZTI10QMoveEvent [CXXABI-1.86]
_ZTI10QShowEvent [CXXABI-1.86]	_ZTI11QChildEvent [CXXABI-1.86]
_ZTI11QCloseEvent [CXXABI-1.86]	_ZTI11QFocusEvent [CXXABI-1.86]
_ZTI11QMouseEvent [CXXABI-1.86]	_ZTI11QPaintEvent [CXXABI-1.86]
_ZTI11QTimerEvent [CXXABI-1.86]	_ZTI11QWheelEvent [CXXABI-1.86]
_ZTI12QCustomEvent [CXXABI-1.86]	_ZTI12QResizeEvent [CXXABI-1.86]
_ZTI12QTabletEvent [CXXABI-1.86]	_ZTI15QIMComposeEvent [CXXABI-1.86]
_ZTI17QContextMenuEvent [CXXABI-1.86]	_ZTI6QEvent [CXXABI-1.86]
_ZTI8QIMEvent [CXXABI-1.86]	_ZTI9QKeyEvent [CXXABI-1.86]
_ZTV10QEventLoop [CXXABI-1.86]	_ZTV10QHideEvent [CXXABI-1.86]
_ZTV10QMoveEvent [CXXABI-1.86]	_ZTV10QShowEvent [CXXABI-1.86]
_ZTV11QChildEvent [CXXABI-1.86]	_ZTV11QCloseEvent [CXXABI-1.86]
_ZTV11QFocusEvent [CXXABI-1.86]	_ZTV11QMouseEvent [CXXABI-1.86]
_ZTV11QPaintEvent [CXXABI-1.86]	_ZTV11QTimerEvent [CXXABI-1.86]
_ZTV11QWheelEvent [CXXABI-1.86]	_ZTV12QCustomEvent [CXXABI-1.86]
_ZTV12QResizeEvent [CXXABI-1.86]	_ZTV12QTabletEvent [CXXABI-1.86]
_ZTV15QIMComposeEvent [CXXABI-1.86]	_ZTV17QContextMenuEvent [CXXABI-1.86]
_ZTV6QEvent [CXXABI-1.86]	_ZTV8QIMEvent [CXXABI-1.86]
_ZTV9QKeyEvent [CXXABI-1.86]	

18.2.10. Qt3 Internationalization

18.2.10.1. Class data for QTextCodec

The virtual table for the QTextCodec class is described by [Table 18-129](#)

Table 18-129. Primary vtable for QTextCodec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextCodec
vfunc[0]:	NULL or QTextCodec::~~QTextCodec()
vfunc[1]:	NULL or QTextCodec::~~QTextCodec()
vfunc[2]:	QTextCodec::name() const
vfunc[3]:	QTextCodec::mimeTypeName() const
vfunc[4]:	QTextCodec::mibEnum() const
vfunc[5]:	QTextCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QTextCodec::toUnicode(char const*, int) const
vfunc[8]:	QTextCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QTextCodec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QTextCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QTextCodec class is described by [Table 18-130](#)

Table 18-130. typeinfo for QTextCodec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextCodec
basetype:	typeinfo for QTextCodec

18.2.10.2. Class data for QTranslator

The virtual table for the QTranslator class is described by [Table 18-131](#)

Table 18-131. Primary vtable for QTranslator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTranslator
vfunc[0]:	NULL or QTranslator::metaObject() const
vfunc[1]:	QTranslator::className() const
vfunc[2]:	QTranslator::qt_cast(char const*)
vfunc[3]:	QTranslator::qt_invoke(int, QUObject*)
vfunc[4]:	QTranslator::qt_emit(int, QUObject*)
vfunc[5]:	QTranslator::qt_property(int, int, QVariant*)
vfunc[6]:	QTranslator::~~QTranslator()
vfunc[7]:	QTranslator::~~QTranslator()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QTranslator::findMessage(char const*, char const*, char const*) const

The Run Time Type Information for the QTranslator class is described by [Table 18-132](#)

Table 18-132. typeinfo for QTranslator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTranslator
basetype:	typeinfo for QObject

18.2.10.3. Class data for QGb18030Codec

The virtual table for the QGb18030Codec class is described by [Table 18-133](#)

Table 18-133. Primary vtable for QGb18030Codec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGb18030Codec
vfunc[0]:	NULL or QGb18030Codec::~~QGb18030Codec()
vfunc[1]:	NULL or QGb18030Codec::~~QGb18030Codec()
vfunc[2]:	QGb18030Codec::name() const
vfunc[3]:	QTextCodec::mimeTypeName() const
vfunc[4]:	QGb18030Codec::mibEnum() const
vfunc[5]:	QGb18030Codec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QGb18030Codec::toUnicode(char const*, int) const
vfunc[8]:	QGb18030Codec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QGb18030Codec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QGb18030Codec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QGb18030Codec class is described by [Table 18-134](#)

Table 18-134. typeinfo for QGb18030Codec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGb18030Codec
basetype:	typeinfo for QTextCodec

18.2.10.4. Class data for QGbkCodec

The virtual table for the QGbkCodec class is described by [Table 18-135](#)

Table 18-135. Primary vtable for QGbkCodec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGbkCodec
vfunc[0]:	NULL or QGbkCodec::~~QGbkCodec()
vfunc[1]:	NULL or QGbkCodec::~~QGbkCodec()
vfunc[2]:	QGbkCodec::name() const
vfunc[3]:	QTextCodec::mimeTypeName() const
vfunc[4]:	QGbkCodec::mibEnum() const
vfunc[5]:	QGbkCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QGbkCodec::toUnicode(char const*, int) const
vfunc[8]:	QGbkCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QGbkCodec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QGbkCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QGbkCodec class is described by [Table 18-136](#)

Table 18-136. typeinfo for QGbkCodec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGbkCodec
basetype:	typeinfo for QGbk18030Codec

18.2.10.5. Class data for QTextCodec

The virtual table for the QTextCodec class is described by [Table 18-137](#)

Table 18-137. Primary vtable for QTextCodec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextCodec
vfunc[0]:	NULL or QTextCodec::~~QTextCodec()
vfunc[1]:	NULL or QTextCodec::~~QTextCodec()
vfunc[2]:	QTextCodec::name() const
vfunc[3]:	QTextCodec::mimeType() const
vfunc[4]:	QTextCodec::mibEnum() const
vfunc[5]:	QTextCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QTextCodec::toUnicode(char const*, int) const
vfunc[8]:	QTextCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QTextCodec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QTextCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QTextCodec class is described by [Table 18-138](#)

Table 18-138. typeinfo for QTextCodec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextCodec
basetype:	typeinfo for QTextCodec

18.2.10.6. Class data for QEuKkrCodec

The virtual table for the QEuKkrCodec class is described by [Table 18-139](#)

Table 18-139. Primary vtable for QEucKrCodec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QEucKrCodec
vfunc[0]:	NULL or QEucKrCodec::~~QEucKrCodec()
vfunc[1]:	NULL or QEucKrCodec::~~QEucKrCodec()
vfunc[2]:	QEucKrCodec::name() const
vfunc[3]:	QEucKrCodec::mimeType() const
vfunc[4]:	QEucKrCodec::mibEnum() const
vfunc[5]:	QEucKrCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QEucKrCodec::toUnicode(char const*, int) const
vfunc[8]:	QEucKrCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QEucKrCodec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QEucKrCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QEucKrCodec class is described by [Table 18-140](#)

Table 18-140. typeinfo for QEucKrCodec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QEucKrCodec
basetype:	typeinfo for QTextCodec

18.2.10.7. Class data for QJisCodec

The virtual table for the QJisCodec class is described by [Table 18-141](#)

Table 18-141. Primary vtable for QJisCodec

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QJisCodec
vfunc[0]:	QJisCodec::~~QJisCodec()
vfunc[1]:	QJisCodec::~~QJisCodec()
vfunc[2]:	QJisCodec::name() const
vfunc[3]:	QJisCodec::mimeType() const
vfunc[4]:	QJisCodec::mibEnum() const
vfunc[5]:	QJisCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QJisCodec::toUnicode(char const*, int) const
vfunc[8]:	QJisCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QJisCodec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QJisCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QJisCodec class is described by [Table 18-142](#)

Table 18-142. typeinfo for QJisCodec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QJisCodec
basetype:	typeinfo for QTextCodec

18.2.10.8. Class data for QTextEncoder

The virtual table for the QTextEncoder class is described by [Table 18-143](#)

Table 18-143. Primary vtable for QTextEncoder

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextEncoder
vfunc[0]:	QTextEncoder::~~QTextEncoder()
vfunc[1]:	QTextEncoder::~~QTextEncoder()

vfunc[2]:	__cxa_pure_virtual

The Run Time Type Information for the QTextEncoder class is described by [Table 18-144](#)

Table 18-144. typeinfo for QTextEncoder

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QTextEncoder

18.2.10.9. Class data for QTsciiCodec

The virtual table for the QTsciiCodec class is described by [Table 18-145](#)

Table 18-145. Primary vtable for QTsciiCodec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTsciiCodec
vfunc[0]:	NULL or QTsciiCodec::~~QTsciiCodec()
vfunc[1]:	NULL or QTsciiCodec::~~QTsciiCodec()
vfunc[2]:	QTsciiCodec::name() const
vfunc[3]:	QTextCodec::mimeTypeName() const
vfunc[4]:	QTsciiCodec::mibEnum() const
vfunc[5]:	QTextCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QTsciiCodec::toUnicode(char const*, int) const
vfunc[8]:	QTsciiCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QTsciiCodec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QTsciiCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QTsciiCodec class is described by [Table 18-146](#)

Table 18-146. typeinfo for QTsciiCodec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTsciiCodec
basetype:	typeinfo for QTextCodec

18.2.10.10. Class data for QSjisCodec

The virtual table for the QSjisCodec class is described by [Table 18-147](#)

Table 18-147. Primary vtable for QSjisCodec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSjisCodec
vfunc[0]:	QSjisCodec::~~QSjisCodec()
vfunc[1]:	QSjisCodec::~~QSjisCodec()
vfunc[2]:	QSjisCodec::name() const
vfunc[3]:	QSjisCodec::mimeTypeName() const
vfunc[4]:	QSjisCodec::mibEnum() const
vfunc[5]:	QSjisCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QSjisCodec::toUnicode(char const*, int) const
vfunc[8]:	QSjisCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QSjisCodec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QSjisCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QSjisCodec class is described by [Table 18-148](#)

Table 18-148. typeinfo for QSjisCodec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSjisCodec
basetype:	typeinfo for QTextCodec

18.2.10.11. Class data for QEucJpCodec

The virtual table for the QEucJpCodec class is described by [Table 18-149](#)

Table 18-149. Primary vtable for QEucJpCodec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QEucJpCodec
vfunc[0]:	QEucJpCodec::~~QEucJpCodec()
vfunc[1]:	QEucJpCodec::~~QEucJpCodec()
vfunc[2]:	QEucJpCodec::name() const
vfunc[3]:	QEucJpCodec::mimeType() const
vfunc[4]:	QEucJpCodec::mibEnum() const
vfunc[5]:	QEucJpCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QEucJpCodec::toUnicode(char const*, int) const
vfunc[8]:	QEucJpCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QEucJpCodec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QEucJpCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QEucJpCodec class is described by [Table 18-150](#)

Table 18-150. typeinfo for QEucJpCodec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QEucJpCodec
basetype:	typeinfo for QTextCodec

18.2.10.12. Class data for QGb2312Codec

The virtual table for the QGb2312Codec class is described by [Table 18-151](#)

Table 18-151. Primary vtable for QGb2312Codec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGb2312Codec
vfunc[0]:	NULL or QGb2312Codec::~~QGb2312Codec()
vfunc[1]:	NULL or QGb2312Codec::~~QGb2312Codec()
vfunc[2]:	QGb2312Codec::name() const
vfunc[3]:	QTextCodec::mimeTypeName() const
vfunc[4]:	QGb2312Codec::mibEnum() const
vfunc[5]:	QGb2312Codec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QGb2312Codec::toUnicode(char const*, int) const
vfunc[8]:	QGb2312Codec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QGb2312Codec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QGb2312Codec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QGb2312Codec class is described by [Table 18-152](#)

Table 18-152. typeinfo for QGb2312Codec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGb2312Codec
basetype:	typeinfo for QGb18030Codec

18.2.10.13. Class data for QHebrewCodec

The virtual table for the QHebrewCodec class is described by [Table 18-153](#)

Table 18-153. Primary vtable for QHebrewCodec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHebrewCodec
vfunc[0]:	NULL or QHebrewCodec::~~QHebrewCodec()
vfunc[1]:	NULL or QHebrewCodec::~~QHebrewCodec()
vfunc[2]:	QHebrewCodec::name() const
vfunc[3]:	QHebrewCodec::mimeType() const
vfunc[4]:	QHebrewCodec::mibEnum() const
vfunc[5]:	QTextCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QHebrewCodec::toUnicode(char const*, int) const
vfunc[8]:	QHebrewCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	QHebrewCodec::heuristicContentMatch(char const*, int) const
vfunc[12]:	QTextCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QHebrewCodec class is described by [Table 18-154](#)

Table 18-154. typeinfo for QHebrewCodec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHebrewCodec
basetype:	typeinfo for QTextCodec

18.2.10.14. Class data for QTextDecoder

The virtual table for the QTextDecoder class is described by [Table 18-155](#)

Table 18-155. Primary vtable for QTextDecoder

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QTextDecoder
vfunc[0]:	QTextDecoder::~~QTextDecoder()
vfunc[1]:	QTextDecoder::~~QTextDecoder()
vfunc[2]:	__cxa_pure_virtual

The Run Time Type Information for the QTextDecoder class is described by [Table 18-156](#)

Table 18-156. typeinfo for QTextDecoder

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QTextDecoder

18.2.10.15. Class data for QTextCodec

The virtual table for the QTextCodec class is described by [Table 18-157](#)

Table 18-157. Primary vtable for QTextCodec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextCodec
vfunc[0]:	QTextCodec::~~QTextCodec()
vfunc[1]:	QTextCodec::~~QTextCodec()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	QTextCodec::mimeTypeName() const
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	QTextCodec::makeDecoder() const
vfunc[6]:	QTextCodec::makeEncoder() const
vfunc[7]:	QTextCodec::toUnicode(char const*, int) const
vfunc[8]:	QTextCodec::fromUnicode(QString const&, int&) const
vfunc[9]:	QTextCodec::canEncode(QChar) const
vfunc[10]:	QTextCodec::canEncode(QString const&) const
vfunc[11]:	__cxa_pure_virtual
vfunc[12]:	QTextCodec::heuristicNameMatch(char const*) const
vfunc[13]:	QTextCodec::fromUnicode(QString const&, int, int) const
vfunc[14]:	QTextCodec::characterFromUnicode(QString const&, int) const

The Run Time Type Information for the QTextCodec class is described by [Table 18-158](#)

Table 18-158. typeinfo for QTextCodec

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QTextCodec

18.2.10.16. Class data for QJpUnicodeConv

The virtual table for the QJpUnicodeConv class is described by [Table 18-159](#)

Table 18-159. Primary vtable for QJpUnicodeConv

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QJpUnicodeConv
vfunc[0]:	QJpUnicodeConv::asciiToUnicode(unsigned int, unsigned int) const
vfunc[1]:	QJpUnicodeConv::jisx0201LatinToUnicode(unsigned int, unsigned int) const
vfunc[2]:	QJpUnicodeConv::jisx0208ToUnicode(unsigned int, unsigned int) const
vfunc[3]:	QJpUnicodeConv::jisx0212ToUnicode(unsigned int, unsigned int) const
vfunc[4]:	QJpUnicodeConv::unicodeToAscii(unsigned int, unsigned int) const
vfunc[5]:	QJpUnicodeConv::unicodeToJisx0201Latin(unsigned int, unsigned int) const
vfunc[6]:	QJpUnicodeConv::unicodeToJisx0208(unsigned int, unsigned int) const
vfunc[7]:	QJpUnicodeConv::unicodeToJisx0212(unsigned int, unsigned int) const

The Run Time Type Information for the QJpUnicodeConv class is described by [Table 18-160](#)

Table 18-160. typeinfo for QJpUnicodeConv

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QJpUnicodeConv

18.2.10.17. Interfaces for Qt3 Internationalization

An LSB conforming implementation shall provide the generic functions for Qt3 Internationalization specified in [Table 18-161](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-161. libqt-mt - Qt3 Internationalization Function Interfaces

_ZN10QSjisCodecC1Ev [qt-mt]	_ZN10QSjisCodecC2Ev [qt-mt]
_ZN10QSjisCodecD0Ev [qt-mt]	_ZN10QSjisCodecD1Ev [qt-mt]

_ZN10QSjisCodecD2Ev [qt-mt]	_ZN10QTextCodec11codecForMibEi [qt-mt]
_ZN10QTextCodec11loadCharmapEP9QIODevice [qt-mt]	_ZN10QTextCodec12codecForNameEPKci [qt-mt]
_ZN10QTextCodec13codecForIndexEi [qt-mt]	_ZN10QTextCodec14codecForLocaleEv [qt-mt]
_ZN10QTextCodec15codecForContentEPKci [qt-mt]	_ZN10QTextCodec15deleteAllCodecsEv [qt-mt]
_ZN10QTextCodec15loadCharmapFileE7QString [qt-mt]	_ZN10QTextCodec17setCodecForLocaleEPS_ [qt-mt]
_ZN10QTextCodec19fromUnicodeInternalEPK5QCharPti [qt-mt]	_ZN10QTextCodec24simpleHeuristicNameMatchEPK [qt-mt]
_ZN10QTextCodec6localeEv [qt-mt]	_ZN10QTextCodecC1Ev [qt-mt]
_ZN10QTextCodecC2Ev [qt-mt]	_ZN10QTextCodecD0Ev [qt-mt]
_ZN10QTextCodecD1Ev [qt-mt]	_ZN10QTextCodecD2Ev [qt-mt]
_ZN11QEuclJpCodecC1Ev [qt-mt]	_ZN11QEuclJpCodecC2Ev [qt-mt]
_ZN11QEuclJpCodecD0Ev [qt-mt]	_ZN11QEuclJpCodecD1Ev [qt-mt]
_ZN11QEuclJpCodecD2Ev [qt-mt]	_ZN11QTranslator11qt_propertyEiiP8QVariant [qt-mt]
_ZN11QTranslator16staticMetaObjectEv [qt-mt]	_ZN11QTranslator18qt_static_propertyEP7QObjectiil [qt-mt]
ZN11QTranslator2trEPKcS1 [qt-mt]	_ZN11QTranslator4loadERK7QStringS2_S2_S2_ [qt-mt]
_ZN11QTranslator4saveERK7QStringNS_8SaveModeE [qt-mt]	_ZN11QTranslator5clearEv [qt-mt]
_ZN11QTranslator6insertERK18QTranslatorMessage [qt-mt]	_ZN11QTranslator6removeERK18QTranslatorMessage [qt-mt]
ZN11QTranslator6trUtf8EPKcS1 [qt-mt]	_ZN11QTranslator7do_loadEPKhi [qt-mt]
_ZN11QTranslator7qt_castEPKc [qt-mt]	_ZN11QTranslator7qt_emitEiP8QUObject [qt-mt]
_ZN11QTranslator7squeezeENS_8SaveModeE [qt-mt]	_ZN11QTranslator9qt_invokeEiP8QUObject [qt-mt]
_ZN11QTranslator9unsqueezeEv [qt-mt]	_ZN11QTranslatorC1EP7QObjectPKc [qt-mt]
_ZN11QTranslatorC2EP7QObjectPKc [qt-mt]	_ZN11QTranslatorD0Ev [qt-mt]
_ZN11QTranslatorD1Ev [qt-mt]	_ZN11QTranslatorD2Ev [qt-mt]
_ZN12QGb2312CodecC1Ev [qt-mt]	_ZN12QGb2312CodecC2Ev [qt-mt]
_ZN12QTextDecoderD0Ev [qt-mt]	_ZN12QTextDecoderD1Ev [qt-mt]
_ZN12QTextDecoderD2Ev [qt-mt]	_ZN12QTextEncoderD0Ev [qt-mt]
_ZN12QTextEncoderD1Ev [qt-mt]	_ZN12QTextEncoderD2Ev [qt-mt]
_ZN13QGb18030CodecC1Ev [qt-mt]	_ZN13QGb18030CodecC2Ev [qt-mt]
_ZN14QJpUnicodeConv12newConverterEi [qt-mt]	_ZN17QTextCodecFactory12createForMibEi [qt-mt]
_ZN17QTextCodecFactory13createForNameERK7QString [qt-mt]	_ZN18QTranslatorMessageC1EPKcS1_S1_RK7QString [qt-mt]
_ZN18QTranslatorMessageC1ER11QDataStream [qt-mt]	_ZN18QTranslatorMessageC1ERKS_ [qt-mt]

_ZN18QTranslatorMessageC1Ev [qt-mt]	_ZN18QTranslatorMessageC2EPKcS1_S1_RK7QStri
_ZN18QTranslatorMessageC2ER11QDataStream [qt-mt]	_ZN18QTranslatorMessageC2ERKS_ [qt-mt]
_ZN18QTranslatorMessageC2Ev [qt-mt]	_ZN18QTranslatorMessageaSERKS_ [qt-mt]
ZN7QLocale10setDefaultERKS [qt-mt]	_ZN7QLocale15countryToStringENS_7CountryE [qt-
_ZN7QLocale16languageToStringENS_8LanguageE [qt-mt]	_ZN7QLocale6systemEv [qt-mt]
_ZN7QLocaleC1ENS_8LanguageENS_7CountryE [qt-mt]	_ZN7QLocaleC1ERK7QString [qt-mt]
ZN7QLocaleC1ERKS [qt-mt]	_ZN7QLocaleC1Ev [qt-mt]
_ZN7QLocaleC2ENS_8LanguageENS_7CountryE [qt-mt]	_ZN7QLocaleC2ERK7QString [qt-mt]
ZN7QLocaleC2ERKS [qt-mt]	_ZN7QLocaleC2Ev [qt-mt]
ZN7QLocaleaSERKS [qt-mt]	_ZN9QGbkCodecC1Ev [qt-mt]
_ZN9QGbkCodecC2Ev [qt-mt]	_ZN9QJisCodecC1Ev [qt-mt]
_ZN9QJisCodecC2Ev [qt-mt]	_ZN9QJisCodecD0Ev [qt-mt]
_ZN9QJisCodecD1Ev [qt-mt]	_ZN9QJisCodecD2Ev [qt-mt]
_ZNK10QSjisCodec11fromUnicodeERK7QStringRi [qt-mt]	_ZNK10QSjisCodec11makeDecoderEv [qt-mt]
_ZNK10QSjisCodec18heuristicNameMatchEPKc [qt-mt]	_ZNK10QSjisCodec21heuristicContentMatchEPKci [
_ZNK10QSjisCodec4nameEv [qt-mt]	_ZNK10QSjisCodec7mibEnumEv [qt-mt]
_ZNK10QSjisCodec8mimeNameEv [qt-mt]	_ZNK10QSjisCodec9toUnicodeEPKci [qt-mt]
_ZNK10QTextCodec11fromUnicodeERK7QString [qt-mt]	_ZNK10QTextCodec11fromUnicodeERK7QStringRi
_ZNK10QTextCodec11fromUnicodeERK7QStringii [qt-mt]	_ZNK10QTextCodec11makeDecoderEv [qt-mt]
_ZNK10QTextCodec11makeEncoderEv [qt-mt]	_ZNK10QTextCodec18heuristicNameMatchEPKc [qt-
_ZNK10QTextCodec20characterFromUnicodeERK7QStringi [qt-mt]	_ZNK10QTextCodec8mimeNameEv [qt-mt]
_ZNK10QTextCodec9canEncodeE5QChar [qt-mt]	_ZNK10QTextCodec9canEncodeERK7QString [qt-m
_ZNK10QTextCodec9toUnicodeEPKc [qt-mt]	_ZNK10QTextCodec9toUnicodeEPKci [qt-mt]
_ZNK10QTextCodec9toUnicodeERK8QCString [qt-mt]	_ZNK10QTextCodec9toUnicodeERK8QCStringi [qt-
_ZNK10QTextCodec9toUnicodeERK9QMemArrayIcE [qt-mt]	_ZNK10QTextCodec9toUnicodeERK9QMemArrayIc
_ZNK10QUtf8Codec11fromUnicodeERK7QStringRi [qt-mt]	_ZNK10QUtf8Codec11makeDecoderEv [qt-mt]
_ZNK10QUtf8Codec21heuristicContentMatchEPKci [qt-mt]	_ZNK10QUtf8Codec4nameEv [qt-mt]
_ZNK10QUtf8Codec7mibEnumEv [qt-mt]	_ZNK10QUtf8Codec9toUnicodeEPKci [qt-mt]
_ZNK11QEuclJpCodec11fromUnicodeERK7QStringRi [qt-mt]	_ZNK11QEuclJpCodec11makeDecoderEv [qt-mt]
_ZNK11QEuclJpCodec18heuristicNameMatchEPKc [qt-mt]	_ZNK11QEuclJpCodec21heuristicContentMatchEPKc
_ZNK11QEuclJpCodec4nameEv [qt-mt]	_ZNK11QEuclJpCodec7mibEnumEv [qt-mt]

_ZNK11QEuCJpCodec8mimeTypeEv [qt-mt]	_ZNK11QEuCJpCodec9toUnicodeEPKci [qt-mt]
_ZNK11QEuCKrCodec11fromUnicodeERK7QStringRi [qt-mt]	_ZNK11QEuCKrCodec11makeDecoderEv [qt-mt]
_ZNK11QEuCKrCodec18heuristicNameMatchEPKc [qt-mt]	_ZNK11QEuCKrCodec21heuristicContentMatchEPKc [qt-mt]
_ZNK11QEuCKrCodec4nameEv [qt-mt]	_ZNK11QEuCKrCodec7mibEnumEv [qt-mt]
_ZNK11QEuCKrCodec8mimeTypeEv [qt-mt]	_ZNK11QEuCKrCodec9toUnicodeEPKci [qt-mt]
_ZNK11QTranslator11findMessageEPKcS1_S1_ [qt-mt]	_ZNK11QTranslator7isEmptyEv [qt-mt]
_ZNK11QTranslator8containsEPKcS1_S1_ [qt-mt]	_ZNK11QTranslator8messagesEv [qt-mt]
_ZNK11QTranslator9classNameEv [qt-mt]	_ZNK11QTsciiCodec11fromUnicodeERK7QStringRi [qt-mt]
_ZNK11QTsciiCodec18heuristicNameMatchEPKc [qt-mt]	_ZNK11QTsciiCodec21heuristicContentMatchEPKc [qt-mt]
_ZNK11QTsciiCodec4nameEv [qt-mt]	_ZNK11QTsciiCodec7mibEnumEv [qt-mt]
_ZNK11QTsciiCodec9toUnicodeEPKci [qt-mt]	_ZNK11QUtf16Codec11makeDecoderEv [qt-mt]
_ZNK11QUtf16Codec11makeEncoderEv [qt-mt]	_ZNK11QUtf16Codec21heuristicContentMatchEPKc [qt-mt]
_ZNK11QUtf16Codec4nameEv [qt-mt]	_ZNK11QUtf16Codec7mibEnumEv [qt-mt]
_ZNK12QGb2312Codec11fromUnicodeERK7QStringRi [qt-mt]	_ZNK12QGb2312Codec11makeDecoderEv [qt-mt]
_ZNK12QGb2312Codec18heuristicNameMatchEPKc [qt-mt]	_ZNK12QGb2312Codec21heuristicContentMatchEPKc [qt-mt]
_ZNK12QGb2312Codec4nameEv [qt-mt]	_ZNK12QGb2312Codec7mibEnumEv [qt-mt]
_ZNK12QGb2312Codec9toUnicodeEPKci [qt-mt]	_ZNK12QHebrewCodec11fromUnicodeERK7QStringRi [qt-mt]
_ZNK12QHebrewCodec21heuristicContentMatchEPKc [qt-mt]	_ZNK12QHebrewCodec4nameEv [qt-mt]
_ZNK12QHebrewCodec7mibEnumEv [qt-mt]	_ZNK12QHebrewCodec8mimeTypeEv [qt-mt]
_ZNK12QHebrewCodec9toUnicodeEPKci [qt-mt]	_ZNK13QGb18030Codec11fromUnicodeERK7QStringRi [qt-mt]
_ZNK13QGb18030Codec11makeDecoderEv [qt-mt]	_ZNK13QGb18030Codec18heuristicNameMatchEPKc [qt-mt]
_ZNK13QGb18030Codec21heuristicContentMatchEPKc [qt-mt]	_ZNK13QGb18030Codec4nameEv [qt-mt]
_ZNK13QGb18030Codec7mibEnumEv [qt-mt]	_ZNK13QGb18030Codec9toUnicodeEPKci [qt-mt]
_ZNK14QJpUnicodeConv13sjisToUnicodeEjj [qt-mt]	_ZNK14QJpUnicodeConv13unicodeToSjisEjj [qt-mt]
_ZNK14QJpUnicodeConv14asciiToUnicodeEjj [qt-mt]	_ZNK14QJpUnicodeConv14unicodeToAsciiEjj [qt-mt]
_ZNK14QJpUnicodeConv17jisx0201ToUnicodeEjj [qt-mt]	_ZNK14QJpUnicodeConv17jisx0208ToUnicodeEjj [qt-mt]
_ZNK14QJpUnicodeConv17jisx0212ToUnicodeEjj [qt-mt]	_ZNK14QJpUnicodeConv17unicodeToJisx0201Ejj [qt-mt]
_ZNK14QJpUnicodeConv17unicodeToJisx0208Ejj [qt-mt]	_ZNK14QJpUnicodeConv17unicodeToJisx0212Ejj [qt-mt]
_ZNK14QJpUnicodeConv21jisx0201KanaToUnicodeEjj [qt-mt]	_ZNK14QJpUnicodeConv21unicodeToJisx0201KanaEjj [qt-mt]

_ZNK14QJpUnicodeConv22jisx0201LatinToUnicodeEjj [qt-mt]	_ZNK14QJpUnicodeConv22unicodeToJisx0201Latin [qt-mt]
ZNK18QTranslatorMessage12commonPrefixERKS [qt-mt]	_ZNK18QTranslatorMessage5writeER11QDataStream [qt-mt]
ZNK18QTranslatorMessageeqERKS [qt-mt]	_ZNK18QTranslatorMessageItERKS_ [qt-mt]
_ZNK7QLocale10toLongLongERK7QStringPb [qt-mt]	_ZNK7QLocale11toULongLongERK7QStringPb [qt-mt]
_ZNK7QLocale4nameEv [qt-mt]	_ZNK7QLocale5toIntERK7QStringPb [qt-mt]
_ZNK7QLocale6toLongERK7QStringPb [qt-mt]	_ZNK7QLocale6toUIntERK7QStringPb [qt-mt]
_ZNK7QLocale7countryEv [qt-mt]	_ZNK7QLocale7toFloatERK7QStringPb [qt-mt]
_ZNK7QLocale7toShortERK7QStringPb [qt-mt]	_ZNK7QLocale7toULongERK7QStringPb [qt-mt]
_ZNK7QLocale8languageEv [qt-mt]	_ZNK7QLocale8toDoubleERK7QStringPb [qt-mt]
_ZNK7QLocale8toStringEdci [qt-mt]	_ZNK7QLocale8toStringEx [qt-mt]
_ZNK7QLocale8toStringEy [qt-mt]	_ZNK7QLocale8toUShortERK7QStringPb [qt-mt]
_ZNK9QGbkCodec11fromUnicodeERK7QStringRi [qt-mt]	_ZNK9QGbkCodec11makeDecoderEv [qt-mt]
_ZNK9QGbkCodec18heuristicNameMatchEPKc [qt-mt]	_ZNK9QGbkCodec21heuristicContentMatchEPKci [qt-mt]
_ZNK9QGbkCodec4nameEv [qt-mt]	_ZNK9QGbkCodec7mibEnumEv [qt-mt]
_ZNK9QGbkCodec9toUnicodeEPKci [qt-mt]	_ZNK9QJisCodec11fromUnicodeERK7QStringRi [qt-mt]
_ZNK9QJisCodec11makeDecoderEv [qt-mt]	_ZNK9QJisCodec18heuristicNameMatchEPKc [qt-mt]
_ZNK9QJisCodec21heuristicContentMatchEPKci [qt-mt]	_ZNK9QJisCodec4nameEv [qt-mt]
_ZNK9QJisCodec7mibEnumEv [qt-mt]	_ZNK9QJisCodec8mimeTypeEv [qt-mt]
_ZNK9QJisCodec9toUnicodeEPKci [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Internationalization specified in [Table 18-162](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-162. libqt-mt - Qt3 Internationalization Data Interfaces

_ZN10QTextCodec4cfcsE [qt-mt]	_ZN10QTextCodec4cftrE [qt-mt]
_ZN11QTranslator7metaObjE [qt-mt]	_ZN7QLocale9default_dE [qt-mt]
_ZTI10QSjisCodec [CXXABI-1.86]	_ZTI10QTextCodec [CXXABI-1.86]
_ZTI10QUtf8Codec [CXXABI-1.86]	_ZTI11QEuclJpCodec [CXXABI-1.86]
_ZTI11QEuclKrCodec [CXXABI-1.86]	_ZTI11QTranslator [CXXABI-1.86]
_ZTI11QTsciiCodec [CXXABI-1.86]	_ZTI11QUtf16Codec [CXXABI-1.86]
_ZTI12QGb2312Codec [CXXABI-1.86]	_ZTI12QHebrewCodec [CXXABI-1.86]
_ZTI12QTextDecoder [CXXABI-1.86]	_ZTI12QTextEncoder [CXXABI-1.86]

_ZTI13QGb18030Codec [CXXABI-1.86]	_ZTI14QJpUnicodeConv [CXXABI-1.86]
_ZTI9QGbkCodec [CXXABI-1.86]	_ZTI9QJisCodec [CXXABI-1.86]
_ZTV10QSjisCodec [CXXABI-1.86]	_ZTV10QTextCodec [CXXABI-1.86]
_ZTV10QUtf8Codec [CXXABI-1.86]	_ZTV11QEurJpCodec [CXXABI-1.86]
_ZTV11QEurKrCodec [CXXABI-1.86]	_ZTV11QTranslator [CXXABI-1.86]
_ZTV11QTsciiCodec [CXXABI-1.86]	_ZTV11QUtf16Codec [CXXABI-1.86]
_ZTV12QGb2312Codec [CXXABI-1.86]	_ZTV12QHebrewCodec [CXXABI-1.86]
_ZTV12QTextDecoder [CXXABI-1.86]	_ZTV12QTextEncoder [CXXABI-1.86]
_ZTV13QGb18030Codec [CXXABI-1.86]	_ZTV14QJpUnicodeConv [CXXABI-1.86]
_ZTV9QGbkCodec [CXXABI-1.86]	_ZTV9QJisCodec [CXXABI-1.86]

18.2.11. Qt3 Input/Output

18.2.11.1. Class data for QDataSource

The virtual table for the QDataSource class is described by [Table 18-163](#)

Table 18-163. Primary vtable for QDataSource

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDataSource
vfunc[0]:	NULL or QDataSource::~QDataSource()
vfunc[1]:	NULL or QDataSource::~QDataSource()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	QDataSource::rewindable() const
vfunc[5]:	QDataSource::enableRewind(bool)
vfunc[6]:	QDataSource::rewind()

The Run Time Type Information for the QDataSource class is described by [Table 18-164](#)

Table 18-164. typeinfo for QDataSource

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDataSource
basetype:	typeinfo for QAsyncIO

18.2.11.2. Class data for QProcess

The virtual table for the QProcess class is described by [Table 18-165](#)

Table 18-165. Primary vtable for QProcess

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QProcess
vfunc[0]:	NULL or QProcess::metaObject() const
vfunc[1]:	QProcess::className() const
vfunc[2]:	QProcess::qt_cast(char const*)
vfunc[3]:	QProcess::qt_invoke(int, QUObject*)
vfunc[4]:	QProcess::qt_emit(int, QUObject*)
vfunc[5]:	QProcess::qt_property(int, int, QVariant*)
vfunc[6]:	QProcess::~QProcess()
vfunc[7]:	QProcess::~~QProcess()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QProcess::connectNotify(char const*)
vfunc[19]:	QProcess::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QProcess::setArguments(QStringList const&)
vfunc[22]:	QProcess::addArgument(QString const&)
vfunc[23]:	QProcess::setWorkingDirectory(QDir const&)

vfunc[24]:	QProcess::start(QStringList*)
vfunc[25]:	QProcess::launch(QString const&, QStringList*)
vfunc[26]:	QProcess::launch(QMemArray<char> const&, QStringList*)
vfunc[27]:	QProcess::readStdout()
vfunc[28]:	QProcess::readStderr()
vfunc[29]:	QProcess::readLineStdout()
vfunc[30]:	QProcess::readLineStderr()
vfunc[31]:	QProcess::writeToStdin(QMemArray<char> const&)
vfunc[32]:	QProcess::writeToStdin(QString const&)
vfunc[33]:	QProcess::closeStdin()

The Run Time Type Information for the QProcess class is described by [Table 18-166](#)

Table 18-166. typeinfo for QProcess

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QProcess
basetype:	typeinfo for QObject

18.2.11.3. Class data for QDataPump

The virtual table for the QDataPump class is described by [Table 18-167](#)

Table 18-167. Primary vtable for QDataPump

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDataPump
vfunc[0]:	NULL or QDataPump::metaObject() const
vfunc[1]:	QDataPump::className() const
vfunc[2]:	QDataPump::qt_cast(char const*)
vfunc[3]:	QDataPump::qt_invoke(int, QUObject*)
vfunc[4]:	QDataPump::qt_emit(int, QUObject*)
vfunc[5]:	QDataPump::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QDataPump::~~QDataPump()
vfunc[7]:	NULL or QDataPump::~~QDataPump()

vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QDataPump class is described by [Table 18-168](#)

Table 18-168. typeinfo for QDataPump

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDataPump
basetype:	typeinfo for QObject

18.2.11.4. Class data for QFile

The virtual table for the QFile class is described by [Table 18-169](#)

Table 18-169. Primary vtable for QFile

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFile
vfunc[0]:	QFile::~~QFile()
vfunc[1]:	QFile::~~QFile()
vfunc[2]:	QFile::open(int)
vfunc[3]:	QFile::close()
vfunc[4]:	QFile::flush()

vfunc[5]:	QFile::size() const
vfunc[6]:	NULL or QFile::at() const
vfunc[7]:	QFile::at(unsigned long)
vfunc[8]:	QFile::atEnd() const
vfunc[9]:	QFile::readBlock(char*, unsigned long)
vfunc[10]:	QFile::writeBlock(char const*, unsigned long)
vfunc[11]:	QFile::readLine(char*, unsigned long)
vfunc[12]:	QIODevice::readAll()
vfunc[13]:	QFile::getch()
vfunc[14]:	QFile::putch(int)
vfunc[15]:	QFile::ungetch(int)

The Run Time Type Information for the QFile class is described by [Table 18-170](#)

Table 18-170. typeinfo for QFile

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFile
basetype:	typeinfo for QIODevice

18.2.11.5. Class data for QBuffer

The virtual table for the QBuffer class is described by [Table 18-171](#)

Table 18-171. Primary vtable for QBuffer

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QBuffer
vfunc[0]:	QBuffer::~~QBuffer()
vfunc[1]:	QBuffer::~~QBuffer()
vfunc[2]:	QBuffer::open(int)
vfunc[3]:	QBuffer::close()
vfunc[4]:	QBuffer::flush()
vfunc[5]:	NULL or QBuffer::size() const
vfunc[6]:	NULL or QBuffer::at() const

vfunc[7]:	QBuffer::at(unsigned long)
vfunc[8]:	QIODevice::atEnd() const
vfunc[9]:	QBuffer::readBlock(char*, unsigned long)
vfunc[10]:	QBuffer::writeBlock(char const*, unsigned long)
vfunc[11]:	QBuffer::readLine(char*, unsigned long)
vfunc[12]:	QIODevice::readAll()
vfunc[13]:	QBuffer::getch()
vfunc[14]:	QBuffer::putch(int)
vfunc[15]:	QBuffer::ungetch(int)

The Run Time Type Information for the QBuffer class is described by [Table 18-172](#)

Table 18-172. typeid for QBuffer

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QBuffer
basetype:	typeid for QIODevice

18.2.11.6. Class data for QClipboard

The virtual table for the QClipboard class is described by [Table 18-173](#)

Table 18-173. Primary vtable for QClipboard

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QClipboard
vfunc[0]:	NULL or QClipboard::metaObject() const
vfunc[1]:	QClipboard::className() const
vfunc[2]:	QClipboard::qt_cast(char const*)
vfunc[3]:	QClipboard::qt_invoke(int, QUObject*)
vfunc[4]:	QClipboard::qt_emit(int, QUObject*)
vfunc[5]:	QClipboard::qt_property(int, int, QVariant*)
vfunc[6]:	QClipboard::~~QClipboard()
vfunc[7]:	QClipboard::~~QClipboard()
vfunc[8]:	QClipboard::event(QEvent*)

vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QClipboard::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QClipboard class is described by [Table 18-174](#)

Table 18-174. typeinfo for QClipboard

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QClipboard
basetype:	typeinfo for QObject

18.2.11.7. Class data for QAsyncIO

The virtual table for the QAsyncIO class is described by [Table 18-175](#)

Table 18-175. Primary vtable for QAsyncIO

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAsyncIO
vfunc[0]:	QAsyncIO::~~QAsyncIO()
vfunc[1]:	QAsyncIO::~~QAsyncIO()

The Run Time Type Information for the QAsyncIO class is described by [Table 18-176](#)

Table 18-176. typeinfo for QAsyncIO

Base Vtable	vtable for __cxxabiv1::__class_type_info

Name	typeinfo name for QAsyncIO

18.2.11.8. Class data for QSignal

The virtual table for the QSignal class is described by [Table 18-177](#)

Table 18-177. Primary vtable for QSignal

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSignal
vfunc[0]:	NULL or QSignal::metaObject() const
vfunc[1]:	QSignal::className() const
vfunc[2]:	QSignal::qt_cast(char const*)
vfunc[3]:	QSignal::qt_invoke(int, QUObject*)
vfunc[4]:	QSignal::qt_emit(int, QUObject*)
vfunc[5]:	QSignal::qt_property(int, int, QVariant*)
vfunc[6]:	QSignal::~~QSignal()
vfunc[7]:	QSignal::~~QSignal()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QSignal class is described by [Table 18-178](#)

Table 18-178. typeinfo for QSignal

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSignal
basetype:	typeinfo for QObject

18.2.11.9. Class data for QDataSink

The virtual table for the QDataSink class is described by [Table 18-179](#)

Table 18-179. Primary vtable for QDataSink

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDataSink
vfunc[0]:	NULL or QDataSink::~~QDataSink()
vfunc[1]:	NULL or QDataSink::~~QDataSink()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual

The Run Time Type Information for the QDataSink class is described by [Table 18-180](#)

Table 18-180. typeinfo for QDataSink

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDataSink
basetype:	typeinfo for QAsyncIO

18.2.11.10. Class data for QDir

The virtual table for the QDir class is described by [Table 18-181](#)

Table 18-181. Primary vtable for QDir

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDir
vfunc[0]:	QDir::~~QDir()
vfunc[1]:	QDir::~~QDir()

vfunc[2]:	QDir::setPath(QString const&)
vfunc[3]:	NULL or QDir::path() const
vfunc[4]:	QDir::absPath() const
vfunc[5]:	QDir::canonicalPath() const
vfunc[6]:	QDir::dirName() const
vfunc[7]:	QDir::filePath(QString const&, bool) const
vfunc[8]:	QDir::absFilePath(QString const&, bool) const
vfunc[9]:	QDir::cd(QString const&, bool)
vfunc[10]:	QDir::cdUp()
vfunc[11]:	QDir::setNameFilter(QString const&)
vfunc[12]:	QDir::setFilter(int)
vfunc[13]:	QDir::setSorting(int)
vfunc[14]:	QDir::setMatchAllDirs(bool)
vfunc[15]:	QDir::encodedEntryList(int, int) const
vfunc[16]:	QDir::encodedEntryList(QString const&, int, int) const
vfunc[17]:	QDir::entryList(int, int) const
vfunc[18]:	QDir::entryList(QString const&, int, int) const
vfunc[19]:	QDir::entryInfoList(int, int) const
vfunc[20]:	QDir::entryInfoList(QString const&, int, int) const
vfunc[21]:	QDir::mkdir(QString const&, bool) const
vfunc[22]:	QDir::rmdir(QString const&, bool) const
vfunc[23]:	QDir::isReadable() const
vfunc[24]:	QDir::exists() const
vfunc[25]:	QDir::isRoot() const
vfunc[26]:	QDir::isRelative() const
vfunc[27]:	QDir::convertToAbs()
vfunc[28]:	QDir::operator==(QDir const&) const
vfunc[29]:	NULL or QDir::operator!=(QDir const&) const
vfunc[30]:	QDir::remove(QString const&, bool)
vfunc[31]:	QDir::rename(QString const&, QString const&, bool)
vfunc[32]:	QDir::exists(QString const&, bool)
vfunc[33]:	QDir::readDirEntries(QString const&, int, int)

The Run Time Type Information for the QDir class is described by [Table 18-182](#)

Table 18-182. typeinfo for QDir

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
Name	typeinfo name for QDir

18.2.11.11. Class data for QTextOStream

The virtual table for the QTextOStream class is described by [Table 18-183](#)

Table 18-183. Primary vtable for QTextOStream

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextOStream
vfunc[0]:	NULL or QTextOStream::~~QTextOStream()
vfunc[1]:	NULL or QTextOStream::~~QTextOStream()

The Run Time Type Information for the QTextOStream class is described by [Table 18-184](#)

Table 18-184. typeinfo for QTextOStream

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for QTextOStream
basetype:	typeinfo for QTextStream

18.2.11.12. Class data for QTextStream

The virtual table for the QTextStream class is described by [Table 18-185](#)

Table 18-185. Primary vtable for QTextStream

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextStream
vfunc[0]:	QTextStream::~~QTextStream()
vfunc[1]:	QTextStream::~~QTextStream()

The Run Time Type Information for the QTextStream class is described by [Table 18-186](#)

Table 18-186. typeinfo for QTextStream

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QTextStream

18.2.11.13. Class data for QSignalMapper

The virtual table for the QSignalMapper class is described by [Table 18-187](#)

Table 18-187. Primary vtable for QSignalMapper

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSignalMapper
vfunc[0]:	NULL or QSignalMapper::metaObject() const
vfunc[1]:	QSignalMapper::className() const
vfunc[2]:	QSignalMapper::qt_cast(char const*)
vfunc[3]:	QSignalMapper::qt_invoke(int, QUObject*)
vfunc[4]:	QSignalMapper::qt_emit(int, QUObject*)
vfunc[5]:	QSignalMapper::qt_property(int, int, QVariant*)
vfunc[6]:	QSignalMapper::~~QSignalMapper()
vfunc[7]:	QSignalMapper::~~QSignalMapper()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QSignalMapper::setMapping(QObject const*, int)

vfunc[22]:	QSignalMapper::setMapping(QObject const*, QString const&)

The Run Time Type Information for the QSignalMapper class is described by [Table 18-188](#)

Table 18-188. typeinfo for QSignalMapper

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSignalMapper
basetype:	typeinfo for QObject

18.2.11.14. Class data for QIODeviceSource

The virtual table for the QIODeviceSource class is described by [Table 18-189](#)

Table 18-189. Primary vtable for QIODeviceSource

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIODeviceSource
vfunc[0]:	QIODeviceSource::~~QIODeviceSource()
vfunc[1]:	QIODeviceSource::~~QIODeviceSource()
vfunc[2]:	QIODeviceSource::readyToSend()
vfunc[3]:	QIODeviceSource::sendTo(QDataSink*, int)
vfunc[4]:	QIODeviceSource::rewindable() const
vfunc[5]:	QIODeviceSource::enableRewind(bool)
vfunc[6]:	QIODeviceSource::rewind()

The Run Time Type Information for the QIODeviceSource class is described by [Table 18-190](#)

Table 18-190. typeinfo for QIODeviceSource

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIODeviceSource
basetype:	typeinfo for QDataSource

18.2.11.15. Class data for QIODevice

The virtual table for the QIODevice class is described by [Table 18-191](#)

Table 18-191. Primary vtable for QIODevice

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIODevice
vfunc[0]:	QIODevice::~~QIODevice()
vfunc[1]:	QIODevice::~~QIODevice()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	QIODevice::at() const
vfunc[7]:	QIODevice::at(unsigned long)
vfunc[8]:	QIODevice::atEnd() const
vfunc[9]:	__cxa_pure_virtual
vfunc[10]:	__cxa_pure_virtual
vfunc[11]:	QIODevice::readLine(char*, unsigned long)
vfunc[12]:	QIODevice::readAll()
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual

The Run Time Type Information for the QIODevice class is described by [Table 18-192](#)

Table 18-192. typeinfo for QIODevice

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QIODevice

18.2.11.16. Class data for QDataStream

The virtual table for the QDataStream class is described by [Table 18-193](#)

Table 18-193. Primary vtable for QDataStream

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QDataStream
vfunc[0]:	QDataStream::~~QDataStream()
vfunc[1]:	QDataStream::~~QDataStream()

The Run Time Type Information for the QDataStream class is described by [Table 18-194](#)

Table 18-194. typeinfo for QDataStream

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QDataStream

18.2.11.17. Interfaces for Qt3 Input/Output

An LSB conforming implementation shall provide the generic functions for Qt3 Input/Output specified in [Table 18-195](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-195. libqt-mt - Qt3 Input/Output Function Interfaces

_ZN10QClipboard11dataChangedEv [qt-mt]	_ZN10QClipboard11qt_propertyEiiP8QVariant [qt-mt]
_ZN10QClipboard13connectNotifyEPKc [qt-mt]	_ZN10QClipboard14ownerDestroyedEv [qt-mt]
_ZN10QClipboard16selectionChangedEv [qt-mt]	_ZN10QClipboard16setSelectionModeEb [qt-mt]
_ZN10QClipboard16staticMetaObjectEv [qt-mt]	_ZN10QClipboard18qt_static_propertyEP7QObject [qt-mt]
ZN10QClipboard2trEPKcS1 [qt-mt]	_ZN10QClipboard5clearENS_4ModeE [qt-mt]
_ZN10QClipboard5clearEv [qt-mt]	_ZN10QClipboard5eventEP6QEvent [qt-mt]
ZN10QClipboard6trUtf8EPKcS1 [qt-mt]	_ZN10QClipboard7qt_castEPKc [qt-mt]
_ZN10QClipboard7qt_emitEiP8QUObject [qt-mt]	_ZN10QClipboard7setDataEP11QMimeSource [qt-mt]
_ZN10QClipboard7setDataEP11QMimeSourceNS_4ModeE [qt-mt]	_ZN10QClipboard7setTextERK7QString [qt-mt]
_ZN10QClipboard7setTextERK7QStringNS_4ModeE [qt-mt]	_ZN10QClipboard8setImageERK6QImage [qt-mt]
_ZN10QClipboard8setImageERK6QImageNS_4ModeE [qt-mt]	_ZN10QClipboard9qt_invokeEiP8QUObject [qt-mt]
_ZN10QClipboard9setPixmapERK7QPixmap [qt-mt]	_ZN10QClipboard9setPixmapERK7QPixmapNS_4ModeE [qt-mt]
_ZN10QClipboardC1EP7QObjectPKc [qt-mt]	_ZN10QClipboardC2EP7QObjectPKc [qt-mt]
_ZN10QClipboardD0Ev [qt-mt]	_ZN10QClipboardD1Ev [qt-mt]
_ZN10QClipboardD2Ev [qt-mt]	_ZN11QDataSource10maybeReadyEv [qt-mt]
_ZN11QDataSource12enableRewindEb [qt-mt]	_ZN11QDataSource6rewindEv [qt-mt]
_ZN11QDataStream10writeBytesEPKcj [qt-mt]	_ZN11QDataStream11unsetDeviceEv [qt-mt]

_ZN11QDataStream12readRawBytesEPcj [qt-mt]	_ZN11QDataStream12setByteOrderEi [qt-mt]
_ZN11QDataStream13writeRawBytesEPKcj [qt-mt]	_ZN11QDataStream9readBytesERPcRj [qt-mt]
_ZN11QDataStream9setDeviceEP9QIODevice [qt-mt]	_ZN11QDataStreamC1E9QMemArrayIcEi [qt-mt]
_ZN11QDataStreamC1EP9QIODevice [qt-mt]	_ZN11QDataStreamC1Ev [qt-mt]
_ZN11QDataStreamC2E9QMemArrayIcEi [qt-mt]	_ZN11QDataStreamC2EP9QIODevice [qt-mt]
_ZN11QDataStreamC2Ev [qt-mt]	_ZN11QDataStreamD0Ev [qt-mt]
_ZN11QDataStreamD1Ev [qt-mt]	_ZN11QDataStreamD2Ev [qt-mt]
_ZN11QDataStreamlsEPKc [qt-mt]	_ZN11QDataStreamlsEa [qt-mt]
_ZN11QDataStreamlsEd [qt-mt]	_ZN11QDataStreamlsEf [qt-mt]
_ZN11QDataStreamlsEi [qt-mt]	_ZN11QDataStreamlsEl [qt-mt]
_ZN11QDataStreamlsEs [qt-mt]	_ZN11QDataStreamlsEx [qt-mt]
_ZN11QDataStreamrsERPc [qt-mt]	_ZN11QDataStreamrsERa [qt-mt]
_ZN11QDataStreamrsERd [qt-mt]	_ZN11QDataStreamrsERf [qt-mt]
_ZN11QDataStreamrsERi [qt-mt]	_ZN11QDataStreamrsERl [qt-mt]
_ZN11QDataStreamrsERs [qt-mt]	_ZN11QDataStreamrsERx [qt-mt]
_ZN11QTextStream10output_intEimb [qt-mt]	_ZN11QTextStream10ts_getlineEP5QChar [qt-mt]
_ZN11QTextStream10ts_isdigitE5QChar [qt-mt]	_ZN11QTextStream10ts_isspaceE5QChar [qt-mt]
_ZN11QTextStream10writeBlockEPK5QCharj [qt-mt]	_ZN11QTextStream10writeBlockEPKcj [qt-mt]
_ZN11QTextStream11setEncodingENS_8EncodingE [qt-mt]	_ZN11QTextStream11unsetDeviceEv [qt-mt]
_ZN11QTextStream12input_doubleEv [qt-mt]	_ZN11QTextStream12readRawBytesEPcj [qt-mt]
_ZN11QTextStream13writeRawBytesEPKcj [qt-mt]	_ZN11QTextStream14skipWhiteSpaceEv [qt-mt]
_ZN11QTextStream4initEv [qt-mt]	_ZN11QTextStream4readEv [qt-mt]
_ZN11QTextStream5codecEv [qt-mt]	_ZN11QTextStream5resetEv [qt-mt]
_ZN11QTextStream6eat_wsEv [qt-mt]	_ZN11QTextStream7ts_putcE5QChar [qt-mt]
_ZN11QTextStream7ts_putcEi [qt-mt]	_ZN11QTextStream8readLineEv [qt-mt]
_ZN11QTextStream8setCodecEP10QTextCodec [qt-mt]	_ZN11QTextStream9input_binEv [qt-mt]
_ZN11QTextStream9input_decEv [qt-mt]	_ZN11QTextStream9input_hexEv [qt-mt]
_ZN11QTextStream9input_intEv [qt-mt]	_ZN11QTextStream9input_octEv [qt-mt]
_ZN11QTextStream9setDeviceEP9QIODevice [qt-mt]	_ZN11QTextStream9ts_getbufEP5QCharj [qt-mt]
_ZN11QTextStream9ts_ungetcE5QChar [qt-mt]	_ZN11QTextStreamC1E9QMemArrayIcEi [qt-mt]
_ZN11QTextStreamC1EP7QStringi [qt-mt]	_ZN11QTextStreamC1EP8_IO_FILEi [qt-mt]
_ZN11QTextStreamC1EP9QIODevice [qt-mt]	_ZN11QTextStreamC1ER7QStringi [qt-mt]
_ZN11QTextStreamC1Ev [qt-mt]	_ZN11QTextStreamC2E9QMemArrayIcEi [qt-mt]

_ZN11QTextStreamC2EP7QStringi [qt-mt]	_ZN11QTextStreamC2EP8_IO_FILEi [qt-mt]
_ZN11QTextStreamC2EP9QIODevice [qt-mt]	_ZN11QTextStreamC2ER7QStringi [qt-mt]
_ZN11QTextStreamC2Ev [qt-mt]	_ZN11QTextStreamD0Ev [qt-mt]
_ZN11QTextStreamD1Ev [qt-mt]	_ZN11QTextStreamD2Ev [qt-mt]
_ZN11QTextStreamlsE5QChar [qt-mt]	_ZN11QTextStreamlsEPKc [qt-mt]
_ZN11QTextStreamlsEPv [qt-mt]	_ZN11QTextStreamlsERK7QString [qt-mt]
_ZN11QTextStreamlsERK8QCString [qt-mt]	_ZN11QTextStreamlsEc [qt-mt]
_ZN11QTextStreamlsEd [qt-mt]	_ZN11QTextStreamlsEf [qt-mt]
_ZN11QTextStreamlsEi [qt-mt]	_ZN11QTextStreamlsEj [qt-mt]
_ZN11QTextStreamlsEl [qt-mt]	_ZN11QTextStreamlsEm [qt-mt]
_ZN11QTextStreamlsEs [qt-mt]	_ZN11QTextStreamlsEt [qt-mt]
_ZN11QTextStreamrsEPc [qt-mt]	_ZN11QTextStreamrsER5QChar [qt-mt]
_ZN11QTextStreamrsER7QString [qt-mt]	_ZN11QTextStreamrsER8QCString [qt-mt]
_ZN11QTextStreamrsERc [qt-mt]	_ZN11QTextStreamrsERd [qt-mt]
_ZN11QTextStreamrsERf [qt-mt]	_ZN11QTextStreamrsERi [qt-mt]
_ZN11QTextStreamrsERj [qt-mt]	_ZN11QTextStreamrsERl [qt-mt]
_ZN11QTextStreamrsERm [qt-mt]	_ZN11QTextStreamrsERs [qt-mt]
_ZN11QTextStreamrsERt [qt-mt]	_ZN13QSignalMapper10setMappingEPK7QObject [qt-mt]
_ZN13QSignalMapper10setMappingEPK7QObjecti [qt-mt]	_ZN13QSignalMapper11qt_propertyEiiP8QVariant [qt-mt]
_ZN13QSignalMapper13removeMappingEv [qt-mt]	_ZN13QSignalMapper14removeMappingsEPK7QObject [qt-mt]
_ZN13QSignalMapper16staticMetaObjectEv [qt-mt]	_ZN13QSignalMapper18qt_static_propertyEP7QObject [qt-mt]
ZN13QSignalMapper2trEPKcS1 [qt-mt]	_ZN13QSignalMapper3mapEv [qt-mt]
_ZN13QSignalMapper6getRecEPK7QObject [qt-mt]	_ZN13QSignalMapper6mappedERK7QString [qt-mt]
_ZN13QSignalMapper6mappedEi [qt-mt]	_ZN13QSignalMapper6trUtf8EPKcS1_ [qt-mt]
_ZN13QSignalMapper7qt_castEPKc [qt-mt]	_ZN13QSignalMapper7qt_emitEiP8QUObject [qt-mt]
_ZN13QSignalMapper9qt_invokeEiP8QUObject [qt-mt]	_ZN13QSignalMapperC1EP7QObjectPKc [qt-mt]
_ZN13QSignalMapperC2EP7QObjectPKc [qt-mt]	_ZN13QSignalMapperD0Ev [qt-mt]
_ZN13QSignalMapperD1Ev [qt-mt]	_ZN13QSignalMapperD2Ev [qt-mt]
_ZN15QIODeviceSource11readyToSendEv [qt-mt]	_ZN15QIODeviceSource12enableRewindEb [qt-mt]
_ZN15QIODeviceSource6rewindEv [qt-mt]	_ZN15QIODeviceSource6sendToEP9QDataSinki [qt-mt]
_ZN15QIODeviceSourceC1EP9QIODevicei [qt-mt]	_ZN15QIODeviceSourceC2EP9QIODevicei [qt-mt]
_ZN15QIODeviceSourceD0Ev [qt-mt]	_ZN15QIODeviceSourceD1Ev [qt-mt]

_ZN15QIODeviceSourceD2Ev [qt-mt]	_ZN4QDir10setCurrentERK7QString [qt-mt]
_ZN4QDir10setSortingEi [qt-mt]	_ZN4QDir11homeDirPathEv [qt-mt]
_ZN4QDir11rootDirPathEv [qt-mt]	_ZN4QDir12cleanDirPathERK7QString [qt-mt]
_ZN4QDir12convertToAbsEv [qt-mt]	_ZN4QDir13setNameFilterERK7QString [qt-mt]
_ZN4QDir14currentDirPathEv [qt-mt]	_ZN4QDir14isRelativePathERK7QString [qt-mt]
_ZN4QDir14readDirEntriesERK7QStringii [qt-mt]	_ZN4QDir15setMatchAllDirsEb [qt-mt]
_ZN4QDir17convertSeparatorsERK7QString [qt-mt]	_ZN4QDir2cdERK7QStringb [qt-mt]
_ZN4QDir4cdUpEv [qt-mt]	_ZN4QDir4homeEv [qt-mt]
_ZN4QDir4initEv [qt-mt]	_ZN4QDir4rootEv [qt-mt]
_ZN4QDir5matchERK11QStringListRK7QString [qt-mt]	_ZN4QDir5matchERK7QStringS2_ [qt-mt]
_ZN4QDir6detachEv [qt-mt]	_ZN4QDir6drivesEv [qt-mt]
_ZN4QDir6existsERK7QStringb [qt-mt]	_ZN4QDir6removeERK7QStringb [qt-mt]
_ZN4QDir6renameERK7QStringS2_b [qt-mt]	_ZN4QDir7currentEv [qt-mt]
_ZN4QDir7setPathERK7QString [qt-mt]	_ZN4QDir8slashifyER7QString [qt-mt]
_ZN4QDir9separatorEv [qt-mt]	_ZN4QDir9setFilterEi [qt-mt]
_ZN4QDirC1ERK7QStringS2_ii [qt-mt]	_ZN4QDirC1ERKS_ [qt-mt]
_ZN4QDirC1Ev [qt-mt]	_ZN4QDirC2ERK7QStringS2_ii [qt-mt]
ZN4QDirC2ERKS [qt-mt]	_ZN4QDirC2Ev [qt-mt]
_ZN4QDirD0Ev [qt-mt]	_ZN4QDirD1Ev [qt-mt]
_ZN4QDirD2Ev [qt-mt]	_ZN4QDiraSERK7QString [qt-mt]
ZN4QDiraSERKS [qt-mt]	_ZN5QFile10decodeNameERK8QCString [qt-mt]
_ZN5QFile10encodeNameERK7QString [qt-mt]	_ZN5QFile10writeBlockEPKcm [qt-mt]
_ZN5QFile14setErrorStringERK7QString [qt-mt]	_ZN5QFile19setDecodingFunctionEPF7QStringRK [qt-mt]
_ZN5QFile19setEncodingFunctionEPF8QCStringRK7QStringE [qt-mt]	_ZN5QFile19setErrorStringErrnoEi [qt-mt]
_ZN5QFile2atEm [qt-mt]	_ZN5QFile4initEv [qt-mt]
_ZN5QFile4openEi [qt-mt]	_ZN5QFile4openEiP8_IO_FILE [qt-mt]
_ZN5QFile4openEii [qt-mt]	_ZN5QFile5closeEv [qt-mt]
_ZN5QFile5flushEv [qt-mt]	_ZN5QFile5getchEv [qt-mt]
_ZN5QFile5putchEi [qt-mt]	_ZN5QFile6existsERK7QString [qt-mt]
_ZN5QFile6removeERK7QString [qt-mt]	_ZN5QFile6removeEv [qt-mt]
_ZN5QFile7setNameERK7QString [qt-mt]	_ZN5QFile7ungetchEi [qt-mt]

_ZN5QFile8readLineEPcm [qt-mt]	_ZN5QFile8readLineER7QStringm [qt-mt]
_ZN5QFile9readBlockEPcm [qt-mt]	_ZN5QFileC1ERK7QString [qt-mt]
_ZN5QFileC1Ev [qt-mt]	_ZN5QFileC2ERK7QString [qt-mt]
_ZN5QFileC2Ev [qt-mt]	_ZN5QFileD0Ev [qt-mt]
_ZN5QFileD1Ev [qt-mt]	_ZN5QFileD2Ev [qt-mt]
_ZN7QBuffer10writeBlockEPKcm [qt-mt]	_ZN7QBuffer2atEm [qt-mt]
_ZN7QBuffer4openEi [qt-mt]	_ZN7QBuffer5closeEv [qt-mt]
_ZN7QBuffer5flushEv [qt-mt]	_ZN7QBuffer5getchEv [qt-mt]
_ZN7QBuffer5putchEi [qt-mt]	_ZN7QBuffer7ungetchEi [qt-mt]
_ZN7QBuffer8readLineEPcm [qt-mt]	_ZN7QBuffer9readBlockEPcm [qt-mt]
_ZN7QBuffer9setBufferE9QMemArrayIcE [qt-mt]	_ZN7QBufferC1E9QMemArrayIcE [qt-mt]
_ZN7QBufferC1Ev [qt-mt]	_ZN7QBufferC2E9QMemArrayIcE [qt-mt]
_ZN7QBufferC2Ev [qt-mt]	_ZN7QBufferD0Ev [qt-mt]
_ZN7QBufferD1Ev [qt-mt]	_ZN7QBufferD2Ev [qt-mt]
_ZN7QSignal10disconnectEPK7QObjectPKc [qt-mt]	_ZN7QSignal11qt_propertyEiiP8QVariant [qt-mt]
_ZN7QSignal12setParameterEi [qt-mt]	_ZN7QSignal16staticMetaObjectEv [qt-mt]
_ZN7QSignal18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN7QSignal2trEPKcS1_ [qt-mt]
_ZN7QSignal6signalERK8QVariant [qt-mt]	_ZN7QSignal6trUtf8EPKcS1_ [qt-mt]
_ZN7QSignal7connectEPK7QObjectPKc [qt-mt]	_ZN7QSignal7qt_castEPKc [qt-mt]
_ZN7QSignal7qt_emitEiP8QUObject [qt-mt]	_ZN7QSignal8activateEv [qt-mt]
_ZN7QSignal8setValueERK8QVariant [qt-mt]	_ZN7QSignal9intSignalEi [qt-mt]
_ZN7QSignal9qt_invokeEiP8QUObject [qt-mt]	_ZN7QSignalC1EP7QObjectPKc [qt-mt]
_ZN7QSignalC2EP7QObjectPKc [qt-mt]	_ZN7QSignalD0Ev [qt-mt]
_ZN7QSignalD1Ev [qt-mt]	_ZN7QSignalD2Ev [qt-mt]
_ZN8QAsyncIO5readyEv [qt-mt]	_ZN8QAsyncIO7connectEP7QObjectPKc [qt-mt]
_ZN8QAsyncIOD0Ev [qt-mt]	_ZN8QAsyncIOD1Ev [qt-mt]
_ZN8QAsyncIOD2Ev [qt-mt]	_ZN8QImageIO10setQualityEi [qt-mt]
_ZN8QImageIO11imageFormatEP9QIODevice [qt-mt]	_ZN8QImageIO11imageFormatERK7QString [qt-mt]
_ZN8QImageIO11setFileNameERK7QString [qt-mt]	_ZN8QImageIO11setIODeviceEP9QIODevice [qt-mt]
_ZN8QImageIO12inputFormatsEv [qt-mt]	_ZN8QImageIO13outputFormatsEv [qt-mt]
_ZN8QImageIO13setParametersEPKc [qt-mt]	_ZN8QImageIO14setDescriptionERK7QString [qt-mt]
_ZN8QImageIO15defineIOHandlerEPKcS1_S1_PFvPS_ES4_ [qt-mt]	_ZN8QImageIO4initEv [qt-mt]

[qt-mt]	
_ZN8QImageIO4readEv [qt-mt]	_ZN8QImageIO5writeEv [qt-mt]
_ZN8QImageIO8setGammaEf [qt-mt]	_ZN8QImageIO8setImageERK6QImage [qt-mt]
_ZN8QImageIO9setFormatEPKc [qt-mt]	_ZN8QImageIO9setStatusEi [qt-mt]
_ZN8QImageIOC1EP9QIODevicePKc [qt-mt]	_ZN8QImageIOC1ERK7QStringPKc [qt-mt]
_ZN8QImageIOC1Ev [qt-mt]	_ZN8QImageIOC2EP9QIODevicePKc [qt-mt]
_ZN8QImageIOC2ERK7QStringPKc [qt-mt]	_ZN8QImageIOC2Ev [qt-mt]
_ZN8QImageIOD1Ev [qt-mt]	_ZN8QImageIOD2Ev [qt-mt]
_ZN8QProcess10closeStdinEv [qt-mt]	_ZN8QProcess10flushStdinEv [qt-mt]
_ZN8QProcess10readStderrEv [qt-mt]	_ZN8QProcess10readStdoutEv [qt-mt]
_ZN8QProcess10socketReadEi [qt-mt]	_ZN8QProcess11addArgumentERK7QString [qt-mt]
_ZN8QProcess11qt_propertyEiiP8QVariant [qt-mt]	_ZN8QProcess11socketWriteEi [qt-mt]
_ZN8QProcess12membufStderrEv [qt-mt]	_ZN8QProcess12membufStdoutEv [qt-mt]
_ZN8QProcess12setArgumentsERK11QStringList [qt-mt]	_ZN8QProcess12writeToStdinERK7QString [qt-mt]
_ZN8QProcess12writeToStdinERK9QMemArrayIcE [qt-mt]	_ZN8QProcess12wroteToStdinEv [qt-mt]
_ZN8QProcess13connectNotifyEPKc [qt-mt]	_ZN8QProcess13processExitedEv [qt-mt]
_ZN8QProcess14clearArgumentsEv [qt-mt]	_ZN8QProcess14launchFinishedEv [qt-mt]
_ZN8QProcess14readLineStderrEv [qt-mt]	_ZN8QProcess14readLineStdoutEv [qt-mt]
_ZN8QProcess15readyReadStderrEv [qt-mt]	_ZN8QProcess15readyReadStdoutEv [qt-mt]
_ZN8QProcess15setNotifyOnExitEb [qt-mt]	_ZN8QProcess16closeStdinLaunchEv [qt-mt]
_ZN8QProcess16disconnectNotifyEPKc [qt-mt]	_ZN8QProcess16setCommunicationEi [qt-mt]
_ZN8QProcess16setIoRedirectionEb [qt-mt]	_ZN8QProcess16staticMetaObjectEv [qt-mt]
_ZN8QProcess17processIdentifierEv [qt-mt]	_ZN8QProcess18qt_static_propertyEP7QObjectiiP [qt-mt]
_ZN8QProcess19setWorkingDirectoryERK4QDir [qt-mt]	_ZN8QProcess22setWroteStdinConnectedEb [qt-mt]
ZN8QProcess2trEPKcS1 [qt-mt]	_ZN8QProcess4initEv [qt-mt]
_ZN8QProcess5resetEv [qt-mt]	_ZN8QProcess5startEP11QStringList [qt-mt]
_ZN8QProcess6launchERK7QStringP11QStringList [qt-mt]	_ZN8QProcess6launchERK9QMemArrayIcEP11Q [qt-mt]
ZN8QProcess6trUtf8EPKcS1 [qt-mt]	_ZN8QProcess7qt_castEPKc [qt-mt]
_ZN8QProcess7qt_emitEiP8QUObject [qt-mt]	_ZN8QProcess7timeoutEv [qt-mt]
_ZN8QProcess9qt_invokeEiP8QUObject [qt-mt]	_ZN8QProcessC1EP7QObjectPKc [qt-mt]
_ZN8QProcessC1ERK11QStringListP7QObjectPKc [qt-mt]	_ZN8QProcessC1ERK7QStringP7QObjectPKc [qt-mt]
_ZN8QProcessC2EP7QObjectPKc [qt-mt]	_ZN8QProcessC2ERK11QStringListP7QObjectPKc [qt-mt]
_ZN8QProcessC2ERK7QStringP7QObjectPKc [qt-mt]	_ZN8QProcessD0Ev [qt-mt]

_ZN8QProcessD1Ev [qt-mt]	_ZN8QProcessD2Ev [qt-mt]
_ZN9QDataPump11qt_propertyEiiP8QVariant [qt-mt]	_ZN9QDataPump16staticMetaObjectEv [qt-mt]
_ZN9QDataPump18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN9QDataPump2trEPKcS1_ [qt-mt]
ZN9QDataPump6trUtf8EPKcS1 [qt-mt]	_ZN9QDataPump7qt_castEPKc [qt-mt]
_ZN9QDataPump7qt_emitEiP8QUObject [qt-mt]	_ZN9QDataPump9kickStartEv [qt-mt]
_ZN9QDataPump9qt_invokeEiP8QUObject [qt-mt]	_ZN9QDataPump9tryToPumpEv [qt-mt]
_ZN9QDataPumpC1EP11QDataSourceP9QDataSink [qt-mt]	_ZN9QDataPumpC2EP11QDataSourceP9QDataSink [qt-mt]
_ZN9QDataSink10maybeReadyEv [qt-mt]	_ZN9QFileInfo10setCachingEb [qt-mt]
_ZN9QFileInfo12convertToAbsEv [qt-mt]	_ZN9QFileInfo6detachEv [qt-mt]
_ZN9QFileInfo7makeAbsER7QString [qt-mt]	_ZN9QFileInfo7setFileERK4QDirRK7QString [qt-mt]
_ZN9QFileInfo7setFileERK5QFile [qt-mt]	_ZN9QFileInfo7setFileERK7QString [qt-mt]
_ZN9QFileInfo8slashifyER7QString [qt-mt]	_ZN9QFileInfoC1ERK4QDirRK7QString [qt-mt]
_ZN9QFileInfoC1ERK5QFile [qt-mt]	_ZN9QFileInfoC1ERK7QString [qt-mt]
ZN9QFileInfoC1ERKS [qt-mt]	_ZN9QFileInfoC1Ev [qt-mt]
_ZN9QFileInfoC2ERK4QDirRK7QString [qt-mt]	_ZN9QFileInfoC2ERK5QFile [qt-mt]
_ZN9QFileInfoC2ERK7QString [qt-mt]	_ZN9QFileInfoC2ERKS_ [qt-mt]
_ZN9QFileInfoC2Ev [qt-mt]	_ZN9QFileInfoD1Ev [qt-mt]
_ZN9QFileInfoD2Ev [qt-mt]	_ZN9QFileIoC1ERKS_ [qt-mt]
_ZN9QIODevice10writeBlockERK9QMemArrayIcE [qt-mt]	_ZN9QIODevice2atEm [qt-mt]
_ZN9QIODevice7readAllEv [qt-mt]	_ZN9QIODevice7setModeEi [qt-mt]
_ZN9QIODevice7setTypeEi [qt-mt]	_ZN9QIODevice8readLineEPcm [qt-mt]
_ZN9QIODevice8setStateEi [qt-mt]	_ZN9QIODevice9setStatusEi [qt-mt]
_ZN9QIODeviceC1Ev [qt-mt]	_ZN9QIODeviceC2Ev [qt-mt]
_ZN9QIODeviceD0Ev [qt-mt]	_ZN9QIODeviceD1Ev [qt-mt]
_ZN9QIODeviceD2Ev [qt-mt]	_ZN9QSettings10beginGroupERK7QString [qt-mt]
_ZN9QSettings10resetGroupEv [qt-mt]	_ZN9QSettings10writeEntryERK7QStringPKc [qt-mt]
_ZN9QSettings10writeEntryERK7QStringRK11QStringList [qt-mt]	_ZN9QSettings10writeEntryERK7QStringRK11QString [qt-mt]
ZN9QSettings10writeEntryERK7QStringS2 [qt-mt]	_ZN9QSettings10writeEntryERK7QStringb [qt-mt]
_ZN9QSettings10writeEntryERK7QStringd [qt-mt]	_ZN9QSettings10writeEntryERK7QStringi [qt-mt]
_ZN9QSettings11removeEntryERK7QString [qt-mt]	_ZN9QSettings12readNumEntryERK7QStringiPb [qt-mt]
_ZN9QSettings13readBoolEntryERK7QStringbPb [qt-mt]	_ZN9QSettings13readListEntryERK7QStringPb [qt-mt]

_ZN9QSettings13readListEntryERK7QStringRK5QCharPb [qt-mt]	_ZN9QSettings15readDoubleEntryERK7QStringd [qt-mt]
_ZN9QSettings16insertSearchPathENS_6SystemERK7QString [qt-mt]	_ZN9QSettings16removeSearchPathENS_6System [qt-mt]
_ZN9QSettings20lastModificationTimeERK7QString [qt-mt]	_ZN9QSettings4syncEv [qt-mt]
_ZN9QSettings7setPathERK7QStringS2_NS_5ScopeE [qt-mt]	_ZN9QSettings8endGroupEv [qt-mt]
_ZN9QSettings9readEntryERK7QStringS2_Pb [qt-mt]	_ZN9QSettingsC1ENS_6FormatE [qt-mt]
_ZN9QSettingsC1Ev [qt-mt]	_ZN9QSettingsC2ENS_6FormatE [qt-mt]
_ZN9QSettingsC2Ev [qt-mt]	_ZN9QSettingsD1Ev [qt-mt]
_ZN9QSettingsD2Ev [qt-mt]	_ZNK10QClipboard13ownsClipboardEv [qt-mt]
_ZNK10QClipboard13ownsSelectionEv [qt-mt]	_ZNK10QClipboard17supportsSelectionEv [qt-mt]
_ZNK10QClipboard20selectionModeEnabledEv [qt-mt]	_ZNK10QClipboard4dataENS_4ModeE [qt-mt]
_ZNK10QClipboard4dataEv [qt-mt]	_ZNK10QClipboard4textENS_4ModeE [qt-mt]
_ZNK10QClipboard4textER8QCString [qt-mt]	_ZNK10QClipboard4textER8QCStringNS_4Model [qt-mt]
_ZNK10QClipboard4textEv [qt-mt]	_ZNK10QClipboard5imageENS_4ModeE [qt-mt]
_ZNK10QClipboard5imageEv [qt-mt]	_ZNK10QClipboard6pixmapENS_4ModeE [qt-mt]
_ZNK10QClipboard6pixmapEv [qt-mt]	_ZNK10QClipboard9classNameEv [qt-mt]
_ZNK11QDataSource10rewindableEv [qt-mt]	_ZNK13QSignalMapper9classNameEv [qt-mt]
_ZNK15QIODeviceSource10rewindableEv [qt-mt]	_ZNK4QDir10isReadableEv [qt-mt]
_ZNK4QDir10isRelativeEv [qt-mt]	_ZNK4QDir11absFilePathERK7QStringb [qt-mt]
_ZNK4QDir13canonicalPathEv [qt-mt]	_ZNK4QDir13entryInfoListERK7QStringii [qt-mt]
_ZNK4QDir13entryInfoListEii [qt-mt]	_ZNK4QDir16encodedEntryListERK7QStringii [qt-mt]
_ZNK4QDir16encodedEntryListEii [qt-mt]	_ZNK4QDir5countEv [qt-mt]
_ZNK4QDir5mkdirERK7QStringb [qt-mt]	_ZNK4QDir5rmdirERK7QStringb [qt-mt]
_ZNK4QDir6existsEv [qt-mt]	_ZNK4QDir6isRootEv [qt-mt]
_ZNK4QDir7absPathEv [qt-mt]	_ZNK4QDir7dirNameEv [qt-mt]
_ZNK4QDir7refreshEv [qt-mt]	_ZNK4QDir8filePathERK7QStringb [qt-mt]
_ZNK4QDir9entryListERK7QStringii [qt-mt]	_ZNK4QDir9entryListEii [qt-mt]
ZNK4QDirreqERKS [qt-mt]	_ZNK4QDirixEi [qt-mt]
_ZNK5QFile11errorStringEv [qt-mt]	_ZNK5QFile4sizeEv [qt-mt]
_ZNK5QFile5atEndEv [qt-mt]	_ZNK5QFile6existsEv [qt-mt]
_ZNK5QFile6handleEv [qt-mt]	_ZNK7QSignal5valueEv [qt-mt]
_ZNK7QSignal9classNameEv [qt-mt]	_ZNK7QSignal9parameterEv [qt-mt]

_ZNK8QImageIO10parametersEv [qt-mt]	_ZNK8QImageIO5gammaEv [qt-mt]
_ZNK8QImageIO7qualityEv [qt-mt]	_ZNK8QProcess10exitStatusEv [qt-mt]
_ZNK8QProcess10normalExitEv [qt-mt]	_ZNK8QProcess12tryTerminateEv [qt-mt]
_ZNK8QProcess13communicationEv [qt-mt]	_ZNK8QProcess16workingDirectoryEv [qt-mt]
_ZNK8QProcess17canReadLineStderrEv [qt-mt]	_ZNK8QProcess17canReadLineStdoutEv [qt-mt]
_ZNK8QProcess4killEv [qt-mt]	_ZNK8QProcess9argumentsEv [qt-mt]
_ZNK8QProcess9classNameEv [qt-mt]	_ZNK8QProcess9isRunningEv [qt-mt]
_ZNK9QDataPump9classNameEv [qt-mt]	_ZNK9QFileInfo10isReadableEv [qt-mt]
_ZNK9QFileInfo10isRelativeEv [qt-mt]	_ZNK9QFileInfo10isWritableEv [qt-mt]
_ZNK9QFileInfo10permissionEi [qt-mt]	_ZNK9QFileInfo11absFilePathEv [qt-mt]
_ZNK9QFileInfo12isExecutableEv [qt-mt]	_ZNK9QFileInfo12lastModifiedEv [qt-mt]
_ZNK9QFileInfo3dirEb [qt-mt]	_ZNK9QFileInfo4sizeEv [qt-mt]
_ZNK9QFileInfo5groupEv [qt-mt]	_ZNK9QFileInfo5isDirEv [qt-mt]
_ZNK9QFileInfo5ownerEv [qt-mt]	_ZNK9QFileInfo6doStatEv [qt-mt]
_ZNK9QFileInfo6existsEv [qt-mt]	_ZNK9QFileInfo6isFileEv [qt-mt]
_ZNK9QFileInfo7createdEv [qt-mt]	_ZNK9QFileInfo7dirPathEb [qt-mt]
_ZNK9QFileInfo7groupIdEv [qt-mt]	_ZNK9QFileInfo7ownerIdEv [qt-mt]
_ZNK9QFileInfo7refreshEv [qt-mt]	_ZNK9QFileInfo8baseNameEb [qt-mt]
_ZNK9QFileInfo8fileNameEv [qt-mt]	_ZNK9QFileInfo8filePathEv [qt-mt]
_ZNK9QFileInfo8isHiddenEv [qt-mt]	_ZNK9QFileInfo8lastReadEv [qt-mt]
_ZNK9QFileInfo8readLinkEv [qt-mt]	_ZNK9QFileInfo9extensionEb [qt-mt]
_ZNK9QFileInfo9isSymLinkEv [qt-mt]	_ZNK9QIODevice2atEv [qt-mt]
_ZNK9QIODevice5atEndEv [qt-mt]	_ZNK9QSettings10subkeyListERK7QString [qt-mt]
_ZNK9QSettings5groupEv [qt-mt]	_ZNK9QSettings9entryListERK7QString [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Input/Output specified in [Table 18-196](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-196. libqt-mt - Qt3 Input/Output Data Interfaces

_ZN10QClipboard7metaObjE [qt-mt]	_ZN13QSignalMapper7metaObjE [qt-mt]
_ZN7QSignal7metaObjE [qt-mt]	_ZN8QProcess7metaObjE [qt-mt]
_ZN9QDataPump7metaObjE [qt-mt]	_ZTI10QClipboard [CXXABI-1.86]
_ZTI11QDataSource [CXXABI-1.86]	_ZTI11QDataStream [CXXABI-1.86]

_ZTI11QTextStream [CXXABI-1.86]	_ZTI12QTextOSStream [CXXABI-1.86]
_ZTI13QSignalMapper [CXXABI-1.86]	_ZTI15QIODeviceSource [CXXABI-1.86]
_ZTI4QDir [CXXABI-1.86]	_ZTI5QFile [CXXABI-1.86]
_ZTI7QBuffer [CXXABI-1.86]	_ZTI7QSignal [CXXABI-1.86]
_ZTI8QAsyncIO [CXXABI-1.86]	_ZTI8QProcess [CXXABI-1.86]
_ZTI9QDataPump [CXXABI-1.86]	_ZTI9QDataSink [CXXABI-1.86]
_ZTI9QIODevice [CXXABI-1.86]	_ZTV10QClipboard [CXXABI-1.86]
_ZTV11QDataSource [CXXABI-1.86]	_ZTV11QDataStream [CXXABI-1.86]
_ZTV11QTextStream [CXXABI-1.86]	_ZTV12QTextOSStream [CXXABI-1.86]
_ZTV13QSignalMapper [CXXABI-1.86]	_ZTV15QIODeviceSource [CXXABI-1.86]
_ZTV4QDir [CXXABI-1.86]	_ZTV5QFile [CXXABI-1.86]
_ZTV7QBuffer [CXXABI-1.86]	_ZTV7QSignal [CXXABI-1.86]
_ZTV8QAsyncIO [CXXABI-1.86]	_ZTV8QProcess [CXXABI-1.86]
_ZTV9QDataPump [CXXABI-1.86]	_ZTV9QDataSink [CXXABI-1.86]
_ZTV9QIODevice [CXXABI-1.86]	

18.2.12. Qt3 Multimedia

18.2.12.1. Class data for QImageFormat

The virtual table for the QImageFormat class is described by [Table 18-197](#)

Table 18-197. Primary vtable for QImageFormat

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QImageFormat
vfunc[0]:	QImageFormat::~~QImageFormat()
vfunc[1]:	QImageFormat::~~QImageFormat()
vfunc[2]:	__cxa_pure_virtual

The Run Time Type Information for the QImageFormat class is described by [Table 18-198](#)

Table 18-198. typeinfo for QImageFormat

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QImageFormat

18.2.12.2. Class data for QSound

The virtual table for the QSound class is described by [Table 18-199](#)

Table 18-199. Primary vtable for QSound

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSound
vfunc[0]:	NULL or QSound::metaObject() const
vfunc[1]:	QSound::className() const
vfunc[2]:	QSound::qt_cast(char const*)
vfunc[3]:	QSound::qt_invoke(int, QUObject*)
vfunc[4]:	QSound::qt_emit(int, QUObject*)
vfunc[5]:	QSound::qt_property(int, int, QVariant*)
vfunc[6]:	QSound::~~QSound()
vfunc[7]:	QSound::~~QSound()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QSound class is described by [Table 18-200](#)

Table 18-200. typeinfo for QSound

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSound
basetype:	typeinfo for QObject

18.2.12.3. Class data for QImageConsumer

The virtual table for the QImageConsumer class is described by [Table 18-201](#)

Table 18-201. Primary vtable for QImageConsumer

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QImageConsumer
vfunc[0]:	__cxa_pure_virtual
vfunc[1]:	__cxa_pure_virtual
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual

The Run Time Type Information for the QImageConsumer class is described by [Table 18-202](#)

Table 18-202. typeinfo for QImageConsumer

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QImageConsumer

18.2.12.4. Class data for QImageFormatType

The virtual table for the QImageFormatType class is described by [Table 18-203](#)

Table 18-203. Primary vtable for QImageFormatType

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QImageFormatType
vfunc[0]:	QImageFormatType::~~QImageFormatType()
vfunc[1]:	QImageFormatType::~~QImageFormatType()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QImageFormatType class is described by [Table 18-204](#)

Table 18-204. typeinfo for QImageFormatType

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QImageFormatType

18.2.12.5. Interfaces for Qt3 Multimedia

An LSB conforming implementation shall provide the generic functions for Qt3 Multimedia specified in [Table 18-205](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-205. libqt-mt - Qt3 Multimedia Function Interfaces

_ZN12QImageFormatD0Ev [qt-mt]	_ZN12QImageFormatD1Ev [qt-mt]
_ZN12QImageFormatD2Ev [qt-mt]	_ZN13QImageDecoder10formatName
_ZN13QImageDecoder12inputFormatsEv [qt-mt]	_ZN13QImageDecoder22registerDeco [qt-mt]
_ZN13QImageDecoder24unregisterDecoderFactoryEP16QImageFormatType [qt-mt]	_ZN13QImageDecoder6decodeEPKHi
_ZN13QImageDecoder6formatEPKc [qt-mt]	_ZN13QImageDecoderC1EP14QImage
_ZN13QImageDecoderC2EP14QImageConsumer [qt-mt]	_ZN13QImageDecoderD1Ev [qt-mt]
_ZN13QImageDecoderD2Ev [qt-mt]	_ZN15QPNGImagePacker17setPixelA
_ZN15QPNGImagePacker9packImageERK6QImage [qt-mt]	_ZN15QPNGImagePackerC1EP9QIO
_ZN15QPNGImagePackerC2EP9QIODeviceii [qt-mt]	_ZN15QPNGImageWriter10setLoopin
_ZN15QPNGImageWriter10writeImageERK6QImageii [qt-mt]	_ZN15QPNGImageWriter10writeIma
_ZN15QPNGImageWriter13setFrameDelayEi [qt-mt]	_ZN15QPNGImageWriter17setDispos [qt-mt]
_ZN15QPNGImageWriter8setGammaEf [qt-mt]	_ZN15QPNGImageWriterC1EP9QIO
_ZN15QPNGImageWriterC2EP9QIODevice [qt-mt]	_ZN15QPNGImageWriterD1Ev [qt-m
_ZN15QPNGImageWriterD2Ev [qt-mt]	_ZN16QImageFormatTypeC1Ev [qt-n
_ZN16QImageFormatTypeC2Ev [qt-mt]	_ZN16QImageFormatTypeD0Ev [qt-r

_ZN16QImageFormatTypeD1Ev [qt-mt]	_ZN16QImageFormatTypeD2Ev [qt-mt]
_ZN6QImage11imageFormatERK7QString [qt-mt]	_ZN6QImage12inputFormatsEv [qt-mt]
_ZN6QImage12invertPixelsEb [qt-mt]	_ZN6QImage12loadFromDataE9QMem [qt-mt]
_ZN6QImage12loadFromDataEPKhjPKc [qt-mt]	_ZN6QImage12setNumColorsEi [qt-mt]
_ZN6QImage13outputFormatsEv [qt-mt]	_ZN6QImage14fromMimeSourceERK7QString [qt-mt]
_ZN6QImage14setAlphaBufferEb [qt-mt]	_ZN6QImage14systemBitOrderEv [qt-mt]
_ZN6QImage15inputFormatListEv [qt-mt]	_ZN6QImage15systemByteOrderEv [qt-mt]
_ZN6QImage16outputFormatListEv [qt-mt]	_ZN6QImage16setDotsPerMeterXEi [qt-mt]
_ZN6QImage16setDotsPerMeterYEi [qt-mt]	_ZN6QImage17warningIndexRangeE [qt-mt]
_ZN6QImage4fillEj [qt-mt]	_ZN6QImage4initEv [qt-mt]
_ZN6QImage4loadERK7QStringPKc [qt-mt]	_ZN6QImage5resetEv [qt-mt]
_ZN6QImage6createERK5QSizeiiNS_6EndianE [qt-mt]	_ZN6QImage6createEiiiiNS_6EndianE [qt-mt]
_ZN6QImage6detachEv [qt-mt]	_ZN6QImage6reinitEv [qt-mt]
_ZN6QImage7setTextEPKcS1_7QString [qt-mt]	_ZN6QImage8freeBitsEv [qt-mt]
_ZN6QImage8setPixelEij [qt-mt]	_ZN6QImage9setOffsetERK6QPoint [qt-mt]
_ZN6QImageC1EPKPKc [qt-mt]	_ZN6QImageC1EPhiiiPjiNS_6EndianE [qt-mt]
_ZN6QImageC1ERK5QSizeiiNS_6EndianE [qt-mt]	_ZN6QImageC1ERK7QStringPKc [qt-mt]
_ZN6QImageC1ERK9QMemArrayIcE [qt-mt]	_ZN6QImageC1ERKS_ [qt-mt]
_ZN6QImageC1EiiiiNS_6EndianE [qt-mt]	_ZN6QImageC1Ev [qt-mt]
_ZN6QImageC2EPKPKc [qt-mt]	_ZN6QImageC2EPhiiiPjiNS_6EndianE [qt-mt]
_ZN6QImageC2ERK5QSizeiiNS_6EndianE [qt-mt]	_ZN6QImageC2ERK7QStringPKc [qt-mt]
_ZN6QImageC2ERK9QMemArrayIcE [qt-mt]	_ZN6QImageC2ERKS_ [qt-mt]
_ZN6QImageC2EiiiiNS_6EndianE [qt-mt]	_ZN6QImageC2Ev [qt-mt]
_ZN6QImageD1Ev [qt-mt]	_ZN6QImageD2Ev [qt-mt]
_ZN6QImageaSERK7QPixmap [qt-mt]	_ZN6QImageaSERKS_ [qt-mt]
_ZN6QMovie13connectResizeEP7QObjectPKc [qt-mt]	_ZN6QMovie13connectStatusEP7QObjectPKc [qt-mt]
_ZN6QMovie13connectUpdateEP7QObjectPKc [qt-mt]	_ZN6QMovie16disconnectResizeEP7QObjectPKc [qt-mt]
_ZN6QMovie16disconnectStatusEP7QObjectPKc [qt-mt]	_ZN6QMovie16disconnectUpdateEP7QObjectPKc [qt-mt]
_ZN6QMovie18setBackgroundColorERK6QColor [qt-mt]	_ZN6QMovie4stepEi [qt-mt]
_ZN6QMovie4stepEv [qt-mt]	_ZN6QMovie5pauseEv [qt-mt]
_ZN6QMovie7restartEv [qt-mt]	_ZN6QMovie7unpauseEv [qt-mt]
_ZN6QMovie8pushDataEPKHi [qt-mt]	_ZN6QMovie8setSpeedEi [qt-mt]
_ZN6QMovieC1E9QMemArrayIcEi [qt-mt]	_ZN6QMovieC1EP11QDataSourceEi [qt-mt]

_ZN6QMovieC1ERK7QStringi [qt-mt]	_ZN6QMovieC1ERKS_ [qt-mt]
_ZN6QMovieC1Ei [qt-mt]	_ZN6QMovieC1Ev [qt-mt]
_ZN6QMovieC2E9QMemArrayIcEi [qt-mt]	_ZN6QMovieC2EP11QDataSourceEi [qt-mt]
_ZN6QMovieC2ERK7QStringi [qt-mt]	_ZN6QMovieC2ERKS_ [qt-mt]
_ZN6QMovieC2Ei [qt-mt]	_ZN6QMovieC2Ev [qt-mt]
_ZN6QMovieD1Ev [qt-mt]	_ZN6QMovieD2Ev [qt-mt]
ZN6QMovieaSERKS [qt-mt]	_ZN6QSound11isAvailableEv [qt-mt]
_ZN6QSound11qt_propertyEiiP8QVariant [qt-mt]	_ZN6QSound16staticMetaObjectEv [qt-mt]
_ZN6QSound18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN6QSound2trEPKcS1_ [qt-mt]
_ZN6QSound4playERK7QString [qt-mt]	_ZN6QSound4playEv [qt-mt]
_ZN6QSound4stopEv [qt-mt]	_ZN6QSound6trUtf8EPKcS1_ [qt-mt]
_ZN6QSound7qt_castEPKc [qt-mt]	_ZN6QSound7qt_emitEiP8QUObject [qt-mt]
_ZN6QSound8setLoopsEi [qt-mt]	_ZN6QSound9qt_invokeEiP8QUObject [qt-mt]
_ZN6QSoundC1ERK7QStringP7QObjectPKc [qt-mt]	_ZN6QSoundC2ERK7QStringP7QObjectPKc [qt-mt]
_ZN6QSoundD0Ev [qt-mt]	_ZN6QSoundD1Ev [qt-mt]
_ZN6QSoundD2Ev [qt-mt]	_ZNK6QImage10pixelIndexEii [qt-mt]
_ZNK6QImage10scaleWidthEi [qt-mt]	_ZNK6QImage11isGrayscaleEv [qt-mt]
_ZNK6QImage11scaleHeightEi [qt-mt]	_ZNK6QImage11smoothScaleERK5QSize [qt-mt]
_ZNK6QImage11smoothScaleEiiNS_9ScaleModeE [qt-mt]	_ZNK6QImage12convertDepthEi [qt-mt]
_ZNK6QImage12convertDepthEii [qt-mt]	_ZNK6QImage13textLanguagesEv [qt-mt]
_ZNK6QImage15convertBitOrderENS_6EndianE [qt-mt]	_ZNK6QImage15createAlphaMaskEi [qt-mt]
_ZNK6QImage19createHeuristicMaskEb [qt-mt]	_ZNK6QImage23convertDepthWithP [qt-mt]
_ZNK6QImage4copyEiiii [qt-mt]	_ZNK6QImage4copyEv [qt-mt]
_ZNK6QImage4miscEv [qt-mt]	_ZNK6QImage4saveEP9QIODeviceP [qt-mt]
_ZNK6QImage4saveERK7QStringPKci [qt-mt]	_ZNK6QImage4textEPKcS1_ [qt-mt]
_ZNK6QImage4textERK17QImageTextKeyLang [qt-mt]	_ZNK6QImage5pixelEii [qt-mt]
_ZNK6QImage5scaleERK5QSizeNS_9ScaleModeE [qt-mt]	_ZNK6QImage5scaleEiiNS_9ScaleModeE [qt-mt]
_ZNK6QImage5validEii [qt-mt]	_ZNK6QImage5xFormERK8QWMatrix [qt-mt]
_ZNK6QImage6mirrorEbb [qt-mt]	_ZNK6QImage6mirrorEv [qt-mt]
_ZNK6QImage7allGrayEv [qt-mt]	_ZNK6QImage7swapRGBEv [qt-mt]
_ZNK6QImage8textKeysEv [qt-mt]	_ZNK6QImage8textListEv [qt-mt]
_ZNK6QImage9doImageIOEP8QImageIOi [qt-mt]	_ZNK6QImageeqERKS_ [qt-mt]
ZNK6QImageeneERKS [qt-mt]	_ZNK6QMovie10frameImageEv [qt-mt]

_ZNK6QMovie11frameNumberEv [qt-mt]	_ZNK6QMovie11framePixmapEv [qt-mt]
_ZNK6QMovie12getValidRectEv [qt-mt]	_ZNK6QMovie15backgroundColorEv [qt-mt]
_ZNK6QMovie5speedEv [qt-mt]	_ZNK6QMovie5stepsEv [qt-mt]
_ZNK6QMovie6isNullEv [qt-mt]	_ZNK6QMovie6pausedEv [qt-mt]
_ZNK6QMovie7runningEv [qt-mt]	_ZNK6QMovie8finishedEv [qt-mt]
_ZNK6QMovie9pushSpaceEv [qt-mt]	_ZNK6QSound10isFinishedEv [qt-mt]
_ZNK6QSound14loopsRemainingEv [qt-mt]	_ZNK6QSound5loopsEv [qt-mt]
_ZNK6QSound8fileNameEv [qt-mt]	_ZNK6QSound9classNameEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Multimedia specified in [Table 18-206](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-206. libqt-mt - Qt3 Multimedia Data Interfaces

_ZN6QSound7metaObjE [qt-mt]	_ZTI12QImageFormat [CXXABI-1.86]
_ZTI14QImageConsumer [CXXABI-1.86]	_ZTI16QImageFormatType [CXXABI-1.86]
_ZTI6QSound [CXXABI-1.86]	_ZTV12QImageFormat [CXXABI-1.86]
_ZTV14QImageConsumer [CXXABI-1.86]	_ZTV16QImageFormatType [CXXABI-1.86]
_ZTV6QSound [CXXABI-1.86]	

18.2.13. Qt3 Network

18.2.13.1. Class data for QMimeSourceFactory

The virtual table for the QMimeSourceFactory class is described by [Table 18-207](#)

Table 18-207. Primary vtable for QMimeSourceFactory

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMimeSourceFactory
vfunc[0]:	QMimeSourceFactory::~~QMimeSourceFactory()
vfunc[1]:	QMimeSourceFactory::~~QMimeSourceFactory()
vfunc[2]:	QMimeSourceFactory::data(QString const&) const
vfunc[3]:	QMimeSourceFactory::makeAbsolute(QString const&, QString const&) const
vfunc[4]:	QMimeSourceFactory::setText(QString const&, QString const&)
vfunc[5]:	QMimeSourceFactory::setImage(QString const&, QImage const&)

vfunc[6]:	QMimeSourceFactory::setPixmap(QString const&, QPixmap const&)
vfunc[7]:	QMimeSourceFactory::setData(QString const&, QMimeSource*)
vfunc[8]:	QMimeSourceFactory::setFilePath(QStringList const&)
vfunc[9]:	QMimeSourceFactory::filePath() const
vfunc[10]:	QMimeSourceFactory::setExtensionType(QString const&, char const*)

The Run Time Type Information for the QMimeSourceFactory class is described by [Table 18-208](#)

Table 18-208. typeinfo for QMimeSourceFactory

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QMimeSourceFactory

18.2.13.2. Class data for QUrlOperator

The virtual table for the QUrlOperator class is described by [Table 18-209](#)

Table 18-209. Primary vtable for QUrlOperator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QUrlOperator
vfunc[0]:	NULL or QUrlOperator::metaObject() const
vfunc[1]:	QUrlOperator::className() const
vfunc[2]:	QUrlOperator::qt_cast(char const*)
vfunc[3]:	QUrlOperator::qt_invoke(int, QUObject*)
vfunc[4]:	QUrlOperator::qt_emit(int, QUObject*)
vfunc[5]:	QUrlOperator::qt_property(int, int, QVariant*)
vfunc[6]:	QUrlOperator::~~QUrlOperator()
vfunc[7]:	QUrlOperator::~QUrlOperator()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)

vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QUrlOperator::setPath(QString const&)
vfunc[22]:	QUrlOperator::cdUp()
vfunc[23]:	QUrlOperator::listChildren()
vfunc[24]:	QUrlOperator::mkdir(QString const&)
vfunc[25]:	QUrlOperator::remove(QString const&)
vfunc[26]:	QUrlOperator::rename(QString const&, QString const&)
vfunc[27]:	QUrlOperator::get(QString const&)
vfunc[28]:	QUrlOperator::put(QMemArray<char> const&, QString const&)
vfunc[29]:	QUrlOperator::copy(QString const&, QString const&, bool, bool)
vfunc[30]:	QUrlOperator::copy(QStringList const&, QString const&, bool)
vfunc[31]:	QUrlOperator::isDir(bool*)
vfunc[32]:	QUrlOperator::setNameFilter(QString const&)
vfunc[33]:	QUrlOperator::info(QString const&) const
vfunc[34]:	QUrlOperator::stop()
vfunc[35]:	QUrlOperator::reset()
vfunc[36]:	QUrlOperator::parse(QString const&)
vfunc[37]:	QUrlOperator::checkValid()
vfunc[38]:	QUrlOperator::clearEntries()

The Run Time Type Information for the QUrlOperator class is described by [Table 18-210](#)

Table 18-210. typeinfo for QUrlOperator

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QUrlOperator	
flags:	0	
basetype:	typeinfo for QObject	
		2

basetype:	typeinfo for QUrl	10242

18.2.13.3. Class data for QSocket

The virtual table for the QSocket class is described by [Table 18-211](#)

Table 18-211. Primary vtable for QSocket

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSocket
vfunc[0]:	NULL or QSocket::metaObject() const
vfunc[1]:	QSocket::className() const
vfunc[2]:	QSocket::qt_cast(char const*)
vfunc[3]:	QSocket::qt_invoke(int, QUObject*)
vfunc[4]:	QSocket::qt_emit(int, QUObject*)
vfunc[5]:	QSocket::qt_property(int, int, QVariant*)
vfunc[6]:	QSocket::~~QSocket()
vfunc[7]:	QSocket::~~QSocket()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QSocket::setSocket(int)
vfunc[22]:	QSocket::setSocketDevice(QSocketDevice*)

vfunc[23]:	QSocket::connectToHost(QString const&, unsigned short)
vfunc[24]:	QSocket::open(int)
vfunc[25]:	QSocket::close()
vfunc[26]:	QSocket::flush()
vfunc[27]:	QSocket::size() const
vfunc[28]:	QSocket::at() const
vfunc[29]:	QSocket::at(unsigned long)
vfunc[30]:	QSocket::atEnd() const
vfunc[31]:	QSocket::readBlock(char*, unsigned long)
vfunc[32]:	QSocket::writeBlock(char const*, unsigned long)
vfunc[33]:	QSocket::readLine(char*, unsigned long)
vfunc[34]:	QSocket::getch()
vfunc[35]:	QSocket::putch(int)
vfunc[36]:	QSocket::ungetch(int)
vfunc[37]:	QSocket::readLine()
vfunc[38]:	QSocket::sn_read(bool)
vfunc[39]:	QSocket::sn_write()

The Run Time Type Information for the QSocket class is described by [Table 18-212](#)

Table 18-212. typeid for QSocket

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeid name for QSocket	
flags:	0	
basetype:	typeid for QObject	2
basetype:	typeid for QIODevice	10242

18.2.13.4. Class data for QSocketNotifier

The virtual table for the QSocketNotifier class is described by [Table 18-213](#)

Table 18-213. Primary vtable for QSocketNotifier

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QSocketNotifier
vfunc[0]:	NULL or QSocketNotifier::metaObject() const
vfunc[1]:	QSocketNotifier::className() const
vfunc[2]:	QSocketNotifier::qt_cast(char const*)
vfunc[3]:	QSocketNotifier::qt_invoke(int, QUObject*)
vfunc[4]:	QSocketNotifier::qt_emit(int, QUObject*)
vfunc[5]:	QSocketNotifier::qt_property(int, int, QVariant*)
vfunc[6]:	QSocketNotifier::~~QSocketNotifier()
vfunc[7]:	QSocketNotifier::~~QSocketNotifier()
vfunc[8]:	QSocketNotifier::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QSocketNotifier::setEnabled(bool)

The Run Time Type Information for the QSocketNotifier class is described by [Table 18-214](#)

Table 18-214. typeinfo for QSocketNotifier

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSocketNotifier
basetype:	typeinfo for QObject

18.2.13.5. Class data for QNetworkProtocol

The virtual table for the QNetworkProtocol class is described by [Table 18-215](#)

Table 18-215. Primary vtable for QNetworkProtocol

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QNetworkProtocol
vfunc[0]:	NULL or QNetworkProtocol::metaObject() const
vfunc[1]:	QNetworkProtocol::className() const
vfunc[2]:	QNetworkProtocol::qt_cast(char const*)
vfunc[3]:	QNetworkProtocol::qt_invoke(int, QUObject*)
vfunc[4]:	QNetworkProtocol::qt_emit(int, QUObject*)
vfunc[5]:	QNetworkProtocol::qt_property(int, int, QVariant*)
vfunc[6]:	QNetworkProtocol::~~QNetworkProtocol()
vfunc[7]:	QNetworkProtocol::~~QNetworkProtocol()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QNetworkProtocol::setUrl(QUrlOperator*)
vfunc[22]:	QNetworkProtocol::setAutoDelete(bool, int)
vfunc[23]:	QNetworkProtocol::supportedOperations() const
vfunc[24]:	QNetworkProtocol::addOperation(QNetworkOperation*)

vfunc[25]:	QNetworkProtocol::clearOperationQueue()
vfunc[26]:	QNetworkProtocol::stop()
vfunc[27]:	QNetworkProtocol::processOperation(QNetworkOperation*)
vfunc[28]:	QNetworkProtocol::operationListChildren(QNetworkOperation*)
vfunc[29]:	QNetworkProtocol::operationMkDir(QNetworkOperation*)
vfunc[30]:	QNetworkProtocol::operationRemove(QNetworkOperation*)
vfunc[31]:	QNetworkProtocol::operationRename(QNetworkOperation*)
vfunc[32]:	QNetworkProtocol::operationGet(QNetworkOperation*)
vfunc[33]:	QNetworkProtocol::operationPut(QNetworkOperation*)
vfunc[34]:	QNetworkProtocol::operationPutChunk(QNetworkOperation*)
vfunc[35]:	QNetworkProtocol::checkConnection(QNetworkOperation*)

The Run Time Type Information for the QNetworkProtocol class is described by [Table 18-216](#)

Table 18-216. typeinfo for QNetworkProtocol

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QNetworkProtocol
basetype:	typeinfo for QObject

18.2.13.6. Class data for QUrl

The virtual table for the QUrl class is described by [Table 18-217](#)

Table 18-217. Primary vtable for QUrl

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QUrl
vfunc[0]:	QUrl::~~QUrl()
vfunc[1]:	QUrl::~~QUrl()
vfunc[2]:	QUrl::setProtocol(QString const&)
vfunc[3]:	QUrl::setUser(QString const&)
vfunc[4]:	QUrl::setPassword(QString const&)
vfunc[5]:	QUrl::setHost(QString const&)
vfunc[6]:	QUrl::setPort(int)

vfunc[7]:	QUrl::setPath(QString const&)
vfunc[8]:	QUrl::setEncodedPathAndQuery(QString const&)
vfunc[9]:	QUrl::setQuery(QString const&)
vfunc[10]:	QUrl::setRef(QString const&)
vfunc[11]:	QUrl::addPath(QString const&)
vfunc[12]:	QUrl::setFileName(QString const&)
vfunc[13]:	QUrl::toString(bool, bool) const
vfunc[14]:	QUrl::cdUp()
vfunc[15]:	QUrl::reset()
vfunc[16]:	QUrl::parse(QString const&)

The Run Time Type Information for the QUrl class is described by [Table 18-218](#)

Table 18-218. typeid for QUrl

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QUrl

18.2.13.7. Class data for QSocketDevice

The virtual table for the QSocketDevice class is described by [Table 18-219](#)

Table 18-219. Primary vtable for QSocketDevice

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QSocketDevice
vfunc[0]:	QSocketDevice::~~QSocketDevice()
vfunc[1]:	QSocketDevice::~~QSocketDevice()
vfunc[2]:	QSocketDevice::open(int)
vfunc[3]:	QSocketDevice::close()
vfunc[4]:	QSocketDevice::flush()
vfunc[5]:	QSocketDevice::size() const
vfunc[6]:	QSocketDevice::at() const
vfunc[7]:	QSocketDevice::at(unsigned long)
vfunc[8]:	QSocketDevice::atEnd() const

vfunc[9]:	QSocketDevice::readBlock(char*, unsigned long)
vfunc[10]:	QSocketDevice::writeBlock(char const*, unsigned long)
vfunc[11]:	QIODevice::readLine(char*, unsigned long)
vfunc[12]:	QIODevice::readAll()
vfunc[13]:	QSocketDevice::getch()
vfunc[14]:	QSocketDevice::putch(int)
vfunc[15]:	QSocketDevice::ungetch(int)
vfunc[16]:	QSocketDevice::setSocket(int, QSocketDevice::Type)
vfunc[17]:	QSocketDevice::setBlocking(bool)
vfunc[18]:	QSocketDevice::setAddressReusable(bool)
vfunc[19]:	QSocketDevice::setReceiveBufferSize(unsigned int)
vfunc[20]:	QSocketDevice::setSendBufferSize(unsigned int)
vfunc[21]:	QSocketDevice::connect(QHostAddress const&, unsigned short)
vfunc[22]:	QSocketDevice::bind(QHostAddress const&, unsigned short)
vfunc[23]:	QSocketDevice::listen(int)
vfunc[24]:	QSocketDevice::accept()
vfunc[25]:	QSocketDevice::writeBlock(char const*, unsigned long, QHostAddress const&, unsigned short)
vfunc[26]:	QSocketDevice::setOption(QSocketDevice::Option, int)

The Run Time Type Information for the QSocketDevice class is described by [Table 18-220](#)

Table 18-220. typeinfo for QSocketDevice

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSocketDevice
basetype:	typeinfo for QIODevice

18.2.13.8. Class data for QHttpResponseHeader

The virtual table for the QHttpResponseHeader class is described by [Table 18-221](#)

Table 18-221. Primary vtable for QHttpResponseHeader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHttpResponseHeader

vfunc[0]:	NULL or QHttpResponseHeader::~QHttpResponseHeader()
vfunc[1]:	NULL or QHttpResponseHeader::~QHttpResponseHeader()
vfunc[2]:	QHttpResponseHeader::toString() const
vfunc[3]:	QHttpResponseHeader::majorVersion() const
vfunc[4]:	QHttpResponseHeader::minorVersion() const
vfunc[5]:	QHttpResponseHeader::parseLine(QString const&, int)

The Run Time Type Information for the QHttpResponseHeader class is described by [Table 18-222](#)

Table 18-222. typeinfo for QHttpResponseHeader

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHttpResponseHeader
basetype:	typeinfo for QHttpHeader

18.2.13.9. Class data for QServerSocket

The virtual table for the QServerSocket class is described by [Table 18-223](#)

Table 18-223. Primary vtable for QServerSocket

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QServerSocket
vfunc[0]:	NULL or QServerSocket::metaObject() const
vfunc[1]:	QServerSocket::className() const
vfunc[2]:	QServerSocket::qt_cast(char const*)
vfunc[3]:	QServerSocket::qt_invoke(int, QUObject*)
vfunc[4]:	QServerSocket::qt_emit(int, QUObject*)
vfunc[5]:	QServerSocket::qt_property(int, int, QVariant*)
vfunc[6]:	QServerSocket::~QServerSocket()
vfunc[7]:	QServerSocket::~QServerSocket()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)

vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QServerSocket::setSocket(int)
vfunc[22]:	__cxa_pure_virtual

The Run Time Type Information for the QServerSocket class is described by [Table 18-224](#)

Table 18-224. typeinfo for QServerSocket

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QServerSocket
basetype:	typeinfo for QObject

18.2.13.10. Class data for QUrlInfo

The virtual table for the QUrlInfo class is described by [Table 18-225](#)

Table 18-225. Primary vtable for QUrlInfo

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QUrlInfo
vfunc[0]:	QUrlInfo::~~QUrlInfo()
vfunc[1]:	QUrlInfo::~~QUrlInfo()
vfunc[2]:	QUrlInfo::setName(QString const&)
vfunc[3]:	QUrlInfo::setDir(bool)
vfunc[4]:	QUrlInfo::setFile(bool)
vfunc[5]:	QUrlInfo::setSymLink(bool)
vfunc[6]:	QUrlInfo::setOwner(QString const&)

vfunc[7]:	QUrlInfo::setGroup(QString const&)
vfunc[8]:	QUrlInfo::setSize(unsigned int)
vfunc[9]:	QUrlInfo::setWritable(bool)
vfunc[10]:	QUrlInfo::setReadable(bool)
vfunc[11]:	QUrlInfo::setPermissions(int)
vfunc[12]:	QUrlInfo::setLastModified(QDateTime const&)

The Run Time Type Information for the QUrlInfo class is described by [Table 18-226](#)

Table 18-226. typeinfo for QUrlInfo

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QUrlInfo

18.2.13.11. Class data for QNetworkOperation

The virtual table for the QNetworkOperation class is described by [Table 18-227](#)

Table 18-227. Primary vtable for QNetworkOperation

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QNetworkOperation
vfunc[0]:	NULL or QNetworkOperation::metaObject() const
vfunc[1]:	QNetworkOperation::className() const
vfunc[2]:	QNetworkOperation::qt_cast(char const*)
vfunc[3]:	QNetworkOperation::qt_invoke(int, QUObject*)
vfunc[4]:	QNetworkOperation::qt_emit(int, QUObject*)
vfunc[5]:	QNetworkOperation::qt_property(int, int, QVariant*)
vfunc[6]:	QNetworkOperation::~~QNetworkOperation()
vfunc[7]:	QNetworkOperation::~~QNetworkOperation()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)

vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QNetworkOperation class is described by [Table 18-228](#)

Table 18-228. typeinfo for QNetworkOperation

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QNetworkOperation
basetype:	typeinfo for QObject

18.2.13.12. Class data for QHttp

The virtual table for the QHttp class is described by [Table 18-229](#)

Table 18-229. Primary vtable for QHttp

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHttp
vfunc[0]:	NULL or QHttp::metaObject() const
vfunc[1]:	QHttp::className() const
vfunc[2]:	QHttp::qt_cast(char const*)
vfunc[3]:	QHttp::qt_invoke(int, QUObject*)
vfunc[4]:	QHttp::qt_emit(int, QUObject*)
vfunc[5]:	QHttp::qt_property(int, int, QVariant*)
vfunc[6]:	QHttp::~QHttp()
vfunc[7]:	QHttp::~QHttp()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)

vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QHttp::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QNetworkProtocol::setUrl(QUrlOperator*)
vfunc[22]:	QNetworkProtocol::setAutoDelete(bool, int)
vfunc[23]:	QHttp::supportedOperations() const
vfunc[24]:	QNetworkProtocol::addOperation(QNetworkOperation*)
vfunc[25]:	QNetworkProtocol::clearOperationQueue()
vfunc[26]:	QNetworkProtocol::stop()
vfunc[27]:	QNetworkProtocol::processOperation(QNetworkOperation*)
vfunc[28]:	QNetworkProtocol::operationListChildren(QNetworkOperation*)
vfunc[29]:	QNetworkProtocol::operationMkDir(QNetworkOperation*)
vfunc[30]:	QNetworkProtocol::operationRemove(QNetworkOperation*)
vfunc[31]:	QNetworkProtocol::operationRename(QNetworkOperation*)
vfunc[32]:	QHttp::operationGet(QNetworkOperation*)
vfunc[33]:	QHttp::operationPut(QNetworkOperation*)
vfunc[34]:	QNetworkProtocol::operationPutChunk(QNetworkOperation*)
vfunc[35]:	QNetworkProtocol::checkConnection(QNetworkOperation*)

The Run Time Type Information for the QHttp class is described by [Table 18-230](#)

Table 18-230. typeinfo for QHttp

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHttp
basetype:	typeinfo for QNetworkProtocol

18.2.13.13. Class data for QMimeSource

The virtual table for the QMimeSource class is described by [Table 18-231](#)

Table 18-231. Primary vtable for QMimeSource

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMimeSource
vfunc[0]:	QMimeSource::~~QMimeSource()
vfunc[1]:	QMimeSource::~~QMimeSource()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	QMimeSource::provides(char const*) const
vfunc[4]:	__cxa_pure_virtual

The Run Time Type Information for the QMimeSource class is described by [Table 18-232](#)

Table 18-232. typeinfo for QMimeSource

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QMimeSource

18.2.13.14. Class data for QDns

The virtual table for the QDns class is described by [Table 18-233](#)

Table 18-233. Primary vtable for QDns

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDns
vfunc[0]:	NULL or QDns::metaObject() const
vfunc[1]:	QDns::className() const
vfunc[2]:	QDns::qt_cast(char const*)
vfunc[3]:	QDns::qt_invoke(int, QUObject*)
vfunc[4]:	QDns::qt_emit(int, QUObject*)
vfunc[5]:	QDns::qt_property(int, int, QVariant*)
vfunc[6]:	QDns::~~QDns()

vfunc[7]:	QDns::~~QDns()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QDns::setLabel(QString const&)
vfunc[22]:	QDns::setLabel(QHostAddress const&)
vfunc[23]:	QDns::setRecordType(QDns::RecordType)

The Run Time Type Information for the QDns class is described by [Table 18-234](#)

Table 18-234. typeinfo for QDns

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDns
basetype:	typeinfo for QObject

18.2.13.15. Class data for QHttpRequestHeader

The virtual table for the QHttpRequestHeader class is described by [Table 18-235](#)

Table 18-235. Primary vtable for QHttpRequestHeader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHttpRequestHeader
vfunc[0]:	NULL or QHttpRequestHeader::~~QHttpRequestHeader()

vfunc[1]:	NULL or QHttpRequestHeader::~~QHttpRequestHeader()
vfunc[2]:	QHttpRequestHeader::toString() const
vfunc[3]:	QHttpRequestHeader::majorVersion() const
vfunc[4]:	QHttpRequestHeader::minorVersion() const
vfunc[5]:	QHttpRequestHeader::parseLine(QString const&, int)

The Run Time Type Information for the QHttpRequestHeader class is described by [Table 18-236](#)

Table 18-236. typeinfo for QHttpRequestHeader

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHttpRequestHeader
basetype:	typeinfo for QHttpHeader

18.2.13.16. Class data for QHttpHeader

The virtual table for the QHttpHeader class is described by [Table 18-237](#)

Table 18-237. Primary vtable for QHttpHeader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHttpHeader
vfunc[0]:	QHttpHeader::~~QHttpHeader()
vfunc[1]:	QHttpHeader::~~QHttpHeader()
vfunc[2]:	QHttpHeader::toString() const
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	QHttpHeader::parseLine(QString const&, int)

The Run Time Type Information for the QHttpHeader class is described by [Table 18-238](#)

Table 18-238. typeinfo for QHttpHeader

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QHttpHeader

18.2.13.17. Class data for QLocalFs

The virtual table for the QLocalFs class is described by [Table 18-239](#)

Table 18-239. Primary vtable for QLocalFs

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLocalFs
vfunc[0]:	NULL or QLocalFs::metaObject() const
vfunc[1]:	QLocalFs::className() const
vfunc[2]:	QLocalFs::qt_cast(char const*)
vfunc[3]:	QLocalFs::qt_invoke(int, QUObject*)
vfunc[4]:	QLocalFs::qt_emit(int, QUObject*)
vfunc[5]:	QLocalFs::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QLocalFs::~~QLocalFs()
vfunc[7]:	NULL or QLocalFs::~~QLocalFs()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QNetworkProtocol::setUrl(QUrlOperator*)
vfunc[22]:	QNetworkProtocol::setAutoDelete(bool, int)
vfunc[23]:	QLocalFs::supportedOperations() const
vfunc[24]:	QNetworkProtocol::addOperation(QNetworkOperation*)

vfunc[25]:	QNetworkProtocol::clearOperationQueue()
vfunc[26]:	QNetworkProtocol::stop()
vfunc[27]:	QNetworkProtocol::processOperation(QNetworkOperation*)
vfunc[28]:	QLocalFs::operationListChildren(QNetworkOperation*)
vfunc[29]:	QLocalFs::operationMkDir(QNetworkOperation*)
vfunc[30]:	QLocalFs::operationRemove(QNetworkOperation*)
vfunc[31]:	QLocalFs::operationRename(QNetworkOperation*)
vfunc[32]:	QLocalFs::operationGet(QNetworkOperation*)
vfunc[33]:	QLocalFs::operationPut(QNetworkOperation*)
vfunc[34]:	QNetworkProtocol::operationPutChunk(QNetworkOperation*)
vfunc[35]:	QNetworkProtocol::checkConnection(QNetworkOperation*)

The Run Time Type Information for the QLocalFs class is described by [Table 18-240](#)

Table 18-240. typeinfo for QLocalFs

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QLocalFs
basetype:	typeinfo for QNetworkProtocol

18.2.13.18. Class data for QConnectionList

The virtual table for the QConnectionList class is described by [Table 18-241](#)

Table 18-241. Primary vtable for QConnectionList

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QConnectionList
vfunc[0]:	NULL or QPtrList<QConnection>::count() const
vfunc[1]:	NULL or QPtrList<QConnection>::clear()
vfunc[2]:	NULL or QConnectionList::~~QConnectionList()
vfunc[3]:	NULL or QConnectionList::~~QConnectionList()
vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	NULL or QPtrList<QConnection>::deleteItem(void*)
vfunc[6]:	QGList::compareItems(void*, void*)

vfunc[7]:	QGList::read(QDataStream&, void*&)
vfunc[8]:	QGList::write(QDataStream&, void*) const

The Run Time Type Information for the QConnectionList class is described by [Table 18-242](#)

Table 18-242. typeinfo for QConnectionList

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QConnectionList
basetype:	typeinfo for QList<QConnection>

18.2.13.19. Class data for QHostAddress

The virtual table for the QHostAddress class is described by [Table 18-243](#)

Table 18-243. Primary vtable for QHostAddress

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHostAddress
vfunc[0]:	QHostAddress::~~QHostAddress()
vfunc[1]:	QHostAddress::~~QHostAddress()

The Run Time Type Information for the QHostAddress class is described by [Table 18-244](#)

Table 18-244. typeinfo for QHostAddress

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QHostAddress

18.2.13.20. Class data for QFtp

The virtual table for the QFtp class is described by [Table 18-245](#)

Table 18-245. Primary vtable for QFtp

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFtp
vfunc[0]:	NULL or QFtp::metaObject() const

vfunc[1]:	QFtp::className() const
vfunc[2]:	QFtp::qt_cast(char const*)
vfunc[3]:	QFtp::qt_invoke(int, QUObject*)
vfunc[4]:	QFtp::qt_emit(int, QUObject*)
vfunc[5]:	QFtp::qt_property(int, int, QVariant*)
vfunc[6]:	QFtp::~~QFtp()
vfunc[7]:	QFtp::~~QFtp()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QNetworkProtocol::setUrl(QUrlOperator*)
vfunc[22]:	QNetworkProtocol::setAutoDelete(bool, int)
vfunc[23]:	QFtp::supportedOperations() const
vfunc[24]:	QNetworkProtocol::addOperation(QNetworkOperation*)
vfunc[25]:	QNetworkProtocol::clearOperationQueue()
vfunc[26]:	QNetworkProtocol::stop()
vfunc[27]:	QNetworkProtocol::processOperation(QNetworkOperation*)
vfunc[28]:	QFtp::operationListChildren(QNetworkOperation*)
vfunc[29]:	QFtp::operationMkDir(QNetworkOperation*)
vfunc[30]:	QFtp::operationRemove(QNetworkOperation*)
vfunc[31]:	QFtp::operationRename(QNetworkOperation*)
vfunc[32]:	QFtp::operationGet(QNetworkOperation*)
vfunc[33]:	QFtp::operationPut(QNetworkOperation*)

vfunc[34]:	QNetworkProtocol::operationPutChunk(QNetworkOperation*)
vfunc[35]:	QFtp::checkConnection(QNetworkOperation*)

The Run Time Type Information for the QFtp class is described by [Table 18-246](#)

Table 18-246. typeinfo for QFtp

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFtp
basetype:	typeinfo for QNetworkProtocol

18.2.13.21. Interfaces for Qt3 Network

An LSB conforming implementation shall provide the generic functions for Qt3 Network specified in [Table 18-247](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-247. libqt-mt - Qt3 Network Function Interfaces

_ZN11QConnectionC1EPK7QObjectiPKci [qt-mt]	_ZN11QConnectionC1EPK7QObjectiPKci [qt-mt]
_ZN11QHttpHeaderI1removeValueERK7QString [qt-mt]	_ZN11QHttpHeaderI1removeValueERK7QString [qt-mt]
_ZN11QHttpHeaderI6setContentLengthEi [qt-mt]	_ZN11QHttpHeaderI6setContentLengthEi [qt-mt]
_ZN11QHttpHeaderI8setValidEb [qt-mt]	_ZN11QHttpHeaderI8setValidEb [qt-mt]
_ZN11QHttpHeaderI9parseLineERK7QStringi [qt-mt]	_ZN11QHttpHeaderI9parseLineERK7QStringi [qt-mt]
ZN11QHttpHeaderC1ERKS [qt-mt]	_ZN11QHttpHeaderC1ERKS_ [qt-mt]
_ZN11QHttpHeaderC2ERK7QString [qt-mt]	_ZN11QHttpHeaderC2ERK7QString [qt-mt]
_ZN11QHttpHeaderC2Ev [qt-mt]	_ZN11QHttpHeaderC2Ev [qt-mt]
_ZN11QHttpHeaderD1Ev [qt-mt]	_ZN11QHttpHeaderD1Ev [qt-mt]
ZN11QHttpHeaderaSERKS [qt-mt]	_ZN11QHttpHeaderaSERKS_ [qt-mt]
_ZN11QMimeSourceC1Ev [qt-mt]	_ZN11QMimeSourceC1Ev [qt-mt]
_ZN11QMimeSourceD0Ev [qt-mt]	_ZN11QMimeSourceD0Ev [qt-mt]
_ZN11QMimeSourceD2Ev [qt-mt]	_ZN11QMimeSourceD2Ev [qt-mt]
_ZN12QHostAddressI0setAddressERK7QString [qt-mt]	_ZN12QHostAddressI0setAddressERK7QString [qt-mt]
_ZN12QHostAddressC1EPh [qt-mt]	_ZN12QHostAddressC1EPh [qt-mt]
_ZN12QHostAddressC1ERK7QString [qt-mt]	_ZN12QHostAddressC1ERK7QString [qt-mt]
_ZN12QHostAddressC1Ej [qt-mt]	_ZN12QHostAddressC1Ej [qt-mt]
_ZN12QHostAddressC2EPh [qt-mt]	_ZN12QHostAddressC2EPh [qt-mt]
_ZN12QHostAddressC2ERK7QString [qt-mt]	_ZN12QHostAddressC2ERK7QString [qt-mt]

_ZN12QHostAddressC2Ej [qt-mt]	_ZN12QHostAddressC2Ej [qt-mt]
_ZN12QHostAddressD0Ev [qt-mt]	_ZN12QHostAddressD0Ev [qt-mt]
_ZN12QHostAddressD2Ev [qt-mt]	_ZN12QHostAddressD2Ev [qt-mt]
_ZN12QUrlOperator10checkValidEv [qt-mt]	_ZN12QUrlOperator10checkValidEv [qt-mt]
_ZN12QUrlOperator11itemChangedEP17QNetworkOperation [qt-mt]	_ZN12QUrlOperator11itemChangedEP17QNetworkOperation [qt-mt]
_ZN12QUrlOperator11qt_propertyEiiP8QVariant [qt-mt]	_ZN12QUrlOperator11qt_propertyEiiP8QVariant [qt-mt]
_ZN12QUrlOperator12continueCopyEP17QNetworkOperation [qt-mt]	_ZN12QUrlOperator12continueCopyEP17QNetworkOperation [qt-mt]
_ZN12QUrlOperator12listChildrenEv [qt-mt]	_ZN12QUrlOperator12listChildrenEv [qt-mt]
_ZN12QUrlOperator14startOperationEP17QNetworkOperation [qt-mt]	_ZN12QUrlOperator14startOperationEP17QNetworkOperation [qt-mt]
_ZN12QUrlOperator15slotItemChangedEP17QNetworkOperation [qt-mt]	_ZN12QUrlOperator15slotItemChangedEP17QNetworkOperation [qt-mt]
_ZN12QUrlOperator16createdDirectoryERK8QUrlInfoP17QNetworkOperation [qt-mt]	_ZN12QUrlOperator16createdDirectoryERK8QUrlInfoP17QNetworkOperation [qt-mt]
_ZN12QUrlOperator18getNetworkProtocolEv [qt-mt]	_ZN12QUrlOperator18getNetworkProtocolEv [qt-mt]
_ZN12QUrlOperator20dataTransferProgressEiiP17QNetworkOperation [qt-mt]	_ZN12QUrlOperator20dataTransferProgressEiiP17QNetworkOperation [qt-mt]
_ZN12QUrlOperator22connectionStateChangedEiRK7QString [qt-mt]	_ZN12QUrlOperator22connectionStateChangedEiRK7QString [qt-mt]
_ZN12QUrlOperator3getERK7QString [qt-mt]	_ZN12QUrlOperator3getERK7QString [qt-mt]
_ZN12QUrlOperator4cdUpEv [qt-mt]	_ZN12QUrlOperator4cdUpEv [qt-mt]
_ZN12QUrlOperator4copyERK7QStringS2_bb [qt-mt]	_ZN12QUrlOperator4copyERK7QStringS2_bb [qt-mt]
_ZN12QUrlOperator4stopEv [qt-mt]	_ZN12QUrlOperator4stopEv [qt-mt]
_ZN12QUrlOperator5mkdirERK7QString [qt-mt]	_ZN12QUrlOperator5mkdirERK7QString [qt-mt]
_ZN12QUrlOperator5resetEv [qt-mt]	_ZN12QUrlOperator5resetEv [qt-mt]
_ZN12QUrlOperator6removeERK7QString [qt-mt]	_ZN12QUrlOperator6removeERK7QString [qt-mt]
ZN12QUrlOperator6trUtf8EPKcS1 [qt-mt]	_ZN12QUrlOperator6trUtf8EPKcS1_ [qt-mt]
_ZN12QUrlOperator7qt_emitEiP8QUObject [qt-mt]	_ZN12QUrlOperator7qt_emitEiP8QUObject [qt-mt]
_ZN12QUrlOperator7setPathERK7QString [qt-mt]	_ZN12QUrlOperator7setPathERK7QString [qt-mt]
_ZN12QUrlOperator8finishedEP17QNetworkOperation [qt-mt]	_ZN12QUrlOperator8finishedEP17QNetworkOperation [qt-mt]
_ZN12QUrlOperatorC1ERK7QString [qt-mt]	_ZN12QUrlOperatorC1ERK7QString [qt-mt]
_ZN12QUrlOperatorC1ERKS_RK7QStringb [qt-mt]	_ZN12QUrlOperatorC1ERKS_RK7QStringb [qt-mt]
_ZN12QUrlOperatorC2ERK7QString [qt-mt]	_ZN12QUrlOperatorC2ERK7QString [qt-mt]
_ZN12QUrlOperatorC2ERKS_RK7QStringb [qt-mt]	_ZN12QUrlOperatorC2ERKS_RK7QStringb [qt-mt]
_ZN12QUrlOperatorD0Ev [qt-mt]	_ZN12QUrlOperatorD0Ev [qt-mt]
_ZN12QUrlOperatorD2Ev [qt-mt]	_ZN12QUrlOperatorD2Ev [qt-mt]
ZN12QUrlOperatoraSERKS [qt-mt]	_ZN12QUrlOperatoraSERKS_ [qt-mt]
_ZN13QServerSocket12socketDeviceEv [qt-mt]	_ZN13QServerSocket12socketDeviceEv [qt-mt]

<u>_ZN13QServerSocket18incomingConnectionEi [qt-mt]</u>	<u>_ZN13QServerSocket18incomingConnectionEi [qt-mt]</u>
<u>_ZN13QServerSocket2trEPKcS1_ [qt-mt]</u>	<u>_ZN13QServerSocket2trEPKcS1_ [qt-mt]</u>
<u>_ZN13QServerSocket6trUtf8EPKcS1_ [qt-mt]</u>	<u>_ZN13QServerSocket6trUtf8EPKcS1_ [qt-mt]</u>
<u>_ZN13QServerSocket7qt_emitEiP8QUObject [qt-mt]</u>	<u>_ZN13QServerSocket7qt_emitEiP8QUObject [qt-mt]</u>
<u>_ZN13QServerSocket9setSocketEi [qt-mt]</u>	<u>_ZN13QServerSocket9setSocketEi [qt-mt]</u>
<u>_ZN13QServerSocketC1ERK12QHostAddressiP7QObjectPKc [qt-mt]</u>	<u>_ZN13QServerSocketC1ERK12QHostAddressiP7QObjectPKc [qt-mt]</u>
<u>_ZN13QServerSocketC2EP7QObjectPKc [qt-mt]</u>	<u>_ZN13QServerSocketC2EP7QObjectPKc [qt-mt]</u>
<u>_ZN13QServerSocketC2EtiP7QObjectPKc [qt-mt]</u>	<u>_ZN13QServerSocketC2EtiP7QObjectPKc [qt-mt]</u>
<u>_ZN13QServerSocketD1Ev [qt-mt]</u>	<u>_ZN13QServerSocketD1Ev [qt-mt]</u>
<u>_ZN13QSocketDevice10writeBlockEPKcm [qt-mt]</u>	<u>_ZN13QSocketDevice10writeBlockEPKcm [qt-mt]</u>
<u>_ZN13QSocketDevice11setBlockingEb [qt-mt]</u>	<u>_ZN13QSocketDevice11setBlockingEb [qt-mt]</u>
<u>_ZN13QSocketDevice17setSendBufferSizeEj [qt-mt]</u>	<u>_ZN13QSocketDevice17setSendBufferSizeEj [qt-mt]</u>
<u>_ZN13QSocketDevice20setReceiveBufferSizeEj [qt-mt]</u>	<u>_ZN13QSocketDevice20setReceiveBufferSizeEj [qt-mt]</u>
<u>_ZN13QSocketDevice2atEm [qt-mt]</u>	<u>_ZN13QSocketDevice2atEm [qt-mt]</u>
<u>_ZN13QSocketDevice4initEv [qt-mt]</u>	<u>_ZN13QSocketDevice4initEv [qt-mt]</u>
<u>_ZN13QSocketDevice5closeEv [qt-mt]</u>	<u>_ZN13QSocketDevice5closeEv [qt-mt]</u>
<u>_ZN13QSocketDevice5getchEv [qt-mt]</u>	<u>_ZN13QSocketDevice5getchEv [qt-mt]</u>
<u>_ZN13QSocketDevice6acceptEv [qt-mt]</u>	<u>_ZN13QSocketDevice6acceptEv [qt-mt]</u>
<u>_ZN13QSocketDevice7connectERK12QHostAddressi [qt-mt]</u>	<u>_ZN13QSocketDevice7connectERK12QHostAddressi [qt-mt]</u>
<u>_ZN13QSocketDevice8setErrorENS_5ErrorE [qt-mt]</u>	<u>_ZN13QSocketDevice8setErrorENS_5ErrorE [qt-mt]</u>
<u>_ZN13QSocketDevice9setOptionENS_6OptionEi [qt-mt]</u>	<u>_ZN13QSocketDevice9setOptionENS_6OptionEi [qt-mt]</u>
<u>_ZN13QSocketDeviceC1ENS_4TypeE [qt-mt]</u>	<u>_ZN13QSocketDeviceC1ENS_4TypeE [qt-mt]</u>
<u>_ZN13QSocketDeviceC1EiNS_4TypeE [qt-mt]</u>	<u>_ZN13QSocketDeviceC1EiNS_4TypeE [qt-mt]</u>
<u>_ZN13QSocketDeviceC2ENS_4TypeENS_8ProtocolEi [qt-mt]</u>	<u>_ZN13QSocketDeviceC2ENS_4TypeENS_8ProtocolEi [qt-mt]</u>
<u>_ZN13QSocketDeviceD0Ev [qt-mt]</u>	<u>_ZN13QSocketDeviceD0Ev [qt-mt]</u>
<u>_ZN13QSocketDeviceD2Ev [qt-mt]</u>	<u>_ZN13QSocketDeviceD2Ev [qt-mt]</u>
<u>_ZN15QSocketNotifier11qt_propertyEiiP8QVariant [qt-mt]</u>	<u>_ZN15QSocketNotifier11qt_propertyEiiP8QVariant [qt-mt]</u>
<u>_ZN15QSocketNotifier18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]</u>	<u>_ZN15QSocketNotifier18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]</u>
<u>_ZN15QSocketNotifier5eventEP6QEvent [qt-mt]</u>	<u>_ZN15QSocketNotifier5eventEP6QEvent [qt-mt]</u>
<u>_ZN15QSocketNotifier7qt_castEPKc [qt-mt]</u>	<u>_ZN15QSocketNotifier7qt_castEPKc [qt-mt]</u>
<u>_ZN15QSocketNotifier9activatedEi [qt-mt]</u>	<u>_ZN15QSocketNotifier9activatedEi [qt-mt]</u>
<u>_ZN15QSocketNotifierC1EiNS_4TypeEP7QObjectPKc [qt-mt]</u>	<u>_ZN15QSocketNotifierC1EiNS_4TypeEP7QObjectPKc [qt-mt]</u>
<u>_ZN15QSocketNotifierD0Ev [qt-mt]</u>	<u>_ZN15QSocketNotifierD0Ev [qt-mt]</u>

_ZN15QSocketNotifierD2Ev [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol11newChildrenERK10QValueListI8QUrlInfoEP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol12addOperationEP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol12operationPutEP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol14operationMkDirEP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol15emitNewChildrenERK8QUrlInfoP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol15operationRenameEP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol16processOperationEP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol17operationPutChunkEP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol20dataTransferProgressEiiP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol21operationListChildrenEP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol22hasOnlyLocalFileSystemEv [qt-mt]	_ZN16QNetworkF [qt-mt]
ZN16QNetworkProtocol2trEPKcS1 [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol4stopEv [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol6setUrlEP12QUrlOperator [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol7qt_castEPKc [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol7removedEP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol8newChildERK8QUrlInfoP17QNetworkOperation [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocol8startOpsEv [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocolC1Ev [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocolD0Ev [qt-mt]	_ZN16QNetworkF
_ZN16QNetworkProtocolD2Ev [qt-mt]	_ZN17QNetworkC
_ZN17QNetworkOperation12setErrorCodeEi [qt-mt]	_ZN17QNetworkC
_ZN17QNetworkOperation17setProtocolDetailERK7QString [qt-mt]	_ZN17QNetworkC
ZN17QNetworkOperation2trEPKcS1 [qt-mt]	_ZN17QNetworkC
_ZN17QNetworkOperation6setArgEiRK7QString [qt-mt]	_ZN17QNetworkC
_ZN17QNetworkOperation7qt_castEPKc [qt-mt]	_ZN17QNetworkC
_ZN17QNetworkOperation8deleteMeEv [qt-mt]	_ZN17QNetworkC
_ZN17QNetworkOperation9qt_invokeEiP8QUObject [qt-mt]	_ZN17QNetworkC
_ZN17QNetworkOperationC1EN16QNetworkProtocol9OperationERK7QStringS4_S4_ [qt-mt]	_ZN17QNetworkC [qt-mt]

_ZN17QNetworkOperationC2EN16QNetworkProtocol9OperationERK7QStringS4_S4_ [qt-mt]	_ZN17QNetworkC [qt-mt]
_ZN17QNetworkOperationD0Ev [qt-mt]	_ZN17QNetworkC [qt-mt]
_ZN17QNetworkOperationD2Ev [qt-mt]	_ZN18QHHttpRequest [qt-mt]
_ZN18QHHttpRequestHeader9parseLineERK7QStringi [qt-mt]	_ZN18QHHttpRequest [qt-mt]
_ZN18QHHttpRequestHeaderC1ERK7QStringS2_ii [qt-mt]	_ZN18QHHttpRequest [qt-mt]
_ZN18QHHttpRequestHeaderC1Ev [qt-mt]	_ZN18QHHttpRequest [qt-mt]
_ZN18QHHttpRequestHeaderC2ERK7QStringS2_ii [qt-mt]	_ZN18QHHttpRequest [qt-mt]
_ZN18QHHttpRequestHeaderC2Ev [qt-mt]	_ZN18QMimeSource [qt-mt]
_ZN18QMimeSourceFactory11addFilePathERK7QString [qt-mt]	_ZN18QMimeSource [qt-mt]
ZN18QMimeSourceFactory13removeFactoryEPS [qt-mt]	_ZN18QMimeSource [qt-mt]
_ZN18QMimeSourceFactory16setExtensionTypeERK7QStringPKc [qt-mt]	_ZN18QMimeSource [qt-mt]
_ZN18QMimeSourceFactory18takeDefaultFactoryEv [qt-mt]	_ZN18QMimeSource [qt-mt]
ZN18QMimeSourceFactory7setTextERK7QStringS2 [qt-mt]	_ZN18QMimeSource [qt-mt]
_ZN18QMimeSourceFactory9setPixmapERK7QStringRK7QPixmap [qt-mt]	_ZN18QMimeSource [qt-mt]
_ZN18QMimeSourceFactoryC2Ev [qt-mt]	_ZN18QMimeSource [qt-mt]
_ZN18QMimeSourceFactoryD1Ev [qt-mt]	_ZN18QMimeSource [qt-mt]
_ZN19QHHttpResponseHeader13setStatusLineEiRK7QStringii [qt-mt]	_ZN19QHHttpResponse [qt-mt]
_ZN19QHHttpResponseHeaderC1ERK7QString [qt-mt]	_ZN19QHHttpResponse [qt-mt]
_ZN19QHHttpResponseHeaderC1EiRK7QStringii [qt-mt]	_ZN19QHHttpResponse [qt-mt]
_ZN19QHHttpResponseHeaderC2ERK7QString [qt-mt]	_ZN19QHHttpResponse [qt-mt]
_ZN19QHHttpResponseHeaderC2EiRK7QStringii [qt-mt]	_ZN19QHHttpResponse [qt-mt]
_ZN4QDns10startQueryEv [qt-mt]	_ZN4QDns11qt_p [qt-mt]
_ZN4QDns12resultsReadyEv [qt-mt]	_ZN4QDns13setR [qt-mt]
_ZN4QDns16staticMetaObjectEv [qt-mt]	_ZN4QDns18qt_s [qt-mt]
_ZN4QDns18setStartQueryTimerEv [qt-mt]	_ZN4QDns18toIn [qt-mt]
ZN4QDns2trEPKcS1 [qt-mt]	_ZN4QDns6trUtf8 [qt-mt]
_ZN4QDns7qt_castEPKc [qt-mt]	_ZN4QDns7qt_en [qt-mt]
_ZN4QDns8setLabelERK12QHostAddress [qt-mt]	_ZN4QDns8setLabel [qt-mt]
_ZN4QDns9doResInitEv [qt-mt]	_ZN4QDns9qt_in [qt-mt]
_ZN4QDnsC1ERK12QHostAddressNS_10RecordTypeE [qt-mt]	_ZN4QDnsC1ER [qt-mt]
_ZN4QDnsC1Ev [qt-mt]	_ZN4QDnsC2ER [qt-mt]
_ZN4QDnsC2ERK7QStringNS_10RecordTypeE [qt-mt]	_ZN4QDnsC2Ev [qt-mt]

_ZN4QDnsD0Ev [qt-mt]	_ZN4QDnsD1Ev [qt-mt]
_ZN4QDnsD2Ev [qt-mt]	_ZN4QFtp10addC [qt-mt]
_ZN4QFtp10dataClosedEv [qt-mt]	_ZN4QFtp10npLi [qt-mt]
_ZN4QFtp10piFinishedERK7QString [qt-mt]	_ZN4QFtp10piFtp [qt-mt]
_ZN4QFtp10rawCommandERK7QString [qt-mt]	_ZN4QFtp11npRe [qt-mt]
_ZN4QFtp11qt_propertyEiiP8QVariant [qt-mt]	_ZN4QFtp12opera [qt-mt]
_ZN4QFtp12operationPutEP17QNetworkOperation [qt-mt]	_ZN4QFtp12state [qt-mt]
_ZN4QFtp13connectToHostERK7QStringt [qt-mt]	_ZN4QFtp13dataC [qt-mt]
_ZN4QFtp13dataHostFoundEv [qt-mt]	_ZN4QFtp13dataF [qt-mt]
_ZN4QFtp14commandStartedEi [qt-mt]	_ZN4QFtp14npSta [qt-mt]
_ZN4QFtp14operationMkDirEP17QNetworkOperation [qt-mt]	_ZN4QFtp14piCo [qt-mt]
_ZN4QFtp15checkConnectionEP17QNetworkOperation [qt-mt]	_ZN4QFtp15comm [qt-mt]
_ZN4QFtp15operationRemoveEP17QNetworkOperation [qt-mt]	_ZN4QFtp15opera [qt-mt]
_ZN4QFtp15rawCommandReplyEiRK7QString [qt-mt]	_ZN4QFtp16dataE [qt-mt]
_ZN4QFtp16startNextCommandEv [qt-mt]	_ZN4QFtp16static [qt-mt]
_ZN4QFtp18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN4QFtp20clear [qt-mt]
_ZN4QFtp20dataTransferProgressEii [qt-mt]	_ZN4QFtp21opera [qt-mt]
_ZN4QFtp22npDataTransferProgressEii [qt-mt]	_ZN4QFtp2cdER [qt-mt]
ZN4QFtp2trEPKcS1 [qt-mt]	_ZN4QFtp3getER [qt-mt]
_ZN4QFtp3putEP9QIODeviceRK7QString [qt-mt]	_ZN4QFtp3putER [qt-mt]
_ZN4QFtp4doneEb [qt-mt]	_ZN4QFtp4initEv [qt-mt]
_ZN4QFtp4listERK7QString [qt-mt]	_ZN4QFtp5abortE [qt-mt]
_ZN4QFtp5closeEv [qt-mt]	_ZN4QFtp5errorE [qt-mt]
ZN4QFtp5loginERK7QStringS2 [qt-mt]	_ZN4QFtp5mkdir [qt-mt]
_ZN4QFtp5rmdirERK7QString [qt-mt]	_ZN4QFtp6closed [qt-mt]
_ZN4QFtp6npDoneEb [qt-mt]	_ZN4QFtp6remov [qt-mt]
ZN4QFtp6renameERK7QStringS2 [qt-mt]	_ZN4QFtp6trUtf8 [qt-mt]
_ZN4QFtp7piErrorEiRK7QString [qt-mt]	_ZN4QFtp7qt_cas [qt-mt]
_ZN4QFtp7qt_emitEiP8QUObject [qt-mt]	_ZN4QFtp7readA [qt-mt]
_ZN4QFtp8listInfoERK8QUrlInfo [qt-mt]	_ZN4QFtp8parseL [qt-mt]
_ZN4QFtp9connectedEv [qt-mt]	_ZN4QFtp9hostFc [qt-mt]
_ZN4QFtp9qt_invokeEiP8QUObject [qt-mt]	_ZN4QFtp9readB [qt-mt]
_ZN4QFtp9readyReadEv [qt-mt]	_ZN4QFtpC1EP7 [qt-mt]

_ZN4QFtpC1Ev [qt-mt]	_ZN4QFtpC2EP7
_ZN4QFtpC2Ev [qt-mt]	_ZN4QFtpD0Ev [
_ZN4QFtpD1Ev [qt-mt]	_ZN4QFtpD2Ev [
_ZN4QUrl11setFileNameERK7QString [qt-mt]	_ZN4QUrl11setPa
_ZN4QUrl11setProtocolERK7QString [qt-mt]	_ZN4QUrl13isRel
_ZN4QUrl19encodedPathAndQueryEv [qt-mt]	_ZN4QUrl22setEr
_ZN4QUrl4cdUpEv [qt-mt]	_ZN4QUrl5parseE
_ZN4QUrl5resetEv [qt-mt]	_ZN4QUrl6decod
_ZN4QUrl6encodeER7QString [qt-mt]	_ZN4QUrl6setRef
_ZN4QUrl7addPathERK7QString [qt-mt]	_ZN4QUrl7setHos
_ZN4QUrl7setPathERK7QString [qt-mt]	_ZN4QUrl7setPor
_ZN4QUrl7setUserERK7QString [qt-mt]	_ZN4QUrl8setQu
_ZN4QUrlC1ERK7QString [qt-mt]	_ZN4QUrlC1ERK
_ZN4QUrlC1ERKS_RK7QStringb [qt-mt]	_ZN4QUrlC1Ev [
_ZN4QUrlC2ERK7QString [qt-mt]	_ZN4QUrlC2ERK
_ZN4QUrlC2ERKS_RK7QStringb [qt-mt]	_ZN4QUrlC2Ev [
_ZN4QUrlD0Ev [qt-mt]	_ZN4QUrlD1Ev [
_ZN4QUrlD2Ev [qt-mt]	_ZN4QUrlaSERK
ZN4QUrlaSERKS [qt-mt]	_ZN5QHttp10add
_ZN5QHttp10clientDoneEb [qt-mt]	_ZN5QHttp10slot
_ZN5QHttp10timerEventEP11QTimerEvent [qt-mt]	_ZN5QHttp11clie
_ZN5QHttp11qt_propertyEiiP8QVariant [qt-mt]	_ZN5QHttp11sen
_ZN5QHttp12operationGetEP17QNetworkOperation [qt-mt]	_ZN5QHttp12ope
_ZN5QHttp12stateChangedEi [qt-mt]	_ZN5QHttp13kill
_ZN5QHttp13slotConnectedEv [qt-mt]	_ZN5QHttp13slot
_ZN5QHttp14requestStartedEi [qt-mt]	_ZN5QHttp15clos
_ZN5QHttp15requestFinishedEib [qt-mt]	_ZN5QHttp16data
_ZN5QHttp16dataSendProgressEii [qt-mt]	_ZN5QHttp16slot
_ZN5QHttp16startNextRequestEv [qt-mt]	_ZN5QHttp16stat
_ZN5QHttp17finishedWithErrorERK7QStringi [qt-mt]	_ZN5QHttp18clie
_ZN5QHttp18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN5QHttp19finis
_ZN5QHttp20clearPendingRequestsEv [qt-mt]	_ZN5QHttp22resp
ZN5QHttp2trEPKcS1 [qt-mt]	_ZN5QHttp3getE

_ZN5QHttp4doneEb [qt-mt]	_ZN5QHttp4headl
_ZN5QHttp4initEv [qt-mt]	_ZN5QHttp4postE
_ZN5QHttp4postERK7QStringRK9QMemArrayIcEP9QIODevice [qt-mt]	_ZN5QHttp5abort
_ZN5QHttp5closeEv [qt-mt]	_ZN5QHttp6trUtf
_ZN5QHttp7qt_castEPKc [qt-mt]	_ZN5QHttp7qt_er
_ZN5QHttp7readAllEv [qt-mt]	_ZN5QHttp7requ
_ZN5QHttp7requestERK18QHttpRequestHeaderRK9QMemArrayIcEP9QIODevice [qt-mt]	_ZN5QHttp7setHo
_ZN5QHttp8setStateEi [qt-mt]	_ZN5QHttp9qt_in
_ZN5QHttp9readBlockEPcm [qt-mt]	_ZN5QHttp9ready
_ZN5QHttp9slotErrorEi [qt-mt]	_ZN5QHttpC1EP
_ZN5QHttpC1ERK7QStringtP7QObjectPKc [qt-mt]	_ZN5QHttpC1Ev
_ZN5QHttpC2EP7QObjectPKc [qt-mt]	_ZN5QHttpC2ER
_ZN5QHttpC2Ev [qt-mt]	_ZN5QHttpD0Ev
_ZN5QHttpD1Ev [qt-mt]	_ZN5QHttpD2Ev
_ZN7QSocket10writeBlockEPKcm [qt-mt]	_ZN7QSocket11q
_ZN7QSocket12bytesWrittenEi [qt-mt]	_ZN7QSocket12s
_ZN7QSocket13connectToHostERK7QStringt [qt-mt]	_ZN7QSocket13tr
_ZN7QSocket13tryConnectionEv [qt-mt]	_ZN7QSocket15c
_ZN7QSocket15setSocketDeviceEP13QSocketDevice [qt-mt]	_ZN7QSocket15s
_ZN7QSocket16clearPendingDataEv [qt-mt]	_ZN7QSocket16c
_ZN7QSocket16staticMetaObjectEv [qt-mt]	_ZN7QSocket17s
_ZN7QSocket18qt_static_propertyEP7QObjectiP8QVariant [qt-mt]	_ZN7QSocket20d
_ZN7QSocket26emitErrorConnectionRefusedEv [qt-mt]	_ZN7QSocket2atE
ZN7QSocket2trEPKcS1 [qt-mt]	_ZN7QSocket4op
_ZN7QSocket5closeEv [qt-mt]	_ZN7QSocket5err
_ZN7QSocket5flushEv [qt-mt]	_ZN7QSocket5ge
_ZN7QSocket5putchEi [qt-mt]	_ZN7QSocket6trU
_ZN7QSocket7qt_castEPKc [qt-mt]	_ZN7QSocket7qt_
_ZN7QSocket7sn_readEb [qt-mt]	_ZN7QSocket7un
_ZN7QSocket8readLineEPcm [qt-mt]	_ZN7QSocket8rea
_ZN7QSocket8sn_writeEv [qt-mt]	_ZN7QSocket9cor
_ZN7QSocket9hostFoundEv [qt-mt]	_ZN7QSocket9qt_
_ZN7QSocket9readBlockEPcm [qt-mt]	_ZN7QSocket9rea

_ZN7QSocket9setSocketEi [qt-mt]	_ZN7QSocketC1E
_ZN7QSocketC2EP7QObjectPKc [qt-mt]	_ZN7QSocketD0E
_ZN7QSocketD1Ev [qt-mt]	_ZN7QSocketD2E
_ZN8QLocalFs11qt_propertyEiiP8QVariant [qt-mt]	_ZN8QLocalFs12
_ZN8QLocalFs12operationPutEP17QNetworkOperation [qt-mt]	_ZN8QLocalFs14
_ZN8QLocalFs15operationRemoveEP17QNetworkOperation [qt-mt]	_ZN8QLocalFs15
_ZN8QLocalFs16staticMetaObjectEv [qt-mt]	_ZN8QLocalFs18
_ZN8QLocalFs21operationListChildrenEP17QNetworkOperation [qt-mt]	_ZN8QLocalFs2tr
ZN8QLocalFs6trUtf8EPKcS1 [qt-mt]	_ZN8QLocalFs7q
_ZN8QLocalFs7qt_emitEiP8QUObject [qt-mt]	_ZN8QLocalFs9q
_ZN8QLocalFsC1Ev [qt-mt]	_ZN8QLocalFsC2
_ZN8QUrlInfo10setSymLinkEb [qt-mt]	_ZN8QUrlInfo1lg
_ZN8QUrlInfo11setReadableEb [qt-mt]	_ZN8QUrlInfo11s
_ZN8QUrlInfo14setPermissionsEi [qt-mt]	_ZN8QUrlInfo15s
_ZN8QUrlInfo5equalERKS_S1_i [qt-mt]	_ZN8QUrlInfo6se
_ZN8QUrlInfo7setFileEb [qt-mt]	_ZN8QUrlInfo7se
_ZN8QUrlInfo7setSizeEj [qt-mt]	_ZN8QUrlInfo8le
_ZN8QUrlInfo8setGroupERK7QString [qt-mt]	_ZN8QUrlInfo8se
_ZN8QUrlInfoC1ERK12QUrlOperatorRK7QString [qt-mt]	_ZN8QUrlInfoC1l
_ZN8QUrlInfoC1ERK7QStringiS2_S2_jRK9QDateTimeS5_bbbbb [qt-mt]	_ZN8QUrlInfoC1l
_ZN8QUrlInfoC1Ev [qt-mt]	_ZN8QUrlInfoC2l
_ZN8QUrlInfoC2ERK4QUrlRK7QStringS5_jRK9QDateTimeS8_bbbbb [qt-mt]	_ZN8QUrlInfoC2l
ZN8QUrlInfoC2ERKS [qt-mt]	_ZN8QUrlInfoC2l
_ZN8QUrlInfoD0Ev [qt-mt]	_ZN8QUrlInfoD1l
_ZN8QUrlInfoD2Ev [qt-mt]	_ZN8QUrlInfoaSE
_ZNK11QHttpHeader11contentTypeEv [qt-mt]	_ZNK11QHttpHea
_ZNK11QHttpHeader14hasContentTypeEv [qt-mt]	_ZNK11QHttpHea
_ZNK11QHttpHeader4keysEv [qt-mt]	_ZNK11QHttpHea
_ZNK11QHttpHeader6hasKeyERK7QString [qt-mt]	_ZNK11QHttpHea
_ZNK11QHttpHeader8toStringEv [qt-mt]	_ZNK11QMimeS
_ZNK12QHostAddress13isIPv4AddressEv [qt-mt]	_ZNK12QHostAd
_ZNK12QHostAddress13toIPv4AddressEv [qt-mt]	_ZNK12QHostAd
_ZNK12QHostAddress6isNullEv [qt-mt]	_ZNK12QHostAd

_ZNK12QHostAddress8toStringEv [qt-mt]	_ZNK12QHostAd
ZNK12QHostAddressseqERKS [qt-mt]	_ZNK12QUrlOpe
_ZNK12QUrlOperator4infoERK7QString [qt-mt]	_ZNK12QUrlOpe
_ZNK13QServerSocket2okEv [qt-mt]	_ZNK13QServerS
_ZNK13QServerSocket6socketEv [qt-mt]	_ZNK13QServerS
_ZNK13QServerSocket9classNameEv [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice11peerAddressEv [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice14bytesAvailableEv [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice15addressReusableEv [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice2atEv [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice4sizeEv [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice5atEndEv [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice6optionENS_6OptionE [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice7addressEv [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice8blockingEv [qt-mt]	_ZNK13QSocketI
_ZNK13QSocketDevice8protocolEv [qt-mt]	_ZNK15QSocketM
_ZNK16QNetworkProtocol10autoDeleteEv [qt-mt]	_ZNK16QNetwork
_ZNK16QNetworkProtocol19supportedOperationsEv [qt-mt]	_ZNK16QNetwork
_ZNK16QNetworkProtocol9classNameEv [qt-mt]	_ZNK17QNetwork
_ZNK17QNetworkOperation3argEi [qt-mt]	_ZNK17QNetwork
_ZNK17QNetworkOperation5stateEv [qt-mt]	_ZNK17QNetwork
_ZNK17QNetworkOperation9classNameEv [qt-mt]	_ZNK17QNetwork
_ZNK17QNetworkOperation9operationEv [qt-mt]	_ZNK18QHttpReq
_ZNK18QHttpRequestHeader12minorVersionEv [qt-mt]	_ZNK18QHttpReq
_ZNK18QHttpRequestHeader6methodEv [qt-mt]	_ZNK18QHttpReq
_ZNK18QMimeSourceFactory12dataInternalERK7QStringRK4QMapIS0_S0_E [qt-mt]	_ZNK18QMimeS
_ZNK18QMimeSourceFactory4dataERK7QString [qt-mt]	_ZNK18QMimeS
_ZNK18QMimeSourceFactory8filePathEv [qt-mt]	_ZNK19QHttpRes
_ZNK19QHttpResponseHeader12majorVersionEv [qt-mt]	_ZNK19QHttpRes
_ZNK19QHttpResponseHeader12reasonPhraseEv [qt-mt]	_ZNK19QHttpRes
_ZNK4QDns11mailServersEv [qt-mt]	_ZNK4QDns13ca
_ZNK4QDns5textsEv [qt-mt]	_ZNK4QDns7serv
_ZNK4QDns9addressesEv [qt-mt]	_ZNK4QDns9clas

_Znk4QDns9hostNamesEv [qt-mt]	_Znk4QDns9isW
_Znk4QFtp11errorStringEv [qt-mt]	_Znk4QFtp13cur
_Znk4QFtp14bytesAvailableEv [qt-mt]	_Znk4QFtp14cur
_Znk4QFtp18hasPendingCommandsEv [qt-mt]	_Znk4QFtp19sup
_Znk4QFtp5errorEv [qt-mt]	_Znk4QFtp5state
_Znk4QFtp9classNameEv [qt-mt]	_Znk4QFtp9curre
_Znk4QUrl11hasPasswordEv [qt-mt]	_Znk4QUrl11isL
_Znk4QUrl3refEv [qt-mt]	_Znk4QUrl4host
_Znk4QUrl4pathEb [qt-mt]	_Znk4QUrl4port
_Znk4QUrl4userEv [qt-mt]	_Znk4QUrl5quer
_Znk4QUrl6hasRefEv [qt-mt]	_Znk4QUrl7dirP
_Znk4QUrl7hasHostEv [qt-mt]	_Znk4QUrl7hasP
_Znk4QUrl7hasPortEv [qt-mt]	_Znk4QUrl7hasU
_Znk4QUrl7isValidEv [qt-mt]	_Znk4QUrl8fileN
_Znk4QUrl8passwordEv [qt-mt]	_Znk4QUrl8prot
_Znk4QUrl8toStringEbb [qt-mt]	_Znk4QUrlcv7Q
_Znk4QUrlcqERK7QString [qt-mt]	_Znk4QUrlcqER
_Znk5QHttp11errorStringEv [qt-mt]	_Znk5QHttp14by
_Znk5QHttp14currentRequestEv [qt-mt]	_Znk5QHttp18ha
_Znk5QHttp19currentSourceDeviceEv [qt-mt]	_Znk5QHttp19su
_Znk5QHttp24currentDestinationDeviceEv [qt-mt]	_Znk5QHttp5erro
_Znk5QHttp5stateEv [qt-mt]	_Znk5QHttp9clas
_Znk5QHttp9currentIdEv [qt-mt]	_Znk7QSocket11
_Znk7QSocket11peerAddressEv [qt-mt]	_Znk7QSocket11
_Znk7QSocket11waitForMoreEiPb [qt-mt]	_Znk7QSocket12
_Znk7QSocket14bytesAvailableEv [qt-mt]	_Znk7QSocket14
_Znk7QSocket2atEv [qt-mt]	_Znk7QSocket4p
_Znk7QSocket4sizeEv [qt-mt]	_Znk7QSocket5a
_Znk7QSocket5stateEv [qt-mt]	_Znk7QSocket6s
_Znk7QSocket7addressEv [qt-mt]	_Znk7QSocket8p
_Znk7QSocket8peerPortEv [qt-mt]	_Znk7QSocket9c
_Znk8QLocalFs13calcBlockSizeEi [qt-mt]	_Znk8QLocalFs1
_Znk8QLocalFs9classNameEv [qt-mt]	_Znk8QUrlInfo1

_ZNK8QUrlInfo10isWritableEv [qt-mt]	_ZNK8QUrlInfo10isWritableEv [qt-mt]
_ZNK8QUrlInfo12isExecutableEv [qt-mt]	_ZNK8QUrlInfo12isExecutableEv [qt-mt]
_ZNK8QUrlInfo4nameEv [qt-mt]	_ZNK8QUrlInfo4nameEv [qt-mt]
_ZNK8QUrlInfo5groupEv [qt-mt]	_ZNK8QUrlInfo5groupEv [qt-mt]
_ZNK8QUrlInfo5ownerEv [qt-mt]	_ZNK8QUrlInfo5ownerEv [qt-mt]
_ZNK8QUrlInfo7isValidEv [qt-mt]	_ZNK8QUrlInfo7isValidEv [qt-mt]
_ZNK8QUrlInfo9isSymLinkEv [qt-mt]	_ZNK8QUrlInfo9isSymLinkEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Network specified in [Table 18-248](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-248. libqt-mt - Qt3 Network Data Interfaces

_ZN12QUrlOperator7metaObjE [qt-mt]	_ZN13QServerSocket7metaObjE [qt-mt]
_ZN15QSocketNotifier7metaObjE [qt-mt]	_ZN16QNetworkProtocol7metaObjE [qt-mt]
_ZN17QNetworkOperation7metaObjE [qt-mt]	_ZN4QDns7metaObjE [qt-mt]
_ZN4QFtp7metaObjE [qt-mt]	_ZN5QHttp7metaObjE [qt-mt]
_ZN7QSocket7metaObjE [qt-mt]	_ZN8QLocalFs7metaObjE [qt-mt]
_ZTI11QHttpRequestHeader [CXXABI-1.86]	_ZTI11QMimeSource [CXXABI-1.86]
_ZTI12QHostAddress [CXXABI-1.86]	_ZTI12QUrlOperator [CXXABI-1.86]
_ZTI13QServerSocket [CXXABI-1.86]	_ZTI13QSocketDevice [CXXABI-1.86]
_ZTI15QConnectionList [CXXABI-1.86]	_ZTI15QSocketNotifier [CXXABI-1.86]
_ZTI16QNetworkProtocol [CXXABI-1.86]	_ZTI17QNetworkOperation [CXXABI-1.86]
_ZTI18QHttpRequestHeader [CXXABI-1.86]	_ZTI18QMimeSourceFactory [CXXABI-1.86]
_ZTI19QHttpResponseHeader [CXXABI-1.86]	_ZTI4QDns [CXXABI-1.86]
_ZTI4QFtp [CXXABI-1.86]	_ZTI4QUrl [CXXABI-1.86]
_ZTI5QHttp [CXXABI-1.86]	_ZTI7QSocket [CXXABI-1.86]
_ZTI8QLocalFs [CXXABI-1.86]	_ZTI8QUrlInfo [CXXABI-1.86]
_ZTV11QHttpRequestHeader [CXXABI-1.86]	_ZTV11QMimeSource [CXXABI-1.86]
_ZTV12QHostAddress [CXXABI-1.86]	_ZTV12QUrlOperator [CXXABI-1.86]
_ZTV13QServerSocket [CXXABI-1.86]	_ZTV13QSocketDevice [CXXABI-1.86]
_ZTV15QConnectionList [CXXABI-1.86]	_ZTV15QSocketNotifier [CXXABI-1.86]
_ZTV16QNetworkProtocol [CXXABI-1.86]	_ZTV17QNetworkOperation [CXXABI-1.86]
_ZTV18QHttpRequestHeader [CXXABI-1.86]	_ZTV18QMimeSourceFactory [CXXABI-1.86]
_ZTV19QHttpResponseHeader [CXXABI-1.86]	_ZTV4QDns [CXXABI-1.86]

_ZTV4QFtp [CXXABI-1.86]	_ZTV4QUrl [CXXABI-1.86]
_ZTV5QHttp [CXXABI-1.86]	_ZTV7QSocket [CXXABI-1.86]
_ZTV8QLocalFs [CXXABI-1.86]	_ZTV8QUrlInfo [CXXABI-1.86]

18.2.14. Qt3 Object Model

18.2.14.1. Class data for QObjectCleanupHandler

The virtual table for the QObjectCleanupHandler class is described by [Table 18-249](#)

Table 18-249. Primary vtable for QObjectCleanupHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QObjectCleanupHandler
vfunc[0]:	NULL or QObjectCleanupHandler::metaObject() const
vfunc[1]:	QObjectCleanupHandler::className() const
vfunc[2]:	QObjectCleanupHandler::qt_cast(char const*)
vfunc[3]:	QObjectCleanupHandler::qt_invoke(int, QUObject*)
vfunc[4]:	QObjectCleanupHandler::qt_emit(int, QUObject*)
vfunc[5]:	QObjectCleanupHandler::qt_property(int, int, QVariant*)
vfunc[6]:	QObjectCleanupHandler::~~QObjectCleanupHandler()
vfunc[7]:	QObjectCleanupHandler::~~QObjectCleanupHandler()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)

vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QObjectCleanupHandler class is described by [Table 18-250](#)

Table 18-250. typeinfo for QObjectCleanupHandler

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QObjectCleanupHandler
basetype:	typeinfo for QObject

18.2.14.2. Class data for QObjectUserData

The virtual table for the QObjectUserData class is described by [Table 18-251](#)

Table 18-251. Primary vtable for QObjectUserData

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QObjectUserData
vfunc[0]:	QObjectUserData::~~QObjectUserData()
vfunc[1]:	QObjectUserData::~~QObjectUserData()

The Run Time Type Information for the QObjectUserData class is described by [Table 18-252](#)

Table 18-252. typeinfo for QObjectUserData

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QObjectUserData

18.2.14.3. Class data for QObject

The virtual table for the QObject class is described by [Table 18-253](#)

Table 18-253. Primary vtable for QObject

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QObject
vfunc[0]:	NULL or QObject::metaObject() const
vfunc[1]:	QObject::className() const

vfunc[2]:	QObject::qt_cast(char const*)
vfunc[3]:	QObject::qt_invoke(int, QUObject*)
vfunc[4]:	QObject::qt_emit(int, QUObject*)
vfunc[5]:	QObject::qt_property(int, int, QVariant*)
vfunc[6]:	QObject::~~QObject()
vfunc[7]:	QObject::~~QObject()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QObject class is described by [Table 18-254](#)

Table 18-254. typeinfo for QObject

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QObject
basetype:	typeinfo for Qt

18.2.14.4. Class data for QMetaObject

The virtual table for the QMetaObject class is described by [Table 18-255](#)

Table 18-255. Primary vtable for QMetaObject

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QMetaObject
vfunc[0]:	QMetaObject::~~QMetaObject()
vfunc[1]:	QMetaObject::~~QMetaObject()

The Run Time Type Information for the QMetaObject class is described by [Table 18-256](#)

Table 18-256. typeinfo for QMetaObject

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QMetaObject

18.2.14.5. Class data for QGuardedPtrPrivate

The virtual table for the QGuardedPtrPrivate class is described by [Table 18-257](#)

Table 18-257. Primary vtable for QGuardedPtrPrivate

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGuardedPtrPrivate
vfunc[0]:	NULL or QGuardedPtrPrivate::metaObject() const
vfunc[1]:	QGuardedPtrPrivate::className() const
vfunc[2]:	QGuardedPtrPrivate::qt_cast(char const*)
vfunc[3]:	QGuardedPtrPrivate::qt_invoke(int, QUObject*)
vfunc[4]:	QGuardedPtrPrivate::qt_emit(int, QUObject*)
vfunc[5]:	QGuardedPtrPrivate::qt_property(int, int, QVariant*)
vfunc[6]:	QGuardedPtrPrivate::~~QGuardedPtrPrivate()
vfunc[7]:	QGuardedPtrPrivate::~~QGuardedPtrPrivate()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)

vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QGuardedPtrPrivate class is described by [Table 18-258](#)

Table 18-258. typeinfo for QGuardedPtrPrivate

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QGuardedPtrPrivate	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QShared	10242

18.2.14.6. Interfaces for Qt3 Object Model

An LSB conforming implementation shall provide the generic functions for Qt3 Object Model specified in [Table 18-259](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-259. libqt-mt - Qt3 Object Model Function Interfaces

_ZN11QMetaObject10metaObjectEPKc [qt-mt]
_ZN11QMetaObject14new_metaobjectEPKcPS_PK9QMetaDataIS5_iPK13QMetaPropertyiPK9QMetaEnumiPFbP7QObjectiiP8QVariant [qt-mt]
_ZN11QMetaObject18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]
_ZN11QMetaObjectC1EPKcPS_PK9QMetaDataIS5_iPK13QMetaPropertyiPK9QMetaEnumiPFbP7QObjectiiP8QVariant [qt-mt]
_ZN11QMetaObjectC2EPKcPS_PK9QMetaDataIS5_iPK13QMetaPropertyiPK9QMetaEnumiPFbP7QObjectiiP8QVariant [qt-mt]
_ZN11QMetaObjectD0Ev [qt-mt]
_ZN11QMetaObjectD2Ev [qt-mt]
_ZN15QObjectUserDataD0Ev [qt-mt]
_ZN15QObjectUserDataD2Ev [qt-mt]
_ZN18QGuardedPtrPrivate15objectDestroyedEv [qt-mt]
_ZN18QGuardedPtrPrivate18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]
ZN18QGuardedPtrPrivate6trUtf8EPKcS1 [qt-mt]
_ZN18QGuardedPtrPrivate7qt_emitEiP8QUObject [qt-mt]

_ZN18QGuardedPtrPrivate9reconnectEP7QObject [qt-mt]
_ZN18QGuardedPtrPrivateC2EP7QObject [qt-mt]
_ZN18QGuardedPtrPrivateD1Ev [qt-mt]
_ZN18QMetaObjectCleanUp13setMetaObjectERP11QMetaObject [qt-mt]
_ZN18QMetaObjectCleanUpC1Ev [qt-mt]
_ZN18QMetaObjectCleanUpC2Ev [qt-mt]
_ZN18QMetaObjectCleanUpD2Ev [qt-mt]
_ZN21QObjectCleanupHandler15objectDestroyedEP7QObject [qt-mt]
_ZN21QObjectCleanupHandler18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]
_ZN21QObjectCleanupHandler3addEP7QObject [qt-mt]
_ZN21QObjectCleanupHandler6removeEP7QObject [qt-mt]
_ZN21QObjectCleanupHandler7qt_castEPKc [qt-mt]
_ZN21QObjectCleanupHandler9qt_invokeEiP8QUObject [qt-mt]
_ZN21QObjectCleanupHandlerC2Ev [qt-mt]
_ZN21QObjectCleanupHandlerD1Ev [qt-mt]
_ZN7QObject10childEventEP11QChildEvent [qt-mt]
_ZN7QObject10killTimersEv [qt-mt]
_ZN7QObject10timerEventEP11QTimerEvent [qt-mt]
_ZN7QObject11deleteLaterEv [qt-mt]
ZN7QObject11insertChildEPS [qt-mt]
_ZN7QObject11qt_propertyEiiP8QVariant [qt-mt]
_ZN7QObject11setPropertyEPKcRK8QVariant [qt-mt]
_ZN7QObject12blockSignalsEb [qt-mt]
_ZN7QObject14dumpObjectInfoEv [qt-mt]
_ZN7QObject15activate_signalEP15QConnectionListP8QUObject [qt-mt]
_ZN7QObject15activate_signalEi7QString [qt-mt]
_ZN7QObject15activate_signalEii [qt-mt]
_ZN7QObject16activate_filtersEP6QEvent [qt-mt]
_ZN7QObject16disconnectNotifyEPKc [qt-mt]
_ZN7QObject16staticMetaObjectEv [qt-mt]
ZN7QObject18cleanupEventFilterEPS [qt-mt]
ZN7QObject18installEventFilterEPKS [qt-mt]
_ZN7QObject18staticQtMetaObjectEv [qt-mt]

_ZN7QObject20activate_signal_boolEib [qt-mt]
_ZN7QObject5childEPKcS1_b [qt-mt]
_ZN7QObject6senderEv [qt-mt]
_ZN7QObject7connectEPKS_PKcS1_S3_ [qt-mt]
_ZN7QObject7qt_emitEiP8QUObject [qt-mt]
ZN7QObject9destroyedEPS [qt-mt]
_ZN7QObject9killTimerEi [qt-mt]
_ZN7QObjectC1EPS_PKc [qt-mt]
_ZN7QObjectD0Ev [qt-mt]
_ZN7QObjectD2Ev [qt-mt]
_ZN8QVariant10asDateTimeEv [qt-mt]
_ZN8QVariant10nameToTypeEPKc [qt-mt]
_ZN8QVariant11asByteArrayEv [qt-mt]
_ZN8QVariant12asColorGroupEv [qt-mt]
_ZN8QVariant12asSizePolicyEv [qt-mt]
_ZN8QVariant13asKeySequenceEv [qt-mt]
_ZN8QVariant4loadER11QDataStream [qt-mt]
_ZN8QVariant5asMapEv [qt-mt]
_ZN8QVariant5clearEv [qt-mt]
_ZN8QVariant6asDateEv [qt-mt]
_ZN8QVariant6asListEv [qt-mt]
_ZN8QVariant6asSizeEv [qt-mt]
_ZN8QVariant6asUIntEv [qt-mt]
_ZN8QVariant7asBrushEv [qt-mt]
_ZN8QVariant7asImageEv [qt-mt]
_ZN8QVariant8asBitmapEv [qt-mt]
_ZN8QVariant8asDoubleEv [qt-mt]
_ZN8QVariant8asRegionEv [qt-mt]
_ZN8QVariant9asCStringEv [qt-mt]
_ZN8QVariant9asPaletteEv [qt-mt]
_ZN8QVariantC1E11QSizePolicy [qt-mt]
_ZN8QVariantC1ER11QDataStream [qt-mt]
_ZN8QVariantC1ERK11QColorGroup [qt-mt]

_ZN8QVariantC1ERK11QStringList [qt-mt]
_ZN8QVariantC1ERK4QMapI7QStringS_E [qt-mt]
_ZN8QVariantC1ERK5QDate [qt-mt]
_ZN8QVariantC1ERK5QRect [qt-mt]
_ZN8QVariantC1ERK5QTime [qt-mt]
_ZN8QVariantC1ERK6QColor [qt-mt]
_ZN8QVariantC1ERK6QPoint [qt-mt]
_ZN8QVariantC1ERK7QCursor [qt-mt]
_ZN8QVariantC1ERK7QRegion [qt-mt]
_ZN8QVariantC1ERK8QCString [qt-mt]
_ZN8QVariantC1ERK8QPalette [qt-mt]
_ZN8QVariantC1ERK9QDateTime [qt-mt]
ZN8QVariantC1ERKS [qt-mt]
_ZN8QVariantC1Ed [qt-mt]
_ZN8QVariantC1Ej [qt-mt]
_ZN8QVariantC1Ex [qt-mt]
_ZN8QVariantC2E11QSizePolicy [qt-mt]
_ZN8QVariantC2ER11QDataStream [qt-mt]
_ZN8QVariantC2ERK11QColorGroup [qt-mt]
_ZN8QVariantC2ERK11QStringList [qt-mt]
_ZN8QVariantC2ERK4QMapI7QStringS_E [qt-mt]
_ZN8QVariantC2ERK5QDate [qt-mt]
_ZN8QVariantC2ERK5QRect [qt-mt]
_ZN8QVariantC2ERK5QTime [qt-mt]
_ZN8QVariantC2ERK6QColor [qt-mt]
_ZN8QVariantC2ERK6QPoint [qt-mt]
_ZN8QVariantC2ERK7QCursor [qt-mt]
_ZN8QVariantC2ERK7QRegion [qt-mt]
_ZN8QVariantC2ERK8QCString [qt-mt]
_ZN8QVariantC2ERK8QPalette [qt-mt]
_ZN8QVariantC2ERK9QDateTime [qt-mt]
ZN8QVariantC2ERKS [qt-mt]
_ZN8QVariantC2Ed [qt-mt]

_ZN8QVariantC2Ej [qt-mt]
_ZN8QVariantC2Ex [qt-mt]
_ZN8QVariantD1Ev [qt-mt]
_ZN8QVariantaSERS [qt-mt]
_ZNK11QMetaObject10findSignalEPKcb [qt-mt]
_ZNK11QMetaObject11signalNamesEb [qt-mt]
_ZNK11QMetaObject12numClassInfoEb [qt-mt]
_ZNK11QMetaObject13propertyNamesEb [qt-mt]
_ZNK11QMetaObject15enumeratorNamesEb [qt-mt]
_ZNK11QMetaObject15resolvePropertyEPK13QMetaProperty [qt-mt]
_ZNK11QMetaObject4slotEib [qt-mt]
_ZNK11QMetaObject8findSlotEPKcb [qt-mt]
_ZNK11QMetaObject8numSlotsEb [qt-mt]
_ZNK11QMetaObject9classInfoEPKcb [qt-mt]
_ZNK11QMetaObject9slotNamesEb [qt-mt]
_ZNK13QMetaProperty10isEnumTypeEv [qt-mt]
_ZNK13QMetaProperty10scriptableEP7QObject [qt-mt]
_ZNK13QMetaProperty11keysToValueERK8QStrList [qt-mt]
_ZNK13QMetaProperty2idEv [qt-mt]
_ZNK13QMetaProperty6stdSetEv [qt-mt]
_ZNK13QMetaProperty7isValidEv [qt-mt]
_ZNK13QMetaProperty8writableEv [qt-mt]
_ZNK18QGuardedPtrPrivate9classNameEv [qt-mt]
_ZNK21QObjectCleanupHandler9classNameEv [qt-mt]
_ZNK7QObject4nameEPKc [qt-mt]
_ZNK7QObject8inheritsEPKc [qt-mt]
_ZNK7QObject8userDataEj [qt-mt]
_ZNK7QObject9queryListEPKcS1_bb [qt-mt]
_ZNK7QObject9receiversEi [qt-mt]
_ZNK8QVariant10toDateTimeEv [qt-mt]
_ZNK8QVariant11toByteArrayEv [qt-mt]
_ZNK8QVariant12toColorGroupEv [qt-mt]
_ZNK8QVariant12toSizePolicyEv [qt-mt]

_ZNK8QVariant13toKeySequenceEv [qt-mt]
_ZNK8QVariant5toIntEPb [qt-mt]
_ZNK8QVariant5toPenEv [qt-mt]
_ZNK8QVariant6toBoolEv [qt-mt]
_ZNK8QVariant6toFontEv [qt-mt]
_ZNK8QVariant6toRectEv [qt-mt]
_ZNK8QVariant6toTimeEv [qt-mt]
_ZNK8QVariant7canCastENS_4TypeE [qt-mt]
_ZNK8QVariant7toColorEv [qt-mt]
_ZNK8QVariant7toPointEv [qt-mt]
_ZNK8QVariant8toCursorEv [qt-mt]
_ZNK8QVariant8toPixmapEv [qt-mt]
_ZNK8QVariant8toStringEv [qt-mt]
_ZNK8QVariant9toCStringEv [qt-mt]
_ZNK8QVariant9toPaletteEv [qt-mt]
ZNK8QVariantneERKS [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Object Model specified in [Table 18-260](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-260. libqt-mt - Qt3 Object Model Data Interfaces

_ZN18QGuardedPtrPrivate7metaObjE [qt-mt]	_ZN21QObjectCleanupHandler7metaObjE [qt-mt]
_ZN7QObject7metaObjE [qt-mt]	_ZTI11QMetaObject [CXXABI-1.86]
_ZTI15QObjectUserData [CXXABI-1.86]	_ZTI18QGuardedPtrPrivate [CXXABI-1.86]
_ZTI21QObjectCleanupHandler [CXXABI-1.86]	_ZTI7QObject [CXXABI-1.86]
_ZTV11QMetaObject [CXXABI-1.86]	_ZTV15QObjectUserData [CXXABI-1.86]
_ZTV18QGuardedPtrPrivate [CXXABI-1.86]	_ZTV21QObjectCleanupHandler [CXXABI-1.86]
_ZTV7QObject [CXXABI-1.86]	

18.2.15. Qt3 OpenGL

18.2.15.1. Interfaces for Qt3 OpenGL

An LSB conforming implementation shall provide the generic functions for Qt3 OpenGL specified in [Table 18-261](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-261. libqt-mt - Qt3 OpenGL Function Interfaces

_ZN10QGLContext11doneCurrentEv [qt-mt]	_ZN10QGLContext11makeCurrentEv [qt-mt]
_ZN10QGLContext12chooseVisualEv [qt-mt]	_ZN10QGLContext13chooseContextEPKS_ [qt-mt]
_ZN10QGLContext24generateFontDisplayListsERK5QFonti [qt-mt]	_ZN10QGLContext4initEP12QPaintDevice [qt-mt]
_ZN10QGLContext5resetEv [qt-mt]	_ZN10QGLContext6createEPKS_ [qt-mt]
_ZN10QGLContext9setDeviceEP12QPaintDevice [qt-mt]	_ZN10QGLContext9setFormatERK9QGLFormat [qt-mt]
_ZN10QGLContext9tryVisualERK9QGLFormati [qt-mt]	_ZN10QGLContextC1ERK9QGLFormat [qt-mt]
_ZN10QGLContextC1ERK9QGLFormatP12QPaintDevice [qt-mt]	_ZN10QGLContextC2ERK9QGLFormat [qt-mt]
_ZN10QGLContextC2ERK9QGLFormatP12QPaintDevice [qt-mt]	_ZN10QGLContextD0Ev [qt-mt]
_ZN10QGLContextD1Ev [qt-mt]	_ZN10QGLContextD2Ev [qt-mt]
_ZN11QGLColormap10setEntriesEiPKji [qt-mt]	_ZN11QGLColormap6detachEv [qt-mt]
_ZN11QGLColormap8setEntryEiRK6QColor [qt-mt]	_ZN11QGLColormap8setEntryEij [qt-mt]
ZN11QGLColormapC1ERKS [qt-mt]	_ZN11QGLColormapC1Ev [qt-mt]
ZN11QGLColormapC2ERKS [qt-mt]	_ZN11QGLColormapC2Ev [qt-mt]
_ZN11QGLColormapD1Ev [qt-mt]	_ZN11QGLColormapD2Ev [qt-mt]
ZN11QGLColormapasERKS [qt-mt]	_ZN9QGLFormat10setOverlayEb [qt-mt]
_ZN9QGLFormat10setStencilEb [qt-mt]	_ZN9QGLFormat13defaultFormatEv [qt-mt]
_ZN9QGLFormat15setDoubleBufferEb [qt-mt]	_ZN9QGLFormat16setDefaultFormatERKS_ [qt-mt]
_ZN9QGLFormat17hasOpenGLOverlaysEv [qt-mt]	_ZN9QGLFormat18setDirectRenderingEb [qt-mt]
_ZN9QGLFormat20defaultOverlayFormatEv [qt-mt]	_ZN9QGLFormat23setDefaultOverlayFormatERKS_ [qt-mt]
_ZN9QGLFormat7setRgbaEb [qt-mt]	_ZN9QGLFormat8setAccumEb [qt-mt]
_ZN9QGLFormat8setAlphaEb [qt-mt]	_ZN9QGLFormat8setDepthEb [qt-mt]
_ZN9QGLFormat8setPlaneEi [qt-mt]	_ZN9QGLFormat9hasOpenGLEv [qt-mt]
_ZN9QGLFormat9setOptionEN3QGL12FormatOptionE [qt-mt]	_ZN9QGLFormat9setStereoEb [qt-mt]
_ZN9QGLFormatC1Eii [qt-mt]	_ZN9QGLFormatC1Ev [qt-mt]
_ZN9QGLFormatC2Eii [qt-mt]	_ZN9QGLFormatC2Ev [qt-mt]
_ZN9QGLWidget10paintEventEP11QPaintEvent [qt-mt]	_ZN9QGLWidget10renderCxPmEP7QPixmap [qt-mt]
_ZN9QGLWidget10renderTextEdddRK7QStringRK5QFonti [qt-mt]	_ZN9QGLWidget10renderTextEiirRK7QStringRK5QFonti [qt-mt]
_ZN9QGLWidget10setContextEP10QGLContextPKS0_b [qt-mt]	_ZN9QGLWidget11doneCurrentEv [qt-mt]

_ZN9QGLWidget11makeCurrentEv [qt-mt]	_ZN9QGLWidget11qt_propertyEiiP8QVariant [qt-mt]
_ZN9QGLWidget11resizeEventEP12QResizeEvent [qt-mt]	_ZN9QGLWidget11setColormapERK11QGLColorm
_ZN9QGLWidget11swapBuffersEv [qt-mt]	_ZN9QGLWidget12initializeGLEv [qt-mt]
_ZN9QGLWidget12renderPixmapEiib [qt-mt]	_ZN9QGLWidget14paintOverlayGLEv [qt-mt]
_ZN9QGLWidget15displayListBaseERK5QFonti [qt-mt]	_ZN9QGLWidget15grabFrameBufferEb [qt-mt]
_ZN9QGLWidget15resizeOverlayGLEii [qt-mt]	_ZN9QGLWidget15updateOverlayGLEv [qt-mt]
_ZN9QGLWidget16cleanupColormapsEv [qt-mt]	_ZN9QGLWidget16setMouseTrackingEb [qt-mt]
_ZN9QGLWidget16staticMetaObjectEv [qt-mt]	_ZN9QGLWidget17convertToGLFormatERK6QImag
_ZN9QGLWidget18makeOverlayCurrentEv [qt-mt]	_ZN9QGLWidget18qt_static_propertyEP7QObjectiiF [qt-mt]
_ZN9QGLWidget19initializeOverlayGLEv [qt-mt]	_ZN9QGLWidget24macInternalFixBufferRectEv [qt-
ZN9QGLWidget2trEPKcS1 [qt-mt]	_ZN9QGLWidget4initEP10QGLContextPKS_ [qt-mt]
_ZN9QGLWidget6glDrawEv [qt-mt]	_ZN9QGLWidget6glInitEv [qt-mt]
ZN9QGLWidget6trUtf8EPKcS1 [qt-mt]	_ZN9QGLWidget7paintGLEv [qt-mt]
_ZN9QGLWidget7qt_castEPKc [qt-mt]	_ZN9QGLWidget7qt_emitEiP8QUObject [qt-mt]
_ZN9QGLWidget8repaintEP7QWidgetjRK6QPointb [qt-mt]	_ZN9QGLWidget8resizeGLEii [qt-mt]
_ZN9QGLWidget8updateGLEv [qt-mt]	_ZN9QGLWidget9qt_invokeEiP8QUObject [qt-mt]
_ZN9QGLWidget9setFormatERK9QGLFormat [qt-mt]	_ZN9QGLWidgetC1EP10QGLContextP7QWidgetPK [qt-mt]
_ZN9QGLWidgetC1EP7QWidgetPKcPKS_j [qt-mt]	_ZN9QGLWidgetC1ERK9QGLFormatP7QWidgetPK [qt-mt]
_ZN9QGLWidgetC2EP10QGLContextP7QWidgetPKcPKS_j [qt-mt]	_ZN9QGLWidgetC2EP7QWidgetPKcPKS_j [qt-mt]
_ZN9QGLWidgetC2ERK9QGLFormatP7QWidgetPKcPKS_j [qt-mt]	_ZN9QGLWidgetD0Ev [qt-mt]
_ZN9QGLWidgetD1Ev [qt-mt]	_ZN9QGLWidgetD2Ev [qt-mt]
_ZNK10QGLContext10colorIndexERK6QColor [qt-mt]	_ZNK10QGLContext11swapBuffersEv [qt-mt]
_ZNK10QGLContext23overlayTransparentColorEv [qt-mt]	_ZNK11QGLColormap10entryColorEi [qt-mt]
_ZNK11QGLColormap11findNearestEj [qt-mt]	_ZNK11QGLColormap4findEj [qt-mt]
_ZNK11QGLColormap4sizeEv [qt-mt]	_ZNK11QGLColormap7isEmptyEv [qt-mt]
_ZNK11QGLColormap8entryRgbEi [qt-mt]	_ZNK9QGLFormat10testOptionEN3QGL12FormatO [qt-mt]
_ZNK9QGLFormat5planeEv [qt-mt]	_ZNK9QGLWidget13qglClearColorERK6QColor [qt-
_ZNK9QGLWidget14overlayContextEv [qt-mt]	_ZNK9QGLWidget7isValidEv [qt-mt]

_ZNK9QGLWidget8colormapEv [qt-mt]	_ZNK9QGLWidget8qglColorERK6QColor [qt-mt]
_ZNK9QGLWidget9classNameEv [qt-mt]	_ZNK9QGLWidget9isSharingEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 OpenGL specified in [Table 18-262](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-262. libqt-mt - Qt3 OpenGL Data Interfaces

_ZN10QGLContext10currentCtxE [qt-mt]	_ZN9QGLWidget7metaObjE [qt-mt]
_ZTI10QGLContext [CXXABI-1.86]	_ZTI3QGL [CXXABI-1.86]
_ZTI9QGLWidget [CXXABI-1.86]	_ZTV10QGLContext [CXXABI-1.86]
_ZTV9QGLWidget [CXXABI-1.86]	

18.2.16. Qt3 Paint Device

18.2.16.1. Class data for QPaintDevice

The virtual table for the QPaintDevice class is described by [Table 18-263](#)

Table 18-263. Primary vtable for QPaintDevice

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPaintDevice
vfunc[0]:	QPaintDevice::~~QPaintDevice()
vfunc[1]:	QPaintDevice::~~QPaintDevice()
vfunc[2]:	QPaintDevice::setResolution(int)
vfunc[3]:	QPaintDevice::resolution() const
vfunc[4]:	QPaintDevice::handle() const
vfunc[5]:	QPaintDevice::x11RenderHandle() const
vfunc[6]:	QPaintDevice::setX11Data(QPaintDeviceX11Data const*)
vfunc[7]:	QPaintDevice::cmd(int, QPainter*, QPDevCmdParam*)
vfunc[8]:	QPaintDevice::metric(int) const
vfunc[9]:	QPaintDevice::fontMet(QFont*, int, char const*, int) const
vfunc[10]:	QPaintDevice::fontInf(QFont*, int) const

The Run Time Type Information for the QPaintDevice class is described by [Table 18-264](#)

Table 18-264. typeinfo for QPaintDevice

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QPaintDevice

18.2.16.2. Class data for QBitmap

The virtual table for the QBitmap class is described by [Table 18-265](#)

Table 18-265. Primary vtable for QBitmap

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QBitmap
vfunc[0]:	NULL or QBitmap::~~QBitmap()
vfunc[1]:	NULL or QBitmap::~~QBitmap()
vfunc[2]:	QPaintDevice::setResolution(int)
vfunc[3]:	QPaintDevice::resolution() const
vfunc[4]:	QPaintDevice::handle() const
vfunc[5]:	QPaintDevice::x11RenderHandle() const
vfunc[6]:	QPaintDevice::setX11Data(QPaintDeviceX11Data const*)
vfunc[7]:	QPaintDevice::cmd(int, QPainter*, QPDevCmdParam*)
vfunc[8]:	QPixmap::metric(int) const
vfunc[9]:	QPaintDevice::fontMet(QFont*, int, char const*, int) const
vfunc[10]:	QPaintDevice::fontInf(QFont*, int) const
vfunc[11]:	QPixmap::detach()

The Run Time Type Information for the QBitmap class is described by [Table 18-266](#)

Table 18-266. typeinfo for QBitmap

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QBitmap
basetype:	typeinfo for QPixmap

18.2.16.3. Class data for QPicture

The virtual table for the QPicture class is described by [Table 18-267](#)

Table 18-267. Primary vtable for QPicture

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPicture
vfunc[0]:	QPicture::~~QPicture()
vfunc[1]:	QPicture::~~QPicture()
vfunc[2]:	QPaintDevice::setResolution(int)
vfunc[3]:	QPaintDevice::resolution() const
vfunc[4]:	QPaintDevice::handle() const
vfunc[5]:	QPaintDevice::x11RenderHandle() const
vfunc[6]:	QPaintDevice::setX11Data(QPaintDeviceX11Data const*)
vfunc[7]:	QPicture::cmd(int, QPainter*, QPDevCmdParam*)
vfunc[8]:	QPicture::metric(int) const
vfunc[9]:	QPaintDevice::fontMet(QFont*, int, char const*, int) const
vfunc[10]:	QPaintDevice::fontInf(QFont*, int) const
vfunc[11]:	QPicture::setData(char const*, unsigned int)

The Run Time Type Information for the QPicture class is described by [Table 18-268](#)

Table 18-268. typeinfo for QPicture

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPicture
basetype:	typeinfo for QPaintDevice

18.2.16.4. Class data for QPixmap

The virtual table for the QPixmap class is described by [Table 18-269](#)

Table 18-269. Primary vtable for QPixmap

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QPixmap
vfunc[0]:	QPixmap::~~QPixmap()
vfunc[1]:	QPixmap::~~QPixmap()
vfunc[2]:	QPaintDevice::setResolution(int)
vfunc[3]:	QPaintDevice::resolution() const
vfunc[4]:	QPaintDevice::handle() const
vfunc[5]:	QPaintDevice::x11RenderHandle() const
vfunc[6]:	QPaintDevice::setX11Data(QPaintDeviceX11Data const*)
vfunc[7]:	QPaintDevice::cmd(int, QPainter*, QPDevCmdParam*)
vfunc[8]:	QPixmap::metric(int) const
vfunc[9]:	QPaintDevice::fontMet(QFont*, int, char const*, int) const
vfunc[10]:	QPaintDevice::fontInf(QFont*, int) const
vfunc[11]:	QPixmap::detach()

The Run Time Type Information for the QPixmap class is described by [Table 18-270](#)

Table 18-270. typeinfo for QPixmap

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QPixmap	
flags:	0	
basetype:	typeinfo for QPaintDevice	2
basetype:	typeinfo for Qt	2

18.2.16.5. Class data for QPainter

The virtual table for the QPainter class is described by [Table 18-271](#)

Table 18-271. Primary vtable for QPainter

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPainter
vfunc[0]:	QPainter::~~QPainter()
vfunc[1]:	QPainter::~~QPainter()
vfunc[2]:	QPainter::setResolution(int)

vfunc[3]:	QPrinter::resolution() const
vfunc[4]:	QPaintDevice::handle() const
vfunc[5]:	QPaintDevice::x11RenderHandle() const
vfunc[6]:	QPaintDevice::setX11Data(QPaintDeviceX11Data const*)
vfunc[7]:	QPrinter::cmd(int, QPainter*, QPDevCmdParam*)
vfunc[8]:	QPrinter::metric(int) const
vfunc[9]:	QPaintDevice::fontMet(QFont*, int, char const*, int) const
vfunc[10]:	QPaintDevice::fontInf(QFont*, int) const
vfunc[11]:	QPrinter::setPrinterName(QString const&)
vfunc[12]:	QPrinter::setOutputToFile(bool)
vfunc[13]:	QPrinter::setOutputFileName(QString const&)
vfunc[14]:	QPrinter::setPrintProgram(QString const&)
vfunc[15]:	QPrinter::setPrinterSelectionOption(QString const&)
vfunc[16]:	QPrinter::setDocName(QString const&)
vfunc[17]:	QPrinter::setCreator(QString const&)
vfunc[18]:	QPrinter::setOrientation(QPrinter::Orientation)
vfunc[19]:	QPrinter::setPageSize(QPrinter::PageSize)
vfunc[20]:	QPrinter::setPageOrder(QPrinter::PageOrder)
vfunc[21]:	QPrinter::setColorMode(QPrinter::ColorMode)
vfunc[22]:	QPrinter::setFullPage(bool)
vfunc[23]:	QPrinter::setFromTo(int, int)
vfunc[24]:	QPrinter::setMinMax(int, int)
vfunc[25]:	QPrinter::setNumCopies(int)
vfunc[26]:	QPrinter::setPaperSource(QPrinter::PaperSource)

The Run Time Type Information for the QPrinter class is described by [Table 18-272](#)

Table 18-272. typeid for QPrinter

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QPrinter
basetype:	typeid for QPaintDevice

18.2.16.6. Interfaces for Qt3 Paint Device

An LSB conforming implementation shall provide the generic functions for Qt3 Paint Device specified in [Table 18-273](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-273. libqt-mt - Qt3 Paint Device Function Interfaces

_ZN12QPaintDevice10setX11DataEPK19QPaintDeviceX11Data [qt-mt]	_ZN12QPaintDevice10x11AppDpiXEi [qt-mt]
_ZN12QPaintDevice10x11AppDpiXEv [qt-mt]	_ZN12QPaintDevice10x11AppDpiYEi [qt-mt]
_ZN12QPaintDevice10x11AppDpiYEv [qt-mt]	_ZN12QPaintDevice11copyX11DataEPKS_ [qt-mt]
ZN12QPaintDevice12cloneX11DataEPKS [qt-mt]	_ZN12QPaintDevice13setResolutionEi [qt-mt]
_ZN12QPaintDevice13x11SetAppDpiXEi [qt-mt]	_ZN12QPaintDevice13x11SetAppDpiXEii [qt-mt]
_ZN12QPaintDevice13x11SetAppDpiYEi [qt-mt]	_ZN12QPaintDevice13x11SetAppDpiYEii [qt-mt]
_ZN12QPaintDevice3cmdEiP8QPainterP13QPDevCmdParam [qt-mt]	_ZN12QPaintDeviceC1Ej [qt-mt]
_ZN12QPaintDeviceC2Ej [qt-mt]	_ZN12QPaintDeviceD0Ev [qt-mt]
_ZN12QPaintDeviceD1Ev [qt-mt]	_ZN12QPaintDeviceD2Ev [qt-mt]
_ZN12QPixmapCache10cacheLimitEv [qt-mt]	_ZN12QPixmapCache13setCacheLimitEi [qt-mt]
_ZN12QPixmapCache4findERK7QString [qt-mt]	_ZN12QPixmapCache4findERK7QStringR7Q [qt-mt]
_ZN12QPixmapCache5clearEv [qt-mt]	_ZN12QPixmapCache6insertERK7QStringP7 [qt-mt]
_ZN12QPixmapCache6insertERK7QStringRK7QPixmap [qt-mt]	_ZN12QPixmapCache6removeERK7QString [qt-mt]
_ZN19QPaintDeviceMetricsC1EPK12QPaintDevice [qt-mt]	_ZN19QPaintDeviceMetricsC2EPK12QPaintDevice [qt-mt]
_ZN7QBitmapC1ERK5QSizePKhb [qt-mt]	_ZN7QBitmapC1ERK5QSizebN7QPixmap12 [qt-mt]
_ZN7QBitmapC1ERK7QStringPKc [qt-mt]	_ZN7QBitmapC1ERKS_ [qt-mt]
_ZN7QBitmapC1EiiPKhb [qt-mt]	_ZN7QBitmapC1EiibN7QPixmap12Optimiza [qt-mt]
_ZN7QBitmapC1Ev [qt-mt]	_ZN7QBitmapC2ERK5QSizePKhb [qt-mt]
_ZN7QBitmapC2ERK5QSizebN7QPixmap12OptimizationE [qt-mt]	_ZN7QBitmapC2ERK7QStringPKc [qt-mt]
ZN7QBitmapC2ERKS [qt-mt]	_ZN7QBitmapC2EiiPKhb [qt-mt]
_ZN7QBitmapC2EiibN7QPixmap12OptimizationE [qt-mt]	_ZN7QBitmapC2Ev [qt-mt]
_ZN7QBitmapaSERK6QImage [qt-mt]	_ZN7QBitmapaSERK7QPixmap [qt-mt]
ZN7QBitmapaSERKS [qt-mt]	_ZN7QPixmap10grabWidgetEP7QWidget [qt-mt]
_ZN7QPixmap10grabWindowEmiiii [qt-mt]	_ZN7QPixmap10trueMatrixERK8QWMatrix [qt-mt]

_ZN7QPixmap11imageFormatERK7QString [qt-mt]	_ZN7QPixmap12defaultDepthEv [qt-mt]
_ZN7QPixmap12loadFromDataEPKhjPKcNS_9ColorModeE [qt-mt]	_ZN7QPixmap12loadFromDataEPKhjPKci [qt-mt]
_ZN7QPixmap12loadFromDataERK9QMemArrayIcEPKci [qt-mt]	_ZN7QPixmap12x11SetScreenEi [qt-mt]
_ZN7QPixmap14fromMimeSourceERK7QString [qt-mt]	_ZN7QPixmap15setOptimizationENS_12OptimizationE [qt-mt]
_ZN7QPixmap16convertFromImageERK6QImageNS_9ColorModeE [qt-mt]	_ZN7QPixmap16convertFromImageERK6QImage [qt-mt]
_ZN7QPixmap19defaultOptimizationEv [qt-mt]	_ZN7QPixmap19x11SetDefaultScreenEi [qt-mt]
_ZN7QPixmap22setDefaultOptimizationENS_12OptimizationE [qt-mt]	_ZN7QPixmap4fillEPK7QWidgeti [qt-mt]
_ZN7QPixmap4fillERK6QColor [qt-mt]	_ZN7QPixmap4initEiiibNS_12OptimizationE [qt-mt]
_ZN7QPixmap4loadERK7QStringPKcNS_9ColorModeE [qt-mt]	_ZN7QPixmap4loadERK7QStringPKci [qt-mt]
_ZN7QPixmap5derefEv [qt-mt]	_ZN7QPixmap6detachEv [qt-mt]
_ZN7QPixmap6resizeEii [qt-mt]	_ZN7QPixmap7setMaskERK7QBitmap [qt-mt]
_ZN7QPixmapC1EPPKc [qt-mt]	_ZN7QPixmapC1ERK5QSizeiNS_12OptimizationE [qt-mt]
_ZN7QPixmapC1ERK6QImage [qt-mt]	_ZN7QPixmapC1ERK7QStringPKcNS_9ColorModeE [qt-mt]
_ZN7QPixmapC1ERK7QStringPKci [qt-mt]	_ZN7QPixmapC1ERK9QMemArrayIcE [qt-mt]
ZN7QPixmapC1ERKS [qt-mt]	_ZN7QPixmapC1EiiPKhb [qt-mt]
_ZN7QPixmapC1EiiiNS_12OptimizationE [qt-mt]	_ZN7QPixmapC1EiiibNS_12OptimizationE [qt-mt]
_ZN7QPixmapC1Ev [qt-mt]	_ZN7QPixmapC2EPPKc [qt-mt]
_ZN7QPixmapC2ERK5QSizeiNS_12OptimizationE [qt-mt]	_ZN7QPixmapC2ERK6QImage [qt-mt]
_ZN7QPixmapC2ERK7QStringPKcNS_9ColorModeE [qt-mt]	_ZN7QPixmapC2ERK7QStringPKci [qt-mt]
_ZN7QPixmapC2ERK9QMemArrayIcE [qt-mt]	_ZN7QPixmapC2ERKS_ [qt-mt]
_ZN7QPixmapC2EiiPKhb [qt-mt]	_ZN7QPixmapC2EiiiNS_12OptimizationE [qt-mt]
_ZN7QPixmapC2EiiibNS_12OptimizationE [qt-mt]	_ZN7QPixmapC2Ev [qt-mt]
_ZN7QPixmapD0Ev [qt-mt]	_ZN7QPixmapD1Ev [qt-mt]
_ZN7QPixmapD2Ev [qt-mt]	_ZN7QPixmapPaSERK6QImage [qt-mt]
ZN7QPixmapPaSERKS [qt-mt]	_ZN8QPicture15setBoundingRectERK5QRect [qt-mt]
_ZN8QPicture3cmdEiP8QPainterP13QPDevCmdParam [qt-mt]	_ZN8QPicture4execEP8QPainterR11QDataStream [qt-mt]
_ZN8QPicture4loadEP9QIODevicePKc [qt-mt]	_ZN8QPicture4loadERK7QStringPKc [qt-mt]
_ZN8QPicture4playEP8QPainter [qt-mt]	_ZN8QPicture4saveEP9QIODevicePKc [qt-mt]
_ZN8QPicture4saveERK7QStringPKc [qt-mt]	_ZN8QPicture6detachEv [qt-mt]
_ZN8QPicture7setDataEPKcj [qt-mt]	_ZN8QPictureC1ERKS_ [qt-mt]

_ZN8QPictureC1Ei [qt-mt]	_ZN8QPictureC2ERKS_ [qt-mt]
_ZN8QPictureC2Ei [qt-mt]	_ZN8QPictureD0Ev [qt-mt]
_ZN8QPictureD1Ev [qt-mt]	_ZN8QPictureD2Ev [qt-mt]
ZN8QPictureaSERKS [qt-mt]	_ZN8QPrinter10setCreatorERK7QString [qt-mt]
_ZN8QPrinter10setDocNameERK7QString [qt-mt]	_ZN8QPrinter10setMarginsEjjjj [qt-mt]
_ZN8QPrinter11setFullPageEb [qt-mt]	_ZN8QPrinter11setPageSizeENS_8PageSizeE [qt-mt]
_ZN8QPrinter12setColorModeENS_9ColorModeE [qt-mt]	_ZN8QPrinter12setNumCopiesEi [qt-mt]
_ZN8QPrinter12setPageOrderENS_9PageOrderE [qt-mt]	_ZN8QPrinter13setPrintRangeENS_10PrintRangeE [qt-mt]
_ZN8QPrinter13setResolutionEi [qt-mt]	_ZN8QPrinter14setOrientationENS_11OrientationE [qt-mt]
_ZN8QPrinter14setPaperSourceENS_11PaperSourceE [qt-mt]	_ZN8QPrinter14setPrinterNameERK7QString [qt-mt]
_ZN8QPrinter15isOptionEnabledENS_13PrinterOptionE [qt-mt]	_ZN8QPrinter15setOutputToFileEb [qt-mt]
_ZN8QPrinter15setPrintProgramERK7QString [qt-mt]	_ZN8QPrinter16setCollateCopiesEb [qt-mt]
_ZN8QPrinter16setOptionEnabledENS_13PrinterOptionEb [qt-mt]	_ZN8QPrinter17setOutputFileNameERK7QString [qt-mt]
_ZN8QPrinter25setPrinterSelectionOptionERK7QString [qt-mt]	_ZN8QPrinter3cmdEiP8QPainterP13QPDevice [qt-mt]
_ZN8QPrinter5abortEv [qt-mt]	_ZN8QPrinter5setupEP7QWidget [qt-mt]
_ZN8QPrinter7newPageEv [qt-mt]	_ZN8QPrinter9setFromToEii [qt-mt]
_ZN8QPrinter9setMinMaxEii [qt-mt]	_ZN8QPrinterC1ENS_11PrinterModeE [qt-mt]
_ZN8QPrinterC2ENS_11PrinterModeE [qt-mt]	_ZN8QPrinterD0Ev [qt-mt]
_ZN8QPrinterD1Ev [qt-mt]	_ZN8QPrinterD2Ev [qt-mt]
_ZNK12QPaintDevice10getX11DataEb [qt-mt]	_ZNK12QPaintDevice10resolutionEv [qt-mt]
_ZNK12QPaintDevice15x11RenderHandleEv [qt-mt]	_ZNK12QPaintDevice6handleEv [qt-mt]
_ZNK12QPaintDevice6metricEi [qt-mt]	_ZNK12QPaintDevice7fontInfEP5QFonti [qt-mt]
_ZNK12QPaintDevice7fontMetEP5QFontiPKci [qt-mt]	_ZNK7QBitmap5xFormERK8QWMatrix [qt-mt]
_ZNK7QPixmap14convertToImageEv [qt-mt]	_ZNK7QPixmap15hasAlphaChannelEv [qt-mt]
_ZNK7QPixmap19createHeuristicMaskEb [qt-mt]	_ZNK7QPixmap4copyEb [qt-mt]
_ZNK7QPixmap4saveEP9QIODevicePKci [qt-mt]	_ZNK7QPixmap4saveERK7QStringPKci [qt-mt]
_ZNK7QPixmap5xFormERK8QWMatrix [qt-mt]	_ZNK7QPixmap6metricEi [qt-mt]
_ZNK7QPixmap8hasAlphaEv [qt-mt]	_ZNK7QPixmap9doImageIOEP8QImageIOi [qt-mt]
_ZNK8QPicture12boundingRectEv [qt-mt]	_ZNK8QPicture4copyEv [qt-mt]
_ZNK8QPicture6metricEi [qt-mt]	_ZNK8QPrinter10printRangeEv [qt-mt]
_ZNK8QPrinter10resolutionEv [qt-mt]	_ZNK8QPrinter11paperSourceEv [qt-mt]
_ZNK8QPrinter22printerSelectionOptionEv [qt-mt]	_ZNK8QPrinter6metricEi [qt-mt]

_ZNK8QPrinter7abortedEv [qt-mt]	_ZNK8QPrinter7marginsEPjS0_S0_S0_ [qt-mt]
_ZNK8QPrinter7marginsEv [qt-mt]	_ZNK8QPrinter8fullPageEv [qt-mt]
_ZNK8QPrinter9colorModeEv [qt-mt]	_ZNK8QPrinter9pageOrderEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Paint Device specified in [Table 18-274](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-274. libqt-mt - Qt3 Paint Device Data Interfaces

_ZN12QPaintDevice10x_appcellsE [qt-mt]	_ZN12QPaintDevice10x_appdepthE [qt-mt]
_ZN12QPaintDevice11x_appscreenE [qt-mt]	_ZN12QPaintDevice11x_appvisualE [qt-mt]
_ZN12QPaintDevice12x_appdisplayE [qt-mt]	_ZN12QPaintDevice13x_appcolormapE [qt-mt]
_ZN12QPaintDevice14x_appcells_arrE [qt-mt]	_ZN12QPaintDevice14x_appdefvisualE [qt-mt]
_ZN12QPaintDevice14x_appdepth_arrE [qt-mt]	_ZN12QPaintDevice15x_approotwindowE [qt-mt]
_ZN12QPaintDevice15x_appvisual_arrE [qt-mt]	_ZN12QPaintDevice16x_appdefcolormapE [qt-mt]
_ZN12QPaintDevice17x_appcolormap_arrE [qt-mt]	_ZN12QPaintDevice18x_appdefvisual_arrE [qt-mt]
_ZN12QPaintDevice19x_approotwindow_arrE [qt-mt]	_ZN12QPaintDevice20x_appdefcolormap_arrE [qt-mt]
_ZN7QPixmap8defOptimE [qt-mt]	_ZTI12QPaintDevice [CXXABI-1.86]
_ZTI7QBitmap [CXXABI-1.86]	_ZTI7QPixmap [CXXABI-1.86]
_ZTI8QPicture [CXXABI-1.86]	_ZTI8QPrinter [CXXABI-1.86]
_ZTV12QPaintDevice [CXXABI-1.86]	_ZTV7QBitmap [CXXABI-1.86]
_ZTV7QPixmap [CXXABI-1.86]	_ZTV8QPicture [CXXABI-1.86]
_ZTV8QPrinter [CXXABI-1.86]	

18.2.17. Qt3 SQL

18.2.17.1. Class data for QSqlResult

The virtual table for the QSqlResult class is described by [Table 18-275](#)

Table 18-275. Primary vtable for QSqlResult

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlResult
vfunc[0]:	QSqlResult::~~QSqlResult()

vfunc[1]:	QSqlResult::~~QSqlResult()
vfunc[2]:	QSqlResult::setAt(int)
vfunc[3]:	QSqlResult::setActive(bool)
vfunc[4]:	QSqlResult::setLastError(QSqlError const&)
vfunc[5]:	QSqlResult::setQuery(QString const&)
vfunc[6]:	QSqlResult::setSelect(bool)
vfunc[7]:	QSqlResult::setForwardOnly(bool)
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	__cxa_pure_virtual
vfunc[10]:	__cxa_pure_virtual
vfunc[11]:	__cxa_pure_virtual
vfunc[12]:	QSqlResult::fetchNext()
vfunc[13]:	QSqlResult::fetchPrev()
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	__cxa_pure_virtual
vfunc[17]:	__cxa_pure_virtual

The Run Time Type Information for the QSqlResult class is described by [Table 18-276](#)

Table 18-276. typeid for QSqlResult

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QSqlResult

18.2.17.2. Class data for QSqlSelectCursor

The virtual table for the QSqlSelectCursor class is described by [Table 18-277](#)

Table 18-277. Primary vtable for QSqlSelectCursor

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QSqlSelectCursor
vfunc[0]:	QSqlSelectCursor::~~QSqlSelectCursor()
vfunc[1]:	QSqlSelectCursor::~~QSqlSelectCursor()

vfunc[2]:	QSqlCursor::value(int) const
vfunc[3]:	QSqlCursor::value(QString const&) const
vfunc[4]:	QSqlCursor::setValue(int, QVariant const&)
vfunc[5]:	QSqlCursor::setValue(QString const&, QVariant const&)
vfunc[6]:	NULL or QSqlSelectCursor::setGenerated(QString const&, bool)
vfunc[7]:	NULL or QSqlSelectCursor::setGenerated(int, bool)
vfunc[8]:	QSqlRecord::setNull(int)
vfunc[9]:	QSqlRecord::setNull(QString const&)
vfunc[10]:	QSqlCursor::append(QSqlField const&)
vfunc[11]:	QSqlCursor::insert(int, QSqlField const&)
vfunc[12]:	NULL or QSqlSelectCursor::remove(int)
vfunc[13]:	NULL or QSqlSelectCursor::clear()
vfunc[14]:	QSqlRecord::clearValues(bool)
vfunc[15]:	NULL or QSqlSelectCursor::toString(QString const&, QString const&) const
vfunc[16]:	QSqlRecord::toStringList(QString const&) const
vfunc[17]:	NULL or QSqlSelectCursor::primaryIndex(bool) const
vfunc[18]:	NULL or QSqlSelectCursor::index(QStringList const&) const
vfunc[19]:	NULL or QSqlSelectCursor::setPrimaryIndex(QSqlIndex const&)
vfunc[20]:	NULL or QSqlSelectCursor::append(QSqlFieldInfo const&)
vfunc[21]:	NULL or QSqlSelectCursor::insert(int, QSqlFieldInfo const&)
vfunc[22]:	NULL or QSqlSelectCursor::editBuffer(bool)
vfunc[23]:	NULL or QSqlSelectCursor::primeInsert()
vfunc[24]:	NULL or QSqlSelectCursor::primeUpdate()
vfunc[25]:	NULL or QSqlSelectCursor::primeDelete()
vfunc[26]:	NULL or QSqlSelectCursor::insert(bool)
vfunc[27]:	NULL or QSqlSelectCursor::update(bool)
vfunc[28]:	NULL or QSqlSelectCursor::del(bool)
vfunc[29]:	NULL or QSqlSelectCursor::setMode(int)
vfunc[30]:	QSqlCursor::setCalculated(QString const&, bool)
vfunc[31]:	QSqlCursor::setTrimmed(QString const&, bool)
vfunc[32]:	QSqlSelectCursor::select(QString const&, QSqlIndex const&)
vfunc[33]:	NULL or QSqlSelectCursor::setSort(QSqlIndex const&)
vfunc[34]:	NULL or QSqlSelectCursor::setFilter(QString const&)

vfunc[35]:	NULL or QSqlSelectCursor::setName(QString const&, bool)
vfunc[36]:	QSqlCursor::afterSeek()
vfunc[37]:	QSqlSelectCursor::exec(QString const&)
vfunc[38]:	QSqlCursor::calculateField(QString const&)
vfunc[39]:	QSqlCursor::update(QString const&, bool)
vfunc[40]:	QSqlCursor::del(QString const&, bool)
vfunc[41]:	QSqlCursor::toString(QString const&, QSqlField*, QString const&) const
vfunc[42]:	QSqlCursor::toString(QSqlRecord*, QString const&, QString const&, QString const&) const
vfunc[43]:	QSqlCursor::toString(QSqlIndex const&, QSqlRecord*, QString const&, QString const&, QString const&) const

The Run Time Type Information for the QSqlSelectCursor class is described by [Table 18-278](#)

Table 18-278. typeinfo for QSqlSelectCursor

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlSelectCursor
basetype:	typeinfo for QSqlCursor

18.2.17.3. Class data for QSqlDriver

The virtual table for the QSqlDriver class is described by [Table 18-279](#)

Table 18-279. Primary vtable for QSqlDriver

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlDriver
vfunc[0]:	NULL or QSqlDriver::metaObject() const
vfunc[1]:	QSqlDriver::className() const
vfunc[2]:	QSqlDriver::qt_cast(char const*)
vfunc[3]:	QSqlDriver::qt_invoke(int, QUObject*)
vfunc[4]:	QSqlDriver::qt_emit(int, QUObject*)
vfunc[5]:	QSqlDriver::qt_property(int, int, QVariant*)
vfunc[6]:	QSqlDriver::~~QSqlDriver()
vfunc[7]:	QSqlDriver::~~QSqlDriver()

vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QSqlDriver::beginTransaction()
vfunc[22]:	QSqlDriver::commitTransaction()
vfunc[23]:	QSqlDriver::rollbackTransaction()
vfunc[24]:	QSqlDriver::tables(QString const&) const
vfunc[25]:	QSqlDriver::primaryIndex(QString const&) const
vfunc[26]:	QSqlDriver::record(QString const&) const
vfunc[27]:	QSqlDriver::record(QSqlQuery const&) const
vfunc[28]:	QSqlDriver::recordInfo(QString const&) const
vfunc[29]:	QSqlDriver::recordInfo(QSqlQuery const&) const
vfunc[30]:	QSqlDriver::nullText() const
vfunc[31]:	QSqlDriver::formatValue(QSqlField const*, bool) const
vfunc[32]:	__cxa_pure_virtual
vfunc[33]:	__cxa_pure_virtual
vfunc[34]:	__cxa_pure_virtual
vfunc[35]:	__cxa_pure_virtual
vfunc[36]:	QSqlDriver::setOpen(bool)
vfunc[37]:	QSqlDriver::setOpenError(bool)
vfunc[38]:	QSqlDriver::setLastError(QSqlError const&)

The Run Time Type Information for the QSqlDriver class is described by [Table 18-280](#)

Table 18-280. typeinfo for QSqlDriver

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlDriver
basetype:	typeinfo for QObject

18.2.17.4. Class data for QSqlPropertyMap

The virtual table for the QSqlPropertyMap class is described by [Table 18-281](#)

Table 18-281. Primary vtable for QSqlPropertyMap

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlPropertyMap
vfunc[0]:	QSqlPropertyMap::~~QSqlPropertyMap()
vfunc[1]:	QSqlPropertyMap::~~QSqlPropertyMap()
vfunc[2]:	QSqlPropertyMap::setProperty(QWidget*, QVariant const&)

The Run Time Type Information for the QSqlPropertyMap class is described by [Table 18-282](#)

Table 18-282. typeinfo for QSqlPropertyMap

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QSqlPropertyMap

18.2.17.5. Class data for QSqlQuery

The virtual table for the QSqlQuery class is described by [Table 18-283](#)

Table 18-283. Primary vtable for QSqlQuery

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlQuery
vfunc[0]:	QSqlQuery::~~QSqlQuery()
vfunc[1]:	QSqlQuery::~~QSqlQuery()
vfunc[2]:	QSqlQuery::exec(QString const&)
vfunc[3]:	QSqlQuery::value(int) const

vfunc[4]:	QSqlQuery::seek(int, bool)
vfunc[5]:	QSqlQuery::next()
vfunc[6]:	QSqlQuery::prev()
vfunc[7]:	QSqlQuery::first()
vfunc[8]:	QSqlQuery::last()
vfunc[9]:	QSqlQuery::beforeSeek()
vfunc[10]:	QSqlQuery::afterSeek()

The Run Time Type Information for the QSqlQuery class is described by [Table 18-284](#)

Table 18-284. typeinfo for QSqlQuery

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QSqlQuery

18.2.17.6. Class data for QSqlRecord

The virtual table for the QSqlRecord class is described by [Table 18-285](#)

Table 18-285. Primary vtable for QSqlRecord

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlRecord
vfunc[0]:	QSqlRecord::~~QSqlRecord()
vfunc[1]:	QSqlRecord::~~QSqlRecord()
vfunc[2]:	QSqlRecord::value(int) const
vfunc[3]:	QSqlRecord::value(QString const&) const
vfunc[4]:	QSqlRecord::setValue(int, QVariant const&)
vfunc[5]:	QSqlRecord::setValue(QString const&, QVariant const&)
vfunc[6]:	QSqlRecord::setGenerated(QString const&, bool)
vfunc[7]:	QSqlRecord::setGenerated(int, bool)
vfunc[8]:	QSqlRecord::setNull(int)
vfunc[9]:	QSqlRecord::setNull(QString const&)
vfunc[10]:	QSqlRecord::append(QSqlField const&)
vfunc[11]:	QSqlRecord::insert(int, QSqlField const&)

vfunc[12]:	QSqlRecord::remove(int)
vfunc[13]:	QSqlRecord::clear()
vfunc[14]:	QSqlRecord::clearValues(bool)
vfunc[15]:	QSqlRecord::toString(QString const&, QString const&) const
vfunc[16]:	QSqlRecord::toStringList(QString const&) const

The Run Time Type Information for the QSqlRecord class is described by [Table 18-286](#)

Table 18-286. typeinfo for QSqlRecord

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QSqlRecord

18.2.17.7. Class data for QSqlDatabase

The virtual table for the QSqlDatabase class is described by [Table 18-287](#)

Table 18-287. Primary vtable for QSqlDatabase

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlDatabase
vfunc[0]:	NULL or QSqlDatabase::metaObject() const
vfunc[1]:	QSqlDatabase::className() const
vfunc[2]:	QSqlDatabase::qt_cast(char const*)
vfunc[3]:	QSqlDatabase::qt_invoke(int, QUObject*)
vfunc[4]:	QSqlDatabase::qt_emit(int, QUObject*)
vfunc[5]:	QSqlDatabase::qt_property(int, int, QVariant*)
vfunc[6]:	QSqlDatabase::~~QSqlDatabase()
vfunc[7]:	QSqlDatabase::~~QSqlDatabase()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)

vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QSqlDatabase::setDatabaseName(QString const&)
vfunc[22]:	QSqlDatabase::setUserName(QString const&)
vfunc[23]:	QSqlDatabase::setPassword(QString const&)
vfunc[24]:	QSqlDatabase::setHostName(QString const&)
vfunc[25]:	QSqlDatabase::setPort(int)

The Run Time Type Information for the QSqlDatabase class is described by [Table 18-288](#)

Table 18-288. typeinfo for QSqlDatabase

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlDatabase
basetype:	typeinfo for QObject

18.2.17.8. Class data for QEditorFactory

The virtual table for the QEditorFactory class is described by [Table 18-289](#)

Table 18-289. Primary vtable for QEditorFactory

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QEditorFactory
vfunc[0]:	NULL or QObject::metaObject() const
vfunc[1]:	QObject::className() const
vfunc[2]:	QObject::qt_cast(char const*)
vfunc[3]:	QObject::qt_invoke(int, QUObject*)
vfunc[4]:	QObject::qt_emit(int, QUObject*)
vfunc[5]:	QObject::qt_property(int, int, QVariant*)

vfunc[6]:	QEditorFactory::~~QEditorFactory()
vfunc[7]:	QEditorFactory::~~QEditorFactory()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QEditorFactory::createEditor(QWidget*, QVariant const&)

The Run Time Type Information for the QEditorFactory class is described by [Table 18-290](#)

Table 18-290. typeinfo for QEditorFactory

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QEditorFactory
basetype:	typeinfo for QObject

18.2.17.9. Class data for QSqlDriverPlugin

The virtual table for the QSqlDriverPlugin class is described by [Table 18-291](#)

Table 18-291. Primary vtable for QSqlDriverPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlDriverPlugin
vfunc[0]:	NULL or QSqlDriverPlugin::metaObject() const
vfunc[1]:	QSqlDriverPlugin::className() const

vfunc[2]:	QSqlDriverPlugin::qt_cast(char const*)
vfunc[3]:	QSqlDriverPlugin::qt_invoke(int, QUObject*)
vfunc[4]:	QSqlDriverPlugin::qt_emit(int, QUObject*)
vfunc[5]:	QSqlDriverPlugin::qt_property(int, int, QVariant*)
vfunc[6]:	QSqlDriverPlugin::~QSqlDriverPlugin()
vfunc[7]:	QSqlDriverPlugin::~QSqlDriverPlugin()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	__cxa_pure_virtual
vfunc[22]:	__cxa_pure_virtual

The Run Time Type Information for the QSqlDriverPlugin class is described by [Table 18-292](#)

Table 18-292. typeinfo for QSqlDriverPlugin

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlDriverPlugin
basetype:	typeinfo for QGPlugin

18.2.17.10. Class data for QSqlResultShared

The virtual table for the QSqlResultShared class is described by [Table 18-293](#)

Table 18-293. Primary vtable for QSqlResultShared

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlResultShared
vfunc[0]:	NULL or QSqlResultShared::metaObject() const
vfunc[1]:	QSqlResultShared::className() const
vfunc[2]:	QSqlResultShared::qt_cast(char const*)
vfunc[3]:	QSqlResultShared::qt_invoke(int, QUObject*)
vfunc[4]:	QSqlResultShared::qt_emit(int, QUObject*)
vfunc[5]:	QSqlResultShared::qt_property(int, int, QVariant*)
vfunc[6]:	QSqlResultShared::~~QSqlResultShared()
vfunc[7]:	QSqlResultShared::~~QSqlResultShared()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QSqlResultShared class is described by [Table 18-294](#)

Table 18-294. typeinfo for QSqlResultShared

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QSqlResultShared	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QShared	10242

18.2.17.11. Class data for QSqlError

The virtual table for the QSqlError class is described by [Table 18-295](#)

Table 18-295. Primary vtable for QSqlError

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlError
vfunc[0]:	QSqlError::~~QSqlError()
vfunc[1]:	QSqlError::~~QSqlError()
vfunc[2]:	QSqlError::setDriverText(QString const&)
vfunc[3]:	QSqlError::setDatabaseText(QString const&)
vfunc[4]:	QSqlError::setType(int)
vfunc[5]:	QSqlError::setNumber(int)

The Run Time Type Information for the QSqlError class is described by [Table 18-296](#)

Table 18-296. typeinfo for QSqlError

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QSqlError

18.2.17.12. Class data for QSqlForm

The virtual table for the QSqlForm class is described by [Table 18-297](#)

Table 18-297. Primary vtable for QSqlForm

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlForm
vfunc[0]:	NULL or QSqlForm::metaObject() const
vfunc[1]:	QSqlForm::className() const
vfunc[2]:	QSqlForm::qt_cast(char const*)
vfunc[3]:	QSqlForm::qt_invoke(int, QUObject*)
vfunc[4]:	QSqlForm::qt_emit(int, QUObject*)
vfunc[5]:	QSqlForm::qt_property(int, int, QVariant*)

vfunc[6]:	QSqlForm::~~QSqlForm()
vfunc[7]:	QSqlForm::~~QSqlForm()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QSqlForm::insert(QWidget*, QString const&)
vfunc[22]:	QSqlForm::remove(QString const&)
vfunc[23]:	QSqlForm::setRecord(QSqlRecord*)
vfunc[24]:	QSqlForm::readField(QWidget*)
vfunc[25]:	QSqlForm::writeField(QWidget*)
vfunc[26]:	QSqlForm::readFields()
vfunc[27]:	QSqlForm::writeFields()
vfunc[28]:	QSqlForm::clear()
vfunc[29]:	QSqlForm::clearValues(bool)
vfunc[30]:	QSqlForm::insert(QWidget*, QSqlField*)
vfunc[31]:	QSqlForm::remove(QWidget*)
vfunc[32]:	QSqlForm::sync()

The Run Time Type Information for the QSqlForm class is described by [Table 18-298](#)

Table 18-298. typeid for QSqlForm

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QSqlForm

basetype:	typeinfo for QObject

18.2.17.13. Class data for QSqlEditorFactory

The virtual table for the QSqlEditorFactory class is described by [Table 18-299](#)

Table 18-299. Primary vtable for QSqlEditorFactory

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlEditorFactory
vfunc[0]:	NULL or QObject::metaObject() const
vfunc[1]:	QObject::className() const
vfunc[2]:	QObject::qt_cast(char const*)
vfunc[3]:	QObject::qt_invoke(int, QUObject*)
vfunc[4]:	QObject::qt_emit(int, QUObject*)
vfunc[5]:	QObject::qt_property(int, int, QVariant*)
vfunc[6]:	QSqlEditorFactory::~~QSqlEditorFactory()
vfunc[7]:	QSqlEditorFactory::~~QSqlEditorFactory()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QSqlEditorFactory::createEditor(QWidget*, QVariant const&)
vfunc[22]:	QSqlEditorFactory::createEditor(QWidget*, QSqlField const*)

The Run Time Type Information for the QSqlEditorFactory class is described by [Table 18-300](#)

Table 18-300. typeinfo for QSqlEditorFactory

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlEditorFactory
basetype:	typeinfo for QEditorFactory

18.2.17.14. Class data for QSqlCursor

The virtual table for the QSqlCursor class is described by [Table 18-301](#)

Table 18-301. Primary vtable for QSqlCursor

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlCursor
vfunc[0]:	QSqlCursor::~~QSqlCursor()
vfunc[1]:	QSqlCursor::~~QSqlCursor()
vfunc[2]:	QSqlCursor::value(int) const
vfunc[3]:	QSqlCursor::value(QString const&) const
vfunc[4]:	QSqlCursor::setValue(int, QVariant const&)
vfunc[5]:	QSqlCursor::setValue(QString const&, QVariant const&)
vfunc[6]:	QSqlCursor::setGenerated(QString const&, bool)
vfunc[7]:	QSqlCursor::setGenerated(int, bool)
vfunc[8]:	QSqlRecord::setNull(int)
vfunc[9]:	QSqlRecord::setNull(QString const&)
vfunc[10]:	QSqlCursor::append(QSqlField const&)
vfunc[11]:	QSqlCursor::insert(int, QSqlField const&)
vfunc[12]:	QSqlCursor::remove(int)
vfunc[13]:	QSqlCursor::clear()
vfunc[14]:	QSqlRecord::clearValues(bool)
vfunc[15]:	QSqlCursor::toString(QString const&, QString const&) const
vfunc[16]:	QSqlRecord::toStringList(QString const&) const
vfunc[17]:	QSqlCursor::primaryIndex(bool) const
vfunc[18]:	QSqlCursor::index(QStringList const&) const

vfunc[19]:	QSqlCursor::setPrimaryIndex(QSqlIndex const&)
vfunc[20]:	QSqlCursor::append(QSqlFieldInfo const&)
vfunc[21]:	QSqlCursor::insert(int, QSqlFieldInfo const&)
vfunc[22]:	QSqlCursor::editBuffer(bool)
vfunc[23]:	QSqlCursor::primeInsert()
vfunc[24]:	QSqlCursor::primeUpdate()
vfunc[25]:	QSqlCursor::primeDelete()
vfunc[26]:	QSqlCursor::insert(bool)
vfunc[27]:	QSqlCursor::update(bool)
vfunc[28]:	QSqlCursor::del(bool)
vfunc[29]:	QSqlCursor::setMode(int)
vfunc[30]:	QSqlCursor::setCalculated(QString const&, bool)
vfunc[31]:	QSqlCursor::setTrimmed(QString const&, bool)
vfunc[32]:	QSqlCursor::select(QString const&, QSqlIndex const&)
vfunc[33]:	QSqlCursor::setSort(QSqlIndex const&)
vfunc[34]:	QSqlCursor::setFilter(QString const&)
vfunc[35]:	QSqlCursor::setName(QString const&, bool)
vfunc[36]:	QSqlCursor::afterSeek()
vfunc[37]:	QSqlCursor::exec(QString const&)
vfunc[38]:	QSqlCursor::calculateField(QString const&)
vfunc[39]:	QSqlCursor::update(QString const&, bool)
vfunc[40]:	QSqlCursor::del(QString const&, bool)
vfunc[41]:	QSqlCursor::toString(QString const&, QSqlField*, QString const&) const
vfunc[42]:	QSqlCursor::toString(QSqlRecord*, QString const&, QString const&, QString const&) const
vfunc[43]:	QSqlCursor::toString(QSqlIndex const&, QSqlRecord*, QString const&, QString const&, QString const&) const

The Run Time Type Information for the QSqlCursor class is described by [Table 18-302](#)

Table 18-302. typeinfo for QSqlCursor

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info
Name	typeinfo name for QSqlCursor
flags:	0

basetype:	typeinfo for QSqlRecord	2
basetype:	typeinfo for QSqlQuery	2050

18.2.17.15. Class data for QSqlFieldInfo

The virtual table for the QSqlFieldInfo class is described by [Table 18-303](#)

Table 18-303. Primary vtable for QSqlFieldInfo

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlFieldInfo
vfunc[0]:	QSqlFieldInfo::~~QSqlFieldInfo()
vfunc[1]:	QSqlFieldInfo::~~QSqlFieldInfo()
vfunc[2]:	QSqlFieldInfo::setTrim(bool)
vfunc[3]:	QSqlFieldInfo::setGenerated(bool)
vfunc[4]:	QSqlFieldInfo::setCalculated(bool)

The Run Time Type Information for the QSqlFieldInfo class is described by [Table 18-304](#)

Table 18-304. typeinfo for QSqlFieldInfo

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QSqlFieldInfo

18.2.17.16. Class data for QSqlIndex

The virtual table for the QSqlIndex class is described by [Table 18-305](#)

Table 18-305. Primary vtable for QSqlIndex

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlIndex
vfunc[0]:	QSqlIndex::~~QSqlIndex()
vfunc[1]:	QSqlIndex::~~QSqlIndex()
vfunc[2]:	QSqlRecord::value(int) const
vfunc[3]:	QSqlRecord::value(QString const&) const

vfunc[4]:	QSqlRecord::setValue(int, QVariant const&)
vfunc[5]:	QSqlRecord::setValue(QString const&, QVariant const&)
vfunc[6]:	QSqlRecord::setGenerated(QString const&, bool)
vfunc[7]:	QSqlRecord::setGenerated(int, bool)
vfunc[8]:	QSqlRecord::setNull(int)
vfunc[9]:	QSqlRecord::setNull(QString const&)
vfunc[10]:	QSqlIndex::append(QSqlField const&)
vfunc[11]:	QSqlRecord::insert(int, QSqlField const&)
vfunc[12]:	QSqlRecord::remove(int)
vfunc[13]:	QSqlRecord::clear()
vfunc[14]:	QSqlRecord::clearValues(bool)
vfunc[15]:	QSqlRecord::toString(QString const&, QString const&) const
vfunc[16]:	QSqlRecord::toStringList(QString const&) const
vfunc[17]:	QSqlIndex::setCursorName(QString const&)
vfunc[18]:	QSqlIndex::setName(QString const&)
vfunc[19]:	QSqlIndex::append(QSqlField const&, bool)
vfunc[20]:	QSqlIndex::setDescending(int, bool)

The Run Time Type Information for the QSqlIndex class is described by [Table 18-306](#)

Table 18-306. typeinfo for QSqlIndex

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSqlIndex
basetype:	typeinfo for QSqlRecord

18.2.17.17. Class data for QSqlField

The virtual table for the QSqlField class is described by [Table 18-307](#)

Table 18-307. Primary vtable for QSqlField

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSqlField
vfunc[0]:	QSqlField::~~QSqlField()

vfunc[1]:	QSqlField::~~QSqlField()
vfunc[2]:	QSqlField::setValue(QVariant const&)
vfunc[3]:	NULL or QSqlField::value() const
vfunc[4]:	QSqlField::setName(QString const&)
vfunc[5]:	QSqlField::setNull()
vfunc[6]:	QSqlField::setReadOnly(bool)

The Run Time Type Information for the QSqlField class is described by [Table 18-308](#)

Table 18-308. typeid for QSqlField

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QSqlField

18.2.17.18. Interfaces for Qt3 SQL

An LSB conforming implementation shall provide the generic functions for Qt3 SQL specified in [Table 18-309](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-309. libqt-mt - Qt3 SQL Function Interfaces

_ZN10QSqlCursor10editBufferEb [qt-mt]	_ZN10QSqlCursor10setTrimme
_ZN10QSqlCursor11primeDeleteEv [qt-mt]	_ZN10QSqlCursor11primeInser
_ZN10QSqlCursor11primeUpdateEv [qt-mt]	_ZN10QSqlCursor12setGenerat
_ZN10QSqlCursor12setGeneratedEib [qt-mt]	_ZN10QSqlCursor13applyPrep
_ZN10QSqlCursor13setCalculatedERK7QStringb [qt-mt]	_ZN10QSqlCursor14calculateF
_ZN10QSqlCursor15setPrimaryIndexERK9QSqlIndex [qt-mt]	_ZN10QSqlCursor3delERK7Q
_ZN10QSqlCursor3delEb [qt-mt]	_ZN10QSqlCursor4execERK7Q
_ZN10QSqlCursor4syncEv [qt-mt]	_ZN10QSqlCursor5applyERK7
_ZN10QSqlCursor5clearEv [qt-mt]	_ZN10QSqlCursor6appendERK
_ZN10QSqlCursor6appendERK9QSqlField [qt-mt]	_ZN10QSqlCursor6insertEb [qt
_ZN10QSqlCursor6insertEiRK13QSqlFieldInfo [qt-mt]	_ZN10QSqlCursor6insertEiRK
_ZN10QSqlCursor6removeEi [qt-mt]	_ZN10QSqlCursor6selectERK7
_ZN10QSqlCursor6selectERK9QSqlIndex [qt-mt]	_ZN10QSqlCursor6selectERK9
_ZN10QSqlCursor6selectEv [qt-mt]	_ZN10QSqlCursor6updateERK
_ZN10QSqlCursor6updateEb [qt-mt]	_ZN10QSqlCursor7setModeEi
_ZN10QSqlCursor7setNameERK7QStringb [qt-mt]	_ZN10QSqlCursor7setSortERK

_ZN10QSqlCursor8setValueERK7QStringRK8QVariant [qt-mt]	_ZN10QSqlCursor8setValueEi
_ZN10QSqlCursor9afterSeekEv [qt-mt]	_ZN10QSqlCursor9setFilterER
_ZN10QSqlCursorC1ERK7QStringbP12QSqlDatabase [qt-mt]	_ZN10QSqlCursorC1ERKS_ [q
_ZN10QSqlCursorC2ERK7QStringbP12QSqlDatabase [qt-mt]	_ZN10QSqlCursorC2ERKS_ [q
_ZN10QSqlCursorD0Ev [qt-mt]	_ZN10QSqlCursorD1Ev [qt-mt]
_ZN10QSqlCursorD2Ev [qt-mt]	_ZN10QSqlCursoraSERK10Q
ZN10QSqlCursoraSERKS [qt-mt]	_ZN10QSqlDriver11qt_propert
_ZN10QSqlDriver12setLastErrorERK9QSqlError [qt-mt]	_ZN10QSqlDriver12setOpenEr
_ZN10QSqlDriver16beginTransactionEv [qt-mt]	_ZN10QSqlDriver16staticMeta
_ZN10QSqlDriver17commitTransactionEv [qt-mt]	_ZN10QSqlDriver18qt_static_p
_ZN10QSqlDriver19rollbackTransactionEv [qt-mt]	_ZN10QSqlDriver2trEPKcS1_
_ZN10QSqlDriver4openERK7QStringS2_S2_S2_iS2_ [qt-mt]	_ZN10QSqlDriver6trUtf8EPKc
_ZN10QSqlDriver7qt_castEPKc [qt-mt]	_ZN10QSqlDriver7qt_emitEiP8
_ZN10QSqlDriver7setOpenEb [qt-mt]	_ZN10QSqlDriver9qt_invokeE
_ZN10QSqlDriverC1EP7QObjectPKc [qt-mt]	_ZN10QSqlDriverC2EP7QObj
_ZN10QSqlDriverD0Ev [qt-mt]	_ZN10QSqlDriverD1Ev [qt-mt]
_ZN10QSqlDriverD2Ev [qt-mt]	_ZN10QSqlRecord11checkData
_ZN10QSqlRecord11clearValuesEb [qt-mt]	_ZN10QSqlRecord12setGenera
_ZN10QSqlRecord12setGeneratedEib [qt-mt]	_ZN10QSqlRecord5clearEv [qt
_ZN10QSqlRecord5derefEv [qt-mt]	_ZN10QSqlRecord5fieldERK7
_ZN10QSqlRecord5fieldEi [qt-mt]	_ZN10QSqlRecord6appendERK
_ZN10QSqlRecord6insertEiRK9QSqlField [qt-mt]	_ZN10QSqlRecord6isNullERK
_ZN10QSqlRecord6isNullEi [qt-mt]	_ZN10QSqlRecord6removeEi [
_ZN10QSqlRecord7setNullERK7QString [qt-mt]	_ZN10QSqlRecord7setNullEi [
_ZN10QSqlRecord8setValueERK7QStringRK8QVariant [qt-mt]	_ZN10QSqlRecord8setValueEi
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_ZN10QSqlRecordD0Ev [qt-mt]	_ZN10QSqlRecordD1Ev [qt-mt]
_ZN10QSqlRecordD2Ev [qt-mt]	_ZN10QSqlRecordaSERKS_ [q
_ZN10QSqlResult12setExtensionEP13QSqlExtension [qt-mt]	_ZN10QSqlResult12setLastErr
_ZN10QSqlResult14setForwardOnlyEb [qt-mt]	_ZN10QSqlResult5setAtEi [qt-
_ZN10QSqlResult8setQueryERK7QString [qt-mt]	_ZN10QSqlResult9extensionEv
_ZN10QSqlResult9fetchNextEv [qt-mt]	_ZN10QSqlResult9fetchPrevE

_ZN10QSqlResult9setActiveEb [qt-mt]	_ZN10QSqlResult9setSelectEb
_ZN10QSqlResultC1EPK10QSqlDriver [qt-mt]	_ZN10QSqlResultC2EPK10QSqlDriver [qt-mt]
_ZN10QSqlResultD0Ev [qt-mt]	_ZN10QSqlResultD1Ev [qt-mt]
_ZN10QSqlResultD2Ev [qt-mt]	_ZN12QSqlDatabase11addDatabase [qt-mt]
ZN12QSqlDatabase11addDatabaseERK7QStringS2 [qt-mt]	_ZN12QSqlDatabase11qt_propagate [qt-mt]
_ZN12QSqlDatabase11setHostNameERK7QString [qt-mt]	_ZN12QSqlDatabase11setPassword [qt-mt]
_ZN12QSqlDatabase11setUserNameERK7QString [qt-mt]	_ZN12QSqlDatabase11transaction [qt-mt]
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_ZN12QSqlDatabase15setDatabaseNameERK7QString [qt-mt]	_ZN12QSqlDatabase16staticMetaObject [qt-mt]
_ZN12QSqlDatabase17isDriverAvailableERK7QString [qt-mt]	_ZN12QSqlDatabase17registerMetaObject [qt-mt]
_ZN12QSqlDatabase17setConnectOptionsERK7QString [qt-mt]	_ZN12QSqlDatabase18qt_staticMeta [qt-mt]
ZN12QSqlDatabase2trEPKcS1 [qt-mt]	_ZN12QSqlDatabase4initERK7QString [qt-mt]
ZN12QSqlDatabase4openERK7QStringS2 [qt-mt]	_ZN12QSqlDatabase4openEv [qt-mt]
_ZN12QSqlDatabase5closeEv [qt-mt]	_ZN12QSqlDatabase6commitEv [qt-mt]
ZN12QSqlDatabase6trUtf8EPKcS1 [qt-mt]	_ZN12QSqlDatabase7driversEv [qt-mt]
_ZN12QSqlDatabase7qt_castEPKc [qt-mt]	_ZN12QSqlDatabase7qt_emitEv [qt-mt]
_ZN12QSqlDatabase7setPortEi [qt-mt]	_ZN12QSqlDatabase8containsEv [qt-mt]
_ZN12QSqlDatabase8databaseERK7QStringb [qt-mt]	_ZN12QSqlDatabase8rollbackEv [qt-mt]
_ZN12QSqlDatabase9qt_invokeEiP8QUObject [qt-mt]	_ZN12QSqlDatabaseC1EP10QSqlDriver [qt-mt]
_ZN12QSqlDatabaseC1ERK7QStringS2_P7QObjectPKc [qt-mt]	_ZN12QSqlDatabaseC2EP10QSqlDriver [qt-mt]
_ZN12QSqlDatabaseC2ERK7QStringS2_P7QObjectPKc [qt-mt]	_ZN12QSqlDatabaseD0Ev [qt-mt]
_ZN12QSqlDatabaseD1Ev [qt-mt]	_ZN12QSqlDatabaseD2Ev [qt-mt]
_ZN13QSqlFieldInfo12setGeneratedEb [qt-mt]	_ZN13QSqlFieldInfo13setCalculation [qt-mt]
_ZN13QSqlFieldInfo7setTrimEb [qt-mt]	_ZN13QSqlFieldInfoC1ERK7QString [qt-mt]
_ZN13QSqlFieldInfoC1ERK9QSqlFieldb [qt-mt]	_ZN13QSqlFieldInfoC1ERKS_ [qt-mt]
_ZN13QSqlFieldInfoC2ERK7QStringN8QVariant4TypeEiiiRKS3_ibbb [qt-mt]	_ZN13QSqlFieldInfoC2ERK9QSqlFieldb [qt-mt]
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_ZN13QSqlFieldInfoD1Ev [qt-mt]	_ZN13QSqlFieldInfoD2Ev [qt-mt]
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_ZN14QEditorFactory14defaultFactoryEv [qt-mt]	_ZN14QEditorFactory21installFactory [qt-mt]
_ZN14QEditorFactoryC1EP7QObjectPKc [qt-mt]	_ZN14QEditorFactoryC2EP7QObjectPKc [qt-mt]
_ZN14QEditorFactoryD0Ev [qt-mt]	_ZN14QEditorFactoryD1Ev [qt-mt]

_ZN14QEditorFactoryD2Ev [qt-mt]	_ZN14QSqlRecordInfoC1ERK
_ZN14QSqlRecordInfoC2ERK10QSqlRecord [qt-mt]	_ZN15QSqlPropertyMap10defa
_ZN15QSqlPropertyMap11setPropertyEP7QWidgetRK8QVariant [qt-mt]	_ZN15QSqlPropertyMap17insta
ZN15QSqlPropertyMap6insertERK7QStringS2 [qt-mt]	_ZN15QSqlPropertyMap6remo
_ZN15QSqlPropertyMap8propertyEP7QWidget [qt-mt]	_ZN15QSqlPropertyMapC1Ev
_ZN15QSqlPropertyMapC2Ev [qt-mt]	_ZN15QSqlPropertyMapD0Ev
_ZN15QSqlPropertyMapD1Ev [qt-mt]	_ZN15QSqlPropertyMapD2Ev
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_ZN16QSqlDriverPlugin18qt_static_propertyEP7QObjectiiiP8QVariant [qt-mt]	_ZN16QSqlDriverPlugin2trEPK
ZN16QSqlDriverPlugin6trUtf8EPKcS1 [qt-mt]	_ZN16QSqlDriverPlugin7qt_ca
_ZN16QSqlDriverPlugin7qt_emitEiP8QUObject [qt-mt]	_ZN16QSqlDriverPlugin9qt_in
_ZN16QSqlDriverPluginC1Ev [qt-mt]	_ZN16QSqlDriverPluginC2Ev
_ZN16QSqlDriverPluginD0Ev [qt-mt]	_ZN16QSqlDriverPluginD1Ev
_ZN16QSqlDriverPluginD2Ev [qt-mt]	_ZN16QSqlResultShared11qt_p
_ZN16QSqlResultShared16staticMetaObjectEv [qt-mt]	_ZN16QSqlResultShared18qt_s
_ZN16QSqlResultShared19slotResultDestroyedEv [qt-mt]	_ZN16QSqlResultShared2trEPK
ZN16QSqlResultShared6trUtf8EPKcS1 [qt-mt]	_ZN16QSqlResultShared7qt_ca
_ZN16QSqlResultShared7qt_emitEiP8QUObject [qt-mt]	_ZN16QSqlResultShared9qt_in
_ZN16QSqlResultSharedC1EP10QSqlResult [qt-mt]	_ZN16QSqlResultSharedC2EP
_ZN16QSqlResultSharedD0Ev [qt-mt]	_ZN16QSqlResultSharedD1Ev
_ZN16QSqlResultSharedD2Ev [qt-mt]	_ZN16QSqlSelectCursor14pop
_ZN16QSqlSelectCursor4execERK7QString [qt-mt]	_ZN16QSqlSelectCursor6select
_ZN16QSqlSelectCursorC1ERK7QStringP12QSqlDatabase [qt-mt]	_ZN16QSqlSelectCursorC1ERK
_ZN16QSqlSelectCursorC2ERK7QStringP12QSqlDatabase [qt-mt]	_ZN16QSqlSelectCursorC2ERK
_ZN16QSqlSelectCursorD0Ev [qt-mt]	_ZN16QSqlSelectCursorD1Ev
_ZN16QSqlSelectCursorD2Ev [qt-mt]	_ZN17QSqlEditorFactory12cre
_ZN17QSqlEditorFactory12createEditorEP7QWidgetRK8QVariant [qt-mt]	_ZN17QSqlEditorFactory14def
ZN17QSqlEditorFactory21installDefaultFactoryEPS [qt-mt]	_ZN17QSqlEditorFactoryC1EP
_ZN17QSqlEditorFactoryC2EP7QObjectPKc [qt-mt]	_ZN17QSqlEditorFactoryD0Ev
_ZN17QSqlEditorFactoryD1Ev [qt-mt]	_ZN17QSqlEditorFactoryD2Ev
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_ZN17QtSqlCachedResult4initEi [qt-mt]	_ZN17QtSqlCachedResult5fetc
_ZN17QtSqlCachedResult6isNullEi [qt-mt]	_ZN17QtSqlCachedResult7clea

_ZN17QtSqlCachedResult9cacheNextEv [qt-mt]	_ZN17QtSqlCachedResult9fetchNextEv [qt-mt]
_ZN17QtSqlCachedResultC1EPK10QSqlDriver [qt-mt]	_ZN17QtSqlCachedResultC2EPK10QSqlDriver [qt-mt]
_ZN17QtSqlCachedResultD0Ev [qt-mt]	_ZN17QtSqlCachedResultD1Ev [qt-mt]
_ZN17QtSqlCachedResultD2Ev [qt-mt]	_ZN8QSqlForm10readFieldsEv [qt-mt]
_ZN8QSqlForm10writeFieldEP7QWidget [qt-mt]	_ZN8QSqlForm11clearValuesEv [qt-mt]
_ZN8QSqlForm11qt_propertyEiiP8QVariant [qt-mt]	_ZN8QSqlForm11writeFieldsEv [qt-mt]
_ZN8QSqlForm16staticMetaObjectEv [qt-mt]	_ZN8QSqlForm18installPropertiesEv [qt-mt]
_ZN8QSqlForm18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN8QSqlForm2trEPKcS1_ [qt-mt]
_ZN8QSqlForm4syncEv [qt-mt]	_ZN8QSqlForm5clearEv [qt-mt]
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_ZN8QSqlForm6removeEP7QWidget [qt-mt]	_ZN8QSqlForm6removeERK7QString [qt-mt]
ZN8QSqlForm6trUtf8EPKcS1 [qt-mt]	_ZN8QSqlForm7qt_castEPKcS1_ [qt-mt]
_ZN8QSqlForm7qt_emitEiP8QUObject [qt-mt]	_ZN8QSqlForm8clearMapEv [qt-mt]
_ZN8QSqlForm9qt_invokeEiP8QUObject [qt-mt]	_ZN8QSqlForm9readFieldEP7QWidget [qt-mt]
_ZN8QSqlForm9setRecordEP10QSqlRecord [qt-mt]	_ZN8QSqlFormC1EP7QObject [qt-mt]
_ZN8QSqlFormC2EP7QObjectPKc [qt-mt]	_ZN8QSqlFormD0Ev [qt-mt]
_ZN8QSqlFormD1Ev [qt-mt]	_ZN8QSqlFormD2Ev [qt-mt]
_ZN9QSqlError13setDriverTextERK7QString [qt-mt]	_ZN9QSqlError15setDatabaseTextERK7QString [qt-mt]
_ZN9QSqlError7setTypeEi [qt-mt]	_ZN9QSqlError9setNumberEi [qt-mt]
_ZN9QSqlErrorC1ERK7QStringS2_ii [qt-mt]	_ZN9QSqlErrorC1ERKS_ [qt-mt]
_ZN9QSqlErrorC2ERK7QStringS2_ii [qt-mt]	_ZN9QSqlErrorC2ERKS_ [qt-mt]
_ZN9QSqlErrorD0Ev [qt-mt]	_ZN9QSqlErrorD1Ev [qt-mt]
_ZN9QSqlErrorD2Ev [qt-mt]	_ZN9QSqlErroraSERKS_ [qt-mt]
_ZN9QSqlField11setReadOnlyEb [qt-mt]	_ZN9QSqlField5clearEb [qt-mt]
_ZN9QSqlField7setNameERK7QString [qt-mt]	_ZN9QSqlField7setNullEv [qt-mt]
_ZN9QSqlField8setValueERK8QVariant [qt-mt]	_ZN9QSqlFieldC1ERK7QString [qt-mt]
ZN9QSqlFieldC1ERKS [qt-mt]	_ZN9QSqlFieldC2ERK7QString [qt-mt]
ZN9QSqlFieldC2ERKS [qt-mt]	_ZN9QSqlFieldD0Ev [qt-mt]
_ZN9QSqlFieldD1Ev [qt-mt]	_ZN9QSqlFieldD2Ev [qt-mt]
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_ZN9QSqlIndex13setDescendingEib [qt-mt]	_ZN9QSqlIndex14fromStringListERK9QSqlField [qt-mt]
_ZN9QSqlIndex6appendERK9QSqlField [qt-mt]	_ZN9QSqlIndex6appendERK9QSqlField [qt-mt]

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_ZN9QSqlIndexD1Ev [qt-mt]	_ZN9QSqlIndexD2Ev [qt-mt]
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_ZN9QSqlQuery11checkDetachEv [qt-mt]	_ZN9QSqlQuery12addBindValueERK8QVariantN4QSql13ParameterTypeE [qt-mt]
_ZN9QSqlQuery12addBindValueERK8QVariantN4QSql13ParameterTypeE [qt-mt]	_ZN9QSqlQuery14setForwardC [qt-mt]
_ZN9QSqlQuery4execERK7QString [qt-mt]	_ZN9QSqlQuery4execEv [qt-mt]
_ZN9QSqlQuery4initERK7QStringP12QSqlDatabase [qt-mt]	_ZN9QSqlQuery4lastEv [qt-mt]
_ZN9QSqlQuery4nextEv [qt-mt]	_ZN9QSqlQuery4prevEv [qt-mt]
_ZN9QSqlQuery4seekEib [qt-mt]	_ZN9QSqlQuery5derefEv [qt-mt]
_ZN9QSqlQuery5firstEv [qt-mt]	_ZN9QSqlQuery7prepareERK7QString [qt-mt]
_ZN9QSqlQuery9afterSeekEv [qt-mt]	_ZN9QSqlQuery9bindValueERK7QStringRK8QVariantN4QSql13ParameterTypeE [qt-mt]
_ZN9QSqlQuery9bindValueERK7QStringRK8QVariantN4QSql13ParameterTypeE [qt-mt]	_ZN9QSqlQuery9bindValueEiRK8QVariantN4QSql13ParameterTypeE [qt-mt]
_ZN9QSqlQuery9bindValueEiRK8QVariantN4QSql13ParameterTypeE [qt-mt]	_ZN9QSqlQueryC1EP10QSqlRecord [qt-mt]
_ZN9QSqlQueryC1EP12QSqlDatabase [qt-mt]	_ZN9QSqlQueryC1ERK7QString [qt-mt]
ZN9QSqlQueryC1ERKS [qt-mt]	_ZN9QSqlQueryC2EP10QSqlRecord [qt-mt]
_ZN9QSqlQueryC2EP12QSqlDatabase [qt-mt]	_ZN9QSqlQueryC2ERK7QString [qt-mt]
ZN9QSqlQueryC2ERKS [qt-mt]	_ZN9QSqlQueryD0Ev [qt-mt]
_ZN9QSqlQueryD1Ev [qt-mt]	_ZN9QSqlQueryD2Ev [qt-mt]
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_ZNK10QSqlCursor12isCalculatedERK7QString [qt-mt]	_ZNK10QSqlCursor12primaryIndex [qt-mt]
_ZNK10QSqlCursor4modeEv [qt-mt]	_ZNK10QSqlCursor4nameEv [qt-mt]
_ZNK10QSqlCursor4sortEv [qt-mt]	_ZNK10QSqlCursor5indexEPK [qt-mt]
_ZNK10QSqlCursor5indexERK11QStringList [qt-mt]	_ZNK10QSqlCursor5indexERK7QString [qt-mt]
_ZNK10QSqlCursor5valueERK7QString [qt-mt]	_ZNK10QSqlCursor5valueEiRK8QVariant [qt-mt]
_ZNK10QSqlCursor6filterEv [qt-mt]	_ZNK10QSqlCursor6isNullERK7QString [qt-mt]
_ZNK10QSqlCursor6isNullEiRK8QVariant [qt-mt]	_ZNK10QSqlCursor8toStringERK7QString [qt-mt]
ZNK10QSqlCursor8toStringERK7QStringP9QSqlFieldS2 [qt-mt]	_ZNK10QSqlCursor8toStringERK9QSqlIndexP10QSqlRecordRK7QStringS7_S7_ [qt-mt]
_ZNK10QSqlCursor8toStringERK9QSqlIndexP10QSqlRecordRK7QStringS7_S7_ [qt-mt]	_ZNK10QSqlCursor9canDelete [qt-mt]
_ZNK10QSqlCursor9canInsertEv [qt-mt]	_ZNK10QSqlCursor9canUpdate [qt-mt]

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_ZNK10QSqlDriver10recordInfoERK9QSqlQuery [qt-mt]	_ZNK10QSqlDriver11formatValueERK7QString [qt-mt]
_ZNK10QSqlDriver11isOpenErrorEv [qt-mt]	_ZNK10QSqlDriver12primaryIndexERK7QString [qt-mt]
_ZNK10QSqlDriver6isOpenEv [qt-mt]	_ZNK10QSqlDriver6recordERK7QString [qt-mt]
_ZNK10QSqlDriver6recordERK9QSqlQuery [qt-mt]	_ZNK10QSqlDriver6tablesERK7QString [qt-mt]
_ZNK10QSqlDriver8nullTextEv [qt-mt]	_ZNK10QSqlDriver9classNameEv [qt-mt]
_ZNK10QSqlDriver9lastErrorEv [qt-mt]	_ZNK10QSqlRecord11createFieldERK7QString [qt-mt]
_ZNK10QSqlRecord11isGeneratedERK7QString [qt-mt]	_ZNK10QSqlRecord11isGeneratedEv [qt-mt]
_ZNK10QSqlRecord12toStringListERK7QString [qt-mt]	_ZNK10QSqlRecord5countEv [qt-mt]
_ZNK10QSqlRecord5fieldERK7QString [qt-mt]	_ZNK10QSqlRecord5fieldEi [qt-mt]
_ZNK10QSqlRecord5valueERK7QString [qt-mt]	_ZNK10QSqlRecord5valueEi [qt-mt]
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_ZNK10QSqlRecord7isEmptyEv [qt-mt]	_ZNK10QSqlRecord8containsERK7QString [qt-mt]
_ZNK10QSqlRecord8positionERK7QString [qt-mt]	_ZNK10QSqlRecord8toStringERK7QString [qt-mt]
_ZNK10QSqlRecord9fieldNameEi [qt-mt]	_ZNK10QSqlResult13isForwardERK7QString [qt-mt]
_ZNK10QSqlResult2atEv [qt-mt]	_ZNK10QSqlResult6driverEv [qt-mt]
_ZNK10QSqlResult7isValidEv [qt-mt]	_ZNK10QSqlResult8isActiveEv [qt-mt]
_ZNK10QSqlResult8isSelectEv [qt-mt]	_ZNK10QSqlResult9lastErrorEv [qt-mt]
_ZNK10QSqlResult9lastQueryEv [qt-mt]	_ZNK12QSqlDatabase10driverEv [qt-mt]
_ZNK12QSqlDatabase10recordInfoERK7QString [qt-mt]	_ZNK12QSqlDatabase10recordInfoERK9QSqlQuery [qt-mt]
_ZNK12QSqlDatabase11isOpenErrorEv [qt-mt]	_ZNK12QSqlDatabase12databaseNameEv [qt-mt]
_ZNK12QSqlDatabase12primaryIndexERK7QString [qt-mt]	_ZNK12QSqlDatabase14connectERK7QString [qt-mt]
_ZNK12QSqlDatabase4execERK7QString [qt-mt]	_ZNK12QSqlDatabase4portEv [qt-mt]
_ZNK12QSqlDatabase6driverEv [qt-mt]	_ZNK12QSqlDatabase6isOpenEv [qt-mt]
_ZNK12QSqlDatabase6recordERK7QString [qt-mt]	_ZNK12QSqlDatabase6recordERK9QSqlQuery [qt-mt]
_ZNK12QSqlDatabase6tablesEN4QSql9TableTypeE [qt-mt]	_ZNK12QSqlDatabase6tablesERK7QString [qt-mt]
_ZNK12QSqlDatabase8hostNameEv [qt-mt]	_ZNK12QSqlDatabase8passwordEv [qt-mt]
_ZNK12QSqlDatabase8userNameEv [qt-mt]	_ZNK12QSqlDatabase9classNameEv [qt-mt]
_ZNK12QSqlDatabase9lastErrorEv [qt-mt]	_ZNK13QSqlFieldInfo10isRequiredERK7QString [qt-mt]
_ZNK13QSqlFieldInfo11isGeneratedEv [qt-mt]	_ZNK13QSqlFieldInfo12defaultValueERK7QString [qt-mt]
_ZNK13QSqlFieldInfo12isCalculatedEv [qt-mt]	_ZNK13QSqlFieldInfo4nameEv [qt-mt]
_ZNK13QSqlFieldInfo4typeEv [qt-mt]	_ZNK13QSqlFieldInfo6isTrimmedERK7QString [qt-mt]
_ZNK13QSqlFieldInfo6lengthEv [qt-mt]	_ZNK13QSqlFieldInfo6typeIDERK7QString [qt-mt]

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ZNK13QSqlFieldInfoeqERKS [qt-mt]	_ZNK14QSqlRecordInfo4findE [qt-mt]
_ZNK14QSqlRecordInfo8containsERK7QString [qt-mt]	_ZNK14QSqlRecordInfo8toRecordEv [qt-mt]
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_ZNK17QtSqlCachedResult8colCountEv [qt-mt]	_ZNK8QSqlForm13fieldToWidgetEv [qt-mt]
_ZNK8QSqlForm13widgetToFieldEP7QWidget [qt-mt]	_ZNK8QSqlForm5countEv [qt-mt]
_ZNK8QSqlForm6widgetEj [qt-mt]	_ZNK8QSqlForm9classNameEv [qt-mt]
_ZNK9QSqlError10driverTextEv [qt-mt]	_ZNK9QSqlError11showMessageEv [qt-mt]
_ZNK9QSqlError12databaseTextEv [qt-mt]	_ZNK9QSqlError4textEv [qt-mt]
_ZNK9QSqlError4typeEv [qt-mt]	_ZNK9QSqlError6numberEv [qt-mt]
ZNK9QSqlFieldeqERKS [qt-mt]	_ZNK9QSqlIndex11createFieldEv [qt-mt]
_ZNK9QSqlIndex12isDescendingEi [qt-mt]	_ZNK9QSqlIndex12toStringListEv [qt-mt]
_ZNK9QSqlIndex8toStringERK7QStringS2_b [qt-mt]	_ZNK9QSqlQuery10bindValueEi [qt-mt]
_ZNK9QSqlQuery10bindValueEi [qt-mt]	_ZNK9QSqlQuery11bindValueEi [qt-mt]
_ZNK9QSqlQuery13executedQueryEv [qt-mt]	_ZNK9QSqlQuery13isForwardingEv [qt-mt]
_ZNK9QSqlQuery15numRowsAffectedEv [qt-mt]	_ZNK9QSqlQuery2atEv [qt-mt]
_ZNK9QSqlQuery4sizeEv [qt-mt]	_ZNK9QSqlQuery5valueEi [qt-mt]
_ZNK9QSqlQuery6driverEv [qt-mt]	_ZNK9QSqlQuery6isNullEi [qt-mt]
_ZNK9QSqlQuery6resultEv [qt-mt]	_ZNK9QSqlQuery7isValidEv [qt-mt]
_ZNK9QSqlQuery8isActiveEv [qt-mt]	_ZNK9QSqlQuery8isSelectEv [qt-mt]
_ZNK9QSqlQuery9lastErrorEv [qt-mt]	_ZNK9QSqlQuery9lastQueryEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 SQL specified in [Table 18-310](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-310. libqt-mt - Qt3 SQL Data Interfaces

_ZN10QSqlDriver7metaObjE [qt-mt]	_ZN12QSqlDatabase17defaultConnectionE [qt-mt]
_ZN12QSqlDatabase7metaObjE [qt-mt]	_ZN16QSqlDriverPlugin7metaObjE [qt-mt]
_ZN16QSqlResultShared7metaObjE [qt-mt]	_ZN8QSqlForm7metaObjE [qt-mt]
_ZTI10QSqlCursor [CXXABI-1.86]	_ZTI10QSqlDriver [CXXABI-1.86]
_ZTI10QSqlRecord [CXXABI-1.86]	_ZTI10QSqlResult [CXXABI-1.86]
_ZTI12QSqlDatabase [CXXABI-1.86]	_ZTI13QSqlFieldInfo [CXXABI-1.86]
_ZTI14QEditorFactory [CXXABI-1.86]	_ZTI15QSqlPropertyMap [CXXABI-1.86]
_ZTI16QSqlDriverPlugin [CXXABI-1.86]	_ZTI16QSqlResultShared [CXXABI-1.86]

_ZTI16QSqlSelectCursor [CXXABI-1.86]	_ZTI17QSqlEditorFactory [CXXABI-1.86]
_ZTI17QtSqlCachedResult [CXXABI-1.86]	_ZTI8QSqlForm [CXXABI-1.86]
_ZTI9QSqlError [CXXABI-1.86]	_ZTI9QSqlField [CXXABI-1.86]
_ZTI9QSqlIndex [CXXABI-1.86]	_ZTI9QSqlQuery [CXXABI-1.86]
_ZTV10QSqlCursor [CXXABI-1.86]	_ZTV10QSqlDriver [CXXABI-1.86]
_ZTV10QSqlRecord [CXXABI-1.86]	_ZTV10QSqlResult [CXXABI-1.86]
_ZTV12QSqlDatabase [CXXABI-1.86]	_ZTV13QSqlFieldInfo [CXXABI-1.86]
_ZTV14QEditorFactory [CXXABI-1.86]	_ZTV15QSqlPropertyMap [CXXABI-1.86]
_ZTV16QSqlDriverPlugin [CXXABI-1.86]	_ZTV16QSqlResultShared [CXXABI-1.86]
_ZTV16QSqlSelectCursor [CXXABI-1.86]	_ZTV17QSqlEditorFactory [CXXABI-1.86]
_ZTV17QtSqlCachedResult [CXXABI-1.86]	_ZTV8QSqlForm [CXXABI-1.86]
_ZTV9QSqlError [CXXABI-1.86]	_ZTV9QSqlField [CXXABI-1.86]
_ZTV9QSqlIndex [CXXABI-1.86]	_ZTV9QSqlQuery [CXXABI-1.86]

18.2.18. Qt3 Style

18.2.18.1. Class data for QCommonStyle

The virtual table for the QCommonStyle class is described by [Table 18-311](#)

Table 18-311. Primary vtable for QCommonStyle

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCommonStyle
vfunc[0]:	NULL or QCommonStyle::metaObject() const
vfunc[1]:	QCommonStyle::className() const
vfunc[2]:	QCommonStyle::qt_cast(char const*)
vfunc[3]:	QCommonStyle::qt_invoke(int, QUObject*)
vfunc[4]:	QCommonStyle::qt_emit(int, QUObject*)
vfunc[5]:	QCommonStyle::qt_property(int, int, QVariant*)
vfunc[6]:	QCommonStyle::~~QCommonStyle()
vfunc[7]:	QCommonStyle::~~QCommonStyle()
vfunc[8]:	QObject::event(QEvent*)

vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QStyle::polish(QWidget*)
vfunc[22]:	QStyle::unPolish(QWidget*)
vfunc[23]:	QStyle::polish(QApplication*)
vfunc[24]:	QStyle::unPolish(QApplication*)
vfunc[25]:	QStyle::polish(QPalette&)
vfunc[26]:	__cxa_pure_virtual
vfunc[27]:	QStyle::itemRect(QPainter*, QRect const&, int, bool, QPixmap const*, QString const&, int) const
vfunc[28]:	QStyle::drawItem(QPainter*, QRect const&, int, QColorGroup const&, bool, QPixmap const*, QString const&, int, QColor const*) const
vfunc[29]:	QCommonStyle::drawPrimitive(QStyle::PrimitiveElement, QPainter*, QRect const&, QColorGroup const&, unsigned int, QStyleOption const&) const
vfunc[30]:	QCommonStyle::drawControl(QStyle::ControlElement, QPainter*, QWidget const*, QRect const&, QColorGroup const&, unsigned int, QStyleOption const&) const
vfunc[31]:	QCommonStyle::drawControlMask(QStyle::ControlElement, QPainter*, QWidget const*, QRect const&, QStyleOption const&) const
vfunc[32]:	QCommonStyle::subRect(QStyle::SubRect, QWidget const*) const
vfunc[33]:	QCommonStyle::drawComplexControl(QStyle::ComplexControl, QPainter*, QWidget const*, QRect const&, QColorGroup const&, unsigned int, unsigned int, unsigned int, QStyleOption const&) const
vfunc[34]:	QCommonStyle::drawComplexControlMask(QStyle::ComplexControl, QPainter*, QWidget const*, QRect const&, QStyleOption const&) const
vfunc[35]:	QCommonStyle::querySubControlMetrics(QStyle::ComplexControl, QWidget const*, QStyle::SubControl, QStyleOption const&) const

vfunc[36]:	QCommonStyle::querySubControl(QStyle::ComplexControl, QWidget const*, QPoint const&, QStyleOption const&) const
vfunc[37]:	QCommonStyle::pixelMetric(QStyle::PixelMetric, QWidget const*) const
vfunc[38]:	QCommonStyle::sizeFromContents(QStyle::ContentsType, QWidget const*, QSize const&, QStyleOption const&) const
vfunc[39]:	QCommonStyle::styleHint(QStyle::StyleHint, QWidget const*, QStyleOption const&, QStyleHintReturn*) const
vfunc[40]:	QCommonStyle::stylePixmap(QStyle::StylePixmap, QWidget const*, QStyleOption const&) const

The Run Time Type Information for the QCommonStyle class is described by [Table 18-312](#)

Table 18-312. typeinfo for QCommonStyle

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCommonStyle
basetype:	typeinfo for QStyle

18.2.18.2. Class data for QStyle

The virtual table for the QStyle class is described by [Table 18-313](#)

Table 18-313. Primary vtable for QStyle

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStyle
vfunc[0]:	NULL or QStyle::metaObject() const
vfunc[1]:	QStyle::className() const
vfunc[2]:	QStyle::qt_cast(char const*)
vfunc[3]:	QStyle::qt_invoke(int, QUObject*)
vfunc[4]:	QStyle::qt_emit(int, QUObject*)
vfunc[5]:	QStyle::qt_property(int, int, QVariant*)
vfunc[6]:	QStyle::~~QStyle()
vfunc[7]:	QStyle::~~QStyle()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)

vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QStyle::polish(QWidget*)
vfunc[22]:	QStyle::unPolish(QWidget*)
vfunc[23]:	QStyle::polish(QApplication*)
vfunc[24]:	QStyle::unPolish(QApplication*)
vfunc[25]:	QStyle::polish(QPalette&)
vfunc[26]:	__cxa_pure_virtual
vfunc[27]:	QStyle::itemRect(QPainter*, QRect const&, int, bool, QPixmap const*, QString const&, int) const
vfunc[28]:	QStyle::drawItem(QPainter*, QRect const&, int, QColorGroup const&, bool, QPixmap const*, QString const&, int, QColor const*) const
vfunc[29]:	__cxa_pure_virtual
vfunc[30]:	__cxa_pure_virtual
vfunc[31]:	__cxa_pure_virtual
vfunc[32]:	__cxa_pure_virtual
vfunc[33]:	__cxa_pure_virtual
vfunc[34]:	__cxa_pure_virtual
vfunc[35]:	__cxa_pure_virtual
vfunc[36]:	__cxa_pure_virtual
vfunc[37]:	__cxa_pure_virtual
vfunc[38]:	__cxa_pure_virtual
vfunc[39]:	__cxa_pure_virtual
vfunc[40]:	__cxa_pure_virtual

The Run Time Type Information for the QStyle class is described by [Table 18-314](#)

Table 18-314. typeinfo for QStyle

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for QStyle
basetype:	typeinfo for QObject

18.2.18.3. Interfaces for Qt3 Style

An LSB conforming implementation shall provide the generic functions for Qt3 Style specified in [Table 18-315](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-315. libqt-mt - Qt3 Style Function Interfaces

<code>_ZN12QCommonStyle11qt_propertyEiiP8QVariant</code> [qt-mt]
<code>_ZN12QCommonStyle18qt_static_propertyEP7QObjectiP8QVariant</code> [qt-mt]
<code>_ZN12QCommonStyle6trUtf8EPKcS1_</code> [qt-mt]
<code>_ZN12QCommonStyle7qt_emitEiP8QUObject</code> [qt-mt]
<code>_ZN12QCommonStyleC1Ev</code> [qt-mt]
<code>_ZN12QCommonStyleD0Ev</code> [qt-mt]
<code>_ZN12QCommonStyleD2Ev</code> [qt-mt]
<code>_ZN13QStyleFactory6createERK7QString</code> [qt-mt]
<code>_ZN6QStyle10visualRectERK5QRectS2_</code> [qt-mt]
<code>_ZN6QStyle15polishPopupMenuEP10QPopupMenu</code> [qt-mt]
<code>_ZN6QStyle18qt_static_propertyEP7QObjectiP8QVariant</code> [qt-mt]
<code>_ZN6QStyle6polishEP12QApplication</code> [qt-mt]
<code>_ZN6QStyle6polishER8QPalette</code> [qt-mt]
<code>_ZN6QStyle7qt_castEPKc</code> [qt-mt]
<code>_ZN6QStyle8unPolishEP12QApplication</code> [qt-mt]
<code>_ZN6QStyle9qt_invokeEiP8QUObject</code> [qt-mt]
<code>_ZN6QStyleC2Ev</code> [qt-mt]
<code>_ZN6QStyleD1Ev</code> [qt-mt]
<code>_ZNK12QCommonStyle11drawControlEN6QStyle14ControlElementEP8QPainterPK7QWidgetRK5QRectRK11QColor</code> [qt-mt]
<code>_ZNK12QCommonStyle11stylePixmapEN6QStyle11StylePixmapEPK7QWidgetRK12QStyleOption</code> [qt-mt]
<code>_ZNK12QCommonStyle15drawControlMaskEN6QStyle14ControlElementEP8QPainterPK7QWidgetRK5QRectRK11QColor</code> [qt-mt]
<code>_ZNK12QCommonStyle16sizeFromContentsEN6QStyle12ContentsTypeEPK7QWidgetRK5QSizeRK12QStyleOption</code> [qt-mt]

_ZNK12QCommonStyle22drawComplexControlMaskEN6QStyle14ComplexControlEP8QPainterPK7QWidgetRK5Q [qt-mt]
_ZNK12QCommonStyle7subRectEN6QStyle7SubRectEPK7QWidget [qt-mt]
_ZNK12QCommonStyle9styleHintEN6QStyle9StyleHintEPK7QWidgetRK12QStyleOptionP16QStyleHintReturn [qt-mt]
_ZNK6QStyle8itemRectEP8QPainterRK5QRectibPK7QPixmapRK7QStringi [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Style specified in [Table 18-316](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-316. libqt-mt - Qt3 Style Data Interfaces

_ZN12QCommonStyle7metaObjE [qt-mt]	_ZN6QStyle7metaObjE [qt-mt]
_ZTI12QCommonStyle [CXXABI-1.86]	_ZTI6QStyle [CXXABI-1.86]
_ZTV12QCommonStyle [CXXABI-1.86]	_ZTV6QStyle [CXXABI-1.86]

18.2.19. Qt3 Text

18.2.19.1. Class data for QSyntaxHighlighter

The virtual table for the QSyntaxHighlighter class is described by [Table 18-317](#)

Table 18-317. Primary vtable for QSyntaxHighlighter

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSyntaxHighlighter
vfunc[0]:	QSyntaxHighlighter::~~QSyntaxHighlighter()
vfunc[1]:	QSyntaxHighlighter::~~QSyntaxHighlighter()
vfunc[2]:	__cxa_pure_virtual

The Run Time Type Information for the QSyntaxHighlighter class is described by [Table 18-318](#)

Table 18-318. typeinfo for QSyntaxHighlighter

Base Vtable	vtable for __cxxabiv1::__si_class_type_info

Name	typeinfo name for QSyntaxHighlighter
basetype:	typeinfo for Qt

18.2.19.2. Class data for QStyleSheet

The virtual table for the QStyleSheet class is described by [Table 18-319](#)

Table 18-319. Primary vtable for QStyleSheet

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStyleSheet
vfunc[0]:	NULL or QStyleSheet::metaObject() const
vfunc[1]:	QStyleSheet::className() const
vfunc[2]:	QStyleSheet::qt_cast(char const*)
vfunc[3]:	QStyleSheet::qt_invoke(int, QUObject*)
vfunc[4]:	QStyleSheet::qt_emit(int, QUObject*)
vfunc[5]:	QStyleSheet::qt_property(int, int, QVariant*)
vfunc[6]:	QStyleSheet::~~QStyleSheet()
vfunc[7]:	QStyleSheet::~QStyleSheet()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	

	QStyleSheet::tag(QString const&, QMap<QString, QString> const&, QString const&, QMimeSourceFactory const&, bool, QTextDocument*) const
vfunc[22]:	QStyleSheet::scaleFont(QFont&, int) const
vfunc[23]:	QStyleSheet::error(QString const&) const

The Run Time Type Information for the QStyleSheet class is described by [Table 18-320](#)

Table 18-320. typeinfo for QStyleSheet

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStyleSheet
basetype:	typeinfo for QObject

18.2.19.3. Class data for QList

The virtual table for the QList class is described by [Table 18-321](#)

Table 18-321. Primary vtable for QList

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QList
vfunc[0]:	NULL or QList<char>::count() const
vfunc[1]:	NULL or QList<char>::clear()
vfunc[2]:	NULL or QList::~QList()
vfunc[3]:	NULL or QList::~QList()
vfunc[4]:	NULL or QList::newItem(void*)
vfunc[5]:	NULL or QList::deleteItem(void*)
vfunc[6]:	NULL or QList::compareItems(void*, void*)
vfunc[7]:	NULL or QList::read(QDataStream&, void*&)
vfunc[8]:	NULL or QList::write(QDataStream&, void*) const

The Run Time Type Information for the QList class is described by [Table 18-322](#)

Table 18-322. typeinfo for QList

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QList

basetype:	typeinfo for QList<char>

18.2.19.4. Class data for QString

The virtual table for the QString class is described by [Table 18-323](#)

Table 18-323. Primary vtable for QString

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QString
vfunc[0]:	QString::~~QString()
vfunc[1]:	QString::~~QString()
vfunc[2]:	NULL or QMemArray<char>::detach()
vfunc[3]:	QGArray::newData()
vfunc[4]:	QGArray::deleteData(QGArray::array_data*)

The Run Time Type Information for the QString class is described by [Table 18-324](#)

Table 18-324. typeinfo for QString

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QString
basetype:	typeinfo for QMemArray<char>

18.2.19.5. Interfaces for Qt3 Text

An LSB conforming implementation shall provide the generic functions for Qt3 Text specified in [Table 18-325](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-325. libqt-mt - Qt3 Text Function Interfaces

_ZN11QStringData10deleteSelfEv [qt-mt]
_ZN11QStringList4gresERK7QRegExpRK7QString [qt-mt]
_ZN11QStringList4sortEv [qt-mt]
_ZN11QStringList5splitERK7QRegExpRK7QStringb [qt-mt]
_ZN11QStyleSheet11qt_propertyEiiP8QVariant [qt-mt]
_ZN11QStyleSheet15mightBeRichTextERK7QString [qt-mt]

_ZN11QStyleSheet16staticMetaObjectEv [qt-mt]
_ZN11QStyleSheet20convertFromPlainTextERK7QStringN15QStyleSheetItem14WhiteSpaceModeE [qt-mt]
_ZN11QStyleSheet4initEv [qt-mt]
_ZN11QStyleSheet6escapeERK7QString [qt-mt]
ZN11QStyleSheet6trUtf8EPKcS1 [qt-mt]
_ZN11QStyleSheet7qt_emitEiP8QUObject [qt-mt]
_ZN11QStyleSheetC1EP7QObjectPKc [qt-mt]
_ZN11QStyleSheetD0Ev [qt-mt]
_ZN11QStyleSheetD2Ev [qt-mt]
_ZN11QTextFormat11generateKeyEv [qt-mt]
_ZN11QTextFormat12setStrikeOutEb [qt-mt]
_ZN11QTextFormat13setMisspelledEb [qt-mt]
_ZN11QTextFormat6updateEv [qt-mt]
_ZN11QTextFormat7setBoldEb [qt-mt]
_ZN11QTextFormat8setColorERK6QColor [qt-mt]
_ZN11QTextFormat9setFamilyERK7QString [qt-mt]
_ZN11QTextFormat9setVAlignENS_17VerticalAlignmentE [qt-mt]
_ZN11QTextFormatC1ERK5QFontRK6QColorP21QTextFormatCollection [qt-mt]
_ZN11QTextFormatC1Ev [qt-mt]
_ZN11QTextFormatC2ERK5QFontRK6QColorP21QTextFormatCollection [qt-mt]
_ZN11QTextFormatC2Ev [qt-mt]
_ZN11QTextFormatD1Ev [qt-mt]
ZN11QTextFormatASERKS [qt-mt]
_ZN12QConstStringC2EPK5QCharj [qt-mt]
_ZN12QConstStringD2Ev [qt-mt]
_ZN15QSimpleRichText14setDefaultFontERK5QFont [qt-mt]
_ZN15QSimpleRichText8setWidthEi [qt-mt]
_ZN15QSimpleRichTextC1ERK7QStringRK5QFontS2_PK11QStyleSheetPK18QMimeSourceFactoryiRK6QColorb [qt-mt]
_ZN15QSimpleRichTextC2ERK7QStringRK5QFontS2_PK11QStyleSheetPK18QMimeSourceFactoryiRK6QColorb [qt-mt]
_ZN15QSimpleRichTextD2Ev [qt-mt]
_ZN15QStyleSheetItem11setContextsERK7QString [qt-mt]

_ZN15QStyleSheetItem12setAlignmentEi [qt-mt]
_ZN15QStyleSheetItem13setFontFamilyERK7QString [qt-mt]
_ZN15QStyleSheetItem13setFontWeightEi [qt-mt]
_ZN15QStyleSheetItem14setLineSpacingEi [qt-mt]
_ZN15QStyleSheetItem16setFontStrikeOutEb [qt-mt]
_ZN15QStyleSheetItem17setWhiteSpaceModeENS_14WhiteSpaceModeE [qt-mt]
_ZN15QStyleSheetItem18setNumberOfColumnsEi [qt-mt]
_ZN15QStyleSheetItem22setLogicalFontSizeStepEi [qt-mt]
_ZN15QStyleSheetItem8setColorERK6QColor [qt-mt]
_ZN15QStyleSheetItem9setMarginENS_6MarginEi [qt-mt]
ZN15QStyleSheetItemC1ERKS [qt-mt]
ZN15QStyleSheetItemC2ERKS [qt-mt]
_ZN15QStyleSheetItemD2Ev [qt-mt]
_ZN18QSyntaxHighlighter11rehighlightEv [qt-mt]
_ZN18QSyntaxHighlighter9setFormatEiiRK5QFontRK6QColor [qt-mt]
_ZN18QSyntaxHighlighterC1EP9QTextEdit [qt-mt]
_ZN18QSyntaxHighlighterD0Ev [qt-mt]
_ZN18QSyntaxHighlighterD2Ev [qt-mt]
_ZN7QString10setUnicodeEPK5QCharj [qt-mt]
_ZN7QString12insertHelperEjPKcj [qt-mt]
_ZN7QString14makeSharedNullEv [qt-mt]
_ZN7QString15latin1ToUnicodeERK9QMemArrayIcEPj [qt-mt]
_ZN7QString15unicodeToLatin1EPK5QCharj [qt-mt]
_ZN7QString4fillE5QChari [qt-mt]
_ZN7QString5derefEv [qt-mt]
_ZN7QString6insertEj5QChar [qt-mt]
ZN7QString6insertEjRKS [qt-mt]
_ZN7QString6numberEii [qt-mt]
_ZN7QString6numberEli [qt-mt]
_ZN7QString6numberExi [qt-mt]
_ZN7QString6removeE5QChar [qt-mt]
_ZN7QString6removeERK7QRegExp [qt-mt]
_ZN7QString6removeERKS_b [qt-mt]

<u>_ZN7QString6setNumEdci [qt-mt]</u>
<u>_ZN7QString6setNumEmi [qt-mt]</u>
<u>_ZN7QString6setNumEyi [qt-mt]</u>
<u>_ZN7QString7prependEPKc [qt-mt]</u>
<u>_ZN7QString7replaceE5QCharRKS_b [qt-mt]</u>
<u>_ZN7QString7replaceERK7QRegExpRKS_ [qt-mt]</u>
<u>_ZN7QString7replaceERKS_S1_b [qt-mt]</u>
<u>_ZN7QString7replaceEjjPK5QCharj [qt-mt]</u>
<u>_ZN7QString7reserveEj [qt-mt]</u>
<u>_ZN7QString7squeezeEv [qt-mt]</u>
<u>_ZN7QString8fromUtf8EPKci [qt-mt]</u>
<u>_ZN7QString8truncateEj [qt-mt]</u>
<u>_ZN7QString9setExpandEj5QChar [qt-mt]</u>
<u>_ZN7QString9setLengthEj [qt-mt]</u>
<u>_ZN7QStringC1EPK5QCharj [qt-mt]</u>
<u>_ZN7QStringC1ERK9QMemArrayIcE [qt-mt]</u>
<u>_ZN7QStringC1ERKSs [qt-mt]</u>
<u>_ZN7QStringC2E5QChar [qt-mt]</u>
<u>_ZN7QStringC2EPKc [qt-mt]</u>
<u>_ZN7QStringC2ERKS_ [qt-mt]</u>
<u>_ZN7QStringC2Eib [qt-mt]</u>
<u>_ZN7QStringaSERK8QCString [qt-mt]</u>
<u>_ZN7QStringpLE5QChar [qt-mt]</u>
<u>_ZN7QStringpLERKS_ [qt-mt]</u>
<u>_ZN8QCString4fillEci [qt-mt]</u>
<u>_ZN8QCString6insertEjc [qt-mt]</u>
<u>_ZN8QCString6resizeEj [qt-mt]</u>
<u>_ZN8QCString6setNumEl [qt-mt]</u>
<u>_ZN8QCString6setStrEPKc [qt-mt]</u>
<u>_ZN8QCString7replaceERK7QRegExpPKc [qt-mt]</u>
<u>_ZN8QCString7replaceEcc [qt-mt]</u>
<u>_ZN8QCString7sprintfEPKcz [qt-mt]</u>
<u>_ZN8QCStringC1EPKc [qt-mt]</u>

_ZN8QCStringC1Ei [qt-mt]
_ZN8QCStringC2EPKcj [qt-mt]
_ZN8QCStringD0Ev [qt-mt]
_ZN8QCStringD2Ev [qt-mt]
_ZN8QCStringpLEc [qt-mt]
_ZNK11QStringList4grepERK7QStringb [qt-mt]
_ZNK11QStyleSheet3tagERK7QStringRK4QMapIS0_S0_ES2_RK18QMimeSourceFactorybP13QTextDocument [qt-mt]
_ZNK11QStyleSheet5errorERK7QString [qt-mt]
_ZNK11QStyleSheet9scaleFontER5QFonti [qt-mt]
_ZNK11QTextFormat14minLeftBearingEv [qt-mt]
_ZNK11QTextFormat17makeFormatEndTagsEPS_RK7QString [qt-mt]
_ZNK11QTextFormat5widthERK5QChar [qt-mt]
_ZNK11QTextFormat6ascentEv [qt-mt]
_ZNK11QTextFormat7descentEv [qt-mt]
_ZNK15QSimpleRichText4drawEP8QPainteriiRK5QRectRK11QColorGroupPK6QBrush [qt-mt]
_ZNK15QSimpleRichText6heightEv [qt-mt]
_ZNK15QSimpleRichText7contextEv [qt-mt]
_ZNK15QSimpleRichText9widthUsedEv [qt-mt]
_ZNK15QStyleSheetItem10fontItalicEv [qt-mt]
_ZNK15QStyleSheetItem10styleSheetEv [qt-mt]
_ZNK15QStyleSheetItem11lineSpacingEv [qt-mt]
_ZNK15QStyleSheetItem13fontStrikeOutEv [qt-mt]
_ZNK15QStyleSheetItem14whiteSpaceModeEv [qt-mt]
_ZNK15QStyleSheetItem15numberOfColumnsEv [qt-mt]
_ZNK15QStyleSheetItem17definesFontItalicEv [qt-mt]
_ZNK15QStyleSheetItem19logicalFontSizeStepEv [qt-mt]
_ZNK15QStyleSheetItem20definesFontUnderlineEv [qt-mt]
_ZNK15QStyleSheetItem5colorEv [qt-mt]
_ZNK15QStyleSheetItem8contextsEv [qt-mt]
_ZNK15QStyleSheetItem8isAnchorEv [qt-mt]
_ZNK15QStyleSheetItem9listStyleEv [qt-mt]

_ZNK5QChar10digitValueEv [qt-mt]
_ZNK5QChar13decompositionEv [qt-mt]
_ZNK5QChar16decompositionTagEv [qt-mt]
_ZNK5QChar5lowerEv [qt-mt]
_ZNK5QChar6isMarkEv [qt-mt]
_ZNK5QChar7isPrintEv [qt-mt]
_ZNK5QChar7isSpaceEv [qt-mt]
_ZNK5QChar8categoryEv [qt-mt]
_ZNK5QChar8isNumberEv [qt-mt]
_ZNK5QChar8mirroredEv [qt-mt]
ZNK7QString10startsWithERKS [qt-mt]
_ZNK7QString10toLongLongEPbi [qt-mt]
_ZNK7QString11toULongLongEPbi [qt-mt]
_ZNK7QString13isRightToLeftEv [qt-mt]
_ZNK7QString15stripWhiteSpaceEv [qt-mt]
_ZNK7QString18simplifyWhiteSpaceEv [qt-mt]
_ZNK7QString3argERKS_i [qt-mt]
_ZNK7QString3argEdici [qt-mt]
_ZNK7QString3argEmii [qt-mt]
_ZNK7QString3argEyii [qt-mt]
_ZNK7QString4findE5QCharib [qt-mt]
_ZNK7QString4findERKS_ib [qt-mt]
_ZNK7QString4ucs2Ev [qt-mt]
_ZNK7QString5asciiEv [qt-mt]
_ZNK7QString5rightEj [qt-mt]
_ZNK7QString5upperEv [qt-mt]
_ZNK7QString6toLongEPbi [qt-mt]
ZNK7QString7compareERKS [qt-mt]
_ZNK7QString7findRevERK7QRegExpi [qt-mt]
_ZNK7QString7sectionERK7QRegExpiii [qt-mt]
_ZNK7QString7toFloatEPb [qt-mt]
_ZNK7QString7toULongEPbi [qt-mt]
_ZNK7QString8containsEPKcb [qt-mt]

_ZNK7QString8containsERKS_b [qt-mt]
_ZNK7QString8endsWithERKS_b [qt-mt]
_ZNK7QString8toDoubleEPb [qt-mt]
_ZNK7QString9local8BitEv [qt-mt]
_ZNK8QString12rightJustifyEjcb [qt-mt]
_ZNK8QString18simplifyWhiteSpaceEv [qt-mt]
_ZNK8QString4findEPKcib [qt-mt]
_ZNK8QString4findERK7QRegExpi [qt-mt]
_ZNK8QString4leftEj [qt-mt]
_ZNK8QString5rightEj [qt-mt]
_ZNK8QString5upperEv [qt-mt]
_ZNK8QString6toUIntEPb [qt-mt]
_ZNK8QString7findRevERK7QRegExpi [qt-mt]
_ZNK8QString7toFloatEPb [qt-mt]
_ZNK8QString7toULongEPb [qt-mt]
_ZNK8QString8containsERK7QRegExp [qt-mt]
_ZNK8QString8toDoubleEPb [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Text specified in [Table 18-326](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-326. libqt-mt - Qt3 Text Data Interfaces

_ZN11QStyleSheet7metaObjE [qt-mt]	_ZN5QChar11replacementE [qt-mt]
_ZN5QChar13byteOrderMarkE [qt-mt]	_ZN5QChar16byteOrderSwappedE [qt-mt]
_ZN5QChar4nbspE [qt-mt]	_ZN5QChar4nullE [qt-mt]
_ZN7QString11shared_nullE [qt-mt]	_ZN7QString4nullE [qt-mt]
_ZTI11QStyleSheet [CXXABI-1.86]	_ZTI11QTextFormat [CXXABI-1.86]
_ZTI18QSyntaxHighlighter [CXXABI-1.86]	_ZTI8QString [CXXABI-1.86]
_ZTI8QStrList [CXXABI-1.86]	_ZTV11QStyleSheet [CXXABI-1.86]
_ZTV18QSyntaxHighlighter [CXXABI-1.86]	_ZTV8QString [CXXABI-1.86]
_ZTV8QStrList [CXXABI-1.86]	

18.2.20. Qt3 Threading

18.2.20.1. Class data for QWaitCondition

The virtual table for the QWaitCondition class is described by [Table 18-327](#)

Table 18-327. Primary vtable for QWaitCondition

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWaitCondition
vfunc[0]:	QWaitCondition::~~QWaitCondition()
vfunc[1]:	QWaitCondition::~~QWaitCondition()

The Run Time Type Information for the QWaitCondition class is described by [Table 18-328](#)

Table 18-328. typeinfo for QWaitCondition

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QWaitCondition

18.2.20.2. Class data for QMutex

The virtual table for the QMutex class is described by [Table 18-329](#)

Table 18-329. Primary vtable for QMutex

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMutex
vfunc[0]:	QMutex::~~QMutex()
vfunc[1]:	QMutex::~~QMutex()

The Run Time Type Information for the QMutex class is described by [Table 18-330](#)

Table 18-330. typeinfo for QMutex

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QMutex

18.2.20.3. Class data for QThread

The virtual table for the QThread class is described by [Table 18-331](#)

Table 18-331. Primary vtable for QThread

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QThread
vfunc[0]:	QThread::~~QThread()
vfunc[1]:	QThread::~~QThread()
vfunc[2]:	__cxa_pure_virtual

The Run Time Type Information for the QThread class is described by [Table 18-332](#)

Table 18-332. typeinfo for QThread

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QThread
basetype:	typeinfo for Qt

18.2.20.4. Class data for QSemaphore

The virtual table for the QSemaphore class is described by [Table 18-333](#)

Table 18-333. Primary vtable for QSemaphore

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSemaphore
vfunc[0]:	QSemaphore::~~QSemaphore()
vfunc[1]:	QSemaphore::~~QSemaphore()

The Run Time Type Information for the QSemaphore class is described by [Table 18-334](#)

Table 18-334. typeinfo for QSemaphore

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QSemaphore

18.2.20.5. Interfaces for Qt3 Threading

An LSB conforming implementation shall provide the generic functions for Qt3 Threading specified in [Table 18-335](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-335. libqt-mt - Qt3 Threading Function Interfaces

_ZN10QSemaphore9tryAccessEi [qt-mt]	_ZN10QSemaphoreC1Ei [qt-mt]
_ZN10QSemaphoreC2Ei [qt-mt]	_ZN10QSemaphoreD0Ev [qt-mt]
_ZN10QSemaphoreD1Ev [qt-mt]	_ZN10QSemaphoreD2Ev [qt-mt]
_ZN10QSemaphoreemIEi [qt-mt]	_ZN10QSemaphoreemmEi [qt-mt]
_ZN10QSemaphoreepLEi [qt-mt]	_ZN10QSemaphoreeppei [qt-mt]
_ZN14QWaitCondition4waitEP6QMutexm [qt-mt]	_ZN14QWaitCondition4waitEm [qt-mt]
_ZN14QWaitCondition7wakeAllEv [qt-mt]	_ZN14QWaitCondition7wakeOneEv [qt-mt]
_ZN14QWaitConditionC1Ev [qt-mt]	_ZN14QWaitConditionC2Ev [qt-mt]
_ZN14QWaitConditionD0Ev [qt-mt]	_ZN14QWaitConditionD1Ev [qt-mt]
_ZN14QWaitConditionD2Ev [qt-mt]	_ZN18QThreadStorageData3setEPv [qt-mt]
_ZN18QThreadStorageData6finishEPPv [qt-mt]	_ZN18QThreadStorageDataC1EPFvPvE [qt-mt]
_ZN18QThreadStorageDataC2EPFvPvE [qt-mt]	_ZN18QThreadStorageDataD1Ev [qt-mt]
_ZN18QThreadStorageDataD2Ev [qt-mt]	_ZN6QMutex4lockEv [qt-mt]
_ZN6QMutex6lockedEv [qt-mt]	_ZN6QMutex6unlockEv [qt-mt]
_ZN6QMutex7tryLockEv [qt-mt]	_ZN6QMutexC1Eb [qt-mt]
_ZN6QMutexC2Eb [qt-mt]	_ZN6QMutexD0Ev [qt-mt]
_ZN6QMutexD1Ev [qt-mt]	_ZN6QMutexD2Ev [qt-mt]
_ZN7QThread10initializeEv [qt-mt]	_ZN7QThread13currentThreadEv [qt-mt]
_ZN7QThread4exitEv [qt-mt]	_ZN7QThread4waitEm [qt-mt]
_ZN7QThread5sleepEm [qt-mt]	_ZN7QThread5startENS_8PriorityE [qt-mt]
_ZN7QThread5startEv [qt-mt]	_ZN7QThread6msleepEm [qt-mt]
_ZN7QThread6usleepEm [qt-mt]	_ZN7QThread7cleanupEv [qt-mt]
_ZN7QThread9postEventEP7QObjectP6QEvent [qt-mt]	_ZN7QThread9terminateEv [qt-mt]
_ZN7QThreadC1Ej [qt-mt]	_ZN7QThreadC1Ev [qt-mt]
_ZN7QThreadC2Ej [qt-mt]	_ZN7QThreadC2Ev [qt-mt]
_ZN7QThreadD0Ev [qt-mt]	_ZN7QThreadD1Ev [qt-mt]
_ZN7QThreadD2Ev [qt-mt]	_ZNK10QSemaphore5totalEv [qt-mt]
_ZNK10QSemaphore9availableEv [qt-mt]	_ZNK18QThreadStorageData3getEv [qt-mt]

_ZNK7QThread7runningEv [qt-mt]	_ZNK7QThread8finishedEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Threading specified in [Table 18-336](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-336. libqt-mt - Qt3 Threading Data Interfaces

_ZTI10QSemaphore [CXXABI-1.86]	_ZTI14QWaitCondition [CXXABI-1.86]
_ZTI6QMutex [CXXABI-1.86]	_ZTI7QThread [CXXABI-1.86]
_ZTV10QSemaphore [CXXABI-1.86]	_ZTV14QWaitCondition [CXXABI-1.86]
_ZTV6QMutex [CXXABI-1.86]	_ZTV7QThread [CXXABI-1.86]

18.2.21. Qt3 Main Window and Application

18.2.21.1. Class data for QToolBar

The virtual table for the QToolBar class is described by [Table 18-337](#)

Table 18-337. Primary vtable for QToolBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QToolBar
vfunc[0]:	NULL or QToolBar::metaObject() const
vfunc[1]:	QToolBar::className() const
vfunc[2]:	QToolBar::qt_cast(char const*)
vfunc[3]:	QToolBar::qt_invoke(int, QUObject*)
vfunc[4]:	QToolBar::qt_emit(int, QUObject*)
vfunc[5]:	QToolBar::qt_property(int, int, QVariant*)
vfunc[6]:	QToolBar::~QToolBar()
vfunc[7]:	QToolBar::~QToolBar()
vfunc[8]:	QToolBar::event(QEvent*)
vfunc[9]:	QDockWindow::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)

vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QToolBar::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QDockWindow::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)

vfunc[47]:	QToolBar::show()
vfunc[48]:	QToolBar::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDockWindow::sizeHint() const
vfunc[59]:	QToolBar::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)

vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QToolBar::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QDockWindow::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QDockWindow::showEvent(QShowEvent*)
vfunc[94]:	QDockWindow::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QToolBar::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)

vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QDockWindow::drawFrame(QPainter*)
vfunc[116]:	QDockWindow::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QDockWindow::setWidget(QWidget*)
vfunc[119]:	QDockWindow::setCloseMode(int)
vfunc[120]:	QDockWindow::setResizeEnabled(bool)
vfunc[121]:	QDockWindow::setMovingEnabled(bool)
vfunc[122]:	QDockWindow::setHorizontallyStretchable(bool)
vfunc[123]:	QDockWindow::setVerticallyStretchable(bool)
vfunc[124]:	QDockWindow::setOffset(int)
vfunc[125]:	QDockWindow::setFixedExtentWidth(int)
vfunc[126]:	QDockWindow::setFixedExtentHeight(int)
vfunc[127]:	QDockWindow::setNewLine(bool)
vfunc[128]:	QDockWindow::setOpaqueMoving(bool)
vfunc[129]:	QDockWindow::undock(QWidget*)
vfunc[130]:	NULL or QDockWindow::undock()
vfunc[131]:	QDockWindow::dock()
vfunc[132]:	QToolBar::setOrientation(Qt::Orientation)
vfunc[133]:	QToolBar::setStretchableWidget(QWidget*)
vfunc[134]:	QToolBar::setLabel(QString const&)
vfunc[135]:	QToolBar::clear()

The Run Time Type Information for the QToolBar class is described by [Table 18-338](#)

Table 18-338. typeinfo for QToolBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QToolBar
basetype:	typeinfo for QDockWindow

18.2.21.2. Class data for QActionGroup

The virtual table for the QActionGroup class is described by [Table 18-339](#)

Table 18-339. Primary vtable for QActionGroup

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QActionGroup
vfunc[0]:	NULL or QActionGroup::metaObject() const
vfunc[1]:	QActionGroup::className() const
vfunc[2]:	QActionGroup::qt_cast(char const*)
vfunc[3]:	QActionGroup::qt_invoke(int, QUObject*)
vfunc[4]:	QActionGroup::qt_emit(int, QUObject*)
vfunc[5]:	QActionGroup::qt_property(int, int, QVariant*)
vfunc[6]:	QActionGroup::~~QActionGroup()
vfunc[7]:	QActionGroup::~~QActionGroup()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QActionGroup::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QActionGroup::setIconSet(QIconSet const&)
vfunc[22]:	QActionGroup::setText(QString const&)
vfunc[23]:	QActionGroup::setMenuText(QString const&)
vfunc[24]:	QActionGroup::setToolTip(QString const&)

vfunc[25]:	QAction::setStatusTip(QString const&)
vfunc[26]:	QActionGroup::setWhatsThis(QString const&)
vfunc[27]:	QAction::setAccel(QKeySequence const&)
vfunc[28]:	QActionGroup::setToggleAction(bool)
vfunc[29]:	QActionGroup::addTo(QWidget*)
vfunc[30]:	QActionGroup::removeFrom(QWidget*)
vfunc[31]:	QActionGroup::addedTo(QWidget*, QWidget*)
vfunc[32]:	QActionGroup::addedTo(int, QPopupMenu*)
vfunc[33]:	QActionGroup::setOn(bool)
vfunc[34]:	QActionGroup::setEnabled(bool)
vfunc[35]:	QActionGroup::addedTo(QWidget*, QWidget*, QAction*)
vfunc[36]:	QActionGroup::addedTo(int, QPopupMenu*, QAction*)

The Run Time Type Information for the QActionGroup class is described by [Table 18-340](#)

Table 18-340. typeinfo for QActionGroup

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QActionGroup
basetype:	typeinfo for QAction

18.2.21.3. Class data for QStatusBar

The virtual table for the QStatusBar class is described by [Table 18-341](#)

Table 18-341. Primary vtable for QStatusBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStatusBar
vfunc[0]:	NULL or QStatusBar::metaObject() const
vfunc[1]:	QStatusBar::className() const
vfunc[2]:	QStatusBar::qt_cast(char const*)
vfunc[3]:	QStatusBar::qt_invoke(int, QUObject*)
vfunc[4]:	QStatusBar::qt_emit(int, QUObject*)
vfunc[5]:	QStatusBar::qt_property(int, int, QVariant*)

vfunc[6]:	QStatusBar::~~QStatusBar()
vfunc[7]:	QStatusBar::~~QStatusBar()
vfunc[8]:	QStatusBar::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)

vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)

vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QStatusBar::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QStatusBar::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)

vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QStatusBar::addWidget(QWidget*, int, bool)
vfunc[111]:	QStatusBar::removeWidget(QWidget*)

The Run Time Type Information for the QStatusBar class is described by [Table 18-342](#)

Table 18-342. typeinfo for QStatusBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStatusBar
basetype:	typeinfo for QWidget

18.2.21.4. Class data for QSizeGrip

The virtual table for the QSizeGrip class is described by [Table 18-343](#)

Table 18-343. Primary vtable for QSizeGrip

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSizeGrip
vfunc[0]:	NULL or QSizeGrip::metaObject() const
vfunc[1]:	QSizeGrip::className() const
vfunc[2]:	QSizeGrip::qt_cast(char const*)
vfunc[3]:	QSizeGrip::qt_invoke(int, QUObject*)
vfunc[4]:	QSizeGrip::qt_emit(int, QUObject*)
vfunc[5]:	QSizeGrip::qt_property(int, int, QVariant*)
vfunc[6]:	QSizeGrip::~~QSizeGrip()
vfunc[7]:	QSizeGrip::~~QSizeGrip()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QSizeGrip::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)

vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()

vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QSizeGrip::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QSizeGrip::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QSizeGrip::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)

vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QSizeGrip::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)

The Run Time Type Information for the QSizeGrip class is described by [Table 18-344](#)

Table 18-344. typeinfo for QSizeGrip

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSizeGrip
basetype:	typeinfo for QWidget

18.2.21.5. Class data for QSessionManager

The virtual table for the QSessionManager class is described by [Table 18-345](#)

Table 18-345. Primary vtable for QSessionManager

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSessionManager
vfunc[0]:	NULL or QSessionManager::metaObject() const
vfunc[1]:	QSessionManager::className() const
vfunc[2]:	QSessionManager::qt_cast(char const*)
vfunc[3]:	QSessionManager::qt_invoke(int, QUObject*)
vfunc[4]:	QSessionManager::qt_emit(int, QUObject*)
vfunc[5]:	QSessionManager::qt_property(int, int, QVariant*)
vfunc[6]:	QSessionManager::~QSessionManager()
vfunc[7]:	QSessionManager::~QSessionManager()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)

vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QSessionManager class is described by [Table 18-346](#)

Table 18-346. typeinfo for QSessionManager

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSessionManager
basetype:	typeinfo for QObject

18.2.21.6. Class data for QApplication

The virtual table for the QApplication class is described by [Table 18-347](#)

Table 18-347. Primary vtable for QApplication

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QApplication
vfunc[0]:	NULL or QApplication::metaObject() const
vfunc[1]:	QApplication::className() const
vfunc[2]:	QApplication::qt_cast(char const*)
vfunc[3]:	QApplication::qt_invoke(int, QUObject*)
vfunc[4]:	QApplication::qt_emit(int, QUObject*)
vfunc[5]:	QApplication::qt_property(int, int, QVariant*)
vfunc[6]:	QApplication::~~QApplication()
vfunc[7]:	QApplication::~~QApplication()
vfunc[8]:	QApplication::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const

vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QApplication::setMainWidget(QWidget*)
vfunc[22]:	QApplication::polish(QWidget*)
vfunc[23]:	QApplication::notify(QObject*, QEvent*)
vfunc[24]:	QApplication::x11EventFilter(_XEvent*)
vfunc[25]:	QApplication::x11ClientMessage(QWidget*, _XEvent*, bool)
vfunc[26]:	QApplication::commitData(QSessionManager&)
vfunc[27]:	QApplication::saveState(QSessionManager&)

The Run Time Type Information for the QApplication class is described by [Table 18-348](#)

Table 18-348. typeinfo for QApplication

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QApplication
basetype:	typeinfo for QObject

18.2.21.7. Class data for QWorkspace

The virtual table for the QWorkspace class is described by [Table 18-349](#)

Table 18-349. Primary vtable for QWorkspace

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWorkspace
vfunc[0]:	NULL or QWorkspace::metaObject() const
vfunc[1]:	QWorkspace::className() const
vfunc[2]:	QWorkspace::qt_cast(char const*)
vfunc[3]:	QWorkspace::qt_invoke(int, QUObject*)
vfunc[4]:	QWorkspace::qt_emit(int, QUObject*)

vfunc[5]:	QWorkspace::qt_property(int, int, QVariant*)
vfunc[6]:	QWorkspace::~~QWorkspace()
vfunc[7]:	QWorkspace::~~QWorkspace()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QWorkspace::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QWorkspace::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWorkspace::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWorkspace::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)

vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QWorkspace::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)

vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWorkspace::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWorkspace::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWorkspace::showEvent(QShowEvent*)
vfunc[94]:	QWorkspace::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWorkspace::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)

vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)

The Run Time Type Information for the QWorkspace class is described by [Table 18-350](#)

Table 18-350. typeinfo for QWorkspace

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWorkspace
basetype:	typeinfo for QWidget

18.2.21.8. Class data for QAction

The virtual table for the QAction class is described by [Table 18-351](#)

Table 18-351. Primary vtable for QAction

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAction
vfunc[0]:	NULL or QAction::metaObject() const
vfunc[1]:	QAction::className() const
vfunc[2]:	QAction::qt_cast(char const*)
vfunc[3]:	QAction::qt_invoke(int, QUObject*)
vfunc[4]:	QAction::qt_emit(int, QUObject*)
vfunc[5]:	QAction::qt_property(int, int, QVariant*)
vfunc[6]:	QAction::~~QAction()
vfunc[7]:	QAction::~~QAction()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)

vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QAction::setIconSet(QIconSet const&)
vfunc[22]:	QAction::setText(QString const&)
vfunc[23]:	QAction::setMenuText(QString const&)
vfunc[24]:	QAction::setToolTip(QString const&)
vfunc[25]:	QAction::setStatusTip(QString const&)
vfunc[26]:	QAction::setWhatsThis(QString const&)
vfunc[27]:	QAction::setAccel(QKeySequence const&)
vfunc[28]:	QAction::setToggleAction(bool)
vfunc[29]:	QAction::addTo(QWidget*)
vfunc[30]:	QAction::removeFrom(QWidget*)
vfunc[31]:	QAction::addedTo(QWidget*, QWidget*)
vfunc[32]:	QAction::addedTo(int, QPopupMenu*)
vfunc[33]:	QAction::setOn(bool)
vfunc[34]:	QAction::setEnabled(bool)

The Run Time Type Information for the QAction class is described by [Table 18-352](#)

Table 18-352. typeinfo for QAction

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAction
basetype:	typeinfo for QObject

18.2.21.9. Interfaces for Qt3 Main Window and Application

An LSB conforming implementation shall provide the generic functions for Qt3 Main Window and Application specified in [Table 18-353](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-353. libqt-mt - Qt3 Main Window and Application Function Interfaces

_ZN10QStatusBar10hideOrShowEv [qt-mt]	_ZN10QStatusBar10paintEvent
_ZN10QStatusBar11qt_propertyEiiP8QVariant [qt-mt]	_ZN10QStatusBar11resizeEvent
_ZN10QStatusBar12removeWidgetEP7QWidget [qt-mt]	_ZN10QStatusBar14messageCh
_ZN10QStatusBar16staticMetaObjectEv [qt-mt]	_ZN10QStatusBar18qt_static_p
_ZN10QStatusBar18setSizeGripEnabledEb [qt-mt]	_ZN10QStatusBar2trEPKcS1_ [qt-mt]
_ZN10QStatusBar5clearEv [qt-mt]	_ZN10QStatusBar5eventEP6QE
ZN10QStatusBar6trUtf8EPKcS1 [qt-mt]	_ZN10QStatusBar7messageERK7QStringi [qt-mt]
_ZN10QStatusBar7messageERK7QStringi [qt-mt]	_ZN10QStatusBar7qt_castEPKc
_ZN10QStatusBar7qt_emitEiP8QUObject [qt-mt]	_ZN10QStatusBar8reformatEv [qt-mt]
_ZN10QStatusBar9addWidgetEP7QWidgetib [qt-mt]	_ZN10QStatusBar9qt_invokeEi
_ZN10QStatusBarC1EP7QWidgetPKc [qt-mt]	_ZN10QStatusBarC2EP7QWidget
_ZN10QStatusBarD0Ev [qt-mt]	_ZN10QStatusBarD1Ev [qt-mt]
_ZN10QStatusBarD2Ev [qt-mt]	_ZN10QWorkspace10childEver
_ZN10QWorkspace10insertIconEP7QWidget [qt-mt]	_ZN10QWorkspace10removeIcon
_ZN10QWorkspace10showWindowEP7QWidget [qt-mt]	_ZN10QWorkspace10wheelEvent
_ZN10QWorkspace11eventFilterEP7QObjectP6QEvent [qt-mt]	_ZN10QWorkspace11qt_propertyEiiP8QVariant [qt-mt]
_ZN10QWorkspace11resizeEventEP12QResizeEvent [qt-mt]	_ZN10QWorkspace11styleChar
_ZN10QWorkspace12handleUndockEP11QDockWindow [qt-mt]	_ZN10QWorkspace14activateW
_ZN10QWorkspace14maximizeWindowEP7QWidget [qt-mt]	_ZN10QWorkspace14minimize
_ZN10QWorkspace15closeAllWindowsEv [qt-mt]	_ZN10QWorkspace15dockWind
_ZN10QWorkspace15normalizeWindowEP7QWidget [qt-mt]	_ZN10QWorkspace15updateWo
_ZN10QWorkspace15windowActivatedEP7QWidget [qt-mt]	_ZN10QWorkspace16scrollBar
_ZN10QWorkspace16staticMetaObjectEv [qt-mt]	_ZN10QWorkspace17closeActi
_ZN10QWorkspace17showOperationMenuEv [qt-mt]	_ZN10QWorkspace18activateN
_ZN10QWorkspace18activatePrevWindowEv [qt-mt]	_ZN10QWorkspace18popupOp
_ZN10QWorkspace18qt_static_propertyEP7QObjectiP8QVariant [qt-mt]	_ZN10QWorkspace19toolMenu
_ZN10QWorkspace20hideMaximizeControlsEv [qt-mt]	_ZN10QWorkspace20minimize

_ZN10QWorkspace20setScrollBarsEnabledEb [qt-mt]	_ZN10QWorkspace20showMax
_ZN10QWorkspace21normalizeActiveWindowEv [qt-mt]	_ZN10QWorkspace22activateP
_ZN10QWorkspace22operationMenuActivatedEi [qt-mt]	_ZN10QWorkspace24operation
_ZN10QWorkspace25setPaletteBackgroundColorERK6QColor [qt-mt]	_ZN10QWorkspace26setPalette
ZN10QWorkspace2trEPKcS1 [qt-mt]	_ZN10QWorkspace4initEv [qt-
_ZN10QWorkspace4tileEv [qt-mt]	_ZN10QWorkspace5placeEP7Q
ZN10QWorkspace6trUtf8EPKcS1 [qt-mt]	_ZN10QWorkspace7cascadeEv
_ZN10QWorkspace7qt_castEPKc [qt-mt]	_ZN10QWorkspace7qt_emitEiF
_ZN10QWorkspace9findChildEP7QWidget [qt-mt]	_ZN10QWorkspace9hideEvent
_ZN10QWorkspace9qt_invokeEiP8QUObject [qt-mt]	_ZN10QWorkspace9showEvent
_ZN10QWorkspaceC1EP7QWidgetPKc [qt-mt]	_ZN10QWorkspaceC2EP7QWi
_ZN10QWorkspaceD0Ev [qt-mt]	_ZN10QWorkspaceD1Ev [qt-m
_ZN10QWorkspaceD2Ev [qt-mt]	_ZN12QActionGroup10childEv
_ZN12QActionGroup10removeFromEP7QWidget [qt-mt]	_ZN12QActionGroup10setEnabled
_ZN12QActionGroup10setIconSetERK8QIconSet [qt-mt]	_ZN12QActionGroup10setTool
_ZN12QActionGroup11qt_propertyEiiP8QVariant [qt-mt]	_ZN12QActionGroup11setMen
_ZN12QActionGroup12addSeparatorEv [qt-mt]	_ZN12QActionGroup12childTo
_ZN12QActionGroup12setExclusiveEb [qt-mt]	_ZN12QActionGroup12setWha
_ZN12QActionGroup14childDestroyedEv [qt-mt]	_ZN12QActionGroup14internal
_ZN12QActionGroup15objectDestroyedEv [qt-mt]	_ZN12QActionGroup15setTogg
_ZN12QActionGroup15setUsesDropDownEb [qt-mt]	_ZN12QActionGroup16staticM
_ZN12QActionGroup18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN12QActionGroup25internal
_ZN12QActionGroup27internalComboBoxHighlightedEi [qt-mt]	_ZN12QActionGroup2trEPKcS
_ZN12QActionGroup3addEP7QAction [qt-mt]	_ZN12QActionGroup5addToEP
_ZN12QActionGroup5setOnEb [qt-mt]	_ZN12QActionGroup6trUtf8EP
ZN12QActionGroup7addedToEP7QWidgetS1 [qt-mt]	_ZN12QActionGroup7addedTo
_ZN12QActionGroup7addedToEiP10QPopupMenu [qt-mt]	_ZN12QActionGroup7addedTo
_ZN12QActionGroup7qt_castEPKc [qt-mt]	_ZN12QActionGroup7qt_emitE
_ZN12QActionGroup7setTextERK7QString [qt-mt]	_ZN12QActionGroup8selectedE
_ZN12QActionGroup9qt_invokeEiP8QUObject [qt-mt]	_ZN12QActionGroupC1EP7QC
_ZN12QActionGroupC1EP7QObjectPKcb [qt-mt]	_ZN12QActionGroupC2EP7QC
_ZN12QActionGroupC2EP7QObjectPKcb [qt-mt]	_ZN12QActionGroupD0Ev [qt-
_ZN12QActionGroupD1Ev [qt-mt]	_ZN12QActionGroupD2Ev [qt-

_ZN12QApplication10allWidgetsEv [qt-mt]	_ZN12QApplication10closePop
_ZN12QApplication10commitDataER15QSessionManager [qt-mt]	_ZN12QApplication10create_xi
_ZN12QApplication10enter_loopEv [qt-mt]	_ZN12QApplication10initialize
_ZN12QApplication10setPaletteERK8QPalettebPKc [qt-mt]	_ZN12QApplication10startingU
_ZN12QApplication11aboutToQuitEv [qt-mt]	_ZN12QApplication11closingD
_ZN12QApplication11fontMetricsEv [qt-mt]	_ZN12QApplication11qt_prope
_ZN12QApplication12libraryPathsEv [qt-mt]	_ZN12QApplication12setColorI
_ZN12QApplication12setColorSpecEi [qt-mt]	_ZN12QApplication13processE
_ZN12QApplication13processEventsEv [qt-mt]	_ZN12QApplication13reverseL
_ZN12QApplication13setMainWidgetEP7QWidget [qt-mt]	_ZN12QApplication13startDrag
_ZN12QApplication14addLibraryPathERK7QString [qt-mt]	_ZN12QApplication14guiThrea
_ZN12QApplication14internalNotifyEP7QObjectP6QEvent [qt-mt]	_ZN12QApplication14setGloba
_ZN12QApplication14x11EventFilterEP7_XEvent [qt-mt]	_ZN12QApplication15closeAllV
_ZN12QApplication15cursorFlashTimeEv [qt-mt]	_ZN12QApplication15init_prec
_ZN12QApplication15isEffectEnabledEN2Qt8UIEffectE [qt-mt]	_ZN12QApplication15processO
_ZN12QApplication15process_cmdlineEPiPPc [qt-mt]	_ZN12QApplication15setActive
_ZN12QApplication15setDefaultCodecEP10QTextCodec [qt-mt]	_ZN12QApplication15setLibrar
_ZN12QApplication15topLevelWidgetsEv [qt-mt]	_ZN12QApplication15wakeUpP
_ZN12QApplication15x11ProcessEventEP7_XEvent [qt-mt]	_ZN12QApplication16hasPendi
_ZN12QApplication16lastWindowClosedEv [qt-mt]	_ZN12QApplication16removeT
_ZN12QApplication16sendPostedEventsEP7QObjecti [qt-mt]	_ZN12QApplication16sendPost
_ZN12QApplication16setEffectEnabledEN2Qt8UIEffectEb [qt-mt]	_ZN12QApplication16setRever
_ZN12QApplication16setStartDragTimeEi [qt-mt]	_ZN12QApplication16staticMet
_ZN12QApplication16wheelScrollLinesEv [qt-mt]	_ZN12QApplication16x11Clie
_ZN12QApplication17activeModalWidgetEv [qt-mt]	_ZN12QApplication17activePop
_ZN12QApplication17installTranslatorEP11QTranslator [qt-mt]	_ZN12QApplication17removeL
_ZN12QApplication17removePostedEventEP6QEvent [qt-mt]	_ZN12QApplication17setOverri
_ZN12QApplication17startDragDistanceEv [qt-mt]	_ZN12QApplication18applicati
_ZN12QApplication18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN12QApplication18removeP
_ZN12QApplication18setCursorFlashTimeEi [qt-mt]	_ZN12QApplication18x11_appl
_ZN12QApplication19applicationFilePathEv [qt-mt]	_ZN12QApplication19doubleCL
_ZN12QApplication19setWheelScrollLinesEi [qt-mt]	_ZN12QApplication20desktopS
_ZN12QApplication20setStartDragDistanceEi [qt-mt]	_ZN12QApplication20x11_initi

_ZN12QApplication21restoreOverrideCursorEv [qt-mt]	_ZN12QApplication22setDoubleEv [qt-mt]
_ZN12QApplication22setGlobalMouseTrackingEb [qt-mt]	_ZN12QApplication23setDesktopFile [qt-mt]
ZN12QApplication2trEPKcS1 [qt-mt]	_ZN12QApplication4beepEv [qt-mt]
_ZN12QApplication4execEv [qt-mt]	_ZN12QApplication4exitEi [qt-mt]
_ZN12QApplication4fontEPK7QWidget [qt-mt]	_ZN12QApplication4lockEv [qt-mt]
_ZN12QApplication4quitEv [qt-mt]	_ZN12QApplication5eventEP6QEvent [qt-mt]
_ZN12QApplication5flushEv [qt-mt]	_ZN12QApplication5styleEv [qt-mt]
_ZN12QApplication5syncXEv [qt-mt]	_ZN12QApplication6flushXEv [qt-mt]
_ZN12QApplication6lockedEv [qt-mt]	_ZN12QApplication6notifyEP7QDBus [qt-mt]
_ZN12QApplication6polishEP7QWidget [qt-mt]	_ZN12QApplication6trUtf8EPKc [qt-mt]
_ZN12QApplication6unlockEb [qt-mt]	_ZN12QApplication7aboutQtEv [qt-mt]
_ZN12QApplication7desktopEv [qt-mt]	_ZN12QApplication7paletteEP6QPalette [qt-mt]
_ZN12QApplication7qt_castEPKc [qt-mt]	_ZN12QApplication7qt_emitEi [qt-mt]
_ZN12QApplication7setFontERK5QFontbPKc [qt-mt]	_ZN12QApplication7tryLockEv [qt-mt]
_ZN12QApplication8setStyleEP6QStyle [qt-mt]	_ZN12QApplication8setStyleEP6QStyle [qt-mt]
_ZN12QApplication8widgetAtEiib [qt-mt]	_ZN12QApplication9clipboardE [qt-mt]
_ZN12QApplication9close_ximEv [qt-mt]	_ZN12QApplication9colorMode [qt-mt]
_ZN12QApplication9colorSpecEv [qt-mt]	_ZN12QApplication9constructE [qt-mt]
_ZN12QApplication9eventLoopEv [qt-mt]	_ZN12QApplication9exit_loopE [qt-mt]
_ZN12QApplication9openPopupEP7QWidget [qt-mt]	_ZN12QApplication9postEvent [qt-mt]
_ZN12QApplication9qt_invokeEiP8QUObject [qt-mt]	_ZN12QApplication9saveStateE [qt-mt]
_ZN12QApplicationC1EP9_XDisplayiPPcmm [qt-mt]	_ZN12QApplicationC1EP9_XDisplayiPPcmm [qt-mt]
_ZN12QApplicationC1ERiPPc [qt-mt]	_ZN12QApplicationC1ERiPPc [qt-mt]
_ZN12QApplicationC1ERiPPcb [qt-mt]	_ZN12QApplicationC2EP9_XDisplayiPPcmm [qt-mt]
_ZN12QApplicationC2EP9_XDisplaymm [qt-mt]	_ZN12QApplicationC2ERiPPc [qt-mt]
_ZN12QApplicationC2ERiPPcNS_4TypeE [qt-mt]	_ZN12QApplicationC2ERiPPcb [qt-mt]
_ZN12QApplicationD0Ev [qt-mt]	_ZN12QApplicationD1Ev [qt-mt]
_ZN12QApplicationD2Ev [qt-mt]	_ZN15QSessionManager11qt_p [qt-mt]
_ZN15QSessionManager13requestPhase2Ev [qt-mt]	_ZN15QSessionManager14setR [qt-mt]
_ZN15QSessionManager16staticMetaObjectEv [qt-mt]	_ZN15QSessionManager17allow [qt-mt]
_ZN15QSessionManager17setDiscardCommandERK11QStringList [qt-mt]	_ZN15QSessionManager17setR [qt-mt]
_ZN15QSessionManager18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN15QSessionManager18setM [qt-mt]

ZN15QSessionManager18setManagerPropertyERK7QStringS2 [qt-mt]	_ZN15QSessionManager22allow
ZN15QSessionManager2trEPKcS1 [qt-mt]	_ZN15QSessionManager6cance
ZN15QSessionManager6trUtf8EPKcS1 [qt-mt]	_ZN15QSessionManager7qt_ca
_ZN15QSessionManager7qt_emitEiP8QUObject [qt-mt]	_ZN15QSessionManager7releas
_ZN15QSessionManager9qt_invokeEiP8QUObject [qt-mt]	_ZN15QSessionManagerC1EP1
ZN15QSessionManagerC2EP12QApplicationR7QStringS3 [qt-mt]	_ZN15QSessionManagerD0Ev
_ZN15QSessionManagerD1Ev [qt-mt]	_ZN15QSessionManagerD2Ev
_ZN7QAction10removeFromEP7QWidget [qt-mt]	_ZN7QAction10setEnabledEb
_ZN7QAction10setIconSetERK8QIconSet [qt-mt]	_ZN7QAction10setToolTipERK
_ZN7QAction10setVisibleEb [qt-mt]	_ZN7QAction11qt_propertyEii
_ZN7QAction11setDisabledEb [qt-mt]	_ZN7QAction11setMenuTextE
_ZN7QAction12setStatusTipERK7QString [qt-mt]	_ZN7QAction12setWhatsThisE
_ZN7QAction14menuStatusTextEi [qt-mt]	_ZN7QAction14showStatusTex
_ZN7QAction15clearStatusTextEv [qt-mt]	_ZN7QAction15objectDestroye
_ZN7QAction15setToggleActionEb [qt-mt]	_ZN7QAction16staticMetaObjec
_ZN7QAction17toolButtonToggledEb [qt-mt]	_ZN7QAction18internalActivat
_ZN7QAction18qt_static_propertyEP7QObjectiiiP8QVariant [qt-mt]	_ZN7QAction2trEPKcS1_ [qt-m
_ZN7QAction4initEv [qt-mt]	_ZN7QAction5addToEP7QWidget
_ZN7QAction5setOnEb [qt-mt]	_ZN7QAction6toggleEv [qt-mt]
ZN7QAction6trUtf8EPKcS1 [qt-mt]	_ZN7QAction7addedToEP7QW
_ZN7QAction7addedToEiP10QPopupMenu [qt-mt]	_ZN7QAction7qt_castEPKc [qt
_ZN7QAction7qt_emitEiP8QUObject [qt-mt]	_ZN7QAction7setTextERK7QS
_ZN7QAction7toggledEb [qt-mt]	_ZN7QAction8activateEv [qt-m
_ZN7QAction8setAccelERK12QKeySequence [qt-mt]	_ZN7QAction9activatedEv [qt-
_ZN7QAction9qt_invokeEiP8QUObject [qt-mt]	_ZN7QActionC1EP7QObjectPK
_ZN7QActionC1EP7QObjectPKcb [qt-mt]	_ZN7QActionC1ERK7QString1
_ZN7QActionC1ERK7QStringRK8QIconSetS2_12QKeySequenceP7QObjectPKcb [qt-mt]	_ZN7QActionC1ERK7QStringS
_ZN7QActionC1ERK8QIconSetRK7QString12QKeySequenceP7QObjectPKc [qt-mt]	_ZN7QActionC2EP7QObjectPK
_ZN7QActionC2EP7QObjectPKcb [qt-mt]	_ZN7QActionC2ERK7QString1
_ZN7QActionC2ERK7QStringRK8QIconSetS2_12QKeySequenceP7QObjectPKcb [qt-mt]	_ZN7QActionC2ERK7QStringS
	_ZN7QActionD0Ev [qt-mt]

_ZN7QActionC2ERK8QIconSetRK7QString12QKeySequenceP7QObjectPKc [qt-mt]	
_ZN7QActionD1Ev [qt-mt]	_ZN7QActionD2Ev [qt-mt]
_ZN8QToolBar11createPopupEv [qt-mt]	_ZN8QToolBar11qt_propertyE
_ZN8QToolBar11resizeEventEP12QResizeEvent [qt-mt]	_ZN8QToolBar11styleChangeE
_ZN8QToolBar12addSeparatorEv [qt-mt]	_ZN8QToolBar14setMinimumS
_ZN8QToolBar14setOrientationEN2Qt11OrientationE [qt-mt]	_ZN8QToolBar16staticMetaOb
_ZN8QToolBar17checkForExtensionERK5QSize [qt-mt]	_ZN8QToolBar18qt_static_prop
_ZN8QToolBar20setStretchableWidgetEP7QWidget [qt-mt]	_ZN8QToolBar2trEPKcS1_ [qt-mt]
_ZN8QToolBar4hideEv [qt-mt]	_ZN8QToolBar4initEv [qt-mt]
_ZN8QToolBar4showEv [qt-mt]	_ZN8QToolBar5clearEv [qt-mt]
_ZN8QToolBar5eventEP6QEvent [qt-mt]	_ZN8QToolBar6trUtf8EPKcS1_
_ZN8QToolBar7qt_castEPKc [qt-mt]	_ZN8QToolBar7qt_emitEiP8Q
_ZN8QToolBar8setLabelERK7QString [qt-mt]	_ZN8QToolBar9qt_invokeEiP8
_ZN8QToolBarC1EP11QMainWindowPKc [qt-mt]	_ZN8QToolBarC1ERK7QString
_ZN8QToolBarC1ERK7QStringP11QMainWindowP7QWidgetbPKcj [qt-mt]	_ZN8QToolBarC2EP11QMainV
_ZN8QToolBarC2ERK7QStringP11QMainWindowN2Qt4DockEbPKc [qt-mt]	_ZN8QToolBarC2ERK7QString
_ZN8QToolBarD0Ev [qt-mt]	_ZN8QToolBarD1Ev [qt-mt]
_ZN8QToolBarD2Ev [qt-mt]	_ZN9QSizeGrip10paintEventE
_ZN9QSizeGrip11eventFilterEP7QObjectP6QEvent [qt-mt]	_ZN9QSizeGrip11qt_propertyE
_ZN9QSizeGrip14mouseMoveEventEP11QMouseEvent [qt-mt]	_ZN9QSizeGrip15mousePressE
_ZN9QSizeGrip16staticMetaObjectEv [qt-mt]	_ZN9QSizeGrip18qt_static_pro
ZN9QSizeGrip2trEPKcS1 [qt-mt]	_ZN9QSizeGrip6trUtf8EPKcS1_
_ZN9QSizeGrip7qt_castEPKc [qt-mt]	_ZN9QSizeGrip7qt_emitEiP8Q
_ZN9QSizeGrip9qt_invokeEiP8QUObject [qt-mt]	_ZN9QSizeGripC1EP7QWidge
_ZN9QSizeGripC2EP7QWidgetPKc [qt-mt]	_ZN9QSizeGripD0Ev [qt-mt]
_ZN9QSizeGripD1Ev [qt-mt]	_ZN9QSizeGripD2Ev [qt-mt]
_ZNK10QStatusBar17isSizeGripEnabledEv [qt-mt]	_ZNK10QStatusBar9className
_ZNK10QWorkspace10windowListENS_11WindowOrderE [qt-mt]	_ZNK10QWorkspace10window
_ZNK10QWorkspace10windowModeEv [qt-mt]	_ZNK10QWorkspace12activeW
_ZNK10QWorkspace17scrollBarsEnabledEv [qt-mt]	_ZNK10QWorkspace8sizeHint
_ZNK10QWorkspace9classNameEv [qt-mt]	_ZNK12QActionGroup11isExc
_ZNK12QActionGroup12usesDropDownEv [qt-mt]	_ZNK12QActionGroup9classNa

_ZNK12QApplication12defaultCodecEv [qt-mt]	_ZNK12QApplication4typeEv [qt-mt]
_ZNK12QApplication9classNameEv [qt-mt]	_ZNK12QApplication9loopLev [qt-mt]
_ZNK12QApplication9translateEPKcS1_S1_NS_8EncodingE [qt-mt]	_ZNK15QSessionManager10ses [qt-mt]
_ZNK15QSessionManager11restartHintEv [qt-mt]	_ZNK15QSessionManager14dis [qt-mt]
_ZNK15QSessionManager14restartCommandEv [qt-mt]	_ZNK15QSessionManager6han [qt-mt]
_ZNK15QSessionManager8isPhase2Ev [qt-mt]	_ZNK15QSessionManager9clas [qt-mt]
_ZNK15QSessionManager9sessionIdEv [qt-mt]	_ZNK7QAction14isToggleActio [qt-mt]
_ZNK7QAction4isOnEv [qt-mt]	_ZNK7QAction4textEv [qt-mt]
_ZNK7QAction5accelEv [qt-mt]	_ZNK7QAction7iconSetEv [qt-mt]
_ZNK7QAction7toolTipEv [qt-mt]	_ZNK7QAction8menuTextEv [qt-mt]
_ZNK7QAction9classNameEv [qt-mt]	_ZNK7QAction9isEnabledEv [qt-mt]
_ZNK7QAction9isVisibleEv [qt-mt]	_ZNK7QAction9statusTipEv [qt-mt]
_ZNK7QAction9whatsThisEv [qt-mt]	_ZNK8QToolBar10mainWindo [qt-mt]
_ZNK8QToolBar11minimumSizeEv [qt-mt]	_ZNK8QToolBar15minimumSi [qt-mt]
_ZNK8QToolBar5labelEv [qt-mt]	_ZNK8QToolBar9classNameEv [qt-mt]
_ZNK9QSizeGrip8sizeHintEv [qt-mt]	_ZNK9QSizeGrip9classNameE [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Main Window and Application specified in [Table 18-354](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-354. libqt-mt - Qt3 Main Window and Application Data Interfaces

_ZN10QStatusBar7metaObjE [qt-mt]	_ZN10QWorkspace7metaObjE [qt-mt]
_ZN12QActionGroup7metaObjE [qt-mt]	_ZN12QApplication10animate_uiE [qt-mt]
_ZN12QApplication10app_cursorE [qt-mt]	_ZN12QApplication10loop_levelE [qt-mt]
_ZN12QApplication11main_widgetE [qt-mt]	_ZN12QApplication11session_keyE [qt-mt]
_ZN12QApplication11widgetCountE [qt-mt]	_ZN12QApplication12animate_menuE [qt-mt]
_ZN12QApplication12app_libpathsE [qt-mt]	_ZN12QApplication12app_palettesE [qt-mt]
_ZN12QApplication12app_trackingE [qt-mt]	_ZN12QApplication12fade_tooltipE [qt-mt]
_ZN12QApplication12focus_widgetE [qt-mt]	_ZN12QApplication12popupWidgetsE [qt-mt]
_ZN12QApplication13active_windowE [qt-mt]	_ZN12QApplication13animate_comboE [qt-mt]
_ZN12QApplication14is_app_closingE [qt-mt]	_ZN12QApplication14is_app_runningE [qt-mt]
_ZN12QApplication15animate_toolboxE [qt-mt]	_ZN12QApplication15animate_tooltipE [qt-mt]
_ZN12QApplication15composedUnicodeE [qt-mt]	_ZN12QApplication17cursor_flash_timeE [qt-mt]

_ZN12QApplication18metaComposeUnicodeE [qt-mt]	_ZN12QApplication18wheel_scroll_linesE [qt-mt]
_ZN12QApplication21obey_desktop_settingsE [qt-mt]	_ZN12QApplication23mouse_double_click_timeE [qt-mt]
_ZN12QApplication7app_palE [qt-mt]	_ZN12QApplication7metaObjE [qt-mt]
_ZN12QApplication8app_fontE [qt-mt]	_ZN12QApplication8qt_mutexE [qt-mt]
_ZN12QApplication9app_cspectE [qt-mt]	_ZN12QApplication9app_fontsE [qt-mt]
_ZN12QApplication9app_strutE [qt-mt]	_ZN12QApplication9app_styleE [qt-mt]
_ZN12QApplication9eventloopE [qt-mt]	_ZN12QApplication9fade_menuE [qt-mt]
_ZN15QSessionManager7metaObjE [qt-mt]	_ZN7QAction7metaObjE [qt-mt]
_ZN8QToolBar7metaObjE [qt-mt]	_ZN9QSizeGrip7metaObjE [qt-mt]
_ZTI10QStatusBar [CXXABI-1.86]	_ZTI10QWorkspace [CXXABI-1.86]
_ZTI12QActionGroup [CXXABI-1.86]	_ZTI12QApplication [CXXABI-1.86]
_ZTI15QSessionManager [CXXABI-1.86]	_ZTI7QAction [CXXABI-1.86]
_ZTI8QToolBar [CXXABI-1.86]	_ZTI9QSizeGrip [CXXABI-1.86]
_ZTV10QStatusBar [CXXABI-1.86]	_ZTV10QWorkspace [CXXABI-1.86]
_ZTV12QActionGroup [CXXABI-1.86]	_ZTV12QApplication [CXXABI-1.86]
_ZTV15QSessionManager [CXXABI-1.86]	_ZTV7QAction [CXXABI-1.86]
_ZTV8QToolBar [CXXABI-1.86]	_ZTV9QSizeGrip [CXXABI-1.86]

18.2.22. Qt3 Widgets

18.2.22.1. Class data for QFrame

The virtual table for the QFrame class is described by [Table 18-355](#)

Table 18-355. Primary vtable for QFrame

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFrame
vfunc[0]:	NULL or QFrame::metaObject() const
vfunc[1]:	QFrame::className() const
vfunc[2]:	QFrame::qt_cast(char const*)
vfunc[3]:	QFrame::qt_invoke(int, QUObject*)
vfunc[4]:	QFrame::qt_emit(int, QUObject*)

vfunc[5]:	QFrame::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QFrame::~~QFrame()
vfunc[7]:	NULL or QFrame::~~QFrame()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)

vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QFrame::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)

vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QFrame::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)

vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()

The Run Time Type Information for the QFrame class is described by [Table 18-356](#)

Table 18-356. typeinfo for QFrame

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFrame
basetype:	typeinfo for QWidget

18.2.22.2. Class data for QScrollView

The virtual table for the QScrollView class is described by [Table 18-357](#)

Table 18-357. Primary vtable for QScrollView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QScrollView
vfunc[0]:	NULL or QScrollView::metaObject() const
vfunc[1]:	QScrollView::className() const
vfunc[2]:	QScrollView::qt_cast(char const*)
vfunc[3]:	QScrollView::qt_invoke(int, QUObject*)

vfunc[4]:	QScrollView::qt_emit(int, QObject*)
vfunc[5]:	QScrollView::qt_property(int, int, QVariant*)
vfunc[6]:	QScrollView::~~QScrollView()
vfunc[7]:	QScrollView::~~QScrollView()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QScrollView::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QScrollView::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)

vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QScrollView::sizeHint() const
vfunc[59]:	QScrollView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)

vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QScrollView::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const

vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QScrollView::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QScrollView::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QScrollView::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QScrollView::contentsMousePressEvent(QMouseEvent*)
vfunc[130]:	QScrollView::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QScrollView::contentsMouseDoubleClickEvent(QMouseEvent*)
vfunc[132]:	QScrollView::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QScrollView::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QScrollView::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QScrollView::contentsDragLeaveEvent(QDragLeaveEvent*)

vfunc[136]:	QScrollView::contentsDropEvent(QDropEvent*)
vfunc[137]:	QScrollView::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QScrollView::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QScrollView::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)

The Run Time Type Information for the QScrollView class is described by [Table 18-358](#)

Table 18-358. typeinfo for QScrollView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QScrollView
basetype:	typeinfo for QFrame

18.2.22.3. Class data for QTextBrowser

The virtual table for the QTextBrowser class is described by [Table 18-359](#)

Table 18-359. Primary vtable for QTextBrowser

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextBrowser

vfunc[0]:	NULL or QTextBrowser::metaObject() const
vfunc[1]:	QTextBrowser::className() const
vfunc[2]:	QTextBrowser::qt_cast(char const*)
vfunc[3]:	QTextBrowser::qt_invoke(int, QUObject*)
vfunc[4]:	QTextBrowser::qt_emit(int, QUObject*)
vfunc[5]:	QTextBrowser::qt_property(int, int, QVariant*)
vfunc[6]:	QTextBrowser::~~QTextBrowser()
vfunc[7]:	QTextBrowser::~QTextBrowser()
vfunc[8]:	QTextEdit::event(QEvent*)
vfunc[9]:	QTextEdit::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QTextEdit::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QTextEdit::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QTextEdit::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)

vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QTextEdit::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QTextEdit::sizeHint() const
vfunc[59]:	QScrollView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QTextEdit::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)

vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QTextBrowser::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QTextEdit::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QTextEdit::imStartEvent(QIMEvent*)
vfunc[86]:	QTextEdit::imComposeEvent(QIMEvent*)
vfunc[87]:	QTextEdit::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)

vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QTextEdit::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QTextEdit::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QTextEdit::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QTextEdit::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QTextEdit::contentsMouseEvent(QMouseEvent*)
vfunc[130]:	QTextEdit::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QTextEdit::contentsMouseDoubleClickEvent(QMouseEvent*)

vfunc[132]:	QTextEdit::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QTextEdit::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QTextEdit::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QTextEdit::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QTextEdit::contentsDropEvent(QDropEvent*)
vfunc[137]:	QTextEdit::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QTextEdit::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QTextEdit::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMousePressEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QTextEdit::find(QString const&, bool, bool, bool, int*, int*)
vfunc[155]:	QTextEdit::getFormat(int, int, QFont*, QColor*, QTextEdit::VerticalAlignment*)
vfunc[156]:	QTextEdit::getParagraphFormat(int, QFont*, QColor*, QTextEdit::VerticalAlignment*, int*, QStyleSheetItem::DisplayMode*, QStyleSheetItem::ListStyle*, int*)
vfunc[157]:	QTextEdit::setMimeSourceFactory(QMimeSourceFactory*)
vfunc[158]:	QTextEdit::setStyleSheet(QStyleSheet*)
vfunc[159]:	QTextEdit::scrollToAnchor(QString const&)
vfunc[160]:	QTextEdit::setPaper(QBrush const&)
vfunc[161]:	QTextEdit::setLinkUnderline(bool)
vfunc[162]:	QTextEdit::setWordWrap(QTextEdit::WordWrap)
vfunc[163]:	QTextEdit::setWrapColumnOrWidth(int)

vfunc[164]:	QTextEdit::setWrapPolicy(QTextEdit::WrapPolicy)
vfunc[165]:	QTextEdit::copy()
vfunc[166]:	QTextEdit::append(QString const&)
vfunc[167]:	QTextBrowser::setText(QString const&, QString const&)
vfunc[168]:	QTextEdit::setTextFormat(Qt::TextFormat)
vfunc[169]:	QTextEdit::selectAll(bool)
vfunc[170]:	QTextEdit::setTabStopWidth(int)
vfunc[171]:	QTextEdit::zoomIn(int)
vfunc[172]:	NULL or QTextEdit::zoomIn()
vfunc[173]:	QTextEdit::zoomOut(int)
vfunc[174]:	NULL or QTextEdit::zoomOut()
vfunc[175]:	QTextEdit::zoomTo(int)
vfunc[176]:	QTextEdit::sync()
vfunc[177]:	QTextEdit::setReadOnly(bool)
vfunc[178]:	QTextEdit::undo()
vfunc[179]:	QTextEdit::redo()
vfunc[180]:	QTextEdit::cut()
vfunc[181]:	QTextEdit::paste()
vfunc[182]:	QTextEdit::pasteSubType(QCString const&)
vfunc[183]:	QTextEdit::clear()
vfunc[184]:	QTextEdit::del()
vfunc[185]:	QTextEdit::indent()
vfunc[186]:	QTextEdit::setItalic(bool)
vfunc[187]:	QTextEdit::setBold(bool)
vfunc[188]:	QTextEdit::setUnderline(bool)
vfunc[189]:	QTextEdit::setFamily(QString const&)
vfunc[190]:	QTextEdit::setPointSize(int)
vfunc[191]:	QTextEdit::setColor(QColor const&)
vfunc[192]:	QTextEdit::setVerticalAlignment(QTextEdit::VerticalAlignment)
vfunc[193]:	QTextEdit::setAlignment(int)
vfunc[194]:	QTextEdit::setParagType(QStyleSheetItem::DisplayMode, QStyleSheetItem::ListStyle)
vfunc[195]:	QTextEdit::setCursorPosition(int, int)
vfunc[196]:	QTextEdit::setSelection(int, int, int, int, int)

vfunc[197]:	QTextEdit::setSelectionAttributes(int, QColor const&, bool)
vfunc[198]:	QTextEdit::setModified(bool)
vfunc[199]:	QTextEdit::resetFormat()
vfunc[200]:	QTextEdit::setUndoDepth(int)
vfunc[201]:	QTextEdit::setFormat(QTextFormat*, int)
vfunc[202]:	QTextEdit::ensureCursorVisible()
vfunc[203]:	QTextEdit::placeCursor(QPoint const&, QTextCursor*)
vfunc[204]:	QTextEdit::moveCursor(QTextEdit::CursorAction, bool)
vfunc[205]:	QTextEdit::doKeyboardAction(QTextEdit::KeyboardAction)
vfunc[206]:	QTextEdit::removeSelectedText(int)
vfunc[207]:	QTextEdit::removeSelection(int)
vfunc[208]:	NULL or QTextEdit::setCurrentFont(QFont const&)
vfunc[209]:	NULL or QTextEdit::setOverwriteMode(bool)
vfunc[210]:	QTextEdit::scrollToBottom()
vfunc[211]:	QTextEdit::insert(QString const&, bool, bool, bool)
vfunc[212]:	QTextEdit::insertAt(QString const&, int, int)
vfunc[213]:	QTextEdit::removeParagraph(int)
vfunc[214]:	QTextEdit::insertParagraph(QString const&, int)
vfunc[215]:	QTextEdit::setParagraphBackgroundColor(int, QColor const&)
vfunc[216]:	QTextEdit::clearParagraphBackground(int)
vfunc[217]:	QTextEdit::setUndoRedoEnabled(bool)
vfunc[218]:	QTextEdit::createPopupMenu(QPoint const&)
vfunc[219]:	QTextEdit::createPopupMenu()
vfunc[220]:	QTextEdit::doChangeInterval()
vfunc[221]:	NULL or QTextBrowser::linksEnabled() const
vfunc[222]:	QTextBrowser::emitHighlighted(QString const&)
vfunc[223]:	QTextBrowser::emitLinkClicked(QString const&)
vfunc[224]:	QTextBrowser::setSource(QString const&)
vfunc[225]:	QTextBrowser::backward()
vfunc[226]:	QTextBrowser::forward()
vfunc[227]:	QTextBrowser::home()
vfunc[228]:	QTextBrowser::reload()

The Run Time Type Information for the QTextBrowser class is described by [Table 18-360](#)

Table 18-360. typeinfo for QTextBrowser

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextBrowser
basetype:	typeinfo for QTextEdit

18.2.22.4. Class data for QLineEdit

The virtual table for the QLineEdit class is described by [Table 18-361](#)

Table 18-361. Primary vtable for QLineEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLineEdit
vfunc[0]:	NULL or QLineEdit::metaObject() const
vfunc[1]:	QLineEdit::className() const
vfunc[2]:	QLineEdit::qt_cast(char const*)
vfunc[3]:	QLineEdit::qt_invoke(int, QUObject*)
vfunc[4]:	QLineEdit::qt_emit(int, QUObject*)
vfunc[5]:	QLineEdit::qt_property(int, int, QVariant*)
vfunc[6]:	QLineEdit::~~QLineEdit()
vfunc[7]:	QLineEdit::~QLineEdit()
vfunc[8]:	QLineEdit::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)

vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QLineEdit::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QLineEdit::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()

vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QLineEdit::sizeHint() const
vfunc[59]:	QLineEdit::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QLineEdit::mousePressEvent(QMouseEvent*)
vfunc[70]:	QLineEdit::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QLineEdit::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QLineEdit::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QLineEdit::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QLineEdit::focusInEvent(QFocusEvent*)
vfunc[77]:	QLineEdit::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QLineEdit::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QLineEdit::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QLineEdit::imStartEvent(QIMEvent*)

vfunc[86]:	QLineEdit::imComposeEvent(QIMEvent*)
vfunc[87]:	QLineEdit::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QLineEdit::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QLineEdit::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QLineEdit::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QLineEdit::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QLineEdit::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QLineEdit::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QLineEdit::setText(QString const&)

vfunc[119]:	QLineEdit::selectAll()
vfunc[120]:	QLineEdit::deselect()
vfunc[121]:	QLineEdit::clearValidator()
vfunc[122]:	QLineEdit::insert(QString const&)
vfunc[123]:	QLineEdit::clear()
vfunc[124]:	QLineEdit::undo()
vfunc[125]:	QLineEdit::redo()
vfunc[126]:	QLineEdit::setMaxLength(int)
vfunc[127]:	QLineEdit::setFrame(bool)
vfunc[128]:	QLineEdit::setEchoMode(QLineEdit::EchoMode)
vfunc[129]:	QLineEdit::setReadOnly(bool)
vfunc[130]:	QLineEdit::setValidator(QValidator const*)
vfunc[131]:	QLineEdit::setSelection(int, int)
vfunc[132]:	QLineEdit::setCursorPosition(int)
vfunc[133]:	QLineEdit::setAlignment(int)
vfunc[134]:	QLineEdit::cut()
vfunc[135]:	QLineEdit::copy() const
vfunc[136]:	QLineEdit::paste()
vfunc[137]:	QLineEdit::setDragEnabled(bool)
vfunc[138]:	QLineEdit::createPopupMenu()

The Run Time Type Information for the QLineEdit class is described by [Table 18-362](#)

Table 18-362. typeinfo for QLineEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QLineEdit
basetype:	typeinfo for QFrame

18.2.22.5. Class data for QListBoxText

The virtual table for the QListBoxText class is described by [Table 18-363](#)

Table 18-363. Primary vtable for QListBoxText

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QListBoxText
vfunc[0]:	QListBoxText::~~QListBoxText()
vfunc[1]:	QListBoxText::~~QListBoxText()
vfunc[2]:	QListBoxItem::text() const
vfunc[3]:	QListBoxItem::pixmap() const
vfunc[4]:	QListBoxText::height(QListBox const*) const
vfunc[5]:	QListBoxText::width(QListBox const*) const
vfunc[6]:	QListBoxText::rtti() const
vfunc[7]:	QListBoxText::paint(QPainter*)
vfunc[8]:	NULL or QListBoxItem::setText(QString const&)

The Run Time Type Information for the QListBoxText class is described by [Table 18-364](#)

Table 18-364. typeinfo for QListBoxText

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QListBoxText
basetype:	typeinfo for QListBoxItem

18.2.22.6. Class data for QLCDNumber

The virtual table for the QLCDNumber class is described by [Table 18-365](#)

Table 18-365. Primary vtable for QLCDNumber

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLCDNumber
vfunc[0]:	NULL or QLCDNumber::metaObject() const
vfunc[1]:	QLCDNumber::className() const
vfunc[2]:	QLCDNumber::qt_cast(char const*)
vfunc[3]:	QLCDNumber::qt_invoke(int, QUObject*)
vfunc[4]:	QLCDNumber::qt_emit(int, QUObject*)
vfunc[5]:	QLCDNumber::qt_property(int, int, QVariant*)
vfunc[6]:	QLCDNumber::~~QLCDNumber()

vfunc[7]:	QLCDNumber::~~QLCDNumber()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)

vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QLCDNumber::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)

vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QFrame::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)

vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QLCDNumber::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QLCDNumber::setNumDigits(int)
vfunc[119]:	QLCDNumber::setMode(QLCDNumber::Mode)
vfunc[120]:	QLCDNumber::setSegmentStyle(QLCDNumber::SegmentStyle)
vfunc[121]:	QLCDNumber::setHexMode()
vfunc[122]:	QLCDNumber::setDecMode()
vfunc[123]:	QLCDNumber::setOctMode()
vfunc[124]:	QLCDNumber::setBinMode()
vfunc[125]:	QLCDNumber::setSmallDecimalPoint(bool)

The Run Time Type Information for the QLCDNumber class is described by [Table 18-366](#)

Table 18-366. typeinfo for QLCDNumber

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QLCDNumber
basetype:	typeinfo for QFrame

18.2.22.7. Class data for QGridView

The virtual table for the QGridView class is described by [Table 18-367](#)

Table 18-367. Primary vtable for QGridView

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QGraphicsView
vfunc[0]:	NULL or QGraphicsView::metaObject() const
vfunc[1]:	QGraphicsView::className() const
vfunc[2]:	QGraphicsView::qt_cast(char const*)
vfunc[3]:	QGraphicsView::qt_invoke(int, QObject*)
vfunc[4]:	QGraphicsView::qt_emit(int, QObject*)
vfunc[5]:	QGraphicsView::qt_property(int, int, QVariant*)
vfunc[6]:	QGraphicsView::~~QGraphicsView()
vfunc[7]:	QGraphicsView::~~QGraphicsView()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QScrollView::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QScrollView::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)

vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QScrollView::sizeHint() const
vfunc[59]:	QScrollView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()

vfunc[64]:	QWidget::repaint(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QScrollView::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()

vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QScrollView::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QGridView::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QGridView::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QScrollView::contentsMouseEvent(QMouseEvent*)

vfunc[130]:	QScrollView::contentsMouseEvent(QMouseEvent*)
vfunc[131]:	QScrollView::contentsMouseEvent(QMouseEvent*)
vfunc[132]:	QScrollView::contentsMouseEvent(QMouseEvent*)
vfunc[133]:	QScrollView::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QScrollView::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QScrollView::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QScrollView::contentsDropEvent(QDropEvent*)
vfunc[137]:	QScrollView::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QScrollView::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QScrollView::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QGridView::setNumRows(int)
vfunc[155]:	QGridView::setNumCols(int)
vfunc[156]:	QGridView::setCellWidth(int)
vfunc[157]:	QGridView::setCellHeight(int)
vfunc[158]:	__cxa_pure_virtual
vfunc[159]:	QGridView::paintEmptyArea(QPainter*, int, int, int, int)
vfunc[160]:	QGridView::dimensionChange(int, int)

The Run Time Type Information for the QGridView class is described by [Table 18-368](#)

Table 18-368. typeinfo for QGridView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGridView
basetype:	typeinfo for QScrollView

18.2.22.8. Class data for QPushButton

The virtual table for the QPushButton class is described by [Table 18-369](#)

Table 18-369. Primary vtable for QPushButton

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPushButton
vfunc[0]:	NULL or QPushButton::metaObject() const
vfunc[1]:	QPushButton::className() const
vfunc[2]:	QPushButton::qt_cast(char const*)
vfunc[3]:	QPushButton::qt_invoke(int, QObject*)
vfunc[4]:	QPushButton::qt_emit(int, QObject*)
vfunc[5]:	QPushButton::qt_property(int, int, QVariant*)
vfunc[6]:	QPushButton::~~QPushButton()
vfunc[7]:	QPushButton::~~QPushButton()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)

vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()

vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QPushButton::mousePressEvent(QMouseEvent*)
vfunc[70]:	QPushButton::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QPushButton::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QPushButton::keyPressEvent(QKeyEvent*)
vfunc[75]:	QPushButton::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QPushButton::focusInEvent(QFocusEvent*)
vfunc[77]:	QPushButton::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QPushButton::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)

vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QPushButton::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QPushButton::setText(QString const&)
vfunc[111]:	QPushButton::setPixmap(QPixmap const&)
vfunc[112]:	QPushButton::setAccel(QKeySequence const&)
vfunc[113]:	QPushButton::setDown(bool)
vfunc[114]:	QPushButton::setAutoRepeat(bool)
vfunc[115]:	QPushButton::setToggleType(QPushButton::ToggleType)
vfunc[116]:	QPushButton::setState(QPushButton::ToggleState)
vfunc[117]:	QPushButton::hitButton(QPoint const&) const
vfunc[118]:	QPushButton::drawButton(QPainter*)

vfunc[119]:	QPushButton::drawButtonLabel(QPainter*)
vfunc[120]:	QPushButton::setGroup(QButtonGroup*)

The Run Time Type Information for the QPushButton class is described by [Table 18-370](#)

Table 18-370. typeinfo for QPushButton

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPushButton
basetype:	typeinfo for QWidget

18.2.22.9. Class data for QTabWidget

The virtual table for the QTabWidget class is described by [Table 18-371](#)

Table 18-371. Primary vtable for QTabWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTabWidget
vfunc[0]:	NULL or QTabWidget::metaObject() const
vfunc[1]:	QTabWidget::className() const
vfunc[2]:	QTabWidget::qt_cast(char const*)
vfunc[3]:	QTabWidget::qt_invoke(int, QUObject*)
vfunc[4]:	QTabWidget::qt_emit(int, QUObject*)
vfunc[5]:	QTabWidget::qt_property(int, int, QVariant*)
vfunc[6]:	QTabWidget::~~QTabWidget()
vfunc[7]:	QTabWidget::~QTabWidget()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QTabWidget::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)

vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()

vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QTabWidget::sizeHint() const
vfunc[59]:	QTabWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)

vfunc[82]:	QTabWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QTabWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QTabWidget::updateMask()
vfunc[97]:	QTabWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QTabWidget::addTab(QWidget*, QString const&)
vfunc[111]:	QTabWidget::addTab(QWidget*, QIconSet const&, QString const&)
vfunc[112]:	QTabWidget::addTab(QWidget*, QTab*)
vfunc[113]:	QTabWidget::insertTab(QWidget*, QString const&, int)
vfunc[114]:	QTabWidget::insertTab(QWidget*, QIconSet const&, QString const&, int)

vfunc[115]:	QTabWidget::insertTab(QWidget*, QTab*, int)
vfunc[116]:	QTabWidget::showPage(QWidget*)
vfunc[117]:	QTabWidget::removePage(QWidget*)

The Run Time Type Information for the QTabWidget class is described by [Table 18-372](#)

Table 18-372. typeinfo for QTabWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTabWidget
basetype:	typeinfo for QWidget

18.2.22.10. Class data for QTextView

The virtual table for the QTextView class is described by [Table 18-373](#)

Table 18-373. Primary vtable for QTextView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextView
vfunc[0]:	NULL or QTextView::metaObject() const
vfunc[1]:	QTextView::className() const
vfunc[2]:	QTextView::qt_cast(char const*)
vfunc[3]:	QTextView::qt_invoke(int, QUObject*)
vfunc[4]:	QTextView::qt_emit(int, QUObject*)
vfunc[5]:	QTextView::qt_property(int, int, QVariant*)
vfunc[6]:	QTextView::~QTextView()
vfunc[7]:	QTextView::~QTextView()
vfunc[8]:	QTextEdit::event(QEvent*)
vfunc[9]:	QTextEdit::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const

vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QTextEdit::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QTextEdit::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QTextEdit::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()

vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QTextEdit::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QTextEdit::sizeHint() const
vfunc[59]:	QScrollView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QTextEdit::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QTextEdit::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)

vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QTextEdit::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QTextEdit::imStartEvent(QIMEvent*)
vfunc[86]:	QTextEdit::imComposeEvent(QIMEvent*)
vfunc[87]:	QTextEdit::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QTextEdit::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QTextEdit::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)

vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QTextEdit::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QTextEdit::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QTextEdit::contentsMouseEvent(QMouseEvent*)
vfunc[130]:	QTextEdit::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QTextEdit::contentsMouseDoubleClickEvent(QMouseEvent*)
vfunc[132]:	QTextEdit::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QTextEdit::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QTextEdit::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QTextEdit::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QTextEdit::contentsDropEvent(QDropEvent*)
vfunc[137]:	QTextEdit::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QTextEdit::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QTextEdit::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)

vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QTextEdit::find(QString const&, bool, bool, bool, int*, int*)
vfunc[155]:	QTextEdit::getFormat(int, int, QFont*, QColor*, QTextEdit::VerticalAlignment*)
vfunc[156]:	QTextEdit::getParagraphFormat(int, QFont*, QColor*, QTextEdit::VerticalAlignment*, int*, QStyleSheetItem::DisplayMode*, QStyleSheetItem::ListStyle*, int*)
vfunc[157]:	QTextEdit::setMimeSourceFactory(QMimeSourceFactory*)
vfunc[158]:	QTextEdit::setStyleSheet(QStyleSheet*)
vfunc[159]:	QTextEdit::scrollToAnchor(QString const&)
vfunc[160]:	QTextEdit::setPaper(QBrush const&)
vfunc[161]:	QTextEdit::setLinkUnderline(bool)
vfunc[162]:	QTextEdit::setWordWrap(QTextEdit::WordWrap)
vfunc[163]:	QTextEdit::setWrapColumnOrWidth(int)
vfunc[164]:	QTextEdit::setWrapPolicy(QTextEdit::WrapPolicy)
vfunc[165]:	QTextEdit::copy()
vfunc[166]:	QTextEdit::append(QString const&)
vfunc[167]:	QTextEdit::setText(QString const&, QString const&)
vfunc[168]:	QTextEdit::setTextFormat(Qt::TextFormat)
vfunc[169]:	QTextEdit::selectAll(bool)
vfunc[170]:	QTextEdit::setTabStopWidth(int)
vfunc[171]:	QTextEdit::zoomIn(int)
vfunc[172]:	NULL or QTextEdit::zoomIn()
vfunc[173]:	QTextEdit::zoomOut(int)
vfunc[174]:	NULL or QTextEdit::zoomOut()
vfunc[175]:	QTextEdit::zoomTo(int)
vfunc[176]:	QTextEdit::sync()
vfunc[177]:	QTextEdit::setReadOnly(bool)
vfunc[178]:	QTextEdit::undo()

vfunc[179]:	QTextEdit::redo()
vfunc[180]:	QTextEdit::cut()
vfunc[181]:	QTextEdit::paste()
vfunc[182]:	QTextEdit::pasteSubType(QCString const&)
vfunc[183]:	QTextEdit::clear()
vfunc[184]:	QTextEdit::del()
vfunc[185]:	QTextEdit::indent()
vfunc[186]:	QTextEdit::setItalic(bool)
vfunc[187]:	QTextEdit::setBold(bool)
vfunc[188]:	QTextEdit::setUnderline(bool)
vfunc[189]:	QTextEdit::setFamily(QString const&)
vfunc[190]:	QTextEdit::setPointSize(int)
vfunc[191]:	QTextEdit::setColor(QColor const&)
vfunc[192]:	QTextEdit::setVerticalAlignment(QTextEdit::VerticalAlignment)
vfunc[193]:	QTextEdit::setAlignment(int)
vfunc[194]:	QTextEdit::setParagType(QStyleSheetItem::DisplayMode, QStyleSheetItem::ListStyle)
vfunc[195]:	QTextEdit::setCursorPosition(int, int)
vfunc[196]:	QTextEdit::setSelection(int, int, int, int, int)
vfunc[197]:	QTextEdit::setSelectionAttributes(int, QColor const&, bool)
vfunc[198]:	QTextEdit::setModified(bool)
vfunc[199]:	QTextEdit::resetFormat()
vfunc[200]:	QTextEdit::setUndoDepth(int)
vfunc[201]:	QTextEdit::setFormat(QTextFormat*, int)
vfunc[202]:	QTextEdit::ensureCursorVisible()
vfunc[203]:	QTextEdit::placeCursor(QPoint const&, QTextCursor*)
vfunc[204]:	QTextEdit::moveCursor(QTextEdit::CursorAction, bool)
vfunc[205]:	QTextEdit::doKeyboardAction(QTextEdit::KeyboardAction)
vfunc[206]:	QTextEdit::removeSelectedText(int)
vfunc[207]:	QTextEdit::removeSelection(int)
vfunc[208]:	NULL or QTextEdit::setCurrentFont(QFont const&)
vfunc[209]:	NULL or QTextEdit::setOverwriteMode(bool)
vfunc[210]:	QTextEdit::scrollToBottom()
vfunc[211]:	QTextEdit::insert(QString const&, bool, bool, bool)

vfunc[212]:	QTextEdit::insertAt(QString const&, int, int)
vfunc[213]:	QTextEdit::removeParagraph(int)
vfunc[214]:	QTextEdit::insertParagraph(QString const&, int)
vfunc[215]:	QTextEdit::setParagraphBackgroundColor(int, QColor const&)
vfunc[216]:	QTextEdit::clearParagraphBackground(int)
vfunc[217]:	QTextEdit::setUndoRedoEnabled(bool)
vfunc[218]:	QTextEdit::createPopupMenu(QPoint const&)
vfunc[219]:	QTextEdit::createPopupMenu()
vfunc[220]:	QTextEdit::doChangeInterval()
vfunc[221]:	NULL or QTextEdit::linksEnabled() const
vfunc[222]:	NULL or QTextEdit::emitHighlighted(QString const&)
vfunc[223]:	NULL or QTextEdit::emitLinkClicked(QString const&)

The Run Time Type Information for the QTextView class is described by [Table 18-374](#)

Table 18-374. typeinfo for QTextView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextView
basetype:	typeinfo for QTextEdit

18.2.22.11. Class data for QTab

The virtual table for the QTab class is described by [Table 18-375](#)

Table 18-375. Primary vtable for QTab

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTab
vfunc[0]:	QTab::~~QTab()
vfunc[1]:	QTab::~~QTab()

The Run Time Type Information for the QTab class is described by [Table 18-376](#)

Table 18-376. typeinfo for QTab

Base Vtable	vtable for __cxxabiv1::__si_class_type_info

Name	typeinfo name for QTab
basetype:	typeinfo for Qt

18.2.22.12. Class data for QDial

The virtual table for the QDial class is described by [Table 18-377](#)

Table 18-377. Primary vtable for QDial

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDial
vfunc[0]:	NULL or QDial::metaObject() const
vfunc[1]:	QDial::className() const
vfunc[2]:	QDial::qt_cast(char const*)
vfunc[3]:	QDial::qt_invoke(int, QUObject*)
vfunc[4]:	QDial::qt_emit(int, QUObject*)
vfunc[5]:	QDial::qt_property(int, int, QVariant*)
vfunc[6]:	QDial::~~QDial()
vfunc[7]:	QDial::~~QDial()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)

vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)

vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDial::sizeHint() const
vfunc[59]:	QDial::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QDial::mousePressEvent(QMouseEvent*)
vfunc[70]:	QDial::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QDial::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QDial::wheelEvent(QWheelEvent*)
vfunc[74]:	QDial::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QDial::focusInEvent(QFocusEvent*)
vfunc[77]:	QDial::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QDial::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDial::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)

vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDial::setNotchTarget(double)
vfunc[111]:	QDial::setValue(int)
vfunc[112]:	QDial::setNotchesVisible(bool)
vfunc[113]:	QDial::setWrapping(bool)
vfunc[114]:	QDial::setTracking(bool)
vfunc[115]:	QDial::valueChange()
vfunc[116]:	QDial::rangeChange()
vfunc[117]:	QDial::repaintScreen(QRect const*)

The Run Time Type Information for the QDial class is described by [Table 18-378](#)

Table 18-378. typeinfo for QDial

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QDial	
flags:	0	
basetype:	typeinfo for QWidget	2
basetype:	typeinfo for QRangeControl	29698

18.2.22.13. Class data for QListView

The virtual table for the QListView class is described by [Table 18-379](#)

Table 18-379. Primary vtable for QListView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QListView
vfunc[0]:	NULL or QListView::metaObject() const
vfunc[1]:	QListView::className() const
vfunc[2]:	QListView::qt_cast(char const*)
vfunc[3]:	QListView::qt_invoke(int, QUObject*)
vfunc[4]:	QListView::qt_emit(int, QUObject*)
vfunc[5]:	QListView::qt_property(int, int, QVariant*)
vfunc[6]:	QListView::~~QListView()
vfunc[7]:	QListView::~~QListView()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QListView::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)

vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QScrollView::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QListView::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QListView::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QListView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()

vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QListView::sizeHint() const
vfunc[59]:	QListView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QListView::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QListView::focusInEvent(QFocusEvent*)
vfunc[77]:	QListView::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QListView::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)

vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QListView::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QListView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QListView::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QScrollView::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QScrollView::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()

vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QListView::setContentsPos(int, int)
vfunc[127]:	QScrollView::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QListView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QListView::contentsMouseEvent(QMouseEvent*)
vfunc[130]:	QListView::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QListView::contentsMouseDoubleClickEvent(QMouseEvent*)
vfunc[132]:	QListView::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QListView::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QListView::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QListView::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QListView::contentsDropEvent(QDropEvent*)
vfunc[137]:	QScrollView::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QListView::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QListView::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)

vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QListView::setTreeStepSize(int)
vfunc[155]:	QListView::insertItem(QListViewItem*)
vfunc[156]:	QListView::takeItem(QListViewItem*)
vfunc[157]:	NULL or QListView::removeItem(QListViewItem*)
vfunc[158]:	QListView::addColumn(QString const&, int)
vfunc[159]:	QListView::addColumn(QIconSet const&, QString const&, int)
vfunc[160]:	QListView::removeColumn(int)
vfunc[161]:	QListView::setColumnText(int, QString const&)
vfunc[162]:	QListView::setColumnText(int, QIconSet const&, QString const&)
vfunc[163]:	QListView::setColumnWidth(int, int)
vfunc[164]:	QListView::setColumnWidthMode(int, QListView::WidthMode)
vfunc[165]:	QListView::setColumnAlignment(int, int)
vfunc[166]:	QListView::setMultiSelection(bool)
vfunc[167]:	QListView::clearSelection()
vfunc[168]:	QListView::setSelected(QListViewItem*, bool)
vfunc[169]:	QListView::setOpen(QListViewItem*, bool)
vfunc[170]:	QListView::setCurrentItem(QListViewItem*)
vfunc[171]:	QListView::setAllColumnsShowFocus(bool)
vfunc[172]:	QListView::setItemMargin(int)
vfunc[173]:	QListView::setRootIsDecorated(bool)
vfunc[174]:	QListView::setSorting(int, bool)
vfunc[175]:	QListView::sort()
vfunc[176]:	QListView::setShowSortIndicator(bool)
vfunc[177]:	QListView::setShowToolTips(bool)
vfunc[178]:	QListView::setResizeMode(QListView::ResizeMode)
vfunc[179]:	QListView::setDefaultRenameAction(QListView::RenameAction)
vfunc[180]:	QListView::clear()
vfunc[181]:	QListView::invertSelection()
vfunc[182]:	QListView::selectAll(bool)
vfunc[183]:	QListView::dragObject()

vfunc[184]:	QListView::startDrag()
vfunc[185]:	QListView::paintEmptyArea(QPainter*, QRect const&)

The Run Time Type Information for the QListView class is described by [Table 18-380](#)

Table 18-380. typeinfo for QListView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QListView
basetype:	typeinfo for QScrollView

18.2.22.14. Class data for QDesktopWidget

The virtual table for the QDesktopWidget class is described by [Table 18-381](#)

Table 18-381. Primary vtable for QDesktopWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDesktopWidget
vfunc[0]:	NULL or QDesktopWidget::metaObject() const
vfunc[1]:	QDesktopWidget::className() const
vfunc[2]:	QDesktopWidget::qt_cast(char const*)
vfunc[3]:	QDesktopWidget::qt_invoke(int, QUObject*)
vfunc[4]:	QDesktopWidget::qt_emit(int, QUObject*)
vfunc[5]:	QDesktopWidget::qt_property(int, int, QVariant*)
vfunc[6]:	QDesktopWidget::~~QDesktopWidget()
vfunc[7]:	QDesktopWidget::~~QDesktopWidget()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QDesktopWidget::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)

vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()

vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)

vfunc[82]:	QDesktopWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)

The Run Time Type Information for the QDesktopWidget class is described by [Table 18-382](#)

Table 18-382. typeinfo for QDesktopWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info

Name	typeinfo name for QDesktopWidget
basetype:	typeinfo for QWidget

18.2.22.15. Class data for QListBoxItem

The virtual table for the QListBoxItem class is described by [Table 18-383](#)

Table 18-383. Primary vtable for QListBoxItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QListBoxItem
vfunc[0]:	QListBoxItem::~~QListBoxItem()
vfunc[1]:	QListBoxItem::~~QListBoxItem()
vfunc[2]:	QListBoxItem::text() const
vfunc[3]:	QListBoxItem::pixmap() const
vfunc[4]:	QListBoxItem::height(QListBox const*) const
vfunc[5]:	QListBoxItem::width(QListBox const*) const
vfunc[6]:	QListBoxItem::rtti() const
vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	NULL or QListBoxItem::setText(QString const&)

The Run Time Type Information for the QListBoxItem class is described by [Table 18-384](#)

Table 18-384. typeinfo for QListBoxItem

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QListBoxItem

18.2.22.16. Class data for QScrollBar

The virtual table for the QScrollBar class is described by [Table 18-385](#)

Table 18-385. Primary vtable for QScrollBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QScrollBar

vfunc[0]:	NULL or QScrollBar::metaObject() const
vfunc[1]:	QScrollBar::className() const
vfunc[2]:	QScrollBar::qt_cast(char const*)
vfunc[3]:	QScrollBar::qt_invoke(int, QUObject*)
vfunc[4]:	QScrollBar::qt_emit(int, QUObject*)
vfunc[5]:	QScrollBar::qt_property(int, int, QVariant*)
vfunc[6]:	QScrollBar::~~QScrollBar()
vfunc[7]:	QScrollBar::~~QScrollBar()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QScrollBar::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)

vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QScrollBar::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QScrollBar::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)

vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollBar::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollBar::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollBar::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollBar::wheelEvent(QWheelEvent*)
vfunc[74]:	QScrollBar::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QScrollBar::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QScrollBar::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollBar::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QScrollBar::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollBar::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)

vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QScrollBar::setOrientation(Qt::Orientation)
vfunc[111]:	NULL or QScrollBar::setTracking(bool)
vfunc[112]:	QScrollBar::valueChange()
vfunc[113]:	QScrollBar::stepChange()
vfunc[114]:	QScrollBar::rangeChange()

The Run Time Type Information for the QScrollBar class is described by [Table 18-386](#)

Table 18-386. typeinfo for QScrollBar

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QScrollBar	
flags:	0	
basetype:	typeinfo for QWidget	2
basetype:	typeinfo for QRangeControl	29698

18.2.22.17. Class data for QIconFactory

The virtual table for the QIconFactory class is described by [Table 18-387](#)

Table 18-387. Primary vtable for QIconFactory

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIconFactory

vfunc[0]:	QIconFactory::~~QIconFactory()
vfunc[1]:	QIconFactory::~~QIconFactory()
vfunc[2]:	QIconFactory::createPixmap(QIconSet const&, QIconSet::Size, QIconSet::Mode, QIconSet::State)

The Run Time Type Information for the QIconFactory class is described by [Table 18-388](#)

Table 18-388. typeinfo for QIconFactory

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QIconFactory	
flags:	0	
basetype:	typeinfo for QShared	1024

18.2.22.18. Class data for QSpinBox

The virtual table for the QSpinBox class is described by [Table 18-389](#)

Table 18-389. Primary vtable for QSpinBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSpinBox
vfunc[0]:	NULL or QSpinBox::metaObject() const
vfunc[1]:	QSpinBox::className() const
vfunc[2]:	QSpinBox::qt_cast(char const*)
vfunc[3]:	QSpinBox::qt_invoke(int, QUObject*)
vfunc[4]:	QSpinBox::qt_emit(int, QUObject*)
vfunc[5]:	QSpinBox::qt_property(int, int, QVariant*)
vfunc[6]:	QSpinBox::~~QSpinBox()
vfunc[7]:	QSpinBox::~~QSpinBox()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QSpinBox::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)

vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QSpinBox::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)

vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QSpinBox::sizeHint() const
vfunc[59]:	QSpinBox::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QSpinBox::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QSpinBox::leaveEvent(QEvent*)

vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QSpinBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QSpinBox::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QSpinBox::prefix() const
vfunc[111]:	QSpinBox::suffix() const
vfunc[112]:	QSpinBox::cleanText() const

vfunc[113]:	QSpinBox::setSpecialValueText(QString const&)
vfunc[114]:	QSpinBox::setWrapping(bool)
vfunc[115]:	QSpinBox::setButtonSymbols(QSpinBox::ButtonSymbols)
vfunc[116]:	QSpinBox::setValidator(QValidator const*)
vfunc[117]:	QSpinBox::setValue(int)
vfunc[118]:	QSpinBox::setPrefix(QString const&)
vfunc[119]:	QSpinBox::setSuffix(QString const&)
vfunc[120]:	QSpinBox::stepUp()
vfunc[121]:	QSpinBox::stepDown()
vfunc[122]:	QSpinBox::selectAll()
vfunc[123]:	QSpinBox::mapValueToText(int)
vfunc[124]:	QSpinBox::mapTextToValue(bool*)
vfunc[125]:	QSpinBox::updateDisplay()
vfunc[126]:	QSpinBox::interpretText()
vfunc[127]:	QSpinBox::valueChange()
vfunc[128]:	QSpinBox::rangeChange()

The Run Time Type Information for the QSpinBox class is described by [Table 18-390](#)

Table 18-390. typeinfo for QSpinBox

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QSpinBox	
flags:	0	
basetype:	typeinfo for QWidget	2
basetype:	typeinfo for QRangeControl	29698

18.2.22.19. Class data for QLabel

The virtual table for the QLabel class is described by [Table 18-391](#)

Table 18-391. Primary vtable for QLabel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLabel

vfunc[0]:	NULL or QLabel::metaObject() const
vfunc[1]:	QLabel::className() const
vfunc[2]:	QLabel::qt_cast(char const*)
vfunc[3]:	QLabel::qt_invoke(int, QUObject*)
vfunc[4]:	QLabel::qt_emit(int, QUObject*)
vfunc[5]:	QLabel::qt_property(int, int, QVariant*)
vfunc[6]:	QLabel::~~QLabel()
vfunc[7]:	QLabel::~QLabel()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QLabel::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)

vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QLabel::sizeHint() const
vfunc[59]:	QLabel::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QLabel::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)

vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QLabel::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)

vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QLabel::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QLabel::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QLabel::setAlignment(int)
vfunc[119]:	QLabel::setAutoResize(bool)
vfunc[120]:	QLabel::setBuddy(QWidget*)
vfunc[121]:	QLabel::setText(QString const&)
vfunc[122]:	QLabel::setPixmap(QPixmap const&)
vfunc[123]:	QLabel::setPicture(QPicture const&)
vfunc[124]:	QLabel::setMovie(QMovie const&)
vfunc[125]:	QLabel::setNum(int)
vfunc[126]:	QLabel::setNum(double)

The Run Time Type Information for the QLabel class is described by [Table 18-392](#)

Table 18-392. typeinfo for QLabel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info

Name	typeinfo name for QLabel
basetype:	typeinfo for QFrame

18.2.22.20. Class data for QListBoxPixmap

The virtual table for the QListBoxPixmap class is described by [Table 18-393](#)

Table 18-393. Primary vtable for QListBoxPixmap

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QListBoxPixmap
vfunc[0]:	QListBoxPixmap::~~QListBoxPixmap()
vfunc[1]:	QListBoxPixmap::~~QListBoxPixmap()
vfunc[2]:	QListBoxItem::text() const
vfunc[3]:	NULL or QListBoxPixmap::pixmap() const
vfunc[4]:	QListBoxPixmap::height(QListBox const*) const
vfunc[5]:	QListBoxPixmap::width(QListBox const*) const
vfunc[6]:	QListBoxPixmap::rtti() const
vfunc[7]:	QListBoxPixmap::paint(QPainter*)
vfunc[8]:	NULL or QListBoxItem::setText(QString const&)

The Run Time Type Information for the QListBoxPixmap class is described by [Table 18-394](#)

Table 18-394. typeinfo for QListBoxPixmap

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QListBoxPixmap
basetype:	typeinfo for QListBoxItem

18.2.22.21. Class data for QWhatsThis

The virtual table for the QWhatsThis class is described by [Table 18-395](#)

Table 18-395. Primary vtable for QWhatsThis

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QWhatsThis
vfunc[0]:	QWhatsThis::~~QWhatsThis()
vfunc[1]:	QWhatsThis::~~QWhatsThis()
vfunc[2]:	QWhatsThis::text(QPoint const&)
vfunc[3]:	QWhatsThis::clicked(QString const&)

The Run Time Type Information for the QWhatsThis class is described by [Table 18-396](#)

Table 18-396. typeinfo for QWhatsThis

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWhatsThis
basetype:	typeinfo for Qt

18.2.22.22. Class data for QMultiLineEdit

The virtual table for the QMultiLineEdit class is described by [Table 18-397](#)

Table 18-397. Primary vtable for QMultiLineEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMultiLineEdit
vfunc[0]:	NULL or QMultiLineEdit::metaObject() const
vfunc[1]:	QMultiLineEdit::className() const
vfunc[2]:	QMultiLineEdit::qt_cast(char const*)
vfunc[3]:	QMultiLineEdit::qt_invoke(int, QUObject*)
vfunc[4]:	QMultiLineEdit::qt_emit(int, QUObject*)
vfunc[5]:	QMultiLineEdit::qt_property(int, int, QVariant*)
vfunc[6]:	QMultiLineEdit::~~QMultiLineEdit()
vfunc[7]:	QMultiLineEdit::~~QMultiLineEdit()
vfunc[8]:	QTextEdit::event(QEvent*)
vfunc[9]:	QTextEdit::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)

vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QTextEdit::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QTextEdit::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QTextEdit::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)

vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QTextEdit::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QTextEdit::sizeHint() const
vfunc[59]:	QScrollView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QTextEdit::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::repaint(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QTextEdit::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)

vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QTextEdit::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QTextEdit::imStartEvent(QIMEvent*)
vfunc[86]:	QTextEdit::imComposeEvent(QIMEvent*)
vfunc[87]:	QTextEdit::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QTextEdit::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QTextEdit::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)

vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QTextEdit::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QTextEdit::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QTextEdit::contentsMouseEvent(QMouseEvent*)
vfunc[130]:	QTextEdit::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QTextEdit::contentsMouseDoubleClickEvent(QMouseEvent*)
vfunc[132]:	QTextEdit::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QTextEdit::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QTextEdit::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QTextEdit::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QTextEdit::contentsDropEvent(QDropEvent*)
vfunc[137]:	QTextEdit::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QTextEdit::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QTextEdit::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)

vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QTextEdit::find(QString const&, bool, bool, bool, int*, int*)
vfunc[155]:	QTextEdit::getFormat(int, int, QFont*, QColor*, QTextEdit::VerticalAlignment*)
vfunc[156]:	QTextEdit::getParagraphFormat(int, QFont*, QColor*, QTextEdit::VerticalAlignment*, int*, QStyleSheetItem::DisplayMode*, QStyleSheetItem::ListStyle*, int*)
vfunc[157]:	QTextEdit::setMimeSourceFactory(QMimeSourceFactory*)
vfunc[158]:	QTextEdit::setStyleSheet(QStyleSheet*)
vfunc[159]:	QTextEdit::scrollToAnchor(QString const&)
vfunc[160]:	QTextEdit::setPaper(QBrush const&)
vfunc[161]:	QTextEdit::setLinkUnderline(bool)
vfunc[162]:	QTextEdit::setWordWrap(QTextEdit::WordWrap)
vfunc[163]:	QTextEdit::setWrapColumnOrWidth(int)
vfunc[164]:	QTextEdit::setWrapPolicy(QTextEdit::WrapPolicy)
vfunc[165]:	QTextEdit::copy()
vfunc[166]:	QTextEdit::append(QString const&)
vfunc[167]:	QTextEdit::setText(QString const&, QString const&)
vfunc[168]:	QTextEdit::setTextFormat(Qt::TextFormat)
vfunc[169]:	QTextEdit::selectAll(bool)
vfunc[170]:	QTextEdit::setTabStopWidth(int)
vfunc[171]:	QTextEdit::zoomIn(int)
vfunc[172]:	NULL or QTextEdit::zoomIn()
vfunc[173]:	QTextEdit::zoomOut(int)
vfunc[174]:	NULL or QTextEdit::zoomOut()
vfunc[175]:	QTextEdit::zoomTo(int)
vfunc[176]:	QTextEdit::sync()

vfunc[177]:	QTextEdit::setReadOnly(bool)
vfunc[178]:	QTextEdit::undo()
vfunc[179]:	QTextEdit::redo()
vfunc[180]:	QTextEdit::cut()
vfunc[181]:	QTextEdit::paste()
vfunc[182]:	QTextEdit::pasteSubType(QCString const&)
vfunc[183]:	QTextEdit::clear()
vfunc[184]:	QTextEdit::del()
vfunc[185]:	QTextEdit::indent()
vfunc[186]:	QTextEdit::setItalic(bool)
vfunc[187]:	QTextEdit::setBold(bool)
vfunc[188]:	QTextEdit::setUnderline(bool)
vfunc[189]:	QTextEdit::setFamily(QString const&)
vfunc[190]:	QTextEdit::setPointSize(int)
vfunc[191]:	QTextEdit::setColor(QColor const&)
vfunc[192]:	QTextEdit::setVerticalAlignment(QTextEdit::VerticalAlignment)
vfunc[193]:	QMultiLineEdit::setAlignment(int)
vfunc[194]:	QTextEdit::setParagType(QStyleSheetItem::DisplayMode, QStyleSheetItem::ListStyle)
vfunc[195]:	NULL or QMultiLineEdit::setCursorPosition(int, int)
vfunc[196]:	QTextEdit::setSelection(int, int, int, int, int)
vfunc[197]:	QTextEdit::setSelectionAttributes(int, QColor const&, bool)
vfunc[198]:	QTextEdit::setModified(bool)
vfunc[199]:	QTextEdit::resetFormat()
vfunc[200]:	QTextEdit::setUndoDepth(int)
vfunc[201]:	QTextEdit::setFormat(QTextFormat*, int)
vfunc[202]:	QTextEdit::ensureCursorVisible()
vfunc[203]:	QTextEdit::placeCursor(QPoint const&, QTextCursor*)
vfunc[204]:	QTextEdit::moveCursor(QTextEdit::CursorAction, bool)
vfunc[205]:	QTextEdit::doKeyboardAction(QTextEdit::KeyboardAction)
vfunc[206]:	QTextEdit::removeSelectedText(int)
vfunc[207]:	QTextEdit::removeSelection(int)
vfunc[208]:	NULL or QTextEdit::setCurrentFont(QFont const&)
vfunc[209]:	NULL or QTextEdit::setOverwriteMode(bool)

vfunc[210]:	QTextEdit::scrollToBottom()
vfunc[211]:	QTextEdit::insert(QString const&, bool, bool, bool)
vfunc[212]:	NULL or QMultiLineEdit::insertAt(QString const&, int, int)
vfunc[213]:	QTextEdit::removeParagraph(int)
vfunc[214]:	QTextEdit::insertParagraph(QString const&, int)
vfunc[215]:	QTextEdit::setParagraphBackgroundColor(int, QColor const&)
vfunc[216]:	QTextEdit::clearParagraphBackground(int)
vfunc[217]:	QTextEdit::setUndoRedoEnabled(bool)
vfunc[218]:	QTextEdit::createPopupMenu(QPoint const&)
vfunc[219]:	QTextEdit::createPopupMenu()
vfunc[220]:	QTextEdit::doChangeInterval()
vfunc[221]:	NULL or QTextEdit::linksEnabled() const
vfunc[222]:	NULL or QTextEdit::emitHighlighted(QString const&)
vfunc[223]:	NULL or QTextEdit::emitLinkClicked(QString const&)
vfunc[224]:	QMultiLineEdit::insertLine(QString const&, int)
vfunc[225]:	QMultiLineEdit::insertAt(QString const&, int, int, bool)
vfunc[226]:	QMultiLineEdit::removeLine(int)
vfunc[227]:	QMultiLineEdit::setCursorPosition(int, int, bool)
vfunc[228]:	NULL or QMultiLineEdit::setAutoUpdate(bool)
vfunc[229]:	QMultiLineEdit::insertAndMark(QString const&, bool)
vfunc[230]:	QMultiLineEdit::newLine()
vfunc[231]:	QMultiLineEdit::killLine()
vfunc[232]:	QMultiLineEdit::pageUp(bool)
vfunc[233]:	QMultiLineEdit::pageDown(bool)
vfunc[234]:	QMultiLineEdit::cursorLeft(bool, bool)
vfunc[235]:	QMultiLineEdit::cursorRight(bool, bool)
vfunc[236]:	QMultiLineEdit::cursorUp(bool)
vfunc[237]:	QMultiLineEdit::cursorDown(bool)
vfunc[238]:	QMultiLineEdit::backspace()
vfunc[239]:	QMultiLineEdit::home(bool)
vfunc[240]:	QMultiLineEdit::end(bool)

The Run Time Type Information for the QMultiLineEdit class is described by [Table 18-398](#)

Table 18-398. typeinfo for QMultiLineEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMultiLineEdit
basetype:	typeinfo for QTextEdit

18.2.22.23. Class data for QListBox

The virtual table for the QListBox class is described by [Table 18-399](#)

Table 18-399. Primary vtable for QListBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QListBox
vfunc[0]:	NULL or QListBox::metaObject() const
vfunc[1]:	QListBox::className() const
vfunc[2]:	QListBox::qt_cast(char const*)
vfunc[3]:	QListBox::qt_invoke(int, QUObject*)
vfunc[4]:	QListBox::qt_emit(int, QUObject*)
vfunc[5]:	QListBox::qt_property(int, int, QVariant*)
vfunc[6]:	QListBox::~~QListBox()
vfunc[7]:	QListBox::~~QListBox()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QListBox::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)

vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QScrollView::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QListBox::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()

vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QListBox::sizeHint() const
vfunc[59]:	QListBox::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QListBox::mousePressEvent(QMouseEvent*)
vfunc[70]:	QListBox::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QListBox::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QListBox::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QListBox::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QListBox::focusInEvent(QFocusEvent*)
vfunc[77]:	QListBox::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QListBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)

vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QListBox::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QListBox::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QScrollView::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QScrollView::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)

vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QScrollView::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QScrollView::contentsMouseEvent(QMouseEvent*)
vfunc[130]:	QScrollView::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QScrollView::contentsMouseDoubleClickEvent(QMouseEvent*)
vfunc[132]:	QScrollView::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QScrollView::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QScrollView::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QScrollView::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QScrollView::contentsDropEvent(QDropEvent*)
vfunc[137]:	QScrollView::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QListBox::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QListBox::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QScrollView::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)

vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QListBox::setCurrentItem(int)
vfunc[155]:	QListBox::setCurrentItem(QListBoxItem*)
vfunc[156]:	QListBox::setTopItem(int)
vfunc[157]:	QListBox::setBottomItem(int)
vfunc[158]:	QListBox::setSelectionMode(QListBox::SelectionMode)
vfunc[159]:	QListBox::setSelected(QListBoxItem*, bool)
vfunc[160]:	QListBox::setColumnMode(QListBox::LayoutMode)
vfunc[161]:	QListBox::setColumnMode(int)
vfunc[162]:	QListBox::setRowMode(QListBox::LayoutMode)
vfunc[163]:	QListBox::setRowMode(int)
vfunc[164]:	QListBox::setVariableWidth(bool)
vfunc[165]:	QListBox::setVariableHeight(bool)
vfunc[166]:	QListBox::ensureCurrentVisible()
vfunc[167]:	QListBox::clearSelection()
vfunc[168]:	QListBox::selectAll(bool)
vfunc[169]:	QListBox::invertSelection()
vfunc[170]:	QListBox::paintCell(QPainter*, int, int)

The Run Time Type Information for the QListBox class is described by [Table 18-400](#)

Table 18-400. typeinfo for QListBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QListBox
basetype:	typeinfo for QScrollView

18.2.22.24. Class data for QComboBox

The virtual table for the QComboBox class is described by [Table 18-401](#)

Table 18-401. Primary vtable for QComboBox

Base Offset	0
Virtual Base Offset	0

RTTI	typeid for QComboBox
vfunc[0]:	NULL or QComboBox::metaObject() const
vfunc[1]:	QComboBox::className() const
vfunc[2]:	QComboBox::qt_cast(char const*)
vfunc[3]:	QComboBox::qt_invoke(int, QUObject*)
vfunc[4]:	QComboBox::qt_emit(int, QUObject*)
vfunc[5]:	QComboBox::qt_property(int, int, QVariant*)
vfunc[6]:	QComboBox::~~QComboBox()
vfunc[7]:	QComboBox::~~QComboBox()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QComboBox::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QComboBox::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QComboBox::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QComboBox::setFont(QFont const&)

vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QComboBox::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QComboBox::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)

vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QComboBox::mousePressEvent(QMouseEvent*)
vfunc[70]:	QComboBox::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QComboBox::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QComboBox::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QComboBox::wheelEvent(QWheelEvent*)
vfunc[74]:	QComboBox::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QComboBox::focusInEvent(QFocusEvent*)
vfunc[77]:	QComboBox::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QComboBox::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QComboBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QComboBox::updateMask()
vfunc[97]:	QComboBox::styleChange(QStyle&)

vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QComboBox::setCurrentItem(int)
vfunc[111]:	QComboBox::setCurrentText(QString const&)
vfunc[112]:	QComboBox::setAutoResize(bool)
vfunc[113]:	QComboBox::setSizeLimit(int)
vfunc[114]:	QComboBox::setMaxCount(int)
vfunc[115]:	QComboBox::setInsertionPolicy(QComboBox::Policy)
vfunc[116]:	QComboBox::setValidator(QValidator const*)
vfunc[117]:	QComboBox::setListBox(QListBox*)
vfunc[118]:	QComboBox::setLineEdit(QLineEdit*)
vfunc[119]:	QComboBox::setAutoCompletion(bool)
vfunc[120]:	QComboBox::popup()
vfunc[121]:	QComboBox::setEditText(QString const&)

The Run Time Type Information for the QComboBox class is described by [Table 18-402](#)

Table 18-402. typeinfo for QComboBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QComboBox
basetype:	typeinfo for QWidget

18.2.22.25. Class data for QRadioButton

The virtual table for the QRadioButton class is described by [Table 18-403](#)

Table 18-403. Primary vtable for QRadioButton

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QRadioButton
vfunc[0]:	NULL or QRadioButton::metaObject() const
vfunc[1]:	QRadioButton::className() const
vfunc[2]:	QRadioButton::qt_cast(char const*)
vfunc[3]:	QRadioButton::qt_invoke(int, QUObject*)
vfunc[4]:	QRadioButton::qt_emit(int, QUObject*)
vfunc[5]:	QRadioButton::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QRadioButton::~~QRadioButton()
vfunc[7]:	NULL or QRadioButton::~~QRadioButton()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QRadioButton::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QPushButton::mousePressEvent(QMouseEvent*)
vfunc[70]:	QPushButton::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QPushButton::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QPushButton::keyPressEvent(QKeyEvent*)
vfunc[75]:	QPushButton::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QPushButton::focusInEvent(QFocusEvent*)
vfunc[77]:	QPushButton::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QPushButton::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QRadioButton::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QRadioButton::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QPushButton::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QPushButton::setText(QString const&)
vfunc[111]:	QPushButton::setPixmap(QPixmap const&)
vfunc[112]:	QPushButton::setAccel(QKeySequence const&)
vfunc[113]:	QPushButton::setDown(bool)
vfunc[114]:	QPushButton::setAutoRepeat(bool)
vfunc[115]:	QPushButton::setToggleType(QButton::ToggleType)
vfunc[116]:	QPushButton::setState(QButton::ToggleState)
vfunc[117]:	QRadioButton::hitButton(QPoint const&) const
vfunc[118]:	QRadioButton::drawButton(QPainter*)
vfunc[119]:	QRadioButton::drawButtonLabel(QPainter*)
vfunc[120]:	QPushButton::setGroup(QButtonGroup*)
vfunc[121]:	QRadioButton::setChecked(bool)

The Run Time Type Information for the QRadioButton class is described by [Table 18-404](#)

Table 18-404. typeinfo for QRadioButton

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QRadioButton
basetype:	typeinfo for QPushButton

18.2.22.26. Class data for QSlider

The virtual table for the QSlider class is described by [Table 18-405](#)

Table 18-405. Primary vtable for QSlider

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSlider
vfunc[0]:	NULL or QSlider::metaObject() const
vfunc[1]:	QSlider::className() const
vfunc[2]:	QSlider::qt_cast(char const*)
vfunc[3]:	QSlider::qt_invoke(int, QUObject*)
vfunc[4]:	QSlider::qt_emit(int, QUObject*)
vfunc[5]:	QSlider::qt_property(int, int, QVariant*)
vfunc[6]:	QSlider::~QSlider()
vfunc[7]:	QSlider::~~QSlider()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)

vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QSlider::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()

vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QSlider::sizeHint() const
vfunc[59]:	QSlider::minimumSizeHint() const
vfunc[60]:	QSlider::sizePolicy() const
vfunc[61]:	QSlider::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QSlider::mousePressEvent(QMouseEvent*)
vfunc[70]:	QSlider::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QSlider::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QSlider::wheelEvent(QWheelEvent*)
vfunc[74]:	QSlider::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QSlider::focusInEvent(QFocusEvent*)
vfunc[77]:	QSlider::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QSlider::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QSlider::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)

vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QSlider::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QSlider::setOrientation(Qt::Orientation)
vfunc[111]:	QSlider::setTracking(bool)
vfunc[112]:	QSlider::setTickmarks(QSlider::TickSetting)
vfunc[113]:	QSlider::setTickInterval(int)
vfunc[114]:	QSlider::setValue(int)
vfunc[115]:	QSlider::valueChange()
vfunc[116]:	QSlider::rangeChange()

The Run Time Type Information for the QSlider class is described by [Table 18-406](#)

Table 18-406. typeinfo for QSlider

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QSlider	
flags:	0	
basetype:	typeinfo for QWidget	2
basetype:	typeinfo for QRangeControl	29698

18.2.22.27. Class data for QMainWindow

The virtual table for the QMainWindow class is described by [Table 18-407](#)

Table 18-407. Primary vtable for QMainWindow

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMainWindow
vfunc[0]:	NULL or QMainWindow::metaObject() const
vfunc[1]:	QMainWindow::className() const
vfunc[2]:	QMainWindow::qt_cast(char const*)
vfunc[3]:	QMainWindow::qt_invoke(int, QUObject*)
vfunc[4]:	QMainWindow::qt_emit(int, QUObject*)
vfunc[5]:	QMainWindow::qt_property(int, int, QVariant*)
vfunc[6]:	QMainWindow::~~QMainWindow()
vfunc[7]:	QMainWindow::~~QMainWindow()
vfunc[8]:	QMainWindow::event(QEvent*)
vfunc[9]:	QMainWindow::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QMainWindow::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)

vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QMainWindow::show()
vfunc[48]:	QMainWindow::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()

vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QMainWindow::sizeHint() const
vfunc[59]:	QMainWindow::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QMainWindow::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)

vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QMainWindow::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QMainWindow::setCentralWidget(QWidget*)
vfunc[111]:	QMainWindow::setDockEnabled(Qt::Dock, bool)
vfunc[112]:	QMainWindow::setDockEnabled(QDockWindow*, Qt::Dock, bool)
vfunc[113]:	QMainWindow::addDockWindow(QDockWindow*, Qt::Dock, bool)
vfunc[114]:	QMainWindow::addDockWindow(QDockWindow*, QString const&, Qt::Dock, bool)
vfunc[115]:	QMainWindow::moveDockWindow(QDockWindow*, Qt::Dock)
vfunc[116]:	QMainWindow::moveDockWindow(QDockWindow*, Qt::Dock, bool, int, int)

vfunc[117]:	QMainWindow::removeDockWindow(QDockWindow*)
vfunc[118]:	QMainWindow::dockingArea(QPoint const&)
vfunc[119]:	QMainWindow::isCustomizable() const
vfunc[120]:	QMainWindow::setRightJustification(bool)
vfunc[121]:	QMainWindow::setUsesBigPixmaps(bool)
vfunc[122]:	QMainWindow::setUsesTextLabel(bool)
vfunc[123]:	QMainWindow::setDockWindowsMovable(bool)
vfunc[124]:	QMainWindow::setOpaqueMoving(bool)
vfunc[125]:	QMainWindow::setDockMenuEnabled(bool)
vfunc[126]:	QMainWindow::whatsThis()
vfunc[127]:	QMainWindow::setAppropriate(QDockWindow*, bool)
vfunc[128]:	QMainWindow::customize()
vfunc[129]:	QMainWindow::setUpLayout()
vfunc[130]:	QMainWindow::showDockMenu(QPoint const&)
vfunc[131]:	QMainWindow::setMenuBar(QMenuBar*)
vfunc[132]:	QMainWindow::setStatusbar(QStatusBar*)
vfunc[133]:	QMainWindow::setToolTipGroup(QToolTipGroup*)

The Run Time Type Information for the QMainWindow class is described by [Table 18-408](#)

Table 18-408. typeinfo for QMainWindow

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMainWindow
basetype:	typeinfo for QWidget

18.2.22.28. Class data for QToolButton

The virtual table for the QToolButton class is described by [Table 18-409](#)

Table 18-409. Primary vtable for QToolButton

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QToolButton
vfunc[0]:	NULL or QToolButton::metaObject() const

vfunc[1]:	QToolButton::className() const
vfunc[2]:	QToolButton::qt_cast(char const*)
vfunc[3]:	QToolButton::qt_invoke(int, QUObject*)
vfunc[4]:	QToolButton::qt_emit(int, QUObject*)
vfunc[5]:	QToolButton::qt_property(int, int, QVariant*)
vfunc[6]:	QToolButton::~~QToolButton()
vfunc[7]:	QToolButton::~~QToolButton()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QToolButton::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()

vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QToolButton::sizeHint() const
vfunc[59]:	QToolButton::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)

vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QToolButton::mousePressEvent(QMouseEvent*)
vfunc[70]:	QPushButton::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QPushButton::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QPushButton::keyPressEvent(QKeyEvent*)
vfunc[75]:	QPushButton::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QPushButton::focusInEvent(QFocusEvent*)
vfunc[77]:	QPushButton::focusOutEvent(QFocusEvent*)
vfunc[78]:	QToolButton::enterEvent(QEvent*)
vfunc[79]:	QToolButton::leaveEvent(QEvent*)
vfunc[80]:	QPushButton::paintEvent(QPaintEvent*)
vfunc[81]:	QToolButton::moveEvent(QMoveEvent*)
vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QPushButton::enabledChange(bool)
vfunc[99]:	QToolButton::paletteChange(QPalette const&)

vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QToolButton::setText(QString const&)
vfunc[111]:	QButton::setPixmap(QPixmap const&)
vfunc[112]:	QButton::setAccel(QKeySequence const&)
vfunc[113]:	QButton::setDown(bool)
vfunc[114]:	QButton::setAutoRepeat(bool)
vfunc[115]:	QButton::setToggleType(QButton::ToggleType)
vfunc[116]:	QButton::setState(QButton::ToggleState)
vfunc[117]:	QButton::hitButton(QPoint const&) const
vfunc[118]:	QToolButton::drawButton(QPainter*)
vfunc[119]:	QToolButton::drawButtonLabel(QPainter*)
vfunc[120]:	QButton::setGroup(QButtonGroup*)
vfunc[121]:	QToolButton::setIconSet(QIconSet const&)
vfunc[122]:	QToolButton::setUsesBigPixmap(bool)
vfunc[123]:	QToolButton::setUsesTextLabel(bool)
vfunc[124]:	QToolButton::setTextLabel(QString const&, bool)
vfunc[125]:	QToolButton::setToggleButton(bool)
vfunc[126]:	QToolButton::setOn(bool)

The Run Time Type Information for the QToolButton class is described by [Table 18-410](#)

Table 18-410. typeid for QToolButton

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QToolButton

basetype:	typeinfo for QPushButton

18.2.22.29. Class data for QWidgetIntDict

The virtual table for the QWidgetIntDict class is described by [Table 18-411](#)

Table 18-411. Primary vtable for QWidgetIntDict

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWidgetIntDict
vfunc[0]:	NULL or QIntDict<QWidget>::count() const
vfunc[1]:	NULL or QIntDict<QWidget>::clear()
vfunc[2]:	NULL or QWidgetIntDict::~~QWidgetIntDict()
vfunc[3]:	NULL or QWidgetIntDict::~~QWidgetIntDict()
vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	NULL or QIntDict<QWidget>::deleteItem(void*)
vfunc[6]:	QGDICT::read(QDataStream&, void*&)
vfunc[7]:	QGDICT::write(QDataStream&, void*) const

The Run Time Type Information for the QWidgetIntDict class is described by [Table 18-412](#)

Table 18-412. typeinfo for QWidgetIntDict

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWidgetIntDict
basetype:	typeinfo for QIntDict<QWidget>

18.2.22.30. Class data for QTabBar

The virtual table for the QTabBar class is described by [Table 18-413](#)

Table 18-413. Primary vtable for QTabBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTabBar
vfunc[0]:	NULL or QTabBar::metaObject() const

vfunc[1]:	QTabBar::className() const
vfunc[2]:	QTabBar::qt_cast(char const*)
vfunc[3]:	QTabBar::qt_invoke(int, QUObject*)
vfunc[4]:	QTabBar::qt_emit(int, QUObject*)
vfunc[5]:	QTabBar::qt_property(int, int, QVariant*)
vfunc[6]:	QTabBar::~~QTabBar()
vfunc[7]:	QTabBar::~~QTabBar()
vfunc[8]:	QTabBar::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()

vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QTabBar::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QTabBar::sizeHint() const
vfunc[59]:	QTabBar::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)

vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QTabBar::mousePressEvent(QMouseEvent*)
vfunc[70]:	QTabBar::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QTabBar::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QTabBar::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QTabBar::focusInEvent(QFocusEvent*)
vfunc[77]:	QTabBar::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QTabBar::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QTabBar::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QTabBar::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)

vfunc[100]:	QTabBar::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QTabBar::setShape(QTabBar::Shape)
vfunc[111]:	QTabBar::addTab(QTab*)
vfunc[112]:	QTabBar::insertTab(QTab*, int)
vfunc[113]:	QTabBar::removeTab(QTab*)
vfunc[114]:	QTabBar::setTabEnabled(int, bool)
vfunc[115]:	QTabBar::layoutTabs()
vfunc[116]:	QTabBar::selectTab(QPoint const&) const
vfunc[117]:	QTabBar::setCurrentTab(int)
vfunc[118]:	QTabBar::setCurrentTab(QTab*)
vfunc[119]:	QTabBar::paint(QPainter*, QTab*, bool) const
vfunc[120]:	QTabBar::paintLabel(QPainter*, QRect const&, QTab*, bool) const

The Run Time Type Information for the QTabBar class is described by [Table 18-414](#)

Table 18-414. typeinfo for QTabBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTabBar
basetype:	typeinfo for QWidget

18.2.22.31. Class data for QToolTip

The virtual table for the QToolTip class is described by [Table 18-415](#)

Table 18-415. Primary vtable for QToolTip

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QToolTip
vfunc[0]:	__cxa_pure_virtual

The Run Time Type Information for the QToolTip class is described by [Table 18-416](#)

Table 18-416. typeinfo for QToolTip

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QToolTip
basetype:	typeinfo for Qt

18.2.22.32. Class data for QCheckBox

The virtual table for the QCheckBox class is described by [Table 18-417](#)

Table 18-417. Primary vtable for QCheckBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCheckBox
vfunc[0]:	NULL or QCheckBox::metaObject() const
vfunc[1]:	QCheckBox::className() const
vfunc[2]:	QCheckBox::qt_cast(char const*)
vfunc[3]:	QCheckBox::qt_invoke(int, QUObject*)
vfunc[4]:	QCheckBox::qt_emit(int, QUObject*)
vfunc[5]:	QCheckBox::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QCheckBox::~~QCheckBox()
vfunc[7]:	NULL or QCheckBox::~~QCheckBox()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)

vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)

vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QCheckBox::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QPushButton::mousePressEvent(QMouseEvent*)
vfunc[70]:	QPushButton::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QPushButton::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QPushButton::keyPressEvent(QKeyEvent*)
vfunc[75]:	QPushButton::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QPushButton::focusInEvent(QFocusEvent*)
vfunc[77]:	QPushButton::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)

vfunc[80]:	QPushButton::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QCheckBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QCheckBox::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QPushButton::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QPushButton::setText(QString const&)
vfunc[111]:	QPushButton::setPixmap(QPixmap const&)
vfunc[112]:	QPushButton::setAccel(QKeySequence const&)

vfunc[113]:	QPushButton::setDown(bool)
vfunc[114]:	QPushButton::setAutoRepeat(bool)
vfunc[115]:	QPushButton::setToggleType(QPushButton::ToggleType)
vfunc[116]:	QPushButton::setState(QPushButton::ToggleState)
vfunc[117]:	QCheckBox::hitButton(QPoint const&) const
vfunc[118]:	QCheckBox::drawButton(QPainter*)
vfunc[119]:	QCheckBox::drawButtonLabel(QPainter*)
vfunc[120]:	QPushButton::setGroup(QButtonGroup*)

The Run Time Type Information for the QCheckBox class is described by [Table 18-418](#)

Table 18-418. typeinfo for QCheckBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCheckBox
basetype:	typeinfo for QPushButton

18.2.22.33. Class data for QDockWindow

The virtual table for the QDockWindow class is described by [Table 18-419](#)

Table 18-419. Primary vtable for QDockWindow

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDockWindow
vfunc[0]:	NULL or QDockWindow::metaObject() const
vfunc[1]:	QDockWindow::className() const
vfunc[2]:	QDockWindow::qt_cast(char const*)
vfunc[3]:	QDockWindow::qt_invoke(int, QUObject*)
vfunc[4]:	QDockWindow::qt_emit(int, QUObject*)
vfunc[5]:	QDockWindow::qt_property(int, int, QVariant*)
vfunc[6]:	QDockWindow::~~QDockWindow()
vfunc[7]:	QDockWindow::~~QDockWindow()
vfunc[8]:	QDockWindow::event(QEvent*)
vfunc[9]:	QDockWindow::eventFilter(QObject*, QEvent*)

vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QDockWindow::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()

vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDockWindow::sizeHint() const
vfunc[59]:	QDockWindow::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)

vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDockWindow::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QDockWindow::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QDockWindow::showEvent(QShowEvent*)
vfunc[94]:	QDockWindow::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)

vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QDockWindow::drawFrame(QPainter*)
vfunc[116]:	QDockWindow::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QDockWindow::setWidget(QWidget*)
vfunc[119]:	QDockWindow::setCloseMode(int)
vfunc[120]:	QDockWindow::setResizeEnabled(bool)
vfunc[121]:	QDockWindow::setMovingEnabled(bool)
vfunc[122]:	QDockWindow::setHorizontallyStretchable(bool)
vfunc[123]:	QDockWindow::setVerticallyStretchable(bool)
vfunc[124]:	QDockWindow::setOffset(int)
vfunc[125]:	QDockWindow::setFixedExtentWidth(int)
vfunc[126]:	QDockWindow::setFixedExtentHeight(int)
vfunc[127]:	QDockWindow::setNewLine(bool)
vfunc[128]:	QDockWindow::setOpaqueMoving(bool)
vfunc[129]:	QDockWindow::undock(QWidget*)
vfunc[130]:	NULL or QDockWindow::undock()
vfunc[131]:	QDockWindow::dock()
vfunc[132]:	QDockWindow::setOrientation(Qt::Orientation)

The Run Time Type Information for the QDockWindow class is described by [Table 18-420](#)

Table 18-420. typeinfo for QDockWindow

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDockWindow
basetype:	typeinfo for QFrame

18.2.22.34. Class data for QSpinWidget

The virtual table for the QSpinWidget class is described by [Table 18-421](#)

Table 18-421. Primary vtable for QSpinWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSpinWidget
vfunc[0]:	NULL or QSpinWidget::metaObject() const
vfunc[1]:	QSpinWidget::className() const
vfunc[2]:	QSpinWidget::qt_cast(char const*)
vfunc[3]:	QSpinWidget::qt_invoke(int, QUObject*)
vfunc[4]:	QSpinWidget::qt_emit(int, QUObject*)
vfunc[5]:	QSpinWidget::qt_property(int, int, QVariant*)
vfunc[6]:	QSpinWidget::~~QSpinWidget()
vfunc[7]:	QSpinWidget::~~QSpinWidget()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QSpinWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QSpinWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QSpinWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QSpinWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QSpinWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QSpinWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QSpinWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QSpinWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QSpinWidget::setButtonSymbols(QSpinWidget::ButtonSymbols)

The Run Time Type Information for the QSpinWidget class is described by [Table 18-422](#)

Table 18-422. typeinfo for QSpinWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSpinWidget
basetype:	typeinfo for QWidget

18.2.22.35. Class data for QToolBox

The virtual table for the QToolBox class is described by [Table 18-423](#)

Table 18-423. Primary vtable for QToolBox

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QToolBox
vfunc[0]:	NULL or QToolBox::metaObject() const
vfunc[1]:	QToolBox::className() const
vfunc[2]:	QToolBox::qt_cast(char const*)
vfunc[3]:	QToolBox::qt_invoke(int, QUObject*)
vfunc[4]:	QToolBox::qt_emit(int, QUObject*)
vfunc[5]:	QToolBox::qt_property(int, int, QVariant*)
vfunc[6]:	QToolBox::~~QToolBox()
vfunc[7]:	QToolBox::~QToolBox()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)

vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QFrame::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()

vfunc[64]:	QWidget::repaint(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QFrame::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QToolBox::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()

vfunc[97]:	QToolBox::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QToolBox::frameChanged()
vfunc[118]:	QToolBox::itemInserted(int)
vfunc[119]:	QToolBox::itemRemoved(int)

The Run Time Type Information for the QToolBox class is described by [Table 18-424](#)

Table 18-424. typeinfo for QToolBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QToolBox
basetype:	typeinfo for QFrame

18.2.22.36. Class data for QProgressBar

The virtual table for the QProgressBar class is described by [Table 18-425](#)

Table 18-425. Primary vtable for QProgressBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QProgressBar
vfunc[0]:	NULL or QProgressBar::metaObject() const
vfunc[1]:	QProgressBar::className() const
vfunc[2]:	QProgressBar::qt_cast(char const*)
vfunc[3]:	QProgressBar::qt_invoke(int, QUObject*)
vfunc[4]:	QProgressBar::qt_emit(int, QUObject*)
vfunc[5]:	QProgressBar::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QProgressBar::~~QProgressBar()
vfunc[7]:	NULL or QProgressBar::~~QProgressBar()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QProgressBar::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QProgressBar::sizeHint() const
vfunc[59]:	QProgressBar::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QFrame::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QProgressBar::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QProgressBar::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QProgressBar::setTotalSteps(int)
vfunc[119]:	QProgressBar::setProgress(int)
vfunc[120]:	QProgressBar::setIndicator(QString&, int, int)

The Run Time Type Information for the QProgressBar class is described by [Table 18-426](#)

Table 18-426. typeinfo for QProgressBar

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QProgressBar
basetype:	typeinfo for QFrame

18.2.22.37. Class data for QIconViewItem

The virtual table for the QIconViewItem class is described by [Table 18-427](#)

Table 18-427. Primary vtable for QIconViewItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIconViewItem
vfunc[0]:	QIconViewItem::~~QIconViewItem()
vfunc[1]:	QIconViewItem::~~QIconViewItem()
vfunc[2]:	QIconViewItem::setRenameEnabled(bool)
vfunc[3]:	QIconViewItem::setDragEnabled(bool)
vfunc[4]:	QIconViewItem::setDropEnabled(bool)
vfunc[5]:	QIconViewItem::text() const
vfunc[6]:	QIconViewItem::pixmap() const
vfunc[7]:	QIconViewItem::picture() const
vfunc[8]:	QIconViewItem::key() const
vfunc[9]:	QIconViewItem::setSelected(bool, bool)
vfunc[10]:	QIconViewItem::setSelected(bool)
vfunc[11]:	QIconViewItem::setSelectable(bool)
vfunc[12]:	QIconViewItem::repaint()
vfunc[13]:	QIconViewItem::move(int, int)
vfunc[14]:	QIconViewItem::moveBy(int, int)
vfunc[15]:	QIconViewItem::move(QPoint const&)
vfunc[16]:	QIconViewItem::moveBy(QPoint const&)
vfunc[17]:	QIconViewItem::acceptDrop(QMimeSource const*) const
vfunc[18]:	QIconViewItem::compare(QIconViewItem*) const
vfunc[19]:	QIconViewItem::setText(QString const&)
vfunc[20]:	QIconViewItem::setPixmap(QPixmap const&)

vfunc[21]:	QIconViewItem::setPicture(QPicture const&)
vfunc[22]:	QIconViewItem::setText(QString const&, bool, bool)
vfunc[23]:	QIconViewItem::setPixmap(QPixmap const&, bool, bool)
vfunc[24]:	QIconViewItem::setKey(QString const&)
vfunc[25]:	QIconViewItem::rtti() const
vfunc[26]:	QIconViewItem::removeRenameBox()
vfunc[27]:	QIconViewItem::calcRect(QString const&)
vfunc[28]:	QIconViewItem::paintItem(QPainter*, QColorGroup const&)
vfunc[29]:	QIconViewItem::paintFocus(QPainter*, QColorGroup const&)
vfunc[30]:	QIconViewItem::dropped(QDropEvent*, QValueList<QIconDragItem> const&)
vfunc[31]:	QIconViewItem::dragEntered()
vfunc[32]:	QIconViewItem::dragLeft()

The Run Time Type Information for the QIconViewItem class is described by [Table 18-428](#)

Table 18-428. typeinfo for QIconViewItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIconViewItem
basetype:	typeinfo for Qt

18.2.22.38. Class data for QCheckListItem

The virtual table for the QCheckListItem class is described by [Table 18-429](#)

Table 18-429. Primary vtable for QCheckListItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCheckListItem
vfunc[0]:	QCheckListItem::~~QCheckListItem()
vfunc[1]:	QCheckListItem::~~QCheckListItem()
vfunc[2]:	QListViewItem::insertItem(QListViewItem*)
vfunc[3]:	QListViewItem::takeItem(QListViewItem*)
vfunc[4]:	NULL or QListViewItem::removeItem(QListViewItem*)
vfunc[5]:	QListViewItem::invalidateHeight()

vfunc[6]:	QCheckListItem::width(QFontMetrics const&, QListView const*, int) const
vfunc[7]:	QListViewItem::setText(int, QString const&)
vfunc[8]:	NULL or QCheckListItem::text(int) const
vfunc[9]:	QListViewItem::setPixmap(int, QPixmap const&)
vfunc[10]:	QListViewItem::pixmap(int) const
vfunc[11]:	QListViewItem::key(int, bool) const
vfunc[12]:	QListViewItem::compare(QListViewItem*, int, bool) const
vfunc[13]:	QListViewItem::sortChildItems(int, bool)
vfunc[14]:	QListViewItem::setOpen(bool)
vfunc[15]:	QCheckListItem::setup()
vfunc[16]:	QListViewItem::setSelected(bool)
vfunc[17]:	QCheckListItem::paintCell(QPainter*, QColorGroup const&, int, int, int)
vfunc[18]:	QListViewItem::paintBranches(QPainter*, QColorGroup const&, int, int, int)
vfunc[19]:	QCheckListItem::paintFocus(QPainter*, QColorGroup const&, QRect const&)
vfunc[20]:	QListViewItem::setSelectable(bool)
vfunc[21]:	QListViewItem::setExpandable(bool)
vfunc[22]:	QListViewItem::sort()
vfunc[23]:	QListViewItem::setDragEnabled(bool)
vfunc[24]:	QListViewItem::setDropEnabled(bool)
vfunc[25]:	QListViewItem::acceptDrop(QMimeSource const*) const
vfunc[26]:	QListViewItem::setRenameEnabled(int, bool)
vfunc[27]:	QListViewItem::startRename(int)
vfunc[28]:	QListViewItem::setEnabled(bool)
vfunc[29]:	QCheckListItem::rtti() const
vfunc[30]:	QListViewItem::setMultiLinesEnabled(bool)
vfunc[31]:	QListViewItem::enforceSortOrder() const
vfunc[32]:	QListViewItem::setHeight(int)
vfunc[33]:	QCheckListItem::activate()
vfunc[34]:	QListViewItem::dropped(QDropEvent*)
vfunc[35]:	QListViewItem::dragEntered()
vfunc[36]:	QListViewItem::dragLeft()
vfunc[37]:	QListViewItem::okRename(int)
vfunc[38]:	QListViewItem::cancelRename(int)

vfunc[39]:	QCheckListItem::setOn(bool)
vfunc[40]:	QCheckListItem::stateChange(bool)

The Run Time Type Information for the QCheckListItem class is described by [Table 18-430](#)

Table 18-430. typeinfo for QCheckListItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCheckListItem
basetype:	typeinfo for QListViewItem

18.2.22.39. Class data for QDockArea

The virtual table for the QDockArea class is described by [Table 18-431](#)

Table 18-431. Primary vtable for QDockArea

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDockArea
vfunc[0]:	NULL or QDockArea::metaObject() const
vfunc[1]:	QDockArea::className() const
vfunc[2]:	QDockArea::qt_cast(char const*)
vfunc[3]:	QDockArea::qt_invoke(int, QUObject*)
vfunc[4]:	QDockArea::qt_emit(int, QUObject*)
vfunc[5]:	QDockArea::qt_property(int, int, QVariant*)
vfunc[6]:	QDockArea::~~QDockArea()
vfunc[7]:	QDockArea::~~QDockArea()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDockArea::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)

vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()

vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)

vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)

The Run Time Type Information for the QDockArea class is described by [Table 18-432](#)

Table 18-432. typeinfo for QDockArea

Base Vtable	vtable for __cxxabiv1::__si_class_type_info

Name	typeinfo name for QDockArea
basetype:	typeinfo for QWidget

18.2.22.40. Class data for QListViewItem

The virtual table for the QListViewItem class is described by [Table 18-433](#)

Table 18-433. Primary vtable for QListViewItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QListViewItem
vfunc[0]:	QListViewItem::~~QListViewItem()
vfunc[1]:	QListViewItem::~~QListViewItem()
vfunc[2]:	QListViewItem::insertItem(QListViewItem*)
vfunc[3]:	QListViewItem::takeItem(QListViewItem*)
vfunc[4]:	NULL or QListViewItem::removeItem(QListViewItem*)
vfunc[5]:	QListViewItem::invalidateHeight()
vfunc[6]:	QListViewItem::width(QFontMetrics const&, QListView const*, int) const
vfunc[7]:	QListViewItem::setText(int, QString const&)
vfunc[8]:	QListViewItem::text(int) const
vfunc[9]:	QListViewItem::setPixmap(int, QPixmap const&)
vfunc[10]:	QListViewItem::pixmap(int) const
vfunc[11]:	QListViewItem::key(int, bool) const
vfunc[12]:	QListViewItem::compare(QListViewItem*, int, bool) const
vfunc[13]:	QListViewItem::sortChildItems(int, bool)
vfunc[14]:	QListViewItem::setOpen(bool)
vfunc[15]:	QListViewItem::setup()
vfunc[16]:	QListViewItem::setSelected(bool)
vfunc[17]:	QListViewItem::paintCell(QPainter*, QColorGroup const&, int, int, int)
vfunc[18]:	QListViewItem::paintBranches(QPainter*, QColorGroup const&, int, int, int)
vfunc[19]:	QListViewItem::paintFocus(QPainter*, QColorGroup const&, QRect const&)
vfunc[20]:	QListViewItem::setSelectable(bool)
vfunc[21]:	QListViewItem::setExpandable(bool)

vfunc[22]:	QListViewItem::sort()
vfunc[23]:	QListViewItem::setDragEnabled(bool)
vfunc[24]:	QListViewItem::setDropEnabled(bool)
vfunc[25]:	QListViewItem::acceptDrop(QMimeSource const*) const
vfunc[26]:	QListViewItem::setRenameEnabled(int, bool)
vfunc[27]:	QListViewItem::startRename(int)
vfunc[28]:	QListViewItem::setEnabled(bool)
vfunc[29]:	QListViewItem::rtti() const
vfunc[30]:	QListViewItem::setMultiLinesEnabled(bool)
vfunc[31]:	QListViewItem::enforceSortOrder() const
vfunc[32]:	QListViewItem::setHeight(int)
vfunc[33]:	QListViewItem::activate()
vfunc[34]:	QListViewItem::dropped(QDropEvent*)
vfunc[35]:	QListViewItem::dragEntered()
vfunc[36]:	QListViewItem::dragLeft()
vfunc[37]:	QListViewItem::okRename(int)
vfunc[38]:	QListViewItem::cancelRename(int)

The Run Time Type Information for the QListViewItem class is described by [Table 18-434](#)

Table 18-434. typeinfo for QListViewItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QListViewItem
basetype:	typeinfo for Qt

18.2.22.41. Class data for QIconView

The virtual table for the QIconView class is described by [Table 18-435](#)

Table 18-435. Primary vtable for QIconView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIconView
vfunc[0]:	NULL or QIconView::metaObject() const

vfunc[1]:	QIconView::className() const
vfunc[2]:	QIconView::qt_cast(char const*)
vfunc[3]:	QIconView::qt_invoke(int, QUObject*)
vfunc[4]:	QIconView::qt_emit(int, QUObject*)
vfunc[5]:	QIconView::qt_property(int, int, QVariant*)
vfunc[6]:	QIconView::~~QIconView()
vfunc[7]:	QIconView::~~QIconView()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QIconView::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QScrollView::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QIconView::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QIconView::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()

vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QIconView::sizeHint() const
vfunc[59]:	QIconView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)

vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QIconView::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QIconView::focusInEvent(QFocusEvent*)
vfunc[77]:	QIconView::focusOutEvent(QFocusEvent*)
vfunc[78]:	QIconView::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QIconView::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QIconView::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QIconView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)

vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QIconView::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QScrollView::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QIconView::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QIconView::setContentsPos(int, int)
vfunc[127]:	QIconView::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QIconView::contentsMouseEvent(QMouseEvent*)
vfunc[130]:	QIconView::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QIconView::contentsMouseDoubleClickEvent(QMouseEvent*)
vfunc[132]:	QIconView::contentsMouseMoveEvent(QMouseEvent*)

vfunc[133]:	QIconView::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QIconView::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QIconView::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QIconView::contentsDropEvent(QDropEvent*)
vfunc[137]:	QScrollView::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QIconView::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QScrollView::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMousePressEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QIconView::insertItem(QIconViewItem*, QIconViewItem*)
vfunc[155]:	QIconView::takeItem(QIconViewItem*)
vfunc[156]:	QIconView::setCurrentItem(QIconViewItem*)
vfunc[157]:	QIconView::setSelected(QIconViewItem*, bool, bool)
vfunc[158]:	QIconView::setSelectionMode(QIconView::SelectionMode)
vfunc[159]:	QIconView::selectAll(bool)
vfunc[160]:	QIconView::clearSelection()
vfunc[161]:	QIconView::invertSelection()
vfunc[162]:	QIconView::repaintItem(QIconViewItem*)
vfunc[163]:	QIconView::clear()
vfunc[164]:	QIconView::setGridX(int)
vfunc[165]:	QIconView::setGridY(int)

vfunc[166]:	QIconView::setSpacing(int)
vfunc[167]:	QIconView::setItemTextPos(QIconView::ItemTextPos)
vfunc[168]:	QIconView::setItemTextBackground(QBrush const&)
vfunc[169]:	QIconView::setArrangement(QIconView::Arrangement)
vfunc[170]:	QIconView::setResizeMode(QIconView::ResizeMode)
vfunc[171]:	QIconView::setMaxItemWidth(int)
vfunc[172]:	QIconView::setMaxItemTextLength(int)
vfunc[173]:	QIconView::setAutoArrange(bool)
vfunc[174]:	QIconView::setShowToolTips(bool)
vfunc[175]:	QIconView::setItemsMovable(bool)
vfunc[176]:	QIconView::setWordWrapIconText(bool)
vfunc[177]:	QIconView::sort(bool)
vfunc[178]:	QIconView::arrangeItemsInGrid(QSize const&, bool)
vfunc[179]:	QIconView::arrangeItemsInGrid(bool)
vfunc[180]:	QIconView::updateContents()
vfunc[181]:	QIconView::doAutoScroll()
vfunc[182]:	QIconView::adjustItems()
vfunc[183]:	QIconView::slotUpdate()
vfunc[184]:	QIconView::drawRubber(QPainter*)
vfunc[185]:	QIconView::dragObject()
vfunc[186]:	QIconView::startDrag()
vfunc[187]:	QIconView::insertInGrid(QIconViewItem*)
vfunc[188]:	QIconView::drawBackground(QPainter*, QRect const&)
vfunc[189]:	QIconView::drawDragShapes(QPoint const&)
vfunc[190]:	QIconView::initDragEnter(QDropEvent*)

The Run Time Type Information for the QIconView class is described by [Table 18-436](#)

Table 18-436. typeid for QIconView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QIconView
basetype:	typeid for QScrollView

18.2.22.42. Class data for QWidget

The virtual table for the QWidget class is described by [Table 18-437](#)

Table 18-437. Primary vtable for QWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWidget
vfunc[0]:	NULL or QWidget::metaObject() const
vfunc[1]:	QWidget::className() const
vfunc[2]:	QWidget::qt_cast(char const*)
vfunc[3]:	QWidget::qt_invoke(int, QUObject*)
vfunc[4]:	QWidget::qt_emit(int, QUObject*)
vfunc[5]:	QWidget::qt_property(int, int, QVariant*)
vfunc[6]:	QWidget::~~QWidget()
vfunc[7]:	QWidget::~~QWidget()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)

The Run Time Type Information for the QWidget class is described by [Table 18-438](#)

Table 18-438. typeinfo for QWidget

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QWidget	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QPaintDevice	10242

18.2.22.43. Class data for QToolTipGroup

The virtual table for the QToolTipGroup class is described by [Table 18-439](#)

Table 18-439. Primary vtable for QToolTipGroup

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QToolTipGroup
vfunc[0]:	NULL or QToolTipGroup::metaObject() const
vfunc[1]:	QToolTipGroup::className() const
vfunc[2]:	QToolTipGroup::qt_cast(char const*)
vfunc[3]:	QToolTipGroup::qt_invoke(int, QUObject*)
vfunc[4]:	QToolTipGroup::qt_emit(int, QUObject*)
vfunc[5]:	QToolTipGroup::qt_property(int, int, QVariant*)
vfunc[6]:	QToolTipGroup::~~QToolTipGroup()
vfunc[7]:	QToolTipGroup::~~QToolTipGroup()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QToolTipGroup class is described by [Table 18-440](#)

Table 18-440. typeinfo for QToolTipGroup

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QToolTipGroup
basetype:	typeinfo for QObject

18.2.22.44. Class data for QPushButton

The virtual table for the QPushButton class is described by [Table 18-441](#)

Table 18-441. Primary vtable for QPushButton

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPushButton
vfunc[0]:	NULL or QPushButton::metaObject() const
vfunc[1]:	QPushButton::className() const
vfunc[2]:	QPushButton::qt_cast(char const*)
vfunc[3]:	QPushButton::qt_invoke(int, QUObject*)
vfunc[4]:	QPushButton::qt_emit(int, QUObject*)
vfunc[5]:	QPushButton::qt_property(int, int, QVariant*)
vfunc[6]:	QPushButton::~~QPushButton()
vfunc[7]:	QPushButton::~~QPushButton()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QPushButton::move(int, int)
vfunc[54]:	QPushButton::resize(int, int)
vfunc[55]:	QPushButton::setGeometry(int, int, int, int)
vfunc[56]:	QPushButton::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QPushButton::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QPushButton::mousePressEvent(QMouseEvent*)
vfunc[70]:	QPushButton::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QPushButton::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QPushButton::keyPressEvent(QKeyEvent*)
vfunc[75]:	QPushButton::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QPushButton::focusInEvent(QFocusEvent*)
vfunc[77]:	QPushButton::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QPushButton::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QPushButton::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QPushButton::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QPushButton::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QPushButton::setText(QString const&)
vfunc[111]:	QPushButton::setPixmap(QPixmap const&)
vfunc[112]:	QPushButton::setAccel(QKeySequence const&)
vfunc[113]:	QPushButton::setDown(bool)
vfunc[114]:	QPushButton::setAutoRepeat(bool)
vfunc[115]:	QPushButton::setToggleType(QButton::ToggleType)
vfunc[116]:	QPushButton::setState(QButton::ToggleState)
vfunc[117]:	QPushButton::hitButton(QPoint const&) const
vfunc[118]:	QPushButton::drawButton(QPainter*)
vfunc[119]:	QPushButton::drawButtonLabel(QPainter*)
vfunc[120]:	QPushButton::setGroup(QButtonGroup*)
vfunc[121]:	QPushButton::setAutoDefault(bool)
vfunc[122]:	QPushButton::setDefault(bool)
vfunc[123]:	NULL or QPushButton::setIsMenuButton(bool)

vfunc[124]:	QPushButton::setOn(bool)

The Run Time Type Information for the QPushButton class is described by [Table 18-442](#)

Table 18-442. typeinfo for QPushButton

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QPushButton
basetype:	typeinfo for QButton

18.2.22.45. Class data for QListWidget

The virtual table for the QListWidget class is described by [Table 18-443](#)

Table 18-443. Primary vtable for QListWidget

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QListWidget
vfunc[0]:	NULL or QList<QWidget>::count() const
vfunc[1]:	NULL or QList<QWidget>::clear()
vfunc[2]:	NULL or QListWidget::~~QListWidget()
vfunc[3]:	NULL or QListWidget::~~QListWidget()
vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	NULL or QList<QWidget>::deleteItem(void*)
vfunc[6]:	QGList::compareItems(void*, void*)
vfunc[7]:	QGList::read(QDataStream&, void*&)
vfunc[8]:	QGList::write(QDataStream&, void*) const

The Run Time Type Information for the QListWidget class is described by [Table 18-444](#)

Table 18-444. typeinfo for QListWidget

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QListWidget
basetype:	typeinfo for QList<QWidget>

18.2.22.46. Class data for QDataView

The virtual table for the QDataView class is described by [Table 18-445](#)

Table 18-445. Primary vtable for QDataView

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDataView
vfunc[0]:	NULL or QDataView::metaObject() const
vfunc[1]:	QDataView::className() const
vfunc[2]:	QDataView::qt_cast(char const*)
vfunc[3]:	QDataView::qt_invoke(int, QUObject*)
vfunc[4]:	QDataView::qt_emit(int, QUObject*)
vfunc[5]:	QDataView::qt_property(int, int, QVariant*)
vfunc[6]:	QDataView::~~QDataView()
vfunc[7]:	QDataView::~~QDataView()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDataView::setForm(QSqlForm*)
vfunc[111]:	QDataView::setRecord(QSqlRecord*)
vfunc[112]:	QDataView::refresh(QSqlRecord*)
vfunc[113]:	QDataView::readFields()
vfunc[114]:	QDataView::writeFields()
vfunc[115]:	QDataView::clearValues()

The Run Time Type Information for the QDataView class is described by [Table 18-446](#)

Table 18-446. typeinfo for QDataView

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDataView
basetype:	typeinfo for QWidget

18.2.22.47. Class data for QDataBrowser

The virtual table for the QDataBrowser class is described by [Table 18-447](#)

Table 18-447. Primary vtable for QDataBrowser

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDataBrowser
vfunc[0]:	NULL or QDataBrowser::metaObject() const
vfunc[1]:	QDataBrowser::className() const
vfunc[2]:	QDataBrowser::qt_cast(char const*)
vfunc[3]:	QDataBrowser::qt_invoke(int, QUObject*)
vfunc[4]:	QDataBrowser::qt_emit(int, QUObject*)
vfunc[5]:	QDataBrowser::qt_property(int, int, QVariant*)
vfunc[6]:	QDataBrowser::~~QDataBrowser()
vfunc[7]:	QDataBrowser::~~QDataBrowser()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDataBrowser::setSqlCursor(QSqlCursor*, bool)
vfunc[111]:	QDataBrowser::setForm(QSqlForm*)
vfunc[112]:	QDataBrowser::setConfirmEdits(bool)
vfunc[113]:	QDataBrowser::setConfirmInsert(bool)
vfunc[114]:	QDataBrowser::setConfirmUpdate(bool)
vfunc[115]:	QDataBrowser::setConfirmDelete(bool)
vfunc[116]:	QDataBrowser::setConfirmCancels(bool)
vfunc[117]:	QDataBrowser::setReadOnly(bool)
vfunc[118]:	QDataBrowser::setAutoEdit(bool)
vfunc[119]:	QDataBrowser::seek(int, bool)
vfunc[120]:	QDataBrowser::refresh()
vfunc[121]:	QDataBrowser::insert()
vfunc[122]:	QDataBrowser::update()
vfunc[123]:	QDataBrowser::del()

vfunc[124]:	QDataBrowser::first()
vfunc[125]:	QDataBrowser::last()
vfunc[126]:	QDataBrowser::next()
vfunc[127]:	QDataBrowser::prev()
vfunc[128]:	QDataBrowser::readFields()
vfunc[129]:	QDataBrowser::writeFields()
vfunc[130]:	QDataBrowser::clearValues()
vfunc[131]:	QDataBrowser::insertCurrent()
vfunc[132]:	QDataBrowser::updateCurrent()
vfunc[133]:	QDataBrowser::deleteCurrent()
vfunc[134]:	QDataBrowser::currentEdited()
vfunc[135]:	QDataBrowser::confirmEdit(QSql::Op)
vfunc[136]:	QDataBrowser::confirmCancel(QSql::Op)
vfunc[137]:	QDataBrowser::handleError(QSqlError const&)

The Run Time Type Information for the QDataBrowser class is described by [Table 18-448](#)

Table 18-448. typeinfo for QDataBrowser

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDataBrowser
basetype:	typeinfo for QWidget

18.2.22.48. Class data for QTextEdit

The virtual table for the QTextEdit class is described by [Table 18-449](#)

Table 18-449. Primary vtable for QTextEdit

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextEdit
vfunc[0]:	NULL or QTextEdit::metaObject() const
vfunc[1]:	QTextEdit::className() const
vfunc[2]:	QTextEdit::qt_cast(char const*)
vfunc[3]:	QTextEdit::qt_invoke(int, QUObject*)

vfunc[4]:	QTextEdit::qt_emit(int, QUObject*)
vfunc[5]:	QTextEdit::qt_property(int, int, QVariant*)
vfunc[6]:	QTextEdit::~~QTextEdit()
vfunc[7]:	QTextEdit::~~QTextEdit()
vfunc[8]:	QTextEdit::event(QEvent*)
vfunc[9]:	QTextEdit::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QTextEdit::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QTextEdit::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QTextEdit::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)

vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QTextEdit::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QTextEdit::sizeHint() const
vfunc[59]:	QScrollView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QTextEdit::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)

vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QTextEdit::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QTextEdit::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QTextEdit::imStartEvent(QIMEvent*)
vfunc[86]:	QTextEdit::imComposeEvent(QIMEvent*)
vfunc[87]:	QTextEdit::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QTextEdit::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const

vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QTextEdit::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QTextEdit::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QTextEdit::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QTextEdit::contentsMouseEvent(QMouseEvent*)
vfunc[130]:	QTextEdit::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QTextEdit::contentsMouseDoubleClickEvent(QMouseEvent*)
vfunc[132]:	QTextEdit::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QTextEdit::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QTextEdit::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QTextEdit::contentsDragLeaveEvent(QDragLeaveEvent*)

vfunc[136]:	QTextEdit::contentsDropEvent(QDropEvent*)
vfunc[137]:	QTextEdit::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QTextEdit::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QTextEdit::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QTextEdit::find(QString const&, bool, bool, bool, int*, int*)
vfunc[155]:	QTextEdit::getFormat(int, int, QFont*, QColor*, QTextEdit::VerticalAlignment*)
vfunc[156]:	QTextEdit::getParagraphFormat(int, QFont*, QColor*, QTextEdit::VerticalAlignment*, int*, QStyleSheetItem::DisplayMode*, QStyleSheetItem::ListStyle*, int*)
vfunc[157]:	QTextEdit::setMimeSourceFactory(QMimeSourceFactory*)
vfunc[158]:	QTextEdit::setStyleSheet(QStyleSheet*)
vfunc[159]:	QTextEdit::scrollToAnchor(QString const&)
vfunc[160]:	QTextEdit::setPaper(QBrush const&)
vfunc[161]:	QTextEdit::setLinkUnderline(bool)
vfunc[162]:	QTextEdit::setWordWrap(QTextEdit::WordWrap)
vfunc[163]:	QTextEdit::setWrapColumnOrWidth(int)
vfunc[164]:	QTextEdit::setWrapPolicy(QTextEdit::WrapPolicy)
vfunc[165]:	QTextEdit::copy()
vfunc[166]:	QTextEdit::append(QString const&)
vfunc[167]:	QTextEdit::setText(QString const&, QString const&)

vfunc[168]:	QTextEdit::setTextFormat(Qt::TextFormat)
vfunc[169]:	QTextEdit::selectAll(bool)
vfunc[170]:	QTextEdit::setTabStopWidth(int)
vfunc[171]:	QTextEdit::zoomIn(int)
vfunc[172]:	NULL or QTextEdit::zoomIn()
vfunc[173]:	QTextEdit::zoomOut(int)
vfunc[174]:	NULL or QTextEdit::zoomOut()
vfunc[175]:	QTextEdit::zoomTo(int)
vfunc[176]:	QTextEdit::sync()
vfunc[177]:	QTextEdit::setReadOnly(bool)
vfunc[178]:	QTextEdit::undo()
vfunc[179]:	QTextEdit::redo()
vfunc[180]:	QTextEdit::cut()
vfunc[181]:	QTextEdit::paste()
vfunc[182]:	QTextEdit::pasteSubType(QCString const&)
vfunc[183]:	QTextEdit::clear()
vfunc[184]:	QTextEdit::del()
vfunc[185]:	QTextEdit::indent()
vfunc[186]:	QTextEdit::setItalic(bool)
vfunc[187]:	QTextEdit::setBold(bool)
vfunc[188]:	QTextEdit::setUnderline(bool)
vfunc[189]:	QTextEdit::setFamily(QString const&)
vfunc[190]:	QTextEdit::setPointSize(int)
vfunc[191]:	QTextEdit::setColor(QColor const&)
vfunc[192]:	QTextEdit::setVerticalAlignment(QTextEdit::VerticalAlignment)
vfunc[193]:	QTextEdit::setAlignment(int)
vfunc[194]:	QTextEdit::setParagType(QStyleSheetItem::DisplayMode, QStyleSheetItem::ListStyle)
vfunc[195]:	QTextEdit::setCursorPosition(int, int)
vfunc[196]:	QTextEdit::setSelection(int, int, int, int, int)
vfunc[197]:	QTextEdit::setSelectionAttributes(int, QColor const&, bool)
vfunc[198]:	QTextEdit::setModified(bool)
vfunc[199]:	QTextEdit::resetFormat()
vfunc[200]:	QTextEdit::setUndoDepth(int)

vfunc[201]:	QTextEdit::setFormat(QTextFormat*, int)
vfunc[202]:	QTextEdit::ensureCursorVisible()
vfunc[203]:	QTextEdit::placeCursor(QPoint const&, QTextCursor*)
vfunc[204]:	QTextEdit::moveCursor(QTextEdit::CursorAction, bool)
vfunc[205]:	QTextEdit::doKeyboardAction(QTextEdit::KeyboardAction)
vfunc[206]:	QTextEdit::removeSelectedText(int)
vfunc[207]:	QTextEdit::removeSelection(int)
vfunc[208]:	NULL or QTextEdit::setCurrentFont(QFont const&)
vfunc[209]:	NULL or QTextEdit::setOverwriteMode(bool)
vfunc[210]:	QTextEdit::scrollToBottom()
vfunc[211]:	QTextEdit::insert(QString const&, bool, bool, bool)
vfunc[212]:	QTextEdit::insertAt(QString const&, int, int)
vfunc[213]:	QTextEdit::removeParagraph(int)
vfunc[214]:	QTextEdit::insertParagraph(QString const&, int)
vfunc[215]:	QTextEdit::setParagraphBackgroundColor(int, QColor const&)
vfunc[216]:	QTextEdit::clearParagraphBackground(int)
vfunc[217]:	QTextEdit::setUndoRedoEnabled(bool)
vfunc[218]:	QTextEdit::createPopupMenu(QPoint const&)
vfunc[219]:	QTextEdit::createPopupMenu()
vfunc[220]:	QTextEdit::doChangeInterval()
vfunc[221]:	NULL or QTextEdit::linksEnabled() const
vfunc[222]:	NULL or QTextEdit::emitHighlighted(QString const&)
vfunc[223]:	NULL or QTextEdit::emitLinkClicked(QString const&)

The Run Time Type Information for the QTextEdit class is described by [Table 18-450](#)

Table 18-450. typeinfo for QTextEdit

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextEdit
basetype:	typeinfo for QScrollView

18.2.22.49. Interfaces for Qt3 Widgets

An LSB conforming implementation shall provide the generic functions for Qt3 Widgets specified in [Table 18-451](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-451. libqt-mt - Qt3 Widgets Function Interfaces

_ZN10QLCDNumber10drawStringERK7QStringR8QPainterP9QBitArrayb [qt-mt]
_ZN10QLCDNumber10setDecModeEv [qt-mt]
_ZN10QLCDNumber10setOctModeEv [qt-mt]
_ZN10QLCDNumber11qt_propertyEiiP8QVariant [qt-mt]
_ZN10QLCDNumber12setNumDigitsEi [qt-mt]
_ZN10QLCDNumber15setSegmentStyleENS_12SegmentStyleE [qt-mt]
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_ZN10QLCDNumber20setSmallDecimalPointEb [qt-mt]
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_ZN10QLCDNumber7displayEi [qt-mt]
_ZN10QLCDNumber7qt_emitEiP8QUObject [qt-mt]
_ZN10QLCDNumber8overflowEv [qt-mt]
_ZN10QLCDNumber9qt_invokeEiP8QUObject [qt-mt]
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_ZN10QWhatsThis18leaveWhatsThisModeERK7QStringRK6QPointP7QWidget [qt-mt]
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_ZN10QWhatsThisD0Ev [qt-mt]
_ZN10QWhatsThisD2Ev [qt-mt]
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_ZN11QMainWindow4hideEv [qt-mt]
_ZN11QMainWindow5eventEP6QEvent [qt-mt]
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_ZN11QMainWindow9whatsThisEv [qt-mt]
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_ZN11QScrollView14hbarIsReleasedEv [qt-mt]
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_ZN11QScrollView15setVBarGeometryER10QScrollBariiii [qt-mt]
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_ZN13QListViewItem14setDragEnabledEb [qt-mt]
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_ZN14QCheckListItem12restoreStateEPvi [qt-mt]
_ZN14QCheckListItem14setStoredStateENS_11ToggleStateEPv [qt-mt]
_ZN14QCheckListItem16updateControllerEbb [qt-mt]
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_ZN14QCheckListItem5setupEv [qt-mt]
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_ZN14QMultiLineEdit10insertLineERK7QStringi [qt-mt]
_ZN14QMultiLineEdit11cursorRightEbb [qt-mt]
_ZN14QMultiLineEdit12setAlignmentEi [qt-mt]
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_ZN14QMultiLineEdit6pageUpEb [qt-mt]

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_ZN14QMultiLineEdit8insertAtERK7QStringiib [qt-mt]
_ZN14QMultiLineEdit8pageDownEb [qt-mt]
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_ZN5QDial11setMinValueEi [qt-mt]
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_ZN6QFrame9setMarginEi [qt-mt]
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<u>_ZN7QSlider11rangeChangeEv [qt-mt]</u>
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<u>_ZN7QSlider11setMinValueEi [qt-mt]</u>
<u>_ZN7QSlider11setTrackingEb [qt-mt]</u>
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<u>_ZN7QSlider14sliderReleasedEv [qt-mt]</u>
<u>_ZN7QSlider15setTickIntervalEi [qt-mt]</u>
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_ZN8QToolBoxD2Ev [qt-mt]
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_ZN8QToolTip18setGloballyEnabledEb [qt-mt]
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_ZN8QToolTip6removeEP7QWidget [qt-mt]
_ZN8QToolTip7paletteEv [qt-mt]
_ZN8QToolTip7textForEP7QWidgetRK6QPoint [qt-mt]
_ZN8QToolTipC2EP7QWidgetP13QToolTipGroup [qt-mt]
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_ZN9QCheckBox11resizeEventEP12QResizeEvent [qt-mt]
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_ZN9QComboBox13returnPressedEv [qt-mt]
_ZN9QComboBox13setUpLineEditEv [qt-mt]
_ZN9QComboBox14currentChangedEv [qt-mt]
_ZN9QComboBox14popDownListBoxEv [qt-mt]
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_ZN9QComboBox5popupEv [qt-mt]
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_ZN9QComboBox7reIndexEv [qt-mt]
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_ZN9QComboBoxC2EP7QWidgetPKc [qt-mt]
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_ZN9QDockAreaD2Ev [qt-mt]
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_ZN9QGridView10updateGridEv [qt-mt]
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_ZN9QGridView12setCellWidthEi [qt-mt]
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_ZN9QIconView14currentChangedEP13QIconViewItem [qt-mt]
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_ZN9QIconView16selectionChangedEv [qt-mt]
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_ZNK11QDockWindow11orientationEv [qt-mt]
_ZNK11QDockWindow13isStretchableEv [qt-mt]
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_ZNK11QDockWindow15minimumSizeHintEv [qt-mt]
_ZNK11QDockWindow25isHorizontallyStretchableEv [qt-mt]
_ZNK11QDockWindow6widgetEv [qt-mt]
_ZNK11QDockWindow8sizeHintEv [qt-mt]
_ZNK11QDockWindow9closeModeEv [qt-mt]
_ZNK11QMainWindow11appropriateEP11QDockWindow [qt-mt]
_ZNK11QMainWindow11dockWindowsEv [qt-mt]
_ZNK11QMainWindow12opaqueMovingEv [qt-mt]
_ZNK11QMainWindow13centralWidgetEv [qt-mt]
_ZNK11QMainWindow13isDockEnabledEP11QDockWindowN2Qt4DockE [qt-mt]
_ZNK11QMainWindow13isDockEnabledEP9QDockArea [qt-mt]
_ZNK11QMainWindow14isCustomizableEv [qt-mt]
_ZNK11QMainWindow15minimumSizeHintEv [qt-mt]
_ZNK11QMainWindow18dockWindowsMovableEv [qt-mt]
_ZNK11QMainWindow20createDockWindowMenuENS_11DockWindowsE [qt-mt]
_ZNK11QMainWindow7topDockEv [qt-mt]
_ZNK11QMainWindow8sizeHintEv [qt-mt]
_ZNK11QMainWindow9classNameEv [qt-mt]
_ZNK11QMainWindow9statusBarEv [qt-mt]
_ZNK11QPushButton6isFlatEv [qt-mt]
_ZNK11QPushButton8sizeHintEv [qt-mt]
_ZNK11QScrollView10leftMarginEv [qt-mt]
_ZNK11QScrollView12bottomMarginEv [qt-mt]
_ZNK11QScrollView12resizePolicyEv [qt-mt]

_ZNK11QScrollView12visibleWidthEv [qt-mt]
_ZNK11QScrollView13visibleHeightEv [qt-mt]
_ZNK11QScrollView14contentsHeightEv [qt-mt]
_ZNK11QScrollView14hScrollBarModeEv [qt-mt]
_ZNK11QScrollView15minimumSizeHintEv [qt-mt]
_ZNK11QScrollView17verticalScrollBarEv [qt-mt]
ZNK11QScrollView18contentsToViewportEiiRiS0 [qt-mt]
ZNK11QScrollView18viewportToContentsEiiRiS0 [qt-mt]
_ZNK11QScrollView19horizontalScrollBarEv [qt-mt]
_ZNK11QScrollView8sizeHintEv [qt-mt]
_ZNK11QScrollView9classNameEv [qt-mt]
_ZNK11QScrollView9contentsYEv [qt-mt]
_ZNK11QSpinWidget11isUpEnabledEv [qt-mt]
_ZNK11QSpinWidget13isDownEnabledEv [qt-mt]
_ZNK11QSpinWidget8downRectEv [qt-mt]
_ZNK11QToolButton10offIconSetEv [qt-mt]
_ZNK11QToolButton12textPositionEv [qt-mt]
_ZNK11QToolButton5popupEv [qt-mt]
_ZNK11QToolButton7iconSetEb [qt-mt]
_ZNK11QToolButton8sizeHintEv [qt-mt]
_ZNK11QToolButton9classNameEv [qt-mt]
_ZNK12QDataBrowser10isReadOnlyEv [qt-mt]
_ZNK12QDataBrowser13confirmDeleteEv [qt-mt]
_ZNK12QDataBrowser13confirmUpdateEv [qt-mt]
_ZNK12QDataBrowser16boundaryCheckingEv [qt-mt]
_ZNK12QDataBrowser6filterEv [qt-mt]
_ZNK12QDataBrowser9classNameEv [qt-mt]
_ZNK12QListBoxItem12isSelectableEv [qt-mt]
_ZNK12QListBoxItem4prevEv [qt-mt]
_ZNK12QListBoxItem4textEv [qt-mt]
_ZNK12QListBoxItem6heightEPK8QListBox [qt-mt]
_ZNK12QListBoxItem7listBoxEv [qt-mt]
_ZNK12QListBoxText4rttiEv [qt-mt]

_ZNK12QListBoxText6heightEPK8QListBox [qt-mt]
_ZNK12QProgressBar8sizeHintEv [qt-mt]
_ZNK12QRadioButton8sizeHintEv [qt-mt]
_ZNK12QRadioButton9hitButtonERK6QPoint [qt-mt]
_ZNK12QTextBrowser9classNameEv [qt-mt]
_ZNK13QIconViewItem10intersectsERK5QRect [qt-mt]
_ZNK13QIconViewItem10pixmapRectEb [qt-mt]
_ZNK13QIconViewItem11dropEnabledEv [qt-mt]
_ZNK13QIconViewItem13renameEnabledEv [qt-mt]
_ZNK13QIconViewItem1yEv [qt-mt]
_ZNK13QIconViewItem3posEv [qt-mt]
_ZNK13QIconViewItem4rttiEv [qt-mt]
_ZNK13QIconViewItem4textEv [qt-mt]
_ZNK13QIconViewItem5widthEv [qt-mt]
_ZNK13QIconViewItem6pixmapEv [qt-mt]
_ZNK13QIconViewItem7pictureEv [qt-mt]
_ZNK13QIconViewItem8iconViewEv [qt-mt]
_ZNK13QIconViewItem8prevItemEv [qt-mt]
_ZNK13QIconViewItem8textRectEb [qt-mt]
_ZNK13QListViewItem10firstChildEv [qt-mt]
_ZNK13QListViewItem11dropEnabledEv [qt-mt]
_ZNK13QListViewItem12widthChangedEi [qt-mt]
_ZNK13QListViewItem16enforceSortOrderEv [qt-mt]
_ZNK13QListViewItem3keyEib [qt-mt]
_ZNK13QListViewItem4textEi [qt-mt]
_ZNK13QListViewItem5widthERK12QFontMetricsPK9QListViewi [qt-mt]
_ZNK13QListViewItem6parentEv [qt-mt]
_ZNK13QListViewItem7compareEPS_ib [qt-mt]
_ZNK13QListViewItem7repaintEv [qt-mt]
_ZNK13QListViewItem9isEnabledEv [qt-mt]
_ZNK13QToolTipGroup5delayEv [qt-mt]
_ZNK13QToolTipGroup9classNameEv [qt-mt]
_ZNK14QCheckListItem11storedStateEPv [qt-mt]

_ZNK14QCheckListItem4rttiEv [qt-mt]
_ZNK14QCheckListItem5widthERK12QFontMetricsPK9QListViewi [qt-mt]
_ZNK14QDesktopWidget12screenNumberEP7QWidget [qt-mt]
_ZNK14QDesktopWidget13primaryScreenEv [qt-mt]
_ZNK14QDesktopWidget16isVirtualDesktopEv [qt-mt]
_ZNK14QDesktopWidget9classNameEv [qt-mt]
_ZNK14QListBoxPixmap5widthEPK8QListBox [qt-mt]
_ZNK14QMultiLineEdit10lineLengthEi [qt-mt]
_ZNK14QMultiLineEdit11atBeginningEv [qt-mt]
_ZNK14QMultiLineEdit13hasMarkedTextEv [qt-mt]
_ZNK14QMultiLineEdit5atEndEv [qt-mt]
_ZNK14QMultiLineEdit8numLinesEv [qt-mt]
_ZNK14QMultiLineEdit9alignmentEv [qt-mt]
_ZNK21QListViewItemIterator12matchesFlagsEPK13QListViewItem [qt-mt]
_ZNK21QListViewItemIterator7currentEv [qt-mt]
_ZNK5QDial11notchTargetEv [qt-mt]
_ZNK5QDial14valueFromPointERK6QPoint [qt-mt]
_ZNK5QDial15minimumSizeHintEv [qt-mt]
_ZNK5QDial5valueEv [qt-mt]
_ZNK5QDial8lineStepEv [qt-mt]
_ZNK5QDial8minValueEv [qt-mt]
_ZNK5QDial8sizeHintEv [qt-mt]
_ZNK5QDial8wrappingEv [qt-mt]
_ZNK5QDial9classNameEv [qt-mt]
_ZNK6QFrame12contentsRectEv [qt-mt]
_ZNK6QFrame9classNameEv [qt-mt]
_ZNK6QLabel10textFormatEv [qt-mt]
_ZNK6QLabel14heightForWidthEi [qt-mt]
_ZNK6QLabel17hasScaledContentsEv [qt-mt]
_ZNK6QLabel5movieEv [qt-mt]
_ZNK6QLabel9classNameEv [qt-mt]
_ZNK7QButton5accelEv [qt-mt]
_ZNK7QButton9classNameEv [qt-mt]

_ZNK7QSlider10sizePolicyEv [qt-mt]
_ZNK7QSlider15minimumSizeHintEv [qt-mt]
_ZNK7QSlider17valueFromPositionEi [qt-mt]
_ZNK7QSlider8goodPartERK6QPoint [qt-mt]
_ZNK7QSlider8maxValueEv [qt-mt]
_ZNK7QSlider8pageStepEv [qt-mt]
_ZNK7QSlider9availableEv [qt-mt]
_ZNK7QTabBar10currentTabEv [qt-mt]
_ZNK7QTabBar12isTabEnabledEi [qt-mt]
_ZNK7QTabBar16keyboardFocusTabEv [qt-mt]
_ZNK7QTabBar5countEv [qt-mt]
_ZNK7QTabBar5shapeEv [qt-mt]
_ZNK7QTabBar7indexOfEi [qt-mt]
_ZNK7QTabBar8sizeHintEv [qt-mt]
_ZNK7QTabBar9selectTabERK6QPoint [qt-mt]
_ZNK7QWidget10colorGroupEv [qt-mt]
_ZNK7QWidget10sizePolicyEv [qt-mt]
_ZNK7QWidget11erasePixmapEv [qt-mt]
ZNK7QWidget11isEnabledToEPS [qt-mt]
_ZNK7QWidget11isMinimizedEv [qt-mt]
_ZNK7QWidget11mapToGlobalERK6QPoint [qt-mt]
_ZNK7QWidget11maximumSizeEv [qt-mt]
_ZNK7QWidget11visibleRectEv [qt-mt]
_ZNK7QWidget12childrenRectEv [qt-mt]
_ZNK7QWidget13frameGeometryEv [qt-mt]
_ZNK7QWidget13mapFromParentERK6QPoint [qt-mt]
_ZNK7QWidget13windowOpacityEv [qt-mt]
_ZNK7QWidget14childrenRegionEv [qt-mt]
_ZNK7QWidget14isActiveWindowEv [qt-mt]
_ZNK7QWidget14topLevelWidgetEv [qt-mt]
_ZNK7QWidget15backgroundColorEv [qt-mt]
_ZNK7QWidget15foregroundColorEv [qt-mt]
_ZNK7QWidget16backgroundOffsetEv [qt-mt]

_Znk7QWidget16backgroundPixmapEv [qt-mt]
_Znk7QWidget1xEv [qt-mt]
_Znk7QWidget22paletteBackgroundColorEv [qt-mt]
_Znk7QWidget23paletteBackgroundPixmapEv [qt-mt]
_Znk7QWidget4iconEv [qt-mt]
_Znk7QWidget5styleEv [qt-mt]
_Znk7QWidget6metricEi [qt-mt]
_Znk7QWidget7childAtERK6QPointb [qt-mt]
_Znk7QWidget7mapFromEPS_RK6QPoint [qt-mt]
_Znk7QWidget8baseSizeEv [qt-mt]
_Znk7QWidget8iconTextEv [qt-mt]
_Znk7QWidget9classNameEv [qt-mt]
_Znk8QListBox10columnModeEv [qt-mt]
_Znk8QListBox10isSelectedEPK12QListBoxItem [qt-mt]
_Znk8QListBox10itemHeightEi [qt-mt]
_Znk8QListBox11currentItemEv [qt-mt]
_Znk8QListBox12maxItemWidthEv [qt-mt]
_Znk8QListBox13currentColumnEv [qt-mt]
_Znk8QListBox13variableWidthEv [qt-mt]
_Znk8QListBox15minimumSizeHintEv [qt-mt]
_Znk8QListBox16isMultiSelectionEv [qt-mt]
_Znk8QListBox4itemEi [qt-mt]
_Znk8QListBox5countEv [qt-mt]
_Znk8QListBox5rowAtEi [qt-mt]
_Znk8QListBox6pixmapEi [qt-mt]
_Znk8QListBox7rowModeEv [qt-mt]
_Znk8QListBox8columnAtEi [qt-mt]
_Znk8QListBox8findItemERK7QStringj [qt-mt]
_Znk8QListBox8itemYPosEiPi [qt-mt]
_Znk8QListBox9classNameEv [qt-mt]
_Znk8QSpinBox13buttonSymbolsEv [qt-mt]
_Znk8QSpinBox16specialValueTextEv [qt-mt]
_Znk8QSpinBox5valueEv [qt-mt]

_ZNK8QSpinBox6prefixEv [qt-mt]
_ZNK8QSpinBox6upRectEv [qt-mt]
_ZNK8QSpinBox8lineStepEv [qt-mt]
_ZNK8QSpinBox8minValueEv [qt-mt]
_ZNK8QSpinBox8wrappingEv [qt-mt]
_ZNK8QSpinBox9cleanTextEv [qt-mt]
_ZNK8QToolBox11currentItemEv [qt-mt]
_ZNK8QToolBox11itemToolTipEi [qt-mt]
_ZNK8QToolBox13isItemEnabledEi [qt-mt]
_ZNK8QToolBox5countEv [qt-mt]
_ZNK8QToolBox9classNameEv [qt-mt]
_ZNK9QCheckBox10isTristateEv [qt-mt]
_ZNK9QCheckBox9classNameEv [qt-mt]
_ZNK9QComboBox10autoResizeEv [qt-mt]
_ZNK9QComboBox11currentTextEv [qt-mt]
_ZNK9QComboBox15completionIndexERK7QStringi [qt-mt]
_ZNK9QComboBox17duplicatesEnabledEv [qt-mt]
_ZNK9QComboBox5countEv [qt-mt]
_ZNK9QComboBox7listBoxEv [qt-mt]
_ZNK9QComboBox8lineEditEv [qt-mt]
_ZNK9QComboBox8sizeHintEv [qt-mt]
_ZNK9QComboBox9sizeLimitEv [qt-mt]
_ZNK9QDataView9classNameEv [qt-mt]
_ZNK9QDockArea5countEv [qt-mt]
_ZNK9QDockArea9classNameEv [qt-mt]
_ZNK9QIconView10isRenamingEv [qt-mt]
_ZNK9QIconView11arrangementEv [qt-mt]
_ZNK9QIconView11calcGridNumEii [qt-mt]
_ZNK9QIconView11itemTextPosEv [qt-mt]
_ZNK9QIconView12maxItemWidthEv [qt-mt]
_ZNK9QIconView13neighbourItemENS_9DirectionERK6QPointPK13QIconViewItem [qt-mt]
_ZNK9QIconView13sortDirectionEv [qt-mt]
_ZNK9QIconView16wordWrapIconTextEv [qt-mt]

_ZNK9QIconView18itemTextBackgroundEv [qt-mt]
_ZNK9QIconView20findFirstVisibleItemERK5QRect [qt-mt]
_ZNK9QIconView5countEv [qt-mt]
_ZNK9QIconView5gridYEv [qt-mt]
_ZNK9QIconView7sortingEv [qt-mt]
_ZNK9QIconView8findItemENS_9DirectionERK6QPointRK5QRect [qt-mt]
_ZNK9QIconView8findItemERK7QStringj [qt-mt]
_ZNK9QIconView8rowBeginEP13QIconViewItem [qt-mt]
_ZNK9QIconView9classNameEv [qt-mt]
_ZNK9QLineEdit10isModifiedEv [qt-mt]
_ZNK9QLineEdit11characterAtEiP5QChar [qt-mt]
_ZNK9QLineEdit11dragEnabledEv [qt-mt]
_ZNK9QLineEdit12selectedTextEv [qt-mt]
_ZNK9QLineEdit14selectionStartEv [qt-mt]
_ZNK9QLineEdit15isRedoAvailableEv [qt-mt]
_ZNK9QLineEdit15minimumSizeHintEv [qt-mt]
_ZNK9QLineEdit4copyEv [qt-mt]
_ZNK9QLineEdit5frameEv [qt-mt]
_ZNK9QLineEdit8echoModeEv [qt-mt]
_ZNK9QLineEdit9alignmentEv [qt-mt]
_ZNK9QLineEdit9inputMaskEv [qt-mt]
_ZNK9QLineEdit9validatorEv [qt-mt]
_ZNK9QListView10columnTextEi [qt-mt]
_ZNK9QListView10isRenamingEv [qt-mt]
_ZNK9QListView10itemMarginEv [qt-mt]
_ZNK9QListView10sortColumnEv [qt-mt]
_ZNK9QListView11currentItemEv [qt-mt]
_ZNK9QListView12selectedItemEv [qt-mt]
_ZNK9QListView12treeStepSizeEv [qt-mt]
_ZNK9QListView15columnAlignmentEi [qt-mt]
_ZNK9QListView15minimumSizeHintEv [qt-mt]
_ZNK9QListView16isMultiSelectionEv [qt-mt]
_ZNK9QListView17showSortIndicatorEv [qt-mt]

_ZNK9QListView19defaultRenameActionEv [qt-mt]
_ZNK9QListView6isOpenEPK13QListViewItem [qt-mt]
_ZNK9QListView7columnsEv [qt-mt]
_ZNK9QListView8itemRectEPK13QListViewItem [qt-mt]
_ZNK9QListView8sizeHintEv [qt-mt]
_ZNK9QListView9sortOrderEv [qt-mt]
_ZNK9QTextEdit10isModifiedEv [qt-mt]
_ZNK9QTextEdit10styleSheetEv [qt-mt]
_ZNK9QTextEdit10wrapPolicyEv [qt-mt]
_ZNK9QTextEdit11paragraphAtERK6QPoint [qt-mt]
_ZNK9QTextEdit12selectedTextEv [qt-mt]
_ZNK9QTextEdit13documentTitleEv [qt-mt]
_ZNK9QTextEdit13paragraphRectEi [qt-mt]
_ZNK9QTextEdit14heightForWidthEi [qt-mt]
_ZNK9QTextEdit15hasSelectedTextEv [qt-mt]
_ZNK9QTextEdit15isUndoAvailableEv [qt-mt]
_ZNK9QTextEdit15tabChangesFocusEv [qt-mt]
ZNK9QTextEdit17getCursorPositionEPiS0 [qt-mt]
_ZNK9QTextEdit17mimeSourceFactoryEv [qt-mt]
_ZNK9QTextEdit17optimSelectedTextEv [qt-mt]
_ZNK9QTextEdit17wrapColumnOrWidthEv [qt-mt]
_ZNK9QTextEdit4boldEv [qt-mt]
_ZNK9QTextEdit4textEi [qt-mt]
_ZNK9QTextEdit5colorEv [qt-mt]
_ZNK9QTextEdit5paperEv [qt-mt]
_ZNK9QTextEdit6familyEv [qt-mt]
_ZNK9QTextEdit6lengthEv [qt-mt]
_ZNK9QTextEdit8sizeHintEv [qt-mt]
_ZNK9QTextEdit9alignmentEv [qt-mt]
_ZNK9QTextEdit9optimTextEv [qt-mt]
_ZNK9QTextEdit9underlineEv [qt-mt]
_ZNK9QTextView9classNameEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Widgets specified in

Table 18-452, with the full mandatory functionality as described in the referenced underlying specification.

Table 18-452. libqt-mt - Qt3 Widgets Data Interfaces

<u>_ZN10QLCDNumber7metaObjE [qt-mt]</u>	<u>_ZN10QScrollBar7metaObjE [qt-mt]</u>
<u>_ZN10QTabWidget7metaObjE [qt-mt]</u>	<u>_ZN11QDockWindow7metaObjE [qt-mt]</u>
<u>_ZN11QMainWindow7metaObjE [qt-mt]</u>	<u>_ZN11QPushButton7metaObjE [qt-mt]</u>
<u>_ZN11QScrollView7metaObjE [qt-mt]</u>	<u>_ZN11QSpinWidget7metaObjE [qt-mt]</u>
<u>_ZN11QToolButton7metaObjE [qt-mt]</u>	<u>_ZN12QDataBrowser7metaObjE [qt-mt]</u>
<u>_ZN12QListBoxItem4RTTIE [qt-mt]</u>	<u>_ZN12QListBoxText4RTTIE [qt-mt]</u>
<u>_ZN12QProgressBar7metaObjE [qt-mt]</u>	<u>_ZN12QRadioButton7metaObjE [qt-mt]</u>
<u>_ZN12QTextBrowser7metaObjE [qt-mt]</u>	<u>_ZN13QIconViewItem4RTTIE [qt-mt]</u>
<u>_ZN13QListViewItem4RTTIE [qt-mt]</u>	<u>_ZN13QToolTipGroup7metaObjE [qt-mt]</u>
<u>_ZN14QCheckListItem4RTTIE [qt-mt]</u>	<u>_ZN14QDesktopWidget7metaObjE [qt-mt]</u>
<u>_ZN14QListBoxPixmap4RTTIE [qt-mt]</u>	<u>_ZN14QMultiLineEdit7metaObjE [qt-mt]</u>
<u>_ZN5QDial7metaObjE [qt-mt]</u>	<u>_ZN6QFrame7metaObjE [qt-mt]</u>
<u>_ZN6QLabel7metaObjE [qt-mt]</u>	<u>_ZN7QButton7metaObjE [qt-mt]</u>
<u>_ZN7QSlider7metaObjE [qt-mt]</u>	<u>_ZN7QTabBar7metaObjE [qt-mt]</u>
<u>_ZN7QWidget12maxInstancesE [qt-mt]</u>	<u>_ZN7QWidget15instanceCounterE [qt-mt]</u>
<u>_ZN7QWidget6mapperE [qt-mt]</u>	<u>_ZN7QWidget7metaObjE [qt-mt]</u>
<u>_ZN8QListBox14changedListBoxE [qt-mt]</u>	<u>_ZN8QListBox7metaObjE [qt-mt]</u>
<u>_ZN8QSpinBox7metaObjE [qt-mt]</u>	<u>_ZN8QToolBox7metaObjE [qt-mt]</u>
<u>_ZN9QCheckBox7metaObjE [qt-mt]</u>	<u>_ZN9QComboBox7metaObjE [qt-mt]</u>
<u>_ZN9QDataView7metaObjE [qt-mt]</u>	<u>_ZN9QDockArea7metaObjE [qt-mt]</u>
<u>_ZN9QGridView7metaObjE [qt-mt]</u>	<u>_ZN9QIconView7metaObjE [qt-mt]</u>
<u>_ZN9QLineEdit7metaObjE [qt-mt]</u>	<u>_ZN9QListView7metaObjE [qt-mt]</u>
<u>_ZN9QTextEdit7metaObjE [qt-mt]</u>	<u>_ZN9QTextView7metaObjE [qt-mt]</u>
<u>_ZTI10QLCDNumber [CXXABI-1.86]</u>	<u>_ZTI10QScrollBar [CXXABI-1.86]</u>
<u>_ZTI10QTabWidget [CXXABI-1.86]</u>	<u>_ZTI10QWhatsThis [CXXABI-1.86]</u>
<u>_ZTI11QDockWindow [CXXABI-1.86]</u>	<u>_ZTI11QMainWindow [CXXABI-1.86]</u>
<u>_ZTI11QPushButton [CXXABI-1.86]</u>	<u>_ZTI11QScrollView [CXXABI-1.86]</u>
<u>_ZTI11QSpinWidget [CXXABI-1.86]</u>	<u>_ZTI11QToolButton [CXXABI-1.86]</u>
<u>_ZTI11QWidgetList [CXXABI-1.86]</u>	<u>_ZTI12QDataBrowser [CXXABI-1.86]</u>

<u>_ZTI12QIconFactory [CXXABI-1.86]</u>	<u>_ZTI12QListBoxItem [CXXABI-1.86]</u>
<u>_ZTI12QListBoxText [CXXABI-1.86]</u>	<u>_ZTI12QProgressBar [CXXABI-1.86]</u>
<u>_ZTI12QRadioButton [CXXABI-1.86]</u>	<u>_ZTI12QTextBrowser [CXXABI-1.86]</u>
<u>_ZTI13QIconViewItem [CXXABI-1.86]</u>	<u>_ZTI13QListViewItem [CXXABI-1.86]</u>
<u>_ZTI13QToolTipGroup [CXXABI-1.86]</u>	<u>_ZTI14QCheckListItem [CXXABI-1.86]</u>
<u>_ZTI14QDesktopWidget [CXXABI-1.86]</u>	<u>_ZTI14QListBoxPixmap [CXXABI-1.86]</u>
<u>_ZTI14QMultiLineEdit [CXXABI-1.86]</u>	<u>_ZTI14QWidgetIntDict [CXXABI-1.86]</u>
<u>_ZTI4QTab [CXXABI-1.86]</u>	<u>_ZTI5QDial [CXXABI-1.86]</u>
<u>_ZTI6QFrame [CXXABI-1.86]</u>	<u>_ZTI6QLabel [CXXABI-1.86]</u>
<u>_ZTI7QButton [CXXABI-1.86]</u>	<u>_ZTI7QSlider [CXXABI-1.86]</u>
<u>_ZTI7QTabBar [CXXABI-1.86]</u>	<u>_ZTI7QWidget [CXXABI-1.86]</u>
<u>_ZTI8QListBox [CXXABI-1.86]</u>	<u>_ZTI8QSpinBox [CXXABI-1.86]</u>
<u>_ZTI8QToolBox [CXXABI-1.86]</u>	<u>_ZTI8QToolTip [CXXABI-1.86]</u>
<u>_ZTI9QCheckBox [CXXABI-1.86]</u>	<u>_ZTI9QComboBox [CXXABI-1.86]</u>
<u>_ZTI9QDataView [CXXABI-1.86]</u>	<u>_ZTI9QDockArea [CXXABI-1.86]</u>
<u>_ZTI9QGridView [CXXABI-1.86]</u>	<u>_ZTI9QIconView [CXXABI-1.86]</u>
<u>_ZTI9QLineEdit [CXXABI-1.86]</u>	<u>_ZTI9QListView [CXXABI-1.86]</u>
<u>_ZTI9QTextEdit [CXXABI-1.86]</u>	<u>_ZTI9QTextView [CXXABI-1.86]</u>
<u>_ZTV10QLCDNumber [CXXABI-1.86]</u>	<u>_ZTV10QScrollBar [CXXABI-1.86]</u>
<u>_ZTV10QTabWidget [CXXABI-1.86]</u>	<u>_ZTV10QWhatsThis [CXXABI-1.86]</u>
<u>_ZTV11QDockWindow [CXXABI-1.86]</u>	<u>_ZTV11QMainWindow [CXXABI-1.86]</u>
<u>_ZTV11QPushButton [CXXABI-1.86]</u>	<u>_ZTV11QScrollView [CXXABI-1.86]</u>
<u>_ZTV11QSpinWidget [CXXABI-1.86]</u>	<u>_ZTV11QToolButton [CXXABI-1.86]</u>
<u>_ZTV11QWidgetList [CXXABI-1.86]</u>	<u>_ZTV12QDataBrowser [CXXABI-1.86]</u>
<u>_ZTV12QIconFactory [CXXABI-1.86]</u>	<u>_ZTV12QListBoxItem [CXXABI-1.86]</u>
<u>_ZTV12QListBoxText [CXXABI-1.86]</u>	<u>_ZTV12QProgressBar [CXXABI-1.86]</u>
<u>_ZTV12QRadioButton [CXXABI-1.86]</u>	<u>_ZTV12QTextBrowser [CXXABI-1.86]</u>
<u>_ZTV13QIconViewItem [CXXABI-1.86]</u>	<u>_ZTV13QListViewItem [CXXABI-1.86]</u>
<u>_ZTV13QToolTipGroup [CXXABI-1.86]</u>	<u>_ZTV14QCheckListItem [CXXABI-1.86]</u>
<u>_ZTV14QDesktopWidget [CXXABI-1.86]</u>	<u>_ZTV14QListBoxPixmap [CXXABI-1.86]</u>
<u>_ZTV14QMultiLineEdit [CXXABI-1.86]</u>	<u>_ZTV14QWidgetIntDict [CXXABI-1.86]</u>
<u>_ZTV4QTab [CXXABI-1.86]</u>	<u>_ZTV5QDial [CXXABI-1.86]</u>
<u>_ZTV6QFrame [CXXABI-1.86]</u>	<u>_ZTV6QLabel [CXXABI-1.86]</u>

_ZTV7QButton [CXXABI-1.86]	_ZTV7QSlider [CXXABI-1.86]
_ZTV7QTabBar [CXXABI-1.86]	_ZTV7QWidget [CXXABI-1.86]
_ZTV8QListBox [CXXABI-1.86]	_ZTV8QSpinBox [CXXABI-1.86]
_ZTV8QToolBox [CXXABI-1.86]	_ZTV8QToolTip [CXXABI-1.86]
_ZTV9QCheckBox [CXXABI-1.86]	_ZTV9QComboBox [CXXABI-1.86]
_ZTV9QDataView [CXXABI-1.86]	_ZTV9QDockArea [CXXABI-1.86]
_ZTV9QGridView [CXXABI-1.86]	_ZTV9QIconView [CXXABI-1.86]
_ZTV9QLineEdit [CXXABI-1.86]	_ZTV9QListView [CXXABI-1.86]
_ZTV9QTextEdit [CXXABI-1.86]	_ZTV9QTextView [CXXABI-1.86]

18.2.23. Qt3 Menus

18.2.23.1. Class data for QPopupMenu

The virtual table for the QPopupMenu class is described by [Table 18-453](#)

Table 18-453. Primary vtable for QPopupMenu

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPopupMenu
vfunc[0]:	NULL or QPopupMenu::metaObject() const
vfunc[1]:	QPopupMenu::className() const
vfunc[2]:	QPopupMenu::qt_cast(char const*)
vfunc[3]:	QPopupMenu::qt_invoke(int, QUObject*)
vfunc[4]:	QPopupMenu::qt_emit(int, QUObject*)
vfunc[5]:	QPopupMenu::qt_property(int, int, QVariant*)
vfunc[6]:	QPopupMenu::~~QPopupMenu()
vfunc[7]:	QPopupMenu::~~QPopupMenu()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)

vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QPopupMenu::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QPopupMenu::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)

vfunc[47]:	QPopupMenu::show()
vfunc[48]:	QPopupMenu::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QPopupMenu::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QPopupMenu::customWhatsThis() const
vfunc[69]:	QPopupMenu::mousePressEvent(QMouseEvent*)
vfunc[70]:	QPopupMenu::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QPopupMenu::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QPopupMenu::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QPopupMenu::focusInEvent(QFocusEvent*)
vfunc[77]:	QPopupMenu::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QPopupMenu::leaveEvent(QEvent*)

vfunc[80]:	QPopupMenu::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QFrame::resizeEvent(QResizeEvent*)
vfunc[83]:	QPopupMenu::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QPopupMenu::styleChange(QStyle&)
vfunc[98]:	QPopupMenu::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QPopupMenu::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)

vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QPopupMenu::drawContents(QPainter*)
vfunc[117]:	QPopupMenu::frameChanged()
vfunc[118]:	QPopupMenu::updateItem(int)
vfunc[119]:	QPopupMenu::setCheckable(bool)
vfunc[120]:	QPopupMenu::setActiveItem(int)
vfunc[121]:	QPopupMenu::activateItemAt(int)
vfunc[122]:	QPopupMenu::menuContentsChanged()
vfunc[123]:	QPopupMenu::menuStateChanged()
vfunc[124]:	QPopupMenu::menuInsPopup(QPopupMenu*)
vfunc[125]:	QPopupMenu::menuDelPopup(QPopupMenu*)
vfunc[126]:	QPopupMenu::setFirstItemActive()

The Run Time Type Information for the QPopupMenu class is described by [Table 18-454](#)

Table 18-454. typeinfo for QPopupMenu

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QPopupMenu	
flags:	0	
basetype:	typeinfo for QFrame	2
basetype:	typeinfo for QMenuData	37890

18.2.23.2. Class data for QMenuBar

The virtual table for the QMenuBar class is described by [Table 18-455](#)

Table 18-455. Primary vtable for QMenuBar

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMenuBar
vfunc[0]:	NULL or QMenuBar::metaObject() const
vfunc[1]:	QMenuBar::className() const

vfunc[2]:	QMenuBar::qt_cast(char const*)
vfunc[3]:	QMenuBar::qt_invoke(int, QUObject*)
vfunc[4]:	QMenuBar::qt_emit(int, QUObject*)
vfunc[5]:	QMenuBar::qt_property(int, int, QVariant*)
vfunc[6]:	QMenuBar::~~QMenuBar()
vfunc[7]:	QMenuBar::~~QMenuBar()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QMenuBar::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)

vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QMenuBar::show()
vfunc[48]:	QMenuBar::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QMenuBar::sizeHint() const
vfunc[59]:	QMenuBar::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QMenuBar::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)

vfunc[68]:	QMenuBar::customWhatsThis() const
vfunc[69]:	QMenuBar::mousePressEvent(QMouseEvent*)
vfunc[70]:	QMenuBar::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QMenuBar::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QMenuBar::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QMenuBar::focusInEvent(QFocusEvent*)
vfunc[77]:	QMenuBar::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QMenuBar::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QMenuBar::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QMenuBar::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QMenuBar::fontChange(QFont const&)

vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QMenuBar::drawContents(QPainter*)
vfunc[117]:	QMenuBar::frameChanged()
vfunc[118]:	QMenuBar::updateItem(int)
vfunc[119]:	QMenuBar::setSeparator(QMenuBar::Separator)
vfunc[120]:	QMenuBar::activateItemAt(int)
vfunc[121]:	QMenuBar::menuContentsChanged()
vfunc[122]:	QMenuBar::menuStateChanged()
vfunc[123]:	QMenuBar::menuInsPopup(QPopupMenu*)
vfunc[124]:	QMenuBar::menuDelPopup(QPopupMenu*)

The Run Time Type Information for the QMenuBar class is described by [Table 18-456](#)

Table 18-456. typeinfo for QMenuBar

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QMenuBar	
flags:	0	
basetype:	typeinfo for QFrame	2
basetype:	typeinfo for QMenuData	37890

18.2.23.3. Class data for QCustomMenuItem

The virtual table for the QCustomMenuItem class is described by [Table 18-457](#)

Table 18-457. Primary vtable for QCustomMenuItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCustomMenuItem
vfunc[0]:	QCustomMenuItem::~~QCustomMenuItem()
vfunc[1]:	QCustomMenuItem::~~QCustomMenuItem()
vfunc[2]:	QCustomMenuItem::fullSpan() const
vfunc[3]:	QCustomMenuItem::isSeparator() const
vfunc[4]:	QCustomMenuItem::setFont(QFont const&)
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual

The Run Time Type Information for the QCustomMenuItem class is described by [Table 18-458](#)

Table 18-458. typeinfo for QCustomMenuItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCustomMenuItem
basetype:	typeinfo for Qt

18.2.23.4. Class data for QMenuData

The virtual table for the QMenuData class is described by [Table 18-459](#)

Table 18-459. Primary vtable for QMenuData

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMenuData
vfunc[0]:	QMenuData::~~QMenuData()
vfunc[1]:	QMenuData::~~QMenuData()
vfunc[2]:	QMenuData::updateItem(int)
vfunc[3]:	QMenuData::setId(int, int)

vfunc[4]:	QMenuData::activateItemAt(int)
vfunc[5]:	QMenuData::menuContentsChanged()
vfunc[6]:	QMenuData::menuStateChanged()
vfunc[7]:	QMenuData::menuInsPopup(QPopupMenu*)
vfunc[8]:	QMenuData::menuDelPopup(QPopupMenu*)

The Run Time Type Information for the QMenuData class is described by [Table 18-460](#)

Table 18-460. typeinfo for QMenuData

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QMenuData

18.2.23.5. Interfaces for Qt3 Menus

An LSB conforming implementation shall provide the generic functions for Qt3 Menus specified in [Table 18-461](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-461. libqt-mt - Qt3 Menus Function Interfaces

_ZN10QPopupMenu10byeMenuBarEv [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu10hidePopupsEv [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu10paintEventEP11QPaintEvent [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu10tryMenuBarEP11QMouseEvent [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu10updateSizeEbb [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu11aboutToShowEv [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu11highlightedEi [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu11styleChangeER6QStyle [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu12connectModalEPS_b [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu12focusInEventEP11QFocusEvent [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu12itemGeometryEi [qt-mt]	_ZN10QPopupMenu
ZN10QPopupMenu12menuInsPopupEPS [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu12subActivatedEi [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu13enabledChangeEb [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu13hideAllPopupsEv [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu13setActiveItemEi [qt-mt]	_ZN10QPopupMenu
_ZN10QPopupMenu13tryMouseEventEPS_P11QMouseEvent [qt-mt]	_ZN10QPopupMenu

_ZN10QPopupMenu14accelDestroyedEv [qt-mt]	_ZN10QPopupMenu14accelDestroyedEv [qt-mt]
_ZN10QPopupMenu14allowAnimationEv [qt-mt]	_ZN10QPopupMenu14allowAnimationEv [qt-mt]
_ZN10QPopupMenu14popupDestroyedEP7QObject [qt-mt]	_ZN10QPopupMenu14popupDestroyedEP7QObject [qt-mt]
_ZN10QPopupMenu14subScrollTimerEv [qt-mt]	_ZN10QPopupMenu14subScrollTimerEv [qt-mt]
_ZN10QPopupMenu15mousePressEventEP11QMouseEvent [qt-mt]	_ZN10QPopupMenu15mousePressEventEP11QMouseEvent [qt-mt]
_ZN10QPopupMenu16staticMetaObjectEv [qt-mt]	_ZN10QPopupMenu16staticMetaObjectEv [qt-mt]
_ZN10QPopupMenu17mouseReleaseEventEP11QMouseEvent [qt-mt]	_ZN10QPopupMenu17mouseReleaseEventEP11QMouseEvent [qt-mt]
_ZN10QPopupMenu18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN10QPopupMenu18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]
_ZN10QPopupMenu19highlightedRedirectEi [qt-mt]	_ZN10QPopupMenu19highlightedRedirectEi [qt-mt]
_ZN10QPopupMenu19menuContentsChangedEv [qt-mt]	_ZN10QPopupMenu19menuContentsChangedEv [qt-mt]
_ZN10QPopupMenu21performDelayedChangesEv [qt-mt]	_ZN10QPopupMenu21performDelayedChangesEv [qt-mt]
_ZN10QPopupMenu29performDelayedContentsChangedEv [qt-mt]	_ZN10QPopupMenu29performDelayedContentsChangedEv [qt-mt]
_ZN10QPopupMenu4execERK6QPointi [qt-mt]	_ZN10QPopupMenu4execERK6QPointi [qt-mt]
_ZN10QPopupMenu4hideEv [qt-mt]	_ZN10QPopupMenu4hideEv [qt-mt]
_ZN10QPopupMenu5popupERK6QPointi [qt-mt]	_ZN10QPopupMenu5popupERK6QPointi [qt-mt]
ZN10QPopupMenu6trUtf8EPKcS1 [qt-mt]	_ZN10QPopupMenu6trUtf8EPKcS1_ [qt-mt]
_ZN10QPopupMenu7qt_emitEiP8QUObject [qt-mt]	_ZN10QPopupMenu7qt_emitEiP8QUObject [qt-mt]
_ZN10QPopupMenu8drawItemEP8QPainteriP9QMenuItembiiii [qt-mt]	_ZN10QPopupMenu8drawItemEP8QPainteriP9QMenuItembiiii [qt-mt]
_ZN10QPopupMenu9activatedEi [qt-mt]	_ZN10QPopupMenu9activatedEi [qt-mt]
_ZN10QPopupMenu9updateRowEi [qt-mt]	_ZN10QPopupMenu9updateRowEi [qt-mt]
_ZN10QPopupMenuC2EP7QWidgetPKc [qt-mt]	_ZN10QPopupMenuC2EP7QWidgetPKc [qt-mt]
_ZN10QPopupMenuD1Ev [qt-mt]	_ZN10QPopupMenuD1Ev [qt-mt]
_ZN15QCustomMenuItem7setFontERK5QFont [qt-mt]	_ZN15QCustomMenuItem7setFontERK5QFont [qt-mt]
_ZN15QCustomMenuItemC2Ev [qt-mt]	_ZN15QCustomMenuItemC2Ev [qt-mt]
_ZN15QCustomMenuItemD1Ev [qt-mt]	_ZN15QCustomMenuItemD1Ev [qt-mt]
_ZN8QMenuBar10fontChangeERK5QFont [qt-mt]	_ZN8QMenuBar10fontChangeERK5QFont [qt-mt]
_ZN8QMenuBar10leaveEventEP6QEvent [qt-mt]	_ZN8QMenuBar10leaveEventEP6QEvent [qt-mt]
_ZN8QMenuBar10updateItemEi [qt-mt]	_ZN8QMenuBar10updateItemEi [qt-mt]
_ZN8QMenuBar11highlightedEi [qt-mt]	_ZN8QMenuBar11highlightedEi [qt-mt]
_ZN8QMenuBar11resizeEventEP12QResizeEvent [qt-mt]	_ZN8QMenuBar11resizeEventEP12QResizeEvent [qt-mt]
_ZN8QMenuBar11tryKeyEventEP10QPopupMenuP9QKeyEvent [qt-mt]	_ZN8QMenuBar11tryKeyEventEP10QPopupMenuP9QKeyEvent [qt-mt]
_ZN8QMenuBar12focusInEventEP11QFocusEvent [qt-mt]	_ZN8QMenuBar12focusInEventEP11QFocusEvent [qt-mt]
_ZN8QMenuBar12menuDelPopupEP10QPopupMenu [qt-mt]	_ZN8QMenuBar12menuDelPopupEP10QPopupMenu [qt-mt]

_ZN8QMenuBar12openActPopupEv [qt-mt]	_ZN8QMenuBar12openActPopupEv [qt-mt]
_ZN8QMenuBar12setSeparatorENS_9SeparatorE [qt-mt]	_ZN8QMenuBar12setSeparatorENS_9SeparatorE [qt-mt]
_ZN8QMenuBar13focusOutEventEP11QFocusEvent [qt-mt]	_ZN8QMenuBar13focusOutEventEP11QFocusEvent [qt-mt]
_ZN8QMenuBar13setActiveItemEibb [qt-mt]	_ZN8QMenuBar13setActiveItemEibb [qt-mt]
_ZN8QMenuBar14accelActivatedEi [qt-mt]	_ZN8QMenuBar14accelActivatedEi [qt-mt]
_ZN8QMenuBar14activateItemAtEi [qt-mt]	_ZN8QMenuBar14activateItemAtEi [qt-mt]
_ZN8QMenuBar14languageChangeEv [qt-mt]	_ZN8QMenuBar14languageChangeEv [qt-mt]
_ZN8QMenuBar14popupDestroyedEP7QObject [qt-mt]	_ZN8QMenuBar14popupDestroyedEP7QObject [qt-mt]
_ZN8QMenuBar15mousePressEventEP11QMouseEvent [qt-mt]	_ZN8QMenuBar15mousePressEventEP11QMouseEvent [qt-mt]
_ZN8QMenuBar16staticMetaObjectEv [qt-mt]	_ZN8QMenuBar16staticMetaObjectEv [qt-mt]
_ZN8QMenuBar17setupAcceleratorsEv [qt-mt]	_ZN8QMenuBar17setupAcceleratorsEv [qt-mt]
_ZN8QMenuBar19menuContentsChangedEv [qt-mt]	_ZN8QMenuBar19menuContentsChangedEv [qt-mt]
_ZN8QMenuBar26performDelayedStateChangedEv [qt-mt]	_ZN8QMenuBar26performDelayedStateChangedEv [qt-mt]
ZN8QMenuBar2trEPKcS1 [qt-mt]	_ZN8QMenuBar2trEPKcS1_ [qt-mt]
_ZN8QMenuBar4showEv [qt-mt]	_ZN8QMenuBar4showEv [qt-mt]
_ZN8QMenuBar7goodbyeEb [qt-mt]	_ZN8QMenuBar7goodbyeEb [qt-mt]
_ZN8QMenuBar7qt_emitEiP8QUObject [qt-mt]	_ZN8QMenuBar7qt_emitEiP8QUObject [qt-mt]
_ZN8QMenuBar9activatedEi [qt-mt]	_ZN8QMenuBar9activatedEi [qt-mt]
_ZN8QMenuBar9qt_invokeEiP8QUObject [qt-mt]	_ZN8QMenuBar9qt_invokeEiP8QUObject [qt-mt]
_ZN8QMenuBarC2EP7QWidgetPKc [qt-mt]	_ZN8QMenuBarC2EP7QWidgetPKc [qt-mt]
_ZN8QMenuBarD1Ev [qt-mt]	_ZN8QMenuBarD1Ev [qt-mt]
_ZN9QMenuData10changeItemEiRK7QPixmap [qt-mt]	_ZN9QMenuData10changeItemEiRK7QPixmap [qt-mt]
_ZN9QMenuData10changeItemEiRK8QIconSetRK7QPixmap [qt-mt]	_ZN9QMenuData10changeItemEiRK8QIconSetRK7QPixmap [qt-mt]
_ZN9QMenuData10insertItemEP15QCustomMenuItemi [qt-mt]	_ZN9QMenuData10insertItemEP15QCustomMenuItemi [qt-mt]
_ZN9QMenuData10insertItemERK7QPixmapP10QPopupMenu [qt-mt]	_ZN9QMenuData10insertItemERK7QPixmapP10QPopupMenu [qt-mt]
_ZN9QMenuData10insertItemERK7QPixmap [qt-mt]	_ZN9QMenuData10insertItemERK7QPixmap [qt-mt]
_ZN9QMenuData10insertItemERK7QStringPK7QObjectPKcRK12QKeySequencei [qt-mt]	_ZN9QMenuData10insertItemERK7QStringPK7QObjectPKcRK12QKeySequencei [qt-mt]
_ZN9QMenuData10insertItemERK8QIconSetP15QCustomMenuItemi [qt-mt]	_ZN9QMenuData10insertItemERK8QIconSetP15QCustomMenuItemi [qt-mt]
_ZN9QMenuData10insertItemERK8QIconSetRK7QPixmapPK7QObjectPKcRK12QKeySequencei [qt-mt]	_ZN9QMenuData10insertItemERK8QIconSetRK7QPixmapPK7QObjectPKcRK12QKeySequencei [qt-mt]
_ZN9QMenuData10insertItemERK8QIconSetRK7QStringP10QPopupMenu [qt-mt]	_ZN9QMenuData10insertItemERK8QIconSetRK7QStringP10QPopupMenu [qt-mt]
_ZN9QMenuData10insertItemERK8QIconSetRK7QString [qt-mt]	_ZN9QMenuData10insertItemERK8QIconSetRK7QString [qt-mt]
_ZN9QMenuData10updateItemEi [qt-mt]	_ZN9QMenuData10updateItemEi [qt-mt]

_ZN9QMenuData11removePopupEP10QPopupMenu [qt-mt]	_ZN9QMenuData11removePopupEP10QPopupMenu [qt-mt]
_ZN9QMenuData12menuInsPopupEP10QPopupMenu [qt-mt]	_ZN9QMenuData12menuInsPopupEP10QPopupMenu [qt-mt]
_ZN9QMenuData12setWhatsThisEiRK7QString [qt-mt]	_ZN9QMenuData12setWhatsThisEiRK7QString [qt-mt]
_ZN9QMenuData14disconnectItemEiPK7QObjectPKc [qt-mt]	_ZN9QMenuData14disconnectItemEiPK7QObjectPKc [qt-mt]
_ZN9QMenuData14setItemEnabledEib [qt-mt]	_ZN9QMenuData14setItemEnabledEib [qt-mt]
_ZN9QMenuData15insertSeparatorEi [qt-mt]	_ZN9QMenuData15insertSeparatorEi [qt-mt]
_ZN9QMenuData16setItemParameterEii [qt-mt]	_ZN9QMenuData16setItemParameterEii [qt-mt]
_ZN9QMenuData19menuContentsChangedEv [qt-mt]	_ZN9QMenuData19menuContentsChangedEv [qt-mt]
_ZN9QMenuData5setIdEii [qt-mt]	_ZN9QMenuData5setIdEii [qt-mt]
_ZN9QMenuData9findPopupEP10QPopupMenuPi [qt-mt]	_ZN9QMenuData9findPopupEP10QPopupMenuPi [qt-mt]
_ZN9QMenuDataC1Ev [qt-mt]	_ZN9QMenuDataC1Ev [qt-mt]
_ZN9QMenuDataD0Ev [qt-mt]	_ZN9QMenuDataD0Ev [qt-mt]
_ZN9QMenuDataD2Ev [qt-mt]	_ZN9QMenuDataD2Ev [qt-mt]
_ZN9QMenuItemC1Ev [qt-mt]	_ZN9QMenuItemC1Ev [qt-mt]
_ZN9QMenuItemD1Ev [qt-mt]	_ZN9QMenuItemD1Ev [qt-mt]
_ZNK10QPopupMenu10itemHeightEP9QMenuItem [qt-mt]	_ZNK10QPopupMenu10itemHeightEP9QMenuItem [qt-mt]
_ZNK10QPopupMenu11isCheckableEv [qt-mt]	_ZNK10QPopupMenu11isCheckableEv [qt-mt]
_ZNK10QPopupMenu4idAtERK6QPoint [qt-mt]	_ZNK10QPopupMenu4idAtERK6QPoint [qt-mt]
_ZNK10QPopupMenu8sizeHintEv [qt-mt]	_ZNK10QPopupMenu8sizeHintEv [qt-mt]
_ZNK10QPopupMenu9itemAtPosERK6QPointb [qt-mt]	_ZNK10QPopupMenu9itemAtPosERK6QPointb [qt-mt]
_ZNK15QCustomMenuItem8fullSpanEv [qt-mt]	_ZNK15QCustomMenuItem8fullSpanEv [qt-mt]
_ZNK8QMenuBar11minimumSizeEv [qt-mt]	_ZNK8QMenuBar11minimumSizeEv [qt-mt]
_ZNK8QMenuBar15customWhatsThisEv [qt-mt]	_ZNK8QMenuBar15customWhatsThisEv [qt-mt]
_ZNK8QMenuBar8sizeHintEv [qt-mt]	_ZNK8QMenuBar8sizeHintEv [qt-mt]
_ZNK8QMenuBar9separatorEv [qt-mt]	_ZNK8QMenuBar9separatorEv [qt-mt]
_ZNK9QMenuData13isItemCheckedEi [qt-mt]	_ZNK9QMenuData13isItemCheckedEi [qt-mt]
_ZNK9QMenuData13isItemVisibleEi [qt-mt]	_ZNK9QMenuData13isItemVisibleEi [qt-mt]
_ZNK9QMenuData4idAtEi [qt-mt]	_ZNK9QMenuData4idAtEi [qt-mt]
_ZNK9QMenuData5accelEi [qt-mt]	_ZNK9QMenuData5accelEi [qt-mt]
_ZNK9QMenuData6pixmapEi [qt-mt]	_ZNK9QMenuData6pixmapEi [qt-mt]
_ZNK9QMenuData7indexOfEi [qt-mt]	_ZNK9QMenuData7indexOfEi [qt-mt]
ZNK9QMenuData8findItemEiPPS [qt-mt]	_ZNK9QMenuData8findItemEiPPS_ [qt-mt]

_ZNK9QMenuItem6customEv [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Menus specified in [Table 18-462](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-462. libqt-mt - Qt3 Menus Data Interfaces

_ZN10QPopupMenu7metaObjE [qt-mt]	_ZN8QMenuBar7metaObjE [qt-mt]
_ZTI10QPopupMenu [CXXABI-1.86]	_ZTI15QCustomMenuItem [CXXABI-1.86]
_ZTI8QMenuBar [CXXABI-1.86]	_ZTI9QMenuData [CXXABI-1.86]
_ZTV10QPopupMenu [CXXABI-1.86]	_ZTV15QCustomMenuItem [CXXABI-1.86]
_ZTV8QMenuBar [CXXABI-1.86]	_ZTV9QMenuData [CXXABI-1.86]

18.2.24. Qt3 Organizers

18.2.24.1. Class data for QHBox

The virtual table for the QHBox class is described by [Table 18-463](#)

Table 18-463. Primary vtable for QHBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHBox
vfunc[0]:	NULL or QHBox::metaObject() const
vfunc[1]:	QHBox::className() const
vfunc[2]:	QHBox::qt_cast(char const*)
vfunc[3]:	QHBox::qt_invoke(int, QUObject*)
vfunc[4]:	QHBox::qt_emit(int, QUObject*)
vfunc[5]:	QHBox::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QHBox::~~QHBox()
vfunc[7]:	NULL or QHBox::~~QHBox()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)

vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)

vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QHBoxLayout::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)

vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QFrame::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)

vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QHBox::frameChanged()

The Run Time Type Information for the QHBox class is described by [Table 18-464](#)

Table 18-464. typeinfo for QHBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHBox
basetype:	typeinfo for QFrame

18.2.24.2. Class data for QSplitter

The virtual table for the QSplitter class is described by [Table 18-465](#)

Table 18-465. Primary vtable for QSplitter

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSplitter
vfunc[0]:	NULL or QSplitter::metaObject() const
vfunc[1]:	QSplitter::className() const
vfunc[2]:	QSplitter::qt_cast(char const*)
vfunc[3]:	QSplitter::qt_invoke(int, QUObject*)
vfunc[4]:	QSplitter::qt_emit(int, QUObject*)
vfunc[5]:	QSplitter::qt_property(int, int, QVariant*)
vfunc[6]:	QSplitter::~~QSplitter()
vfunc[7]:	QSplitter::~~QSplitter()
vfunc[8]:	QSplitter::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)

vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QSplitter::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)

vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QSplitter::sizeHint() const
vfunc[59]:	QSplitter::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)

vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QSplitter::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QSplitter::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)

vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QSplitter::setOrientation(Qt::Orientation)
vfunc[119]:	QSplitter::setResizeMode(QWidget*, QSplitter::ResizeMode)
vfunc[120]:	QSplitter::setOpaqueResize(bool)
vfunc[121]:	QSplitter::drawSplitter(QPainter*, int, int, int, int)
vfunc[122]:	QSplitter::setRubberband(int)

The Run Time Type Information for the QSplitter class is described by [Table 18-466](#)

Table 18-466. typeinfo for QSplitter

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSplitter
basetype:	typeinfo for QFrame

18.2.24.3. Class data for QVBox

The virtual table for the QVBox class is described by [Table 18-467](#)

Table 18-467. Primary vtable for QVBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QVBox
vfunc[0]:	NULL or QVBox::metaObject() const
vfunc[1]:	QVBox::className() const
vfunc[2]:	QVBox::qt_cast(char const*)
vfunc[3]:	QVBox::qt_invoke(int, QUObject*)
vfunc[4]:	QVBox::qt_emit(int, QUObject*)
vfunc[5]:	QVBox::qt_property(int, int, QVariant*)

vfunc[6]:	NULL or QVBox::~~QVBox()
vfunc[7]:	NULL or QVBox::~~QVBox()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)

vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QGroupBox::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)

vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QFrame::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)

vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QHBoxLayout::frameChanged()

The Run Time Type Information for the QVBox class is described by [Table 18-468](#)

Table 18-468. typeinfo for QVBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QVBox
basetype:	typeinfo for QHBoxLayout

18.2.24.4. Class data for QGroupBox

The virtual table for the QGroupBox class is described by [Table 18-469](#)

Table 18-469. Primary vtable for QGroupBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGroupBox
vfunc[0]:	NULL or QGroupBox::metaObject() const
vfunc[1]:	QGroupBox::className() const
vfunc[2]:	QGroupBox::qt_cast(char const*)
vfunc[3]:	QGroupBox::qt_invoke(int, QUObject*)
vfunc[4]:	QGroupBox::qt_emit(int, QUObject*)

vfunc[5]:	QGroupBox::qt_property(int, int, QVariant*)
vfunc[6]:	QGroupBox::~~QGroupBox()
vfunc[7]:	QGroupBox::~~QGroupBox()
vfunc[8]:	QGroupBox::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QGroupBox::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QGroupBox::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)

vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QGroupBox::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)

vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QGroupBox::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QGroupBox::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QGroupBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QGroupBox::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)

vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QGroupBox::setColumnLayout(int, Qt::Orientation)
vfunc[119]:	QGroupBox::setTitle(QString const&)
vfunc[120]:	QGroupBox::setAlignment(int)

The Run Time Type Information for the QGroupBox class is described by [Table 18-470](#)

Table 18-470. typeid for QGroupBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QGroupBox
basetype:	typeid for QFrame

18.2.24.5. Class data for QHGroupBox

The virtual table for the QHGroupBox class is described by [Table 18-471](#)

Table 18-471. Primary vtable for QHGroupBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QHGroupBox
vfunc[0]:	NULL or QHGroupBox::metaObject() const

vfunc[1]:	QGroupBox::className() const
vfunc[2]:	QGroupBox::qt_cast(char const*)
vfunc[3]:	QGroupBox::qt_invoke(int, QUObject*)
vfunc[4]:	QGroupBox::qt_emit(int, QUObject*)
vfunc[5]:	QGroupBox::qt_property(int, int, QVariant*)
vfunc[6]:	QGroupBox::~~QGroupBox()
vfunc[7]:	QGroupBox::~~QGroupBox()
vfunc[8]:	QGroupBox::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QGroupBox::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QGroupBox::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()

vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QGroupBox::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)

vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QGroupBox::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QGroupBox::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QGroupBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)

vfunc[100]:	QGroupBox::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QGroupBox::setColumnLayout(int, Qt::Orientation)
vfunc[119]:	QGroupBox::setTitle(QString const&)
vfunc[120]:	QGroupBox::setAlignment(int)

The Run Time Type Information for the QHGroupBox class is described by [Table 18-472](#)

Table 18-472. typeinfo for QHGroupBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHGroupBox
basetype:	typeinfo for QGroupBox

18.2.24.6. Class data for QHButtonGroup

The virtual table for the QHButtonGroup class is described by [Table 18-473](#)

Table 18-473. Primary vtable for QHButtonGroup

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHButtonGroup
vfunc[0]:	NULL or QHButtonGroup::metaObject() const
vfunc[1]:	QHButtonGroup::className() const
vfunc[2]:	QHButtonGroup::qt_cast(char const*)
vfunc[3]:	QHButtonGroup::qt_invoke(int, QUObject*)
vfunc[4]:	QHButtonGroup::qt_emit(int, QUObject*)
vfunc[5]:	QHButtonGroup::qt_property(int, int, QVariant*)
vfunc[6]:	QHButtonGroup::~QHButtonGroup()
vfunc[7]:	QHButtonGroup::~QHButtonGroup()
vfunc[8]:	QButtonGroup::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QGroupBox::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QGroupBox::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)

vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QGroupBox::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const

vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QGroupBox::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QGroupBox::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QGroupBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)

vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QGroupBox::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QGroupBox::setColumnLayout(int, Qt::Orientation)
vfunc[119]:	QGroupBox::setTitle(QString const&)
vfunc[120]:	QGroupBox::setAlignment(int)
vfunc[121]:	QButtonGroup::setExclusive(bool)
vfunc[122]:	QButtonGroup::setRadioButtonExclusive(bool)
vfunc[123]:	QButtonGroup::setButton(int)
vfunc[124]:	QButtonGroup::moveFocus(int)

The Run Time Type Information for the QHButtonGroup class is described by [Table 18-474](#)

Table 18-474. typeinfo for QHButtonGroup

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QHButtonGroup
basetype:	typeinfo for QButtonGroup

18.2.24.7. Class data for QWidgetStack

The virtual table for the QWidgetStack class is described by [Table 18-475](#)

Table 18-475. Primary vtable for QWidgetStack

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWidgetStack
vfunc[0]:	NULL or QWidgetStack::metaObject() const
vfunc[1]:	QWidgetStack::className() const
vfunc[2]:	QWidgetStack::qt_cast(char const*)
vfunc[3]:	QWidgetStack::qt_invoke(int, QUObject*)
vfunc[4]:	QWidgetStack::qt_emit(int, QUObject*)
vfunc[5]:	QWidgetStack::qt_property(int, int, QVariant*)
vfunc[6]:	QWidgetStack::~~QWidgetStack()
vfunc[7]:	QWidgetStack::~~QWidgetStack()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QWidgetStack::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidgetStack::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)

vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QWidgetStack::sizeHint() const
vfunc[59]:	QWidgetStack::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWidgetStack::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)

vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QWidgetStack::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QWidgetStack::frameChanged()
vfunc[118]:	QWidgetStack::setChildGeometries()

The Run Time Type Information for the QWidgetStack class is described by [Table 18-476](#)

Table 18-476. typeinfo for QWidgetStack

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWidgetStack
basetype:	typeinfo for QFrame

18.2.24.8. Class data for QButtonGroup

The virtual table for the QButtonGroup class is described by [Table 18-477](#)

Table 18-477. Primary vtable for QButtonGroup

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QButtonGroup
vfunc[0]:	NULL or QButtonGroup::metaObject() const
vfunc[1]:	QButtonGroup::className() const
vfunc[2]:	QButtonGroup::qt_cast(char const*)
vfunc[3]:	QButtonGroup::qt_invoke(int, QUObject*)
vfunc[4]:	QButtonGroup::qt_emit(int, QUObject*)
vfunc[5]:	QButtonGroup::qt_property(int, int, QVariant*)
vfunc[6]:	QButtonGroup::~~QButtonGroup()
vfunc[7]:	QButtonGroup::~QButtonGroup()
vfunc[8]:	QButtonGroup::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QGroupBox::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)

vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QGroupBox::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()

vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QGroupBox::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QGroupBox::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QGroupBox::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QGroupBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)

vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QGroupBox::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QGroupBox::setColumnLayout(int, Qt::Orientation)

vfunc[119]:	QGroupBox::setTitle(QString const&)
vfunc[120]:	QGroupBox::setAlignment(int)
vfunc[121]:	QButtonGroup::setExclusive(bool)
vfunc[122]:	QButtonGroup::setRadioButtonExclusive(bool)
vfunc[123]:	QButtonGroup::setButton(int)
vfunc[124]:	QButtonGroup::moveFocus(int)

The Run Time Type Information for the QButtonGroup class is described by [Table 18-478](#)

Table 18-478. typeinfo for QButtonGroup

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QButtonGroup
basetype:	typeinfo for QGroupBox

18.2.24.9. Class data for QVButtonGroup

The virtual table for the QVButtonGroup class is described by [Table 18-479](#)

Table 18-479. Primary vtable for QVButtonGroup

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QVButtonGroup
vfunc[0]:	NULL or QVButtonGroup::metaObject() const
vfunc[1]:	QVButtonGroup::className() const
vfunc[2]:	QVButtonGroup::qt_cast(char const*)
vfunc[3]:	QVButtonGroup::qt_invoke(int, QUObject*)
vfunc[4]:	QVButtonGroup::qt_emit(int, QUObject*)
vfunc[5]:	QVButtonGroup::qt_property(int, int, QVariant*)
vfunc[6]:	QVButtonGroup::~~QVButtonGroup()
vfunc[7]:	QVButtonGroup::~~QVButtonGroup()
vfunc[8]:	QButtonGroup::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)

vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QGroupBox::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QGroupBox::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)

vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QGroupBox::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QGroupBox::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)

vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QGroupBox::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QGroupBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QGroupBox::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)

vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QGroupBox::setColumnLayout(int, Qt::Orientation)
vfunc[119]:	QGroupBox::setTitle(QString const&)
vfunc[120]:	QGroupBox::setAlignment(int)
vfunc[121]:	QButtonGroup::setExclusive(bool)
vfunc[122]:	QButtonGroup::setRadioButtonExclusive(bool)
vfunc[123]:	QButtonGroup::setButton(int)
vfunc[124]:	QButtonGroup::moveFocus(int)

The Run Time Type Information for the QVButtonGroup class is described by [Table 18-480](#)

Table 18-480. typeinfo for QVButtonGroup

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QVButtonGroup
basetype:	typeinfo for QButtonGroup

18.2.24.10. Class data for QGrid

The virtual table for the QGrid class is described by [Table 18-481](#)

Table 18-481. Primary vtable for QGrid

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGrid
vfunc[0]:	NULL or QGrid::metaObject() const
vfunc[1]:	QGrid::className() const
vfunc[2]:	QGrid::qt_cast(char const*)
vfunc[3]:	QGrid::qt_invoke(int, QUObject*)

vfunc[4]:	QGrid::qt_emit(int, QUObject*)
vfunc[5]:	QGrid::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QGrid::~~QGrid()
vfunc[7]:	NULL or QGrid::~~QGrid()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)

vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QGrid::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)

vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QFrame::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QFrame::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const

vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QGrid::frameChanged()

The Run Time Type Information for the QGrid class is described by [Table 18-482](#)

Table 18-482. typeinfo for QGrid

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGrid
basetype:	typeinfo for QFrame

18.2.24.11. Class data for QVGroupBox

The virtual table for the QVGroupBox class is described by [Table 18-483](#)

Table 18-483. Primary vtable for QVGroupBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QVGroupBox
vfunc[0]:	NULL or QVGroupBox::metaObject() const
vfunc[1]:	QVGroupBox::className() const
vfunc[2]:	QVGroupBox::qt_cast(char const*)

vfunc[3]:	QVGroupBox::qt_invoke(int, QUObject*)
vfunc[4]:	QVGroupBox::qt_emit(int, QUObject*)
vfunc[5]:	QVGroupBox::qt_property(int, int, QVariant*)
vfunc[6]:	QVGroupBox::~~QVGroupBox()
vfunc[7]:	QVGroupBox::~~QVGroupBox()
vfunc[8]:	QGroupBox::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QGroupBox::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QGroupBox::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)

vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QGroupBox::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const

vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QGroupBox::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QGroupBox::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QGroupBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QFrame::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QGroupBox::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)

vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QFrame::drawContents(QPainter*)
vfunc[117]:	QFrame::frameChanged()
vfunc[118]:	QGroupBox::setColumnLayout(int, Qt::Orientation)
vfunc[119]:	QGroupBox::setTitle(QString const&)
vfunc[120]:	QGroupBox::setAlignment(int)

The Run Time Type Information for the QVGroupBox class is described by [Table 18-484](#)

Table 18-484. typeinfo for QVGroupBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QVGroupBox
basetype:	typeinfo for QGroupBox

18.2.24.12. Interfaces for Qt3 Organizers

An LSB conforming implementation shall provide the generic functions for Qt3 Organizers specified in [Table 18-485](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-485. libqt-mt - Qt3 Organizers Function Interfaces

_ZN10QHGroupBox11qt_propertyEiiP8QVariant [qt-mt]	_ZN10QHGroupBox16staticMetaObject
_ZN10QHGroupBox18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN10QHGroupBox2trEPKcS1_ [qt-mt]

ZN10QHGroupBox6trUtf8EPKcS1 [qt-mt]	_ZN10QHGroupBox7qt_castEPKc [qt-mt]
_ZN10QHGroupBox7qt_emitEiP8QUObject [qt-mt]	_ZN10QHGroupBox9qt_invokeEiP8QUObject [qt-mt]
_ZN10QHGroupBoxC1EP7QWidgetPKc [qt-mt]	_ZN10QHGroupBoxC1ERK7QStringP7QWidgetPKc [qt-mt]
_ZN10QHGroupBoxC2EP7QWidgetPKc [qt-mt]	_ZN10QHGroupBoxC2ERK7QStringP7QWidgetPKc [qt-mt]
_ZN10QHGroupBoxD0Ev [qt-mt]	_ZN10QHGroupBoxD1Ev [qt-mt]
_ZN10QHGroupBoxD2Ev [qt-mt]	_ZN10QVGroupBox11qt_propertyEiiP8QVariant [qt-mt]
_ZN10QVGroupBox16staticMetaObjectEv [qt-mt]	_ZN10QVGroupBox18qt_static_propertyEiiP8QVariant [qt-mt]
ZN10QVGroupBox2trEPKcS1 [qt-mt]	_ZN10QVGroupBox6trUtf8EPKcS1_ [qt-mt]
_ZN10QVGroupBox7qt_castEPKc [qt-mt]	_ZN10QVGroupBox7qt_emitEiP8QUObject [qt-mt]
_ZN10QVGroupBox9qt_invokeEiP8QUObject [qt-mt]	_ZN10QVGroupBoxC1EP7QWidgetPKc [qt-mt]
_ZN10QVGroupBoxC1ERK7QStringP7QWidgetPKc [qt-mt]	_ZN10QVGroupBoxC2EP7QWidgetPKc [qt-mt]
_ZN10QVGroupBoxC2ERK7QStringP7QWidgetPKc [qt-mt]	_ZN10QVGroupBoxD0Ev [qt-mt]
_ZN10QVGroupBoxD1Ev [qt-mt]	_ZN10QVGroupBoxD2Ev [qt-mt]
_ZN12QButtonGroup11qt_propertyEiiP8QVariant [qt-mt]	_ZN12QButtonGroup12setExclusiveEi [qt-mt]
_ZN12QButtonGroup13buttonClickedEv [qt-mt]	_ZN12QButtonGroup13buttonPressedEv [qt-mt]
_ZN12QButtonGroup13buttonToggledEb [qt-mt]	_ZN12QButtonGroup14buttonReleasedEv [qt-mt]
_ZN12QButtonGroup16staticMetaObjectEv [qt-mt]	_ZN12QButtonGroup18qt_static_propertyEiiP8QVariant [qt-mt]
_ZN12QButtonGroup23setRadioButtonExclusiveEb [qt-mt]	_ZN12QButtonGroup2trEPKcS1_ [qt-mt]
_ZN12QButtonGroup4initEv [qt-mt]	_ZN12QButtonGroup5eventEP6QEvent [qt-mt]
_ZN12QButtonGroup6insertEP7QButtoni [qt-mt]	_ZN12QButtonGroup6removeEP7QButtoni [qt-mt]
ZN12QButtonGroup6trUtf8EPKcS1 [qt-mt]	_ZN12QButtonGroup7clickedEi [qt-mt]
_ZN12QButtonGroup7pressedEi [qt-mt]	_ZN12QButtonGroup7qt_castEPKc [qt-mt]
_ZN12QButtonGroup7qt_emitEiP8QUObject [qt-mt]	_ZN12QButtonGroup8releasedEi [qt-mt]
_ZN12QButtonGroup9moveFocusEi [qt-mt]	_ZN12QButtonGroup9qt_invokeEiP8QUObject [qt-mt]
_ZN12QButtonGroup9setButtonEi [qt-mt]	_ZN12QButtonGroupC1EP7QWidgetPKc [qt-mt]
_ZN12QButtonGroupC1ERK7QStringP7QWidgetPKc [qt-mt]	_ZN12QButtonGroupC1EiN2Qt11OrientationERK7QStringP7QWidgetPKc [qt-mt]
_ZN12QButtonGroupC1EiN2Qt11OrientationERK7QStringP7QWidgetPKc [qt-mt]	_ZN12QButtonGroupC2EP7QWidgetPKc [qt-mt]
_ZN12QButtonGroupC2ERK7QStringP7QWidgetPKc [qt-mt]	_ZN12QButtonGroupC2EiN2Qt11OrientationERK7QStringP7QWidgetPKc [qt-mt]
_ZN12QButtonGroupC2EiN2Qt11OrientationERK7QStringP7QWidgetPKc [qt-mt]	_ZN12QButtonGroupD0Ev [qt-mt]
_ZN12QButtonGroupD1Ev [qt-mt]	_ZN12QButtonGroupD2Ev [qt-mt]

_ZN12QWidgetStack10childEventEP11QChildEvent [qt-mt]	_ZN12QWidgetStack11aboutToShowE
_ZN12QWidgetStack11aboutToShowEi [qt-mt]	_ZN12QWidgetStack11qt_propertyEii
_ZN12QWidgetStack11raiseWidgetEP7QWidget [qt-mt]	_ZN12QWidgetStack11raiseWidgetEi
_ZN12QWidgetStack11resizeEventEP12QResizeEvent [qt-mt]	_ZN12QWidgetStack12frameChanged
_ZN12QWidgetStack12removeWidgetEP7QWidget [qt-mt]	_ZN12QWidgetStack12setFrameRectE
_ZN12QWidgetStack16staticMetaObjectEv [qt-mt]	_ZN12QWidgetStack18qt_static_prope [qt-mt]
_ZN12QWidgetStack18setChildGeometriesEv [qt-mt]	_ZN12QWidgetStack2trEPKcS1_ [qt-mt]
_ZN12QWidgetStack4initEv [qt-mt]	_ZN12QWidgetStack4showEv [qt-mt]
ZN12QWidgetStack6trUtf8EPKcS1 [qt-mt]	_ZN12QWidgetStack7qt_castEPKc [qt-mt]
_ZN12QWidgetStack7qt_emitEiP8QUObject [qt-mt]	_ZN12QWidgetStack9addWidgetEP7QWidget
_ZN12QWidgetStack9qt_invokeEiP8QUObject [qt-mt]	_ZN12QWidgetStackC1EP7QWidgetP
_ZN12QWidgetStackC1EP7QWidgetPKcj [qt-mt]	_ZN12QWidgetStackC2EP7QWidgetP
_ZN12QWidgetStackC2EP7QWidgetPKcj [qt-mt]	_ZN12QWidgetStackD0Ev [qt-mt]
_ZN12QWidgetStackD1Ev [qt-mt]	_ZN12QWidgetStackD2Ev [qt-mt]
_ZN13QHButtonGroup11qt_propertyEiiP8QVariant [qt-mt]	_ZN13QHButtonGroup16staticMetaOb
_ZN13QHButtonGroup18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN13QHButtonGroup2trEPKcS1_ [qt-mt]
ZN13QHButtonGroup6trUtf8EPKcS1 [qt-mt]	_ZN13QHButtonGroup7qt_castEPKc [qt-mt]
_ZN13QHButtonGroup7qt_emitEiP8QUObject [qt-mt]	_ZN13QHButtonGroup9qt_invokeEiP8QUObject [qt-mt]
_ZN13QHButtonGroupC1EP7QWidgetPKc [qt-mt]	_ZN13QHButtonGroupC1ERK7QStringP7QWidgetPKc [qt-mt]
_ZN13QHButtonGroupC2EP7QWidgetPKc [qt-mt]	_ZN13QHButtonGroupC2ERK7QStringP7QWidgetPKc [qt-mt]
_ZN13QHButtonGroupD0Ev [qt-mt]	_ZN13QHButtonGroupD1Ev [qt-mt]
_ZN13QHButtonGroupD2Ev [qt-mt]	_ZN13QVButtonGroup11qt_propertyEiiP8QVariant [qt-mt]
_ZN13QVButtonGroup16staticMetaObjectEv [qt-mt]	_ZN13QVButtonGroup18qt_static_pro [qt-mt]
ZN13QVButtonGroup2trEPKcS1 [qt-mt]	_ZN13QVButtonGroup6trUtf8EPKcS1_ [qt-mt]
_ZN13QVButtonGroup7qt_castEPKc [qt-mt]	_ZN13QVButtonGroup7qt_emitEiP8QUObject [qt-mt]
_ZN13QVButtonGroup9qt_invokeEiP8QUObject [qt-mt]	_ZN13QVButtonGroupC1EP7QWidgetP7QWidgetPKc [qt-mt]
_ZN13QVButtonGroupC1ERK7QStringP7QWidgetPKc [qt-mt]	_ZN13QVButtonGroupC2EP7QWidgetP7QWidgetPKc [qt-mt]
_ZN13QVButtonGroupC2ERK7QStringP7QWidgetPKc [qt-mt]	_ZN13QVButtonGroupD0Ev [qt-mt]
_ZN13QVButtonGroupD1Ev [qt-mt]	_ZN13QVButtonGroupD2Ev [qt-mt]
_ZN5QGrid10setSpacingEi [qt-mt]	_ZN5QGrid11qt_propertyEiiP8QVariant [qt-mt]
_ZN5QGrid12frameChangedEv [qt-mt]	_ZN5QGrid16staticMetaObjectEv [qt-mt]

_ZN5QGrid18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN5QGrid2trEPKcS1_ [qt-mt]
ZN5QGrid6trUtf8EPKcS1 [qt-mt]	_ZN5QGrid7qt_castEPKc [qt-mt]
_ZN5QGrid7qt_emitEiP8QUObject [qt-mt]	_ZN5QGrid9qt_invokeEiP8QUObject [qt-mt]
_ZN5QGridC1EiN2Qt11OrientationEP7QWidgetPKcj [qt-mt]	_ZN5QGridC1EiP7QWidgetPKcj [qt-mt]
_ZN5QGridC2EiN2Qt11OrientationEP7QWidgetPKcj [qt-mt]	_ZN5QGridC2EiP7QWidgetPKcj [qt-mt]
_ZN5QHBox10setSpacingEi [qt-mt]	_ZN5QHBox11qt_propertyEiiP8QVariant [qt-mt]
_ZN5QHBox12frameChangedEv [qt-mt]	_ZN5QHBox16setStretchFactorEP7QVariant [qt-mt]
_ZN5QHBox16staticMetaObjectEv [qt-mt]	_ZN5QHBox18qt_static_propertyEP7QVariant [qt-mt]
ZN5QHBox2trEPKcS1 [qt-mt]	_ZN5QHBox6trUtf8EPKcS1_ [qt-mt]
_ZN5QHBox7qt_castEPKc [qt-mt]	_ZN5QHBox7qt_emitEiP8QUObject [qt-mt]
_ZN5QHBox9qt_invokeEiP8QUObject [qt-mt]	_ZN5QHBoxC1EP7QWidgetPKcj [qt-mt]
_ZN5QHBoxC1EbP7QWidgetPKcj [qt-mt]	_ZN5QHBoxC2EP7QWidgetPKcj [qt-mt]
_ZN5QHBoxC2EbP7QWidgetPKcj [qt-mt]	_ZN5QVBox11qt_propertyEiiP8QVariant [qt-mt]
_ZN5QVBox16staticMetaObjectEv [qt-mt]	_ZN5QVBox18qt_static_propertyEP7QVariant [qt-mt]
ZN5QVBox2trEPKcS1 [qt-mt]	_ZN5QVBox6trUtf8EPKcS1_ [qt-mt]
_ZN5QVBox7qt_castEPKc [qt-mt]	_ZN5QVBox7qt_emitEiP8QUObject [qt-mt]
_ZN5QVBox9qt_invokeEiP8QUObject [qt-mt]	_ZN5QVBoxC1EP7QWidgetPKcj [qt-mt]
_ZN5QVBoxC2EP7QWidgetPKcj [qt-mt]	_ZN9QGroupBox10childEventEP11QEvent [qt-mt]
_ZN9QGroupBox10fontChangeERK5QFont [qt-mt]	_ZN9QGroupBox10paintEventEP11QEvent [qt-mt]
_ZN9QGroupBox10setCheckedEb [qt-mt]	_ZN9QGroupBox10setColumnsEi [qt-mt]
_ZN9QGroupBox10setEnabledEb [qt-mt]	_ZN9QGroupBox11qt_propertyEiiP8QVariant [qt-mt]
_ZN9QGroupBox11resizeEventEP12QResizeEvent [qt-mt]	_ZN9QGroupBox12focusInEventEP11QEvent [qt-mt]
_ZN9QGroupBox12setAlignmentEi [qt-mt]	_ZN9QGroupBox12setCheckableEb [qt-mt]
_ZN9QGroupBox13setTextSpacerEv [qt-mt]	_ZN9QGroupBox14calculateFrameEv [qt-mt]
_ZN9QGroupBox14setOrientationEN2Qt11OrientationE [qt-mt]	_ZN9QGroupBox15setColumnLayoutE [qt-mt]
_ZN9QGroupBox15setInsideMarginEi [qt-mt]	_ZN9QGroupBox16setInsideSpacingEi [qt-mt]
_ZN9QGroupBox16staticMetaObjectEv [qt-mt]	_ZN9QGroupBox18qt_static_propertyEP7QVariant [qt-mt]
_ZN9QGroupBox18setChildrenEnabledEb [qt-mt]	_ZN9QGroupBox22updateCheckBoxGroup [qt-mt]
ZN9QGroupBox2trEPKcS1 [qt-mt]	_ZN9QGroupBox4initEv [qt-mt]
_ZN9QGroupBox4skipEv [qt-mt]	_ZN9QGroupBox5eventEP6QEvent [qt-mt]
ZN9QGroupBox6trUtf8EPKcS1 [qt-mt]	_ZN9QGroupBox7qt_castEPKc [qt-mt]
_ZN9QGroupBox7qt_emitEiP8QUObject [qt-mt]	_ZN9QGroupBox7setFlatEb [qt-mt]
_ZN9QGroupBox7toggledEb [qt-mt]	_ZN9QGroupBox8addSpaceEi [qt-mt]

_ZN9QGroupBox8fixFocusEv [qt-mt]	_ZN9QGroupBox8setTitleERK7QString [qt-mt]
_ZN9QGroupBox9insertWidgetEP7QWidget [qt-mt]	_ZN9QGroupBox9qt_invokeEiP8QUObject [qt-mt]
_ZN9QGroupBoxC1EP7QWidgetPKc [qt-mt]	_ZN9QGroupBoxC1ERK7QStringP7Q [qt-mt]
_ZN9QGroupBoxC1EiN2Qt11OrientationEP7QWidgetPKc [qt-mt]	_ZN9QGroupBoxC1EiN2Qt11OrientationEP7QWidgetPKc [qt-mt]
_ZN9QGroupBoxC2EP7QWidgetPKc [qt-mt]	_ZN9QGroupBoxC2ERK7QStringP7Q [qt-mt]
_ZN9QGroupBoxC2EiN2Qt11OrientationEP7QWidgetPKc [qt-mt]	_ZN9QGroupBoxC2EiN2Qt11OrientationEP7QWidgetPKc [qt-mt]
_ZN9QGroupBoxD0Ev [qt-mt]	_ZN9QGroupBoxD1Ev [qt-mt]
_ZN9QGroupBoxD2Ev [qt-mt]	_ZN9QSplitter10childEventEP11QChildEvent [qt-mt]
_ZN9QSplitter10findWidgetEP7QWidget [qt-mt]	_ZN9QSplitter10moveToLastEP7QWidget [qt-mt]
_ZN9QSplitter10storeSizesEv [qt-mt]	_ZN9QSplitter11collapsibleEP21QSplitter [qt-mt]
_ZN9QSplitter11moveToFirstEP7QWidget [qt-mt]	_ZN9QSplitter11qt_propertyEiiP8QVariant [qt-mt]
_ZN9QSplitter11resizeEventEP12QResizeEvent [qt-mt]	_ZN9QSplitter11styleChangeER6QStyle [qt-mt]
_ZN9QSplitter12drawSplitterEP8QPainteriiii [qt-mt]	_ZN9QSplitter12moveSplitterEii [qt-mt]
_ZN9QSplitter13setResizeModeEP7QWidgetNS_10ResizeModeE [qt-mt]	_ZN9QSplitter13setRubberbandEi [qt-mt]
_ZN9QSplitter13updateHandlesEv [qt-mt]	_ZN9QSplitter14setCollapsibleEP7QWidget [qt-mt]
_ZN9QSplitter14setHandleWidthEi [qt-mt]	_ZN9QSplitter14setOrientationEN2Qt11Orientation [qt-mt]
_ZN9QSplitter15addContributionEiPiS0_b [qt-mt]	_ZN9QSplitter15setOpaqueResizeEb [qt-mt]
_ZN9QSplitter16staticMetaObjectEv [qt-mt]	_ZN9QSplitter18processChildEventsEv [qt-mt]
_ZN9QSplitter18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN9QSplitter22setChildrenCollapsibleEP7QWidget [qt-mt]
ZN9QSplitter2trEPKcS1 [qt-mt]	_ZN9QSplitter31findWidgetJustBeforeEP7QWidget [qt-mt]
_ZN9QSplitter4initEv [qt-mt]	_ZN9QSplitter5eventEP6QEvent [qt-mt]
_ZN9QSplitter6doMoveEbiiiibb [qt-mt]	_ZN9QSplitter6recalcEb [qt-mt]
_ZN9QSplitter6setGeoEP7QWidgetetiib [qt-mt]	_ZN9QSplitter6trUtf8EPKcS1_ [qt-mt]
_ZN9QSplitter7qt_castEPKc [qt-mt]	_ZN9QSplitter7qt_emitEiP8QUObject [qt-mt]
_ZN9QSplitter8doResizeEv [qt-mt]	_ZN9QSplitter8getRangeEiPiS0_ [qt-mt]
_ZN9QSplitter8getRangeEiPiS0_S0_S0_ [qt-mt]	_ZN9QSplitter8recalcIdEv [qt-mt]
_ZN9QSplitter8setSizesE10QValueListIiE [qt-mt]	_ZN9QSplitter9addWidgetEP7QWidget [qt-mt]
_ZN9QSplitter9adjustPosEii [qt-mt]	_ZN9QSplitter9adjustPosEiiPiS0_S0_S0_ [qt-mt]
_ZN9QSplitter9qt_invokeEiP8QUObject [qt-mt]	_ZN9QSplitterC1EN2Qt11OrientationEP7QWidget [qt-mt]
_ZN9QSplitterC1EP7QWidgetPKc [qt-mt]	_ZN9QSplitterC2EN2Qt11OrientationEP7QWidget [qt-mt]
_ZN9QSplitterC2EP7QWidgetPKc [qt-mt]	_ZN9QSplitterD0Ev [qt-mt]

_ZN9QSplitterD1Ev [qt-mt]	_ZN9QSplitterD2Ev [qt-mt]
_ZNK10QHGroupBox9classNameEv [qt-mt]	_ZNK10QVGroupBox9classNameEv [qt-mt]
_ZNK12QButtonGroup10selectedIdEv [qt-mt]	_ZNK12QButtonGroup11isExclusiveEv [qt-mt]
_ZNK12QButtonGroup2idEP7QButton [qt-mt]	_ZNK12QButtonGroup4findEi [qt-mt]
_ZNK12QButtonGroup5countEv [qt-mt]	_ZNK12QButtonGroup8selectedEv [qt-mt]
_ZNK12QButtonGroup9classNameEv [qt-mt]	_ZNK12QWidgetStack13visibleWidgetEv [qt-mt]
_ZNK12QWidgetStack15minimumSizeHintEv [qt-mt]	_ZNK12QWidgetStack2idEP7QWidget [qt-mt]
_ZNK12QWidgetStack6widgetEi [qt-mt]	_ZNK12QWidgetStack8sizeHintEv [qt-mt]
_ZNK12QWidgetStack9classNameEv [qt-mt]	_ZNK13QHButtonGroup9classNameEv [qt-mt]
_ZNK13QVButtonGroup9classNameEv [qt-mt]	_ZNK5QGrid8sizeHintEv [qt-mt]
_ZNK5QGrid9classNameEv [qt-mt]	_ZNK5QHBox8sizeHintEv [qt-mt]
_ZNK5QHBox9classNameEv [qt-mt]	_ZNK5QVBox9classNameEv [qt-mt]
_ZNK9QGroupBox11isCheckableEv [qt-mt]	_ZNK9QGroupBox12insideMarginEv [qt-mt]
_ZNK9QGroupBox13insideSpacingEv [qt-mt]	_ZNK9QGroupBox6isFlatEv [qt-mt]
_ZNK9QGroupBox7columnsEv [qt-mt]	_ZNK9QGroupBox8sizeHintEv [qt-mt]
_ZNK9QGroupBox9classNameEv [qt-mt]	_ZNK9QGroupBox9isCheckedEv [qt-mt]
_ZNK9QSplitter11handleWidthEv [qt-mt]	_ZNK9QSplitter12opaqueResizeEv [qt-mt]
_ZNK9QSplitter15minimumSizeHintEv [qt-mt]	_ZNK9QSplitter19childrenCollapsibleEv [qt-mt]
_ZNK9QSplitter5sizesEv [qt-mt]	_ZNK9QSplitter7idAfterEP7QWidget [qt-mt]
_ZNK9QSplitter8sizeHintEv [qt-mt]	_ZNK9QSplitter9classNameEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Organizers specified in [Table 18-486](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-486. libqt-mt - Qt3 Organizers Data Interfaces

_ZN10QHGroupBox7metaObjE [qt-mt]	_ZN10QVGroupBox7metaObjE [qt-mt]
_ZN12QButtonGroup7metaObjE [qt-mt]	_ZN12QWidgetStack7metaObjE [qt-mt]
_ZN13QHButtonGroup7metaObjE [qt-mt]	_ZN13QVButtonGroup7metaObjE [qt-mt]
_ZN5QGrid7metaObjE [qt-mt]	_ZN5QHBox7metaObjE [qt-mt]
_ZN5QVBox7metaObjE [qt-mt]	_ZN9QGroupBox7metaObjE [qt-mt]
_ZN9QSplitter7metaObjE [qt-mt]	_ZTI10QHGroupBox [CXXABI-1.86]
_ZTI10QVGroupBox [CXXABI-1.86]	

	_ZTI12QButtonGroup [CXXABI-1.86]
_ZTI12QWidgetStack [CXXABI-1.86]	_ZTI13QHButtonGroup [CXXABI-1.86]
_ZTI13QVButtonGroup [CXXABI-1.86]	_ZTI5QGrid [CXXABI-1.86]
_ZTI5QHBox [CXXABI-1.86]	_ZTI5QVBox [CXXABI-1.86]
_ZTI9QGroupBox [CXXABI-1.86]	_ZTI9QSplitter [CXXABI-1.86]
_ZTV10QHGroupBox [CXXABI-1.86]	_ZTV10QVGroupBox [CXXABI-1.86]
_ZTV12QButtonGroup [CXXABI-1.86]	_ZTV12QWidgetStack [CXXABI-1.86]
_ZTV13QHButtonGroup [CXXABI-1.86]	_ZTV13QVButtonGroup [CXXABI-1.86]
_ZTV5QGrid [CXXABI-1.86]	_ZTV5QHBox [CXXABI-1.86]
_ZTV5QVBox [CXXABI-1.86]	_ZTV9QGroupBox [CXXABI-1.86]
_ZTV9QSplitter [CXXABI-1.86]	

18.2.25. Qt3 Layouts

18.2.25.1. Class data for QDockAreaLayout

The virtual table for the QDockAreaLayout class is described by [Table 18-487](#)

Table 18-487. Primary vtable for QDockAreaLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDockAreaLayout
vfunc[0]:	NULL or QDockAreaLayout::metaObject() const
vfunc[1]:	QDockAreaLayout::className() const
vfunc[2]:	QDockAreaLayout::qt_cast(char const*)
vfunc[3]:	QDockAreaLayout::qt_invoke(int, QUObject*)
vfunc[4]:	QDockAreaLayout::qt_emit(int, QUObject*)
vfunc[5]:	QDockAreaLayout::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QDockAreaLayout::~~QDockAreaLayout()
vfunc[7]:	NULL or QDockAreaLayout::~~QDockAreaLayout()
vfunc[8]:	QObject::event(QEvent*)

vfunc[9]:	QLayout::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QLayout::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QLayout::setMargin(int)
vfunc[22]:	QLayout::setSpacing(int)
vfunc[23]:	QLayout::setMenuBar(QMenuBar*)
vfunc[24]:	QLayout::setAutoAdd(bool)
vfunc[25]:	QDockAreaLayout::invalidate()
vfunc[26]:	QLayout::geometry() const
vfunc[27]:	NULL or QDockAreaLayout::addItem(QLayoutItem*)
vfunc[28]:	NULL or QDockAreaLayout::expanding() const
vfunc[29]:	QDockAreaLayout::minimumSize() const
vfunc[30]:	QLayout::maximumSize() const
vfunc[31]:	QDockAreaLayout::setGeometry(QRect const&)
vfunc[32]:	QDockAreaLayout::iterator()
vfunc[33]:	QLayout::isEmpty() const
vfunc[34]:	QLayout::layout()
vfunc[35]:	QDockAreaLayout::hasHeightForWidth() const
vfunc[36]:	QDockAreaLayout::heightForWidth(int) const
vfunc[37]:	QDockAreaLayout::sizeHint() const

The Run Time Type Information for the QDockAreaLayout class is described by [Table 18-488](#)

Table 18-488. typeinfo for QDockAreaLayout



Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDockAreaLayout
basetype:	typeinfo for QLayout

18.2.25.2. Class data for QBoxLayout

The virtual table for the QBoxLayout class is described by [Table 18-489](#)

Table 18-489. Primary vtable for QBoxLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QBoxLayout
vfunc[0]:	NULL or QBoxLayout::metaObject() const
vfunc[1]:	QBoxLayout::className() const
vfunc[2]:	QBoxLayout::qt_cast(char const*)
vfunc[3]:	QBoxLayout::qt_invoke(int, QUObject*)
vfunc[4]:	QBoxLayout::qt_emit(int, QUObject*)
vfunc[5]:	QBoxLayout::qt_property(int, int, QVariant*)
vfunc[6]:	QBoxLayout::~~QBoxLayout()
vfunc[7]:	QBoxLayout::~~QBoxLayout()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QLayout::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QLayout::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

vfunc[21]:	QLayout::setMargin(int)
vfunc[22]:	QLayout::setSpacing(int)
vfunc[23]:	QLayout::setMenuBar(QMenuBar*)
vfunc[24]:	QLayout::setAutoAdd(bool)
vfunc[25]:	QBoxLayout::invalidate()
vfunc[26]:	QLayout::geometry() const
vfunc[27]:	QBoxLayout::addItem(QLayoutItem*)
vfunc[28]:	QBoxLayout::expanding() const
vfunc[29]:	QBoxLayout::minimumSize() const
vfunc[30]:	QBoxLayout::maximumSize() const
vfunc[31]:	QBoxLayout::setGeometry(QRect const&)
vfunc[32]:	QBoxLayout::iterator()
vfunc[33]:	QLayout::isEmpty() const
vfunc[34]:	QLayout::layout()
vfunc[35]:	QBoxLayout::sizeHint() const
vfunc[36]:	QBoxLayout::hasHeightForWidth() const
vfunc[37]:	QBoxLayout::heightForWidth(int) const

The Run Time Type Information for the QBoxLayout class is described by [Table 18-490](#)

Table 18-490. typeinfo for QBoxLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QBoxLayout
basetype:	typeinfo for QLayout

18.2.25.3. Class data for QLayout

The virtual table for the QLayout class is described by [Table 18-491](#)

Table 18-491. Primary vtable for QLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLayout
vfunc[0]:	NULL or QLayout::metaObject() const

vfunc[1]:	QLayout::className() const
vfunc[2]:	QLayout::qt_cast(char const*)
vfunc[3]:	QLayout::qt_invoke(int, QUObject*)
vfunc[4]:	QLayout::qt_emit(int, QUObject*)
vfunc[5]:	QLayout::qt_property(int, int, QVariant*)
vfunc[6]:	QLayout::~~QLayout()
vfunc[7]:	QLayout::~~QLayout()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QLayout::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QLayout::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QLayout::setMargin(int)
vfunc[22]:	QLayout::setSpacing(int)
vfunc[23]:	QLayout::setMenuBar(QMenuBar*)
vfunc[24]:	QLayout::setAutoAdd(bool)
vfunc[25]:	QLayout::invalidate()
vfunc[26]:	QLayout::geometry() const
vfunc[27]:	__cxa_pure_virtual
vfunc[28]:	QLayout::expanding() const
vfunc[29]:	QLayout::minimumSize() const
vfunc[30]:	QLayout::maximumSize() const
vfunc[31]:	__cxa_pure_virtual
vfunc[32]:	__cxa_pure_virtual
vfunc[33]:	QLayout::isEmpty() const

vfunc[34]:	QLayout::layout()

The Run Time Type Information for the QLayout class is described by [Table 18-492](#)

Table 18-492. typeinfo for QLayout

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QLayout	
flags:	0	
basetype:	typeinfo for QObject	2
basetype:	typeinfo for QLayoutItem	10242

18.2.25.4. Class data for QHBoxLayout

The virtual table for the QHBoxLayout class is described by [Table 18-493](#)

Table 18-493. Primary vtable for QHBoxLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHBoxLayout
vfunc[0]:	NULL or QHBoxLayout::metaObject() const
vfunc[1]:	HBoxLayout::className() const
vfunc[2]:	HBoxLayout::qt_cast(char const*)
vfunc[3]:	HBoxLayout::qt_invoke(int, QUObject*)
vfunc[4]:	HBoxLayout::qt_emit(int, QUObject*)
vfunc[5]:	HBoxLayout::qt_property(int, int, QVariant*)
vfunc[6]:	HBoxLayout::~~HBoxLayout()
vfunc[7]:	HBoxLayout::~~HBoxLayout()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QLayout::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const

vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QLayout::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QLayout::setMargin(int)
vfunc[22]:	QLayout::setSpacing(int)
vfunc[23]:	QLayout::setMenuBar(QMenuBar*)
vfunc[24]:	QLayout::setAutoAdd(bool)
vfunc[25]:	QBoxLayout::invalidate()
vfunc[26]:	QLayout::geometry() const
vfunc[27]:	QBoxLayout::addItem(QLayoutItem*)
vfunc[28]:	QBoxLayout::expanding() const
vfunc[29]:	QBoxLayout::minimumSize() const
vfunc[30]:	QBoxLayout::maximumSize() const
vfunc[31]:	QBoxLayout::setGeometry(QRect const&)
vfunc[32]:	QBoxLayout::iterator()
vfunc[33]:	QLayout::isEmpty() const
vfunc[34]:	QLayout::layout()
vfunc[35]:	QBoxLayout::sizeHint() const
vfunc[36]:	QBoxLayout::hasHeightForWidth() const
vfunc[37]:	QBoxLayout::heightForWidth(int) const

The Run Time Type Information for the QBoxLayout class is described by [Table 18-494](#)

Table 18-494. typeinfo for QBoxLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QBoxLayout
basetype:	typeinfo for QBoxLayout

18.2.25.5. Class data for QVBoxLayout

The virtual table for the QVBoxLayout class is described by [Table 18-495](#)

Table 18-495. Primary vtable for QVBoxLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QVBoxLayout
vfunc[0]:	NULL or QVBoxLayout::metaObject() const
vfunc[1]:	QVBoxLayout::className() const
vfunc[2]:	QVBoxLayout::qt_cast(char const*)
vfunc[3]:	QVBoxLayout::qt_invoke(int, QUObject*)
vfunc[4]:	QVBoxLayout::qt_emit(int, QUObject*)
vfunc[5]:	QVBoxLayout::qt_property(int, int, QVariant*)
vfunc[6]:	QVBoxLayout::~~QVBoxLayout()
vfunc[7]:	QVBoxLayout::~~QVBoxLayout()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QLayout::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QLayout::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QLayout::setMargin(int)
vfunc[22]:	QLayout::setSpacing(int)
vfunc[23]:	QLayout::setMenuBar(QMenuBar*)
vfunc[24]:	QLayout::setAutoAdd(bool)

vfunc[25]:	QBoxLayout::invalidate()
vfunc[26]:	QLayout::geometry() const
vfunc[27]:	QBoxLayout::addItem(QLayoutItem*)
vfunc[28]:	QBoxLayout::expanding() const
vfunc[29]:	QBoxLayout::minimumSize() const
vfunc[30]:	QBoxLayout::maximumSize() const
vfunc[31]:	QBoxLayout::setGeometry(QRect const&)
vfunc[32]:	QBoxLayout::iterator()
vfunc[33]:	QLayout::isEmpty() const
vfunc[34]:	QLayout::layout()
vfunc[35]:	QBoxLayout::sizeHint() const
vfunc[36]:	QBoxLayout::hasHeightForWidth() const
vfunc[37]:	QBoxLayout::heightForWidth(int) const

The Run Time Type Information for the QVBoxLayout class is described by [Table 18-496](#)

Table 18-496. typeinfo for QVBoxLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QVBoxLayout
basetype:	typeinfo for QBoxLayout

18.2.25.6. Class data for QGLayoutIterator

The virtual table for the QGLayoutIterator class is described by [Table 18-497](#)

Table 18-497. Primary vtable for QGLayoutIterator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGLayoutIterator
vfunc[0]:	QGLayoutIterator::~~QGLayoutIterator()
vfunc[1]:	QGLayoutIterator::~~QGLayoutIterator()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual

The Run Time Type Information for the QGLayoutIterator class is described by [Table 18-498](#)

Table 18-498. typeinfo for QGLLayoutIterator

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QGLLayoutIterator	
flags:	0	
basetype:	typeinfo for QShared	1026

18.2.25.7. Class data for QWidgetItem

The virtual table for the QWidgetItem class is described by [Table 18-499](#)

Table 18-499. Primary vtable for QWidgetItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWidgetItem
vfunc[0]:	NULL or QWidgetItem::~~QWidgetItem()
vfunc[1]:	NULL or QWidgetItem::~~QWidgetItem()
vfunc[2]:	QWidgetItem::sizeHint() const
vfunc[3]:	QWidgetItem::minimumSize() const
vfunc[4]:	QWidgetItem::maximumSize() const
vfunc[5]:	QWidgetItem::expanding() const
vfunc[6]:	QWidgetItem::setGeometry(QRect const&)
vfunc[7]:	QWidgetItem::geometry() const
vfunc[8]:	QWidgetItem::isEmpty() const
vfunc[9]:	QWidgetItem::hasHeightForWidth() const
vfunc[10]:	QWidgetItem::heightForWidth(int) const
vfunc[11]:	QLayoutItem::invalidate()
vfunc[12]:	QWidgetItem::widget()
vfunc[13]:	QLayoutItem::iterator()
vfunc[14]:	QLayoutItem::layout()
vfunc[15]:	QLayoutItem::spacerItem()
vfunc[16]:	QLayoutItem::setAlignment(int)

The Run Time Type Information for the QWidgetItem class is described by [Table 18-500](#)

Table 18-500. typeinfo for QWidgetItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWidgetItem
basetype:	typeinfo for QLayoutItem

18.2.25.8. Class data for QGridLayout

The virtual table for the QGridLayout class is described by [Table 18-501](#)

Table 18-501. Primary vtable for QGridLayout

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGridLayout
vfunc[0]:	NULL or QGridLayout::metaObject() const
vfunc[1]:	QGridLayout::className() const
vfunc[2]:	QGridLayout::qt_cast(char const*)
vfunc[3]:	QGridLayout::qt_invoke(int, QUObject*)
vfunc[4]:	QGridLayout::qt_emit(int, QUObject*)
vfunc[5]:	QGridLayout::qt_property(int, int, QVariant*)
vfunc[6]:	QGridLayout::~~QGridLayout()
vfunc[7]:	QGridLayout::~~QGridLayout()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QLayout::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QLayout::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

vfunc[21]:	QLayout::setMargin(int)
vfunc[22]:	QLayout::setSpacing(int)
vfunc[23]:	QLayout::setMenuBar(QMenuBar*)
vfunc[24]:	QLayout::setAutoAdd(bool)
vfunc[25]:	QGridLayout::invalidate()
vfunc[26]:	QLayout::geometry() const
vfunc[27]:	QGridLayout::addItem(QLayoutItem*)
vfunc[28]:	QGridLayout::expanding() const
vfunc[29]:	QGridLayout::minimumSize() const
vfunc[30]:	QGridLayout::maximumSize() const
vfunc[31]:	QGridLayout::setGeometry(QRect const&)
vfunc[32]:	QGridLayout::iterator()
vfunc[33]:	QLayout::isEmpty() const
vfunc[34]:	QLayout::layout()
vfunc[35]:	QGridLayout::sizeHint() const
vfunc[36]:	QGridLayout::setRowStretch(int, int)
vfunc[37]:	QGridLayout::setColStretch(int, int)
vfunc[38]:	QGridLayout::hasHeightForWidth() const
vfunc[39]:	QGridLayout::heightForWidth(int) const

The Run Time Type Information for the QGridLayout class is described by [Table 18-502](#)

Table 18-502. typeinfo for QGridLayout

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGridLayout
basetype:	typeinfo for QLayout

18.2.25.9. Class data for QSpacerItem

The virtual table for the QSpacerItem class is described by [Table 18-503](#)

Table 18-503. Primary vtable for QSpacerItem

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QSpacerItem
vfunc[0]:	NULL or QSpacerItem::~~QSpacerItem()
vfunc[1]:	NULL or QSpacerItem::~~QSpacerItem()
vfunc[2]:	QSpacerItem::sizeHint() const
vfunc[3]:	QSpacerItem::minimumSize() const
vfunc[4]:	QSpacerItem::maximumSize() const
vfunc[5]:	QSpacerItem::expanding() const
vfunc[6]:	QSpacerItem::setGeometry(QRect const&)
vfunc[7]:	QSpacerItem::geometry() const
vfunc[8]:	QSpacerItem::isEmpty() const
vfunc[9]:	QLayoutItem::hasHeightForWidth() const
vfunc[10]:	QLayoutItem::heightForWidth(int) const
vfunc[11]:	QLayoutItem::invalidate()
vfunc[12]:	QLayoutItem::widget()
vfunc[13]:	QLayoutItem::iterator()
vfunc[14]:	QLayoutItem::layout()
vfunc[15]:	QSpacerItem::spacerItem()
vfunc[16]:	QLayoutItem::setAlignment(int)

The Run Time Type Information for the QSpacerItem class is described by [Table 18-504](#)

Table 18-504. typeinfo for QSpacerItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSpacerItem
basetype:	typeinfo for QLayoutItem

18.2.25.10. Class data for QLayoutItem

The virtual table for the QLayoutItem class is described by [Table 18-505](#)

Table 18-505. Primary vtable for QLayoutItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLayoutItem

vfunc[0]:	QLayoutItem::~~QLayoutItem()
vfunc[1]:	QLayoutItem::~~QLayoutItem()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	QLayoutItem::hasHeightForWidth() const
vfunc[10]:	QLayoutItem::heightForWidth(int) const
vfunc[11]:	QLayoutItem::invalidate()
vfunc[12]:	QLayoutItem::widget()
vfunc[13]:	QLayoutItem::iterator()
vfunc[14]:	QLayoutItem::layout()
vfunc[15]:	QLayoutItem::spacerItem()
vfunc[16]:	QLayoutItem::setAlignment(int)

The Run Time Type Information for the QLayoutItem class is described by [Table 18-506](#)

Table 18-506. typeid for QLayoutItem

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QLayoutItem

18.2.25.11. Interfaces for Qt3 Layouts

An LSB conforming implementation shall provide the generic functions for Qt3 Layouts specified in [Table 18-507](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-507. libqt-mt - Qt3 Layouts Function Interfaces

_ZN10QBoxLayout10addSpacingEi [qt-mt]	_ZN10QBoxLayout10addStretchEi [qt-mt]
_ZN10QBoxLayout10findWidgetEP7QWidget [qt-mt]	_ZN10QBoxLayout10insertItemEiP11QLayout [qt-mt]
_ZN10QBoxLayout10invalidateEv [qt-mt]	_ZN10QBoxLayout11qt_propertyEiiP8QVariant [qt-mt]
_ZN10QBoxLayout11setGeometryERK5QRect [qt-mt]	_ZN10QBoxLayout12insertLayoutEiP7QLayout [qt-mt]
_ZN10QBoxLayout12insertWidgetEiP7QWidget [qt-mt]	_ZN10QBoxLayout12setDirectionENS_9Direction [qt-mt]

_ZN10QBoxLayout13createTmpCopyEv [qt-mt]	_ZN10QBoxLayout13insertSpacingEii [qt-mt]
_ZN10QBoxLayout13insertStretchEii [qt-mt]	_ZN10QBoxLayout16setStretchFactorEP7QL
_ZN10QBoxLayout16setStretchFactorEP7QWidgeti [qt-mt]	_ZN10QBoxLayout16staticMetaObjectEv [qt-
_ZN10QBoxLayout18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN10QBoxLayout2trEPKcS1_ [qt-mt]
ZN10QBoxLayout6trUtf8EPKcS1 [qt-mt]	_ZN10QBoxLayout7addItemEP11QLayoutItem
_ZN10QBoxLayout7calcHfwEi [qt-mt]	_ZN10QBoxLayout7qt_castEPKc [qt-mt]
_ZN10QBoxLayout7qt_emitEiP8QUObject [qt-mt]	_ZN10QBoxLayout8addStrutEi [qt-mt]
_ZN10QBoxLayout8iteratorEv [qt-mt]	_ZN10QBoxLayout9addLayoutEP7QLayouti
_ZN10QBoxLayout9addWidgetEP7QWidgetii [qt-mt]	_ZN10QBoxLayout9qt_invokeEiP8QUObject
_ZN10QBoxLayout9setupGeomEv [qt-mt]	_ZN10QBoxLayoutC1ENS_9DirectionEiPKc
_ZN10QBoxLayoutC1EP7QLayoutNS_9DirectionEiPKc [qt-mt]	_ZN10QBoxLayoutC1EP7QWidgetNS_9Dire
_ZN10QBoxLayoutC2ENS_9DirectionEiPKc [qt-mt]	_ZN10QBoxLayoutC2EP7QLayoutNS_9Dire
_ZN10QBoxLayoutC2EP7QWidgetNS_9DirectionEiiPKc [qt-mt]	_ZN10QBoxLayoutD0Ev [qt-mt]
_ZN10QBoxLayoutD1Ev [qt-mt]	_ZN10QBoxLayoutD2Ev [qt-mt]
ZN11QGridLayout10findWidgetEP7QWidgetPiS2 [qt-mt]	_ZN11QGridLayout10invalidateEv [qt-mt]
_ZN11QGridLayout11qt_propertyEiiP8QVariant [qt-mt]	_ZN11QGridLayout11setGeometryERK5QRe
_ZN11QGridLayout12addMultiCellEP11QLayoutItemiiii [qt-mt]	_ZN11QGridLayout13addColSpacingEii [qt-m
_ZN11QGridLayout13addRowSpacingEii [qt-mt]	_ZN11QGridLayout13setColSpacingEii [qt-m
_ZN11QGridLayout13setColStretchEii [qt-mt]	_ZN11QGridLayout13setRowSpacingEii [qt-r
_ZN11QGridLayout13setRowStretchEii [qt-mt]	_ZN11QGridLayout16staticMetaObjectEv [qt-
_ZN11QGridLayout18addMultiCellLayoutEP7QLayoutiiii [qt-mt]	_ZN11QGridLayout18addMultiCellWidgetEP
_ZN11QGridLayout18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN11QGridLayout2trEPKcS1_ [qt-mt]
_ZN11QGridLayout3addEP11QLayoutItemii [qt-mt]	_ZN11QGridLayout4initEii [qt-mt]
_ZN11QGridLayout6expandEii [qt-mt]	_ZN11QGridLayout6trUtf8EPKcS1_ [qt-mt]
_ZN11QGridLayout7addItemEP11QLayoutItem [qt-mt]	_ZN11QGridLayout7addItemEP11QLayoutItem
_ZN11QGridLayout7qt_castEPKc [qt-mt]	_ZN11QGridLayout7qt_emitEiP8QUObject [q
_ZN11QGridLayout8iteratorEv [qt-mt]	_ZN11QGridLayout9addLayoutEP7QLayouti
_ZN11QGridLayout9addWidgetEP7QWidgetiii [qt-mt]	_ZN11QGridLayout9qt_invokeEiP8QUObject
_ZN11QGridLayout9setOriginENS_6CornerE [qt-mt]	_ZN11QGridLayoutC1EP7QLayoutiiiiPKc [qt-
_ZN11QGridLayoutC1EP7QWidgetiiiiPKc [qt-mt]	_ZN11QGridLayoutC1EiiiiPKc [qt-mt]
_ZN11QGridLayoutC2EP7QLayoutiiiiPKc [qt-mt]	_ZN11QGridLayoutC2EP7QWidgetiiiiPKc [q

_ZN11QGridLayoutC2EiiPKc [qt-mt]	_ZN11QGridLayoutD0Ev [qt-mt]
_ZN11QGridLayoutD1Ev [qt-mt]	_ZN11QGridLayoutD2Ev [qt-mt]
_ZN11QHBoxLayout11qt_propertyEiiP8QVariant [qt-mt]	_ZN11QHBoxLayout16staticMetaObjectEv [qt-mt]
_ZN11QHBoxLayout18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN11QHBoxLayout2trEPKcS1_ [qt-mt]
ZN11QHBoxLayout6trUtf8EPKcS1 [qt-mt]	_ZN11QHBoxLayout7qt_castEPKc [qt-mt]
_ZN11QHBoxLayout7qt_emitEiP8QUObject [qt-mt]	_ZN11QHBoxLayout9qt_invokeEiP8QUObject [qt-mt]
_ZN11QHBoxLayoutC1EP7QLayoutiPKc [qt-mt]	_ZN11QHBoxLayoutC1EP7QWidgetiPKc [qt-mt]
_ZN11QHBoxLayoutC1EiPKc [qt-mt]	_ZN11QHBoxLayoutC2EP7QLayoutiPKc [qt-mt]
_ZN11QHBoxLayoutC2EP7QWidgetiPKc [qt-mt]	_ZN11QHBoxLayoutC2EiPKc [qt-mt]
_ZN11QHBoxLayoutD0Ev [qt-mt]	_ZN11QHBoxLayoutD1Ev [qt-mt]
_ZN11QHBoxLayoutD2Ev [qt-mt]	_ZN11QLayoutItem10invalidateEv [qt-mt]
_ZN11QLayoutItem10spacerItemEv [qt-mt]	_ZN11QLayoutItem12setAlignmentEi [qt-mt]
_ZN11QLayoutItem6layoutEv [qt-mt]	_ZN11QLayoutItem6widgetEv [qt-mt]
_ZN11QLayoutItem8iteratorEv [qt-mt]	_ZN11QLayoutItemD0Ev [qt-mt]
_ZN11QLayoutItemD1Ev [qt-mt]	_ZN11QLayoutItemD2Ev [qt-mt]
ZN11QSpacerItem10changeSizeEiiN11QSizePolicy8SizeTypeES1 [qt-mt]	_ZN11QSpacerItem10spacerItemEv [qt-mt]
_ZN11QSpacerItem11setGeometryERK5QRect [qt-mt]	_ZN11QVBoxLayout11qt_propertyEiiP8QVariant [qt-mt]
_ZN11QVBoxLayout16staticMetaObjectEv [qt-mt]	_ZN11QVBoxLayout18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]
ZN11QVBoxLayout2trEPKcS1 [qt-mt]	_ZN11QVBoxLayout6trUtf8EPKcS1_ [qt-mt]
_ZN11QVBoxLayout7qt_castEPKc [qt-mt]	_ZN11QVBoxLayout7qt_emitEiP8QUObject [qt-mt]
_ZN11QVBoxLayout9qt_invokeEiP8QUObject [qt-mt]	_ZN11QVBoxLayoutC1EP7QLayoutiPKc [qt-mt]
_ZN11QVBoxLayoutC1EP7QWidgetiPKc [qt-mt]	_ZN11QVBoxLayoutC1EiPKc [qt-mt]
_ZN11QVBoxLayoutC2EP7QLayoutiPKc [qt-mt]	_ZN11QVBoxLayoutC2EP7QWidgetiPKc [qt-mt]
_ZN11QVBoxLayoutC2EiPKc [qt-mt]	_ZN11QVBoxLayoutD0Ev [qt-mt]
_ZN11QVBoxLayoutD1Ev [qt-mt]	_ZN11QVBoxLayoutD2Ev [qt-mt]
_ZN11QWidgetItem11setGeometryERK5QRect [qt-mt]	_ZN11QWidgetItem6widgetEv [qt-mt]
_ZN15QDockAreaLayout10invalidateEv [qt-mt]	_ZN15QDockAreaLayout11layoutItemsERK5QRect [qt-mt]
_ZN15QDockAreaLayout11qt_propertyEiiP8QVariant [qt-mt]	_ZN15QDockAreaLayout11setGeometryERK5QRect [qt-mt]
_ZN15QDockAreaLayout16staticMetaObjectEv [qt-mt]	_ZN15QDockAreaLayout18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]
ZN15QDockAreaLayout2trEPKcS1 [qt-mt]	_ZN15QDockAreaLayout4initEv [qt-mt]

ZN15QDockAreaLayout6trUtf8EPKcS1 [qt-mt]	_ZN15QDockAreaLayout7qt_castEPKc [qt-mt]
_ZN15QDockAreaLayout7qt_emitEiP8QUObject [qt-mt]	_ZN15QDockAreaLayout8iteratorEv [qt-mt]
_ZN15QDockAreaLayout9qt_invokeEiP8QUObject [qt-mt]	_ZN16QGLayoutIteratorD0Ev [qt-mt]
_ZN16QGLayoutIteratorD1Ev [qt-mt]	_ZN16QGLayoutIteratorD2Ev [qt-mt]
_ZN7QLayout10childEventEP11QChildEvent [qt-mt]	_ZN7QLayout10invalidateEv [qt-mt]
_ZN7QLayout10mainWidgetEv [qt-mt]	_ZN7QLayout10removeItemEP11QLayoutItem [qt-mt]
_ZN7QLayout10setAutoAddEb [qt-mt]	_ZN7QLayout10setEnabledEb [qt-mt]
_ZN7QLayout10setMenuBarEP8QMenuBar [qt-mt]	_ZN7QLayout10setSpacingEi [qt-mt]
_ZN7QLayout11eventFilterEP7QObjectP6QEvent [qt-mt]	_ZN7QLayout11qt_propertyEiiP8QVariant [qt-mt]
_ZN7QLayout11setGeometryERK5QRect [qt-mt]	_ZN7QLayout13setResizeModeENS_10ResizeMode [qt-mt]
ZN7QLayout14addChildLayoutEPS [qt-mt]	_ZN7QLayout14deleteAllItemsEv [qt-mt]
ZN7QLayout15setWidgetLayoutEP7QWidgetPS [qt-mt]	_ZN7QLayout16propagateSpacingEPS_ [qt-mt]
_ZN7QLayout16staticMetaObjectEv [qt-mt]	_ZN7QLayout17setSupportsMarginEb [qt-mt]
_ZN7QLayout18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN7QLayout2trEPKcS1_ [qt-mt]
_ZN7QLayout4initEv [qt-mt]	_ZN7QLayout6freezeEii [qt-mt]
_ZN7QLayout6layoutEv [qt-mt]	_ZN7QLayout6removeEP7QWidget [qt-mt]
ZN7QLayout6trUtf8EPKcS1 [qt-mt]	_ZN7QLayout7qt_castEPKc [qt-mt]
_ZN7QLayout7qt_emitEiP8QUObject [qt-mt]	_ZN7QLayout8activateEv [qt-mt]
_ZN7QLayout9qt_invokeEiP8QUObject [qt-mt]	_ZN7QLayout9setMarginEi [qt-mt]
_ZN7QLayoutC1EP7QWidgetiiPKc [qt-mt]	_ZN7QLayoutC1EPS_iPKc [qt-mt]
_ZN7QLayoutC1EiPKc [qt-mt]	_ZN7QLayoutC2EP7QWidgetiiPKc [qt-mt]
_ZN7QLayoutC2EPS_iPKc [qt-mt]	_ZN7QLayoutC2EiPKc [qt-mt]
_ZN7QLayoutD0Ev [qt-mt]	_ZN7QLayoutD1Ev [qt-mt]
_ZN7QLayoutD2Ev [qt-mt]	_ZNK10QBoxLayout11maximumSizeEv [qt-mt]
_ZNK10QBoxLayout11minimumSizeEv [qt-mt]	_ZNK10QBoxLayout14heightForWidthEi [qt-mt]
_ZNK10QBoxLayout17hasHeightForWidthEv [qt-mt]	_ZNK10QBoxLayout21minimumHeightForWidthEv [qt-mt]
_ZNK10QBoxLayout8sizeHintEv [qt-mt]	_ZNK10QBoxLayout9classNameEv [qt-mt]
_ZNK10QBoxLayout9expandingEv [qt-mt]	_ZNK11QGridLayout10colSpacingEi [qt-mt]
_ZNK11QGridLayout10colStretchEi [qt-mt]	_ZNK11QGridLayout10rowSpacingEi [qt-mt]
_ZNK11QGridLayout10rowStretchEi [qt-mt]	_ZNK11QGridLayout11maximumSizeEv [qt-mt]
_ZNK11QGridLayout11minimumSizeEv [qt-mt]	_ZNK11QGridLayout12cellGeometryEii [qt-mt]
_ZNK11QGridLayout14heightForWidthEi [qt-mt]	_ZNK11QGridLayout17hasHeightForWidthEv [qt-mt]
_ZNK11QGridLayout21minimumHeightForWidthEi [qt-mt]	_ZNK11QGridLayout6originEv [qt-mt]

_ZNK11QGridLayout7numColsEv [qt-mt]	_ZNK11QGridLayout7numRowsEv [qt-mt]
_ZNK11QGridLayout8sizeHintEv [qt-mt]	_ZNK11QGridLayout9classNameEv [qt-mt]
_ZNK11QGridLayout9expandingEv [qt-mt]	_ZNK11QHBoxLayout9classNameEv [qt-mt]
_ZNK11QLayoutItem14heightForWidthEi [qt-mt]	_ZNK11QLayoutItem17hasHeightForWidthEi [qt-mt]
_ZNK11QSpacerItem11maximumSizeEv [qt-mt]	_ZNK11QSpacerItem11minimumSizeEv [qt-mt]
_ZNK11QSpacerItem7isEmptyEv [qt-mt]	_ZNK11QSpacerItem8geometryEv [qt-mt]
_ZNK11QSpacerItem8sizeHintEv [qt-mt]	_ZNK11QSpacerItem9expandingEv [qt-mt]
_ZNK11QVBoxLayout9classNameEv [qt-mt]	_ZNK11QWidgetItem11maximumSizeEv [qt-mt]
_ZNK11QWidgetItem11minimumSizeEv [qt-mt]	_ZNK11QWidgetItem14heightForWidthEi [qt-mt]
_ZNK11QWidgetItem17hasHeightForWidthEv [qt-mt]	_ZNK11QWidgetItem7isEmptyEv [qt-mt]
_ZNK11QWidgetItem8geometryEv [qt-mt]	_ZNK11QWidgetItem8sizeHintEv [qt-mt]
_ZNK11QWidgetItem9expandingEv [qt-mt]	_ZNK15QDockAreaLayout11minimumSizeEv [qt-mt]
_ZNK15QDockAreaLayout14heightForWidthEi [qt-mt]	_ZNK15QDockAreaLayout14widthForHeightEi [qt-mt]
_ZNK15QDockAreaLayout17hasHeightForWidthEv [qt-mt]	_ZNK15QDockAreaLayout8sizeHintEv [qt-mt]
_ZNK15QDockAreaLayout9classNameEv [qt-mt]	_ZNK7QLayout10resizeModeEv [qt-mt]
_ZNK7QLayout11maximumSizeEv [qt-mt]	_ZNK7QLayout11minimumSizeEv [qt-mt]
_ZNK7QLayout13alignmentRectERK5QRect [qt-mt]	_ZNK7QLayout13totalSizeHintEv [qt-mt]
_ZNK7QLayout16totalMaximumSizeEv [qt-mt]	_ZNK7QLayout16totalMinimumSizeEv [qt-mt]
_ZNK7QLayout19totalHeightForWidthEi [qt-mt]	_ZNK7QLayout7isEmptyEv [qt-mt]
_ZNK7QLayout8geometryEv [qt-mt]	_ZNK7QLayout9classNameEv [qt-mt]
_ZNK7QLayout9expandingEv [qt-mt]	_ZNK7QLayout9isEnabledEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Layouts specified in [Table 18-508](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-508. libqt-mt - Qt3 Layouts Data Interfaces

_ZN10QBoxLayout7metaObjE [qt-mt]	_ZN11QGridLayout7metaObjE [qt-mt]
_ZN11QHBoxLayout7metaObjE [qt-mt]	_ZN11QVBoxLayout7metaObjE [qt-mt]
_ZN15QDockAreaLayout7metaObjE [qt-mt]	_ZN7QLayout7metaObjE [qt-mt]
_ZTI10QBoxLayout [CXXABI-1.86]	_ZTI11QGridLayout [CXXABI-1.86]
_ZTI11QHBoxLayout [CXXABI-1.86]	_ZTI11QLayoutItem [CXXABI-1.86]
_ZTI11QSpacerItem [CXXABI-1.86]	_ZTI11QVBoxLayout [CXXABI-1.86]
_ZTI11QWidgetItem [CXXABI-1.86]	_ZTI15QDockAreaLayout [CXXABI-1.86]
_ZTI16QGLayoutIterator [CXXABI-1.86]	_ZTI7QLayout [CXXABI-1.86]

_ZTV10QBoxLayout [CXXABI-1.86]	_ZTV11QGridLayout [CXXABI-1.86]
_ZTV11QHBoxLayout [CXXABI-1.86]	_ZTV11QLayoutItem [CXXABI-1.86]
_ZTV11QSpacerItem [CXXABI-1.86]	_ZTV11QVBoxLayout [CXXABI-1.86]
_ZTV11QWidgetItem [CXXABI-1.86]	_ZTV15QDockAreaLayout [CXXABI-1.86]
_ZTV16QGLayoutIterator [CXXABI-1.86]	_ZTV7QLayout [CXXABI-1.86]

18.2.26. Qt3 Dialogs

18.2.26.1. Class data for QProgressDialog

The virtual table for the QProgressDialog class is described by [Table 18-509](#)

Table 18-509. Primary vtable for QProgressDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QProgressDialog
vfunc[0]:	NULL or QProgressDialog::metaObject() const
vfunc[1]:	QProgressDialog::className() const
vfunc[2]:	QProgressDialog::qt_cast(char const*)
vfunc[3]:	QProgressDialog::qt_invoke(int, QUObject*)
vfunc[4]:	QProgressDialog::qt_emit(int, QUObject*)
vfunc[5]:	QProgressDialog::qt_property(int, int, QVariant*)
vfunc[6]:	QProgressDialog::~~QProgressDialog()
vfunc[7]:	QProgressDialog::~~QProgressDialog()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)

vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()

vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QProgressDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QProgressDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QProgressDialog::closeEvent(QCloseEvent*)

vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QProgressDialog::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QProgressDialog::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QProgressDialog class is described by [Table 18-510](#)

Table 18-510. typeinfo for QProgressDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QProgressDialog
basetype:	typeinfo for QDialog

18.2.26.2. Class data for QWizard

The virtual table for the QWizard class is described by [Table 18-511](#)

Table 18-511. Primary vtable for QWizard

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWizard
vfunc[0]:	NULL or QWizard::metaObject() const
vfunc[1]:	QWizard::className() const
vfunc[2]:	QWizard::qt_cast(char const*)
vfunc[3]:	QWizard::qt_invoke(int, QUObject*)
vfunc[4]:	QWizard::qt_emit(int, QUObject*)
vfunc[5]:	QWizard::qt_property(int, int, QVariant*)
vfunc[6]:	QWizard::~~QWizard()
vfunc[7]:	QWizard::~~QWizard()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QWizard::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWizard::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWizard::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)

vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)

vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()
vfunc[113]:	QWizard::addPage(QWidget*, QString const&)
vfunc[114]:	QWizard::insertPage(QWidget*, QString const&, int)
vfunc[115]:	QWizard::removePage(QWidget*)
vfunc[116]:	QWizard::showPage(QWidget*)
vfunc[117]:	QWizard::appropriate(QWidget*) const
vfunc[118]:	QWizard::setAppropriate(QWidget*, bool)
vfunc[119]:	QWizard::setBackEnabled(QWidget*, bool)

vfunc[120]:	QWizard::setNextEnabled(QWidget*, bool)
vfunc[121]:	QWizard::setFinishEnabled(QWidget*, bool)
vfunc[122]:	QWizard::setHelpEnabled(QWidget*, bool)
vfunc[123]:	NULL or QWizard::setFinish(QWidget*, bool)
vfunc[124]:	QWizard::back()
vfunc[125]:	QWizard::next()
vfunc[126]:	QWizard::help()
vfunc[127]:	QWizard::layOutButtonRow(QHBoxLayout*)
vfunc[128]:	QWizard::layOutTitleRow(QHBoxLayout*, QString const&)

The Run Time Type Information for the QWizard class is described by [Table 18-512](#)

Table 18-512. typeinfo for QWizard

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWizard
basetype:	typeinfo for QDialog

18.2.26.3. Class data for QSemimodal

The virtual table for the QSemimodal class is described by [Table 18-513](#)

Table 18-513. Primary vtable for QSemimodal

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSemimodal
vfunc[0]:	NULL or QSemimodal::metaObject() const
vfunc[1]:	QSemimodal::className() const
vfunc[2]:	QSemimodal::qt_cast(char const*)
vfunc[3]:	QSemimodal::qt_invoke(int, QUObject*)
vfunc[4]:	QSemimodal::qt_emit(int, QUObject*)
vfunc[5]:	QSemimodal::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QSemimodal::~QSemimodal()
vfunc[7]:	NULL or QSemimodal::~QSemimodal()
vfunc[8]:	QWidget::event(QEvent*)

vfunc[9]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)

vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)

vfunc[75]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)

vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QSEmiModal class is described by [Table 18-514](#)

Table 18-514. typeinfo for QSEmiModal

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSEmiModal
basetype:	typeinfo for QDialog

18.2.26.4. Class data for QFileDialog

The virtual table for the QFileDialog class is described by [Table 18-515](#)

Table 18-515. Primary vtable for QFileDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFileDialog
vfunc[0]:	NULL or QFileDialog::metaObject() const
vfunc[1]:	QFileDialog::className() const
vfunc[2]:	QFileDialog::qt_cast(char const*)
vfunc[3]:	QFileDialog::qt_invoke(int, QUObject*)
vfunc[4]:	QFileDialog::qt_emit(int, QUObject*)
vfunc[5]:	QFileDialog::qt_property(int, int, QVariant*)
vfunc[6]:	QFileDialog::~~QFileDialog()
vfunc[7]:	QFileDialog::~~QFileDialog()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QFileDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)

vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)

vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QFileDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)

vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QFileDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFileDialog::done(int)
vfunc[111]:	QDialog::accept()

vfunc[112]:	QDialog::reject()
vfunc[113]:	QFileDialog::setSelectedFilter(QString const&)
vfunc[114]:	QFileDialog::setSelectedFilter(int)

The Run Time Type Information for the QFileDialog class is described by [Table 18-516](#)

Table 18-516. typeinfo for QFileDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFileDialog
basetype:	typeinfo for QDialog

18.2.26.5. Class data for QErrorMessage

The virtual table for the QErrorMessage class is described by [Table 18-517](#)

Table 18-517. Primary vtable for QErrorMessage

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QErrorMessage
vfunc[0]:	NULL or QErrorMessage::metaObject() const
vfunc[1]:	QErrorMessage::className() const
vfunc[2]:	QErrorMessage::qt_cast(char const*)
vfunc[3]:	QErrorMessage::qt_invoke(int, QUObject*)
vfunc[4]:	QErrorMessage::qt_emit(int, QUObject*)
vfunc[5]:	QErrorMessage::qt_property(int, int, QVariant*)
vfunc[6]:	QErrorMessage::~QErrorMessage()
vfunc[7]:	QErrorMessage::~QErrorMessage()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const

vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QDialog::show()

vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)

vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QErrorMessage::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QErrorMessage class is described by [Table 18-518](#)

Table 18-518. typeinfo for QErrorMessage

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for QErrorMessage
basetype:	typeinfo for QDialog

18.2.26.6. Class data for QFilePreview

The virtual table for the QFilePreview class is described by [Table 18-519](#)

Table 18-519. Primary vtable for QFilePreview

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFilePreview
vfunc[0]:	<code>__cxa_pure_virtual</code>

The Run Time Type Information for the QFilePreview class is described by [Table 18-520](#)

Table 18-520. typeinfo for QFilePreview

Base Vtable	vtable for <code>__cxxabiv1::__class_type_info</code>
Name	typeinfo name for QFilePreview

18.2.26.7. Class data for QMessageBox

The virtual table for the QMessageBox class is described by [Table 18-521](#)

Table 18-521. Primary vtable for QMessageBox

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QMessageBox
vfunc[0]:	NULL or <code>QMessageBox::metaObject()</code> const
vfunc[1]:	<code>QMessageBox::className()</code> const
vfunc[2]:	<code>QMessageBox::qt_cast(char const*)</code>
vfunc[3]:	<code>QMessageBox::qt_invoke(int, QUObject*)</code>
vfunc[4]:	<code>QMessageBox::qt_emit(int, QUObject*)</code>
vfunc[5]:	<code>QMessageBox::qt_property(int, int, QVariant*)</code>

vfunc[6]:	QMessageBox::~QMessageBox()
vfunc[7]:	QMessageBox::~QMessageBox()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)

vfunc[39]:	QMessageBox::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QMessageBox::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)

vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QMessageBox::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QMessageBox::resizeEvent(QResizeEvent*)
vfunc[83]:	QMessageBox::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QMessageBox::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)

vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QMessageBox class is described by [Table 18-522](#)

Table 18-522. typeinfo for QMessageBox

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QMessageBox
basetype:	typeinfo for QDialog

18.2.26.8. Class data for QDialog

The virtual table for the QDialog class is described by [Table 18-523](#)

Table 18-523. Primary vtable for QDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDialog
vfunc[0]:	NULL or QDialog::metaObject() const
vfunc[1]:	QDialog::className() const
vfunc[2]:	QDialog::qt_cast(char const*)
vfunc[3]:	QDialog::qt_invoke(int, QUObject*)
vfunc[4]:	QDialog::qt_emit(int, QUObject*)
vfunc[5]:	QDialog::qt_property(int, int, QVariant*)
vfunc[6]:	QDialog::~~QDialog()
vfunc[7]:	QDialog::~QDialog()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDialog::eventFilter(QObject*, QEvent*)

vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()

vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)

vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)

vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QDialog class is described by [Table 18-524](#)

Table 18-524. typeid for QDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QDialog
basetype:	typeid for QWidget

18.2.26.9. Class data for QFontDialog

The virtual table for the QFontDialog class is described by [Table 18-525](#)

Table 18-525. Primary vtable for QFontDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QFontDialog
vfunc[0]:	NULL or QFontDialog::metaObject() const
vfunc[1]:	QFontDialog::className() const
vfunc[2]:	QFontDialog::qt_cast(char const*)
vfunc[3]:	QFontDialog::qt_invoke(int, QUObject*)
vfunc[4]:	QFontDialog::qt_emit(int, QUObject*)
vfunc[5]:	QFontDialog::qt_property(int, int, QVariant*)
vfunc[6]:	QFontDialog::~~QFontDialog()
vfunc[7]:	QFontDialog::~QFontDialog()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QFontDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)

vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QFontDialog::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)

vfunc[47]:	QDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)

vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QFontDialog class is described by [Table 18-526](#)

Table 18-526. typeinfo for QFontDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFontDialog
basetype:	typeinfo for QDialog

18.2.26.10. Class data for QPrintDialog

The virtual table for the QPrintDialog class is described by [Table 18-527](#)

Table 18-527. Primary vtable for QPrintDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPrintDialog
vfunc[0]:	NULL or QPrintDialog::metaObject() const
vfunc[1]:	QPrintDialog::className() const
vfunc[2]:	QPrintDialog::qt_cast(char const*)
vfunc[3]:	QPrintDialog::qt_invoke(int, QUObject*)
vfunc[4]:	QPrintDialog::qt_emit(int, QUObject*)
vfunc[5]:	QPrintDialog::qt_property(int, int, QVariant*)
vfunc[6]:	QPrintDialog::~~QPrintDialog()
vfunc[7]:	QPrintDialog::~QPrintDialog()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)

vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()

vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)

vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QDialog class is described by [Table 18-528](#)

Table 18-528. typeinfo for QDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDialog
basetype:	typeinfo for QDialog

18.2.26.11. Class data for QColorDialog

The virtual table for the QColorDialog class is described by [Table 18-529](#)

Table 18-529. Primary vtable for QColorDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QColorDialog
vfunc[0]:	NULL or QColorDialog::metaObject() const
vfunc[1]:	QColorDialog::className() const
vfunc[2]:	QColorDialog::qt_cast(char const*)
vfunc[3]:	QColorDialog::qt_invoke(int, QUObject*)
vfunc[4]:	QColorDialog::qt_emit(int, QUObject*)
vfunc[5]:	QColorDialog::qt_property(int, int, QVariant*)
vfunc[6]:	QColorDialog::~~QColorDialog()
vfunc[7]:	QColorDialog::~QColorDialog()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)

vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)

vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QColorDialog class is described by [Table 18-530](#)

Table 18-530. typeinfo for QColorDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QColorDialog
basetype:	typeinfo for QDialog

18.2.26.12. Class data for QDialog

The virtual table for the QDialog class is described by [Table 18-531](#)

Table 18-531. Primary vtable for QDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDialog
vfunc[0]:	NULL or QDialog::metaObject() const
vfunc[1]:	QDialog::className() const
vfunc[2]:	QDialog::qt_cast(char const*)
vfunc[3]:	QDialog::qt_invoke(int, QObject*)
vfunc[4]:	QDialog::qt_emit(int, QObject*)
vfunc[5]:	QDialog::qt_property(int, int, QVariant*)
vfunc[6]:	QDialog::~~QDialog()
vfunc[7]:	QDialog::~QDialog()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QDialog class is described by [Table 18-532](#)

Table 18-532. typeinfo for QDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDialog
basetype:	typeinfo for QDialog

18.2.26.13. Class data for QTabDialog

The virtual table for the QTabDialog class is described by [Table 18-533](#)

Table 18-533. Primary vtable for QTabDialog

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTabDialog
vfunc[0]:	NULL or QTabDialog::metaObject() const
vfunc[1]:	QTabDialog::className() const
vfunc[2]:	QTabDialog::qt_cast(char const*)
vfunc[3]:	QTabDialog::qt_invoke(int, QUObject*)
vfunc[4]:	QTabDialog::qt_emit(int, QUObject*)
vfunc[5]:	QTabDialog::qt_property(int, int, QVariant*)
vfunc[6]:	QTabDialog::~~QTabDialog()
vfunc[7]:	QTabDialog::~QTabDialog()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDialog::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)

vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QTabDialog::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QTabDialog::show()
vfunc[48]:	QDialog::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QDialog::move(int, int)
vfunc[54]:	QDialog::resize(int, int)
vfunc[55]:	QDialog::setGeometry(int, int, int, int)
vfunc[56]:	QDialog::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QDialog::sizeHint() const
vfunc[59]:	QDialog::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const

vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QWidget::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QDialog::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QTabDialog::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QTabDialog::resizeEvent(QResizeEvent*)
vfunc[83]:	QDialog::closeEvent(QCloseEvent*)
vfunc[84]:	QDialog::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)

vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QTabDialog::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QDialog::done(int)
vfunc[111]:	QDialog::accept()
vfunc[112]:	QDialog::reject()

The Run Time Type Information for the QTabDialog class is described by [Table 18-534](#)

Table 18-534. typeinfo for QTabDialog

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTabDialog
basetype:	typeinfo for QDialog

18.2.26.14. Class data for QFileIconProvider

The virtual table for the QFileIconProvider class is described by [Table 18-535](#)

Table 18-535. Primary vtable for QFileIconProvider

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QFileIconProvider
vfunc[0]:	NULL or QFileIconProvider::metaObject() const

vfunc[1]:	QFileIconProvider::className() const
vfunc[2]:	QFileIconProvider::qt_cast(char const*)
vfunc[3]:	QFileIconProvider::qt_invoke(int, QUObject*)
vfunc[4]:	QFileIconProvider::qt_emit(int, QUObject*)
vfunc[5]:	QFileIconProvider::qt_property(int, int, QVariant*)
vfunc[6]:	NULL or QFileIconProvider::~~QFileIconProvider()
vfunc[7]:	NULL or QFileIconProvider::~~QFileIconProvider()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QFileIconProvider::pixmap(QFileInfo const&)

The Run Time Type Information for the QFileIconProvider class is described by [Table 18-536](#)

Table 18-536. typeinfo for QFileIconProvider

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QFileIconProvider
basetype:	typeinfo for QObject

18.2.26.15. Interfaces for Qt3 Dialogs

An LSB conforming implementation shall provide the generic functions for Qt3 Dialogs specified in [Table 18-537](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-537. libqt-mt - Qt3 Dialogs Function Interfaces

_ZN10QSEmiModal11qt_propertyEiiP8QVariant [qt-mt]	_ZN10QSEmiModal16s
_ZN10QSEmiModal18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN10QSEmiModal2tr
ZN10QSEmiModal6trUtf8EPKcS1 [qt-mt]	_ZN10QSEmiModal7qt
_ZN10QSEmiModal7qt_emitEiP8QUObject [qt-mt]	_ZN10QSEmiModal9qt
_ZN10QTabDialog10paintEventEP11QPaintEvent [qt-mt]	_ZN10QTabDialog10re
_ZN10QTabDialog11aboutToShowEv [qt-mt]	_ZN10QTabDialog11qt
_ZN10QTabDialog11resizeEventEP12QResizeEvent [qt-mt]	_ZN10QTabDialog11se
_ZN10QTabDialog11setOkButtonERK7QString [qt-mt]	_ZN10QTabDialog11se
_ZN10QTabDialog11setUpLayoutEv [qt-mt]	_ZN10QTabDialog11st
_ZN10QTabDialog13setHelpButtonERK7QString [qt-mt]	_ZN10QTabDialog13se
_ZN10QTabDialog13setTabEnabledEP7QWidgetb [qt-mt]	_ZN10QTabDialog13se
_ZN10QTabDialog14currentChangedEP7QWidget [qt-mt]	_ZN10QTabDialog14se
_ZN10QTabDialog14setApplyButtonEv [qt-mt]	_ZN10QTabDialog15se
_ZN10QTabDialog15setCancelButtonEv [qt-mt]	_ZN10QTabDialog16se
_ZN10QTabDialog16setDefaultButtonEv [qt-mt]	_ZN10QTabDialog16st
_ZN10QTabDialog17helpButtonPressedEv [qt-mt]	_ZN10QTabDialog18ap
_ZN10QTabDialog18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN10QTabDialog19ca
_ZN10QTabDialog20defaultButtonPressedEv [qt-mt]	_ZN10QTabDialog2trE
_ZN10QTabDialog4showEv [qt-mt]	_ZN10QTabDialog6ad
_ZN10QTabDialog6addTabEP7QWidgetRK7QString [qt-mt]	_ZN10QTabDialog6ad
ZN10QTabDialog6trUtf8EPKcS1 [qt-mt]	_ZN10QTabDialog7qt
_ZN10QTabDialog7qt_emitEiP8QUObject [qt-mt]	_ZN10QTabDialog7set
_ZN10QTabDialog7showTabEi [qt-mt]	_ZN10QTabDialog8sel
_ZN10QTabDialog8setSizeEv [qt-mt]	_ZN10QTabDialog8sh
_ZN10QTabDialog8tabLabelEP7QWidget [qt-mt]	_ZN10QTabDialog9cha
_ZN10QTabDialog9changeTabEP7QWidgetRK8QIconSetRK7QString [qt-mt]	_ZN10QTabDialog9ins
_ZN10QTabDialog9insertTabEP7QWidgetRK7QStringi [qt-mt]	_ZN10QTabDialog9ins
_ZN10QTabDialog9qt_invokeEiP8QUObject [qt-mt]	_ZN10QTabDialog9set
_ZN10QTabDialogC1EP7QWidgetPKcbj [qt-mt]	_ZN10QTabDialogC2E
_ZN10QTabDialogD0Ev [qt-mt]	_ZN10QTabDialogD1E
_ZN10QTabDialogD2Ev [qt-mt]	_ZN11QFileDialog10ac
_ZN11QFileDialog10changeModeEi [qt-mt]	_ZN11QFileDialog10de
_ZN11QFileDialog10dirEnteredERK7QString [qt-mt]	_ZN11QFileDialog10se

_ZN11QFileDialog10setFiltersERK11QStringList [qt-mt]	_ZN11QFileDialog10se
_ZN11QFileDialog11cdUpClickedEv [qt-mt]	_ZN11QFileDialog11di
_ZN11QFileDialog11eventFilterEP7QObjectP6QEvent [qt-mt]	_ZN11QFileDialog11in
_ZN11QFileDialog11itemChangedEP17QNetworkOperation [qt-mt]	_ZN11QFileDialog11qt
_ZN11QFileDialog11removeEntryEP17QNetworkOperation [qt-mt]	_ZN11QFileDialog11re
_ZN11QFileDialog11setViewModeENS_8ViewModeE [qt-mt]	_ZN11QFileDialog11un
_ZN11QFileDialog12fileSelectedERK7QString [qt-mt]	_ZN11QFileDialog12fi
_ZN11QFileDialog12iconProviderEv [qt-mt]	_ZN11QFileDialog12pa
_ZN11QFileDialog12setSelectionERK7QString [qt-mt]	_ZN11QFileDialog13ac
_ZN11QFileDialog13addToolButtonEP7QButtonb [qt-mt]	_ZN11QFileDialog13ca
_ZN11QFileDialog13filesSelectedERK11QStringList [qt-mt]	_ZN11QFileDialog13fi
_ZN11QFileDialog13fixupNameEditEv [qt-mt]	_ZN11QFileDialog13ke
_ZN11QFileDialog14addRightWidgetEP7QWidget [qt-mt]	_ZN11QFileDialog14fi
_ZN11QFileDialog14setInfoPreviewEP7QWidgetP12QFilePreview [qt-mt]	_ZN11QFileDialog14se
_ZN11QFileDialog14updatePreviewsERK4QUrl [qt-mt]	_ZN11QFileDialog15fi
_ZN11QFileDialog15fileHighlightedEi [qt-mt]	_ZN11QFileDialog15ge
_ZN11QFileDialog15getSaveFileNameERK7QStringS2_P7QWidgetPKcS2_PS0_b [qt-mt]	_ZN11QFileDialog15se
_ZN11QFileDialog15trySetSelectionEbRK12QUrlOperatorb [qt-mt]	_ZN11QFileDialog16cr
_ZN11QFileDialog16doMimeTypeLookupEv [qt-mt]	_ZN11QFileDialog16fi
_ZN11QFileDialog16getOpenFileNamesERK7QStringS2_P7QWidgetPKcS2_PS0_b [qt-mt]	_ZN11QFileDialog16ne
_ZN11QFileDialog16popupContextMenuEP12QListBoxItemRK6QPoint [qt-mt]	_ZN11QFileDialog16po
_ZN11QFileDialog16popupContextMenuERK7QStringbRNS_11PopupActionERK6QPoint [qt-mt]	_ZN11QFileDialog16st
_ZN11QFileDialog16updateGeometriesEv [qt-mt]	_ZN11QFileDialog17re
_ZN11QFileDialog17setSelectedFilterERK7QString [qt-mt]	_ZN11QFileDialog17se
_ZN11QFileDialog18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN11QFileDialog18se
_ZN11QFileDialog18setShowHiddenFilesEb [qt-mt]	_ZN11QFileDialog18up
_ZN11QFileDialog18updateFileNameEditEP13QListViewItem [qt-mt]	_ZN11QFileDialog20da
_ZN11QFileDialog20getExistingDirectoryERK7QStringP7QWidgetPKcS2_bb [qt-mt]	_ZN11QFileDialog20m
_ZN11QFileDialog21selectDirectoryOrFileEP12QListBoxItem [qt-mt]	_ZN11QFileDialog21se
_ZN11QFileDialog21setInfoPreviewEnabledEb [qt-mt]	_ZN11QFileDialog23li
_ZN11QFileDialog25fileNameEditReturnPressedEv [qt-mt]	_ZN11QFileDialog25se

_ZN11QFileDialog26detailViewSelectionChangedEv [qt-mt]	_ZN11QFileDialog2trE
_ZN11QFileDialog4doneEi [qt-mt]	_ZN11QFileDialog4init
_ZN11QFileDialog6goBackEv [qt-mt]	_ZN11QFileDialog6set
_ZN11QFileDialog6setDirERK7QString [qt-mt]	_ZN11QFileDialog6set
ZN11QFileDialog6trUtf8EPKcS1 [qt-mt]	_ZN11QFileDialog7qt_
_ZN11QFileDialog7qt_emitEiP8QUObject [qt-mt]	_ZN11QFileDialog7set
_ZN11QFileDialog8stopCopyEv [qt-mt]	_ZN11QFileDialog8url
_ZN11QFileDialog9addFilterERK7QString [qt-mt]	_ZN11QFileDialog9ok
_ZN11QFileDialog9qt_invokeEiP8QUObject [qt-mt]	_ZN11QFileDialog9rer
_ZN11QFileDialog9resortDirEv [qt-mt]	_ZN11QFileDialog9sel
_ZN11QFileDialog9setFilterERK7QString [qt-mt]	_ZN11QFileDialogC1E
_ZN11QFileDialogC1ERK7QStringS2_P7QWidgetPKcb [qt-mt]	_ZN11QFileDialogC2E
_ZN11QFileDialogC2ERK7QStringS2_P7QWidgetPKcb [qt-mt]	_ZN11QFileDialogD0E
_ZN11QFileDialogD1Ev [qt-mt]	_ZN11QFileDialogD2E
_ZN11QFontDialog11eventFilterEP7QObjectP6QEvent [qt-mt]	_ZN11QFontDialog11q
_ZN11QFontDialog11sizeChangedERK7QString [qt-mt]	_ZN11QFontDialog11u
_ZN11QFontDialog12updateSampleEv [qt-mt]	_ZN11QFontDialog12u
_ZN11QFontDialog14updateFamiliesEv [qt-mt]	_ZN11QFontDialog15s
_ZN11QFontDialog16staticMetaObjectEv [qt-mt]	_ZN11QFontDialog16s
_ZN11QFontDialog17familyHighlightedEi [qt-mt]	_ZN11QFontDialog17s
_ZN11QFontDialog18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN11QFontDialog2trE
ZN11QFontDialog6trUtf8EPKcS1 [qt-mt]	_ZN11QFontDialog7ge
_ZN11QFontDialog7getFontEPbPK5QFontP7QWidgetPKc [qt-mt]	_ZN11QFontDialog7ge
_ZN11QFontDialog7qt_castEPKc [qt-mt]	_ZN11QFontDialog7qt_
_ZN11QFontDialog7setFontERK5QFont [qt-mt]	_ZN11QFontDialog9qt_
_ZN11QFontDialogC1EP7QWidgetPKcbj [qt-mt]	_ZN11QFontDialogC2E
_ZN11QFontDialogD0Ev [qt-mt]	_ZN11QFontDialogD1E
_ZN11QFontDialogD2Ev [qt-mt]	_ZN11QMessageBox10
_ZN11QMessageBox10closeEventEP11QCloseEvent [qt-mt]	_ZN11QMessageBox11
_ZN11QMessageBox11informationEP7QWidgetRK7QStringS4_iii [qt-mt]	_ZN11QMessageBox11
_ZN11QMessageBox11resizeEventEP12QResizeEvent [qt-mt]	_ZN11QMessageBox12
_ZN11QMessageBox12standardIconENS_4IconEN2Qt8GUIStyleE [qt-mt]	_ZN11QMessageBox12
_ZN11QMessageBox13buttonClickedEv [qt-mt]	_ZN11QMessageBox13

_ZN11QMessageBox13resizeButtonsEv [qt-mt]	_ZN11QMessageBox13
_ZN11QMessageBox13setIconPixmapERK7QPixmap [qt-mt]	_ZN11QMessageBox13
_ZN11QMessageBox16staticMetaObjectEv [qt-mt]	_ZN11QMessageBox18
ZN11QMessageBox2trEPKcS1 [qt-mt]	_ZN11QMessageBox4i
ZN11QMessageBox5aboutEP7QWidgetRK7QStringS4 [qt-mt]	_ZN11QMessageBox6t
_ZN11QMessageBox7aboutQtEP7QWidgetRK7QString [qt-mt]	_ZN11QMessageBox7c
_ZN11QMessageBox7qt_emitEiP8QUObject [qt-mt]	_ZN11QMessageBox7s
_ZN11QMessageBox7setIconERK7QPixmap [qt-mt]	_ZN11QMessageBox7s
_ZN11QMessageBox7warningEP7QWidgetRK7QStringS4_S4_S4_S4_ii [qt-mt]	_ZN11QMessageBox7v
_ZN11QMessageBox8criticalEP7QWidgetRK7QStringS4_S4_S4_S4_ii [qt-mt]	_ZN11QMessageBox8c
_ZN11QMessageBox8questionEP7QWidgetRK7QStringS4_S4_S4_S4_ii [qt-mt]	_ZN11QMessageBox8c
_ZN11QMessageBox9qt_invokeEiP8QUObject [qt-mt]	_ZN11QMessageBox9s
_ZN11QMessageBoxC1EP7QWidgetPKc [qt-mt]	_ZN11QMessageBoxC
_ZN11QMessageBoxC2EP7QWidgetPKc [qt-mt]	_ZN11QMessageBoxC
_ZN11QMessageBoxD0Ev [qt-mt]	_ZN11QMessageBoxD
_ZN11QMessageBoxD2Ev [qt-mt]	_ZN12QColorDialog1l
_ZN12QColorDialog1lcustomCountEv [qt-mt]	_ZN12QColorDialog1l
_ZN12QColorDialog1lselectColorERK6QColor [qt-mt]	_ZN12QColorDialog14
_ZN12QColorDialog16setSelectedAlphaEi [qt-mt]	_ZN12QColorDialog16
_ZN12QColorDialog16staticMetaObjectEv [qt-mt]	_ZN12QColorDialog18
ZN12QColorDialog2trEPKcS1 [qt-mt]	_ZN12QColorDialog6tr
_ZN12QColorDialog7getRgbaEjPbP7QWidgetPKc [qt-mt]	_ZN12QColorDialog7q
_ZN12QColorDialog7qt_emitEiP8QUObject [qt-mt]	_ZN12QColorDialog8g
_ZN12QColorDialog8setColorERK6QColor [qt-mt]	_ZN12QColorDialog9q
_ZN12QColorDialogC1EP7QWidgetPKcb [qt-mt]	_ZN12QColorDialogC2
_ZN12QColorDialogD0Ev [qt-mt]	_ZN12QColorDialogD
_ZN12QColorDialogD2Ev [qt-mt]	_ZN12QFilePreviewC1
_ZN12QFilePreviewC2Ev [qt-mt]	_ZN12QInputDialog10
_ZN12QInputDialog1lqt_propertyEiiP8QVariant [qt-mt]	_ZN12QInputDialog1l
_ZN12QInputDialog16staticMetaObjectEv [qt-mt]	_ZN12QInputDialog18
ZN12QInputDialog2trEPKcS1 [qt-mt]	_ZN12QInputDialog6tr
_ZN12QInputDialog7getItemERK7QStringS2_RK11QStringListibPbP7QWidgetPKc [qt-mt]	_ZN12QInputDialog7g [qt-mt]

_ZN12QInputDialog7qt_castEPKc [qt-mt]	_ZN12QInputDialog7qt...
_ZN12QInputDialog7setTypeENS_4TypeE [qt-mt]	_ZN12QInputDialog9ge...
_ZN12QInputDialog9qt_invokeEiP8QUObject [qt-mt]	_ZN12QInputDialog9tr...
_ZN12QInputDialogC1ERK7QStringP7QWidgetPKcbNS_4TypeE [qt-mt]	_ZN12QInputDialogC2...
_ZN12QInputDialogD0Ev [qt-mt]	_ZN12QInputDialogD1...
_ZN12QInputDialogD2Ev [qt-mt]	_ZN12QPrintDialog10s...
_ZN12QPrintDialog10setupPaperEv [qt-mt]	_ZN12QPrintDialog11c...
_ZN12QPrintDialog11setLastPageEi [qt-mt]	_ZN12QPrintDialog12s...
_ZN12QPrintDialog12setNumCopiesEi [qt-mt]	_ZN12QPrintDialog12s...
_ZN12QPrintDialog13browseClickedEv [qt-mt]	_ZN12QPrintDialog14c...
_ZN12QPrintDialog15getPrinterSetupEP8QPrinterP7QWidget [qt-mt]	_ZN12QPrintDialog16s...
_ZN12QPrintDialog16staticMetaObjectEv [qt-mt]	_ZN12QPrintDialog17c...
_ZN12QPrintDialog17landscapeSelectedEi [qt-mt]	_ZN12QPrintDialog17p...
_ZN12QPrintDialog17paperSizeSelectedEi [qt-mt]	_ZN12QPrintDialog18p...
_ZN12QPrintDialog18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN12QPrintDialog19f...
ZN12QPrintDialog20setGlobalPrintDialogEPS [qt-mt]	_ZN12QPrintDialog20s...
_ZN12QPrintDialog21printerOrFileSelectedEi [qt-mt]	_ZN12QPrintDialog21tr...
ZN12QPrintDialog6trUtf8EPKcS1 [qt-mt]	_ZN12QPrintDialog7qt...
_ZN12QPrintDialog7qt_emitEiP8QUObject [qt-mt]	_ZN12QPrintDialog9ad...
_ZN12QPrintDialog9okClickedEv [qt-mt]	_ZN12QPrintDialog9qt...
_ZN12QPrintDialogC1EP8QPrinterP7QWidgetPKc [qt-mt]	_ZN12QPrintDialogC2...
_ZN12QPrintDialogD0Ev [qt-mt]	_ZN12QPrintDialogD1...
_ZN12QPrintDialogD2Ev [qt-mt]	_ZN13QErrorMessage1...
_ZN13QErrorMessage11qt_propertyEiiP8QVariant [qt-mt]	_ZN13QErrorMessage1...
_ZN13QErrorMessage18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN13QErrorMessage2...
_ZN13QErrorMessage4doneEi [qt-mt]	_ZN13QErrorMessage6...
_ZN13QErrorMessage7messageERK7QString [qt-mt]	_ZN13QErrorMessage7...
_ZN13QErrorMessage7qt_emitEiP8QUObject [qt-mt]	_ZN13QErrorMessage9...
_ZN13QErrorMessage9qt_invokeEiP8QUObject [qt-mt]	_ZN13QErrorMessageC...
_ZN13QErrorMessageC2EP7QWidgetPKc [qt-mt]	_ZN13QErrorMessageD...
_ZN13QErrorMessageD1Ev [qt-mt]	_ZN13QErrorMessageD...
_ZN15QProgressDialog10closeEventEP11QCloseEvent [qt-mt]	_ZN15QProgressDialog...
_ZN15QProgressDialog11resizeEventEP12QResizeEvent [qt-mt]	_ZN15QProgressDialog...

_ZN15QProgressDialog11setProgressEii [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog12setAutoCloseEb [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog12setLabelTextERK7QString [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog15setCancelButtonEP11QPushButton [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog19setCancelButtonTextERK7QString [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog4initEP7QWidgetRK7QStringS4_i [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog6cancelEv [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog6setBarEP12QProgressBar [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog7qt_castEPKc [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog8canceledEv [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog9cancelledEv [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialog9qt_invokeEiP8QUObject [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialogC1EP7QWidgetPKcbj [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialogC2EP7QWidgetPKcbj [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialogD0Ev [qt-mt]	_ZN15QProgressDialog
_ZN15QProgressDialogD2Ev [qt-mt]	_ZN17QFileIconProvid
_ZN17QFileIconProvider16staticMetaObjectEv [qt-mt]	_ZN17QFileIconProvid
ZN17QFileIconProvider2trEPKcS1 [qt-mt]	_ZN17QFileIconProvid
ZN17QFileIconProvider6trUtf8EPKcS1 [qt-mt]	_ZN17QFileIconProvid
_ZN17QFileIconProvider7qt_emitEiP8QUObject [qt-mt]	_ZN17QFileIconProvid
_ZN17QFileIconProviderC1EP7QObjectPKc [qt-mt]	_ZN17QFileIconProvid
_ZN7QDialog10closeEventEP11QCloseEvent [qt-mt]	_ZN7QDialog10setDef
_ZN7QDialog11eventFilterEP7QObjectP6QEvent [qt-mt]	_ZN7QDialog11hideDe
_ZN7QDialog11qt_propertyEiiP8QVariant [qt-mt]	_ZN7QDialog11resizeE
_ZN7QDialog11setGeometryERK5QRect [qt-mt]	_ZN7QDialog11setGeo
_ZN7QDialog12setExtensionEP7QWidget [qt-mt]	_ZN7QDialog13keyPre
_ZN7QDialog13showExtensionEb [qt-mt]	_ZN7QDialog14adjustF
_ZN7QDialog14setMainDefaultEP11QPushButton [qt-mt]	_ZN7QDialog14setOri
_ZN7QDialog16contextMenuEventEP17QContextMenuEvent [qt-mt]	_ZN7QDialog16staticM
_ZN7QDialog18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN7QDialog18setSize
_ZN7QDialog22adjustPositionInternalEP7QWidgetb [qt-mt]	_ZN7QDialog2trEPKcS
_ZN7QDialog4doneEi [qt-mt]	_ZN7QDialog4execEv

_ZN7QDialog4hideEv [qt-mt]	_ZN7QDialog4moveEv [qt-mt]
_ZN7QDialog4moveEii [qt-mt]	_ZN7QDialog4showEv [qt-mt]
_ZN7QDialog6acceptEv [qt-mt]	_ZN7QDialog6rejectEv [qt-mt]
_ZN7QDialog6resizeERK5QSize [qt-mt]	_ZN7QDialog6resizeEii [qt-mt]
ZN7QDialog6trUtf8EPKcS1 [qt-mt]	_ZN7QDialog7qt_castE [qt-mt]
_ZN7QDialog7qt_emitEiP8QUObject [qt-mt]	_ZN7QDialog8setModal [qt-mt]
_ZN7QDialog9qt_invokeEiP8QUObject [qt-mt]	_ZN7QDialogC1EP7Q [qt-mt]
_ZN7QDialogC2EP7QWidgetPKcbj [qt-mt]	_ZN7QDialogD0Ev [qt-mt]
_ZN7QDialogD1Ev [qt-mt]	_ZN7QDialogD2Ev [qt-mt]
_ZN7QWizard10insertPageEP7QWidgetRK7QStringi [qt-mt]	_ZN7QWizard10removePageEP7QWidgetRK7QStringi [qt-mt]
_ZN7QWizard11eventFilterEP7QObjectP6QEvent [qt-mt]	_ZN7QWizard11helpClicked [qt-mt]
_ZN7QWizard11qt_propertyEiiP8QVariant [qt-mt]	_ZN7QWizard12setTitle [qt-mt]
_ZN7QWizard13updateButtonsEv [qt-mt]	_ZN7QWizard14layoutOut [qt-mt]
_ZN7QWizard14setAppropriateEP7QWidgetb [qt-mt]	_ZN7QWizard14setBackground [qt-mt]
_ZN7QWizard14setBackEnabledEb [qt-mt]	_ZN7QWizard14setHelpEnabledEb [qt-mt]
_ZN7QWizard14setHelpEnabledEb [qt-mt]	_ZN7QWizard14setNextEnabledEb [qt-mt]
_ZN7QWizard14setNextEnabledEb [qt-mt]	_ZN7QWizard15layoutOut [qt-mt]
_ZN7QWizard16setFinishEnabledEP7QWidgetb [qt-mt]	_ZN7QWizard16staticModal [qt-mt]
_ZN7QWizard18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN7QWizard2trEPKcS1_ [qt-mt]
_ZN7QWizard4backEv [qt-mt]	_ZN7QWizard4helpEv [qt-mt]
_ZN7QWizard4nextEv [qt-mt]	_ZN7QWizard4showEv [qt-mt]
_ZN7QWizard6layoutOutEv [qt-mt]	_ZN7QWizard6trUtf8EPKcS1_ [qt-mt]
_ZN7QWizard7addPageEP7QWidgetRK7QString [qt-mt]	_ZN7QWizard7qt_castE [qt-mt]
_ZN7QWizard7qt_emitEiP8QUObject [qt-mt]	_ZN7QWizard7setFont [qt-mt]
_ZN7QWizard8selectedERK7QString [qt-mt]	_ZN7QWizard8setTitle [qt-mt]
_ZN7QWizard8showPageEP7QWidget [qt-mt]	_ZN7QWizard9qt_invokeEiP8QUObject [qt-mt]
_ZN7QWizardC1EP7QWidgetPKcbj [qt-mt]	_ZN7QWizardC2EP7Q [qt-mt]
_ZN7QWizardD0Ev [qt-mt]	_ZN7QWizardD1Ev [qt-mt]
_ZN7QWizardD2Ev [qt-mt]	_ZNK10QSemimodal9 [qt-mt]
_ZNK10QTabDialog11currentPageEv [qt-mt]	_ZNK10QTabDialog11 [qt-mt]
_ZNK10QTabDialog12isTabEnabledEP7QWidget [qt-mt]	_ZNK10QTabDialog12 [qt-mt]
_ZNK10QTabDialog13hasHelpButtonEv [qt-mt]	_ZNK10QTabDialog14 [qt-mt]
_ZNK10QTabDialog15hasCancelButtonEv [qt-mt]	_ZNK10QTabDialog16 [qt-mt]

_ZNK10QTabDialog6tabBarEv [qt-mt]	_ZNK10QTabDialog9c
_ZNK11QFileDialog11previewModeEv [qt-mt]	_ZNK11QFileDialog12
_ZNK11QFileDialog13selectedFilesEv [qt-mt]	_ZNK11QFileDialog14
_ZNK11QFileDialog15showHiddenFilesEv [qt-mt]	_ZNK11QFileDialog20
_ZNK11QFileDialog24isContentsPreviewEnabledEv [qt-mt]	_ZNK11QFileDialog3d
_ZNK11QFileDialog3urlEv [qt-mt]	_ZNK11QFileDialog4n
_ZNK11QFileDialog7dirPathEv [qt-mt]	_ZNK11QFileDialog8v
_ZNK11QFileDialog9classNameEv [qt-mt]	_ZNK11QFontDialog4
_ZNK11QFontDialog9classNameEv [qt-mt]	_ZNK11QMessageBox
_ZNK11QMessageBox10iconPixmapEv [qt-mt]	_ZNK11QMessageBox
_ZNK11QMessageBox4iconEv [qt-mt]	_ZNK11QMessageBox
_ZNK11QMessageBox7indexOfEi [qt-mt]	_ZNK11QMessageBox
_ZNK12QColorDialog13selectedAlphaEv [qt-mt]	_ZNK12QColorDialog5
_ZNK12QColorDialog9classNameEv [qt-mt]	_ZNK12QInputDialog1
_ZNK12QInputDialog4typeEv [qt-mt]	_ZNK12QInputDialog7
_ZNK12QInputDialog8comboBoxEv [qt-mt]	_ZNK12QInputDialog8
_ZNK12QInputDialog9classNameEv [qt-mt]	_ZNK12QPrintDialog7
_ZNK12QPrintDialog9classNameEv [qt-mt]	_ZNK13QErrorMessage
_ZNK15QProgressDialog10totalStepsEv [qt-mt]	_ZNK15QProgressDialog
_ZNK15QProgressDialog15minimumDurationEv [qt-mt]	_ZNK15QProgressDialog
_ZNK15QProgressDialog5labelEv [qt-mt]	_ZNK15QProgressDialog
_ZNK15QProgressDialog8sizeHintEv [qt-mt]	_ZNK15QProgressDialog
_ZNK15QProgressDialog9autoResetEv [qt-mt]	_ZNK15QProgressDialog
_ZNK15QProgressDialog9labelTextEv [qt-mt]	_ZNK17QFileIconProv
_ZNK7QDialog11orientationEv [qt-mt]	_ZNK7QDialog15minir
_ZNK7QDialog17isSizeGripEnabledEv [qt-mt]	_ZNK7QDialog7isMod
_ZNK7QDialog8sizeHintEv [qt-mt]	_ZNK7QDialog9classN
_ZNK7QDialog9extensionEv [qt-mt]	_ZNK7QWizard10back
_ZNK7QWizard10helpButtonEv [qt-mt]	_ZNK7QWizard10next
_ZNK7QWizard11appropriateEP7QWidget [qt-mt]	_ZNK7QWizard11curre
_ZNK7QWizard12cancelButtonEv [qt-mt]	_ZNK7QWizard12finis
_ZNK7QWizard4pageEi [qt-mt]	_ZNK7QWizard5titleE
_ZNK7QWizard7indexOfEP7QWidget [qt-mt]	_ZNK7QWizard9classN

[_ZNK7QWizard9pageCountEv \[qt-mt\]](#)[_ZNK7QWizard9titleF](#)

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Dialogs specified in [Table 18-538](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-538. libqt-mt - Qt3 Dialogs Data Interfaces

_ZN10QSemimodal7metaObjE [qt-mt]	_ZN10QTabDialog7metaObjE [qt-mt]
_ZN11QFileDialog7metaObjE [qt-mt]	_ZN11QFontDialog7metaObjE [qt-mt]
_ZN11QMessageBox7metaObjE [qt-mt]	_ZN12QColorDialog7metaObjE [qt-mt]
_ZN12QInputDialog7metaObjE [qt-mt]	_ZN12QPrintDialog7metaObjE [qt-mt]
_ZN13QErrorMessage7metaObjE [qt-mt]	_ZN15QProgressDialog7metaObjE [qt-mt]
_ZN17QFileIconProvider7metaObjE [qt-mt]	_ZN7QDialog7metaObjE [qt-mt]
_ZN7QWizard7metaObjE [qt-mt]	_ZTI10QSemimodal [CXXABI-1.86]
_ZTI10QTabDialog [CXXABI-1.86]	_ZTI11QFileDialog [CXXABI-1.86]
_ZTI11QFontDialog [CXXABI-1.86]	_ZTI11QMessageBox [CXXABI-1.86]
_ZTI12QColorDialog [CXXABI-1.86]	_ZTI12QFilePreview [CXXABI-1.86]
_ZTI12QInputDialog [CXXABI-1.86]	_ZTI12QPrintDialog [CXXABI-1.86]
_ZTI13QErrorMessage [CXXABI-1.86]	_ZTI15QProgressDialog [CXXABI-1.86]
_ZTI17QFileIconProvider [CXXABI-1.86]	_ZTI7QDialog [CXXABI-1.86]
_ZTI7QWizard [CXXABI-1.86]	_ZTV10QSemimodal [CXXABI-1.86]
_ZTV10QTabDialog [CXXABI-1.86]	_ZTV11QFileDialog [CXXABI-1.86]
_ZTV11QFontDialog [CXXABI-1.86]	_ZTV11QMessageBox [CXXABI-1.86]
_ZTV12QColorDialog [CXXABI-1.86]	_ZTV12QFilePreview [CXXABI-1.86]
_ZTV12QInputDialog [CXXABI-1.86]	_ZTV12QPrintDialog [CXXABI-1.86]
_ZTV13QErrorMessage [CXXABI-1.86]	_ZTV15QProgressDialog [CXXABI-1.86]
_ZTV17QFileIconProvider [CXXABI-1.86]	_ZTV7QDialog [CXXABI-1.86]
_ZTV7QWizard [CXXABI-1.86]	

18.2.27. Qt3 Tables

18.2.27.1. Class data for QTableWidgetItem

The virtual table for the QTableWidgetItem class is described by [Table 18-539](#)

Table 18-539. Primary vtable for QTableWidgetItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTableWidgetItem
vfunc[0]:	QTableWidgetItem::~~QTableWidgetItem()
vfunc[1]:	QTableWidgetItem::~~QTableWidgetItem()
vfunc[2]:	QTableWidgetItem::pixmap() const
vfunc[3]:	QTableWidgetItem::text() const
vfunc[4]:	QTableWidgetItem::setPixmap(QPixmap const&)
vfunc[5]:	QTableWidgetItem::setText(QString const&)
vfunc[6]:	QTableWidgetItem::alignment() const
vfunc[7]:	QTableWidgetItem::setWordWrap(bool)
vfunc[8]:	QTableWidgetItem::createEditor() const
vfunc[9]:	QTableWidgetItem::setContentFromEditor(QWidget*)
vfunc[10]:	QTableWidgetItem::setReplaceable(bool)
vfunc[11]:	QTableWidgetItem::key() const
vfunc[12]:	QTableWidgetItem::sizeHint() const
vfunc[13]:	QTableWidgetItem::setSpan(int, int)
vfunc[14]:	QTableWidgetItem::setRow(int)
vfunc[15]:	QTableWidgetItem::setCol(int)
vfunc[16]:	QTableWidgetItem::paint(QPainter*, QColorGroup const&, QRect const&, bool)
vfunc[17]:	QTableWidgetItem::setEnabled(bool)
vfunc[18]:	QTableWidgetItem::rtti() const

The Run Time Type Information for the QTableWidgetItem class is described by [Table 18-540](#)

Table 18-540. typeinfo for QTableWidgetItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTableWidgetItem
basetype:	typeinfo for Qt

18.2.27.2. Class data for QCheckTableItem

The virtual table for the QCheckTableItem class is described by [Table 18-541](#)

Table 18-541. Primary vtable for QCheckTableItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QCheckTableWidgetItem
vfunc[0]:	NULL or QCheckTableWidgetItem::~~QCheckTableWidgetItem()
vfunc[1]:	NULL or QCheckTableWidgetItem::~~QCheckTableWidgetItem()
vfunc[2]:	QTableWidgetItem::pixmap() const
vfunc[3]:	QTableWidgetItem::text() const
vfunc[4]:	QTableWidgetItem::setPixmap(QPixmap const&)
vfunc[5]:	QCheckTableWidgetItem::setText(QString const&)
vfunc[6]:	QTableWidgetItem::alignment() const
vfunc[7]:	QTableWidgetItem::setWordWrap(bool)
vfunc[8]:	QCheckTableWidgetItem::createEditor() const
vfunc[9]:	QCheckTableWidgetItem::setContentFromEditor(QWidget*)
vfunc[10]:	QTableWidgetItem::setReplaceable(bool)
vfunc[11]:	QTableWidgetItem::key() const
vfunc[12]:	QCheckTableWidgetItem::sizeHint() const
vfunc[13]:	QTableWidgetItem::setSpan(int, int)
vfunc[14]:	QTableWidgetItem::setRow(int)
vfunc[15]:	QTableWidgetItem::setCol(int)
vfunc[16]:	QCheckTableWidgetItem::paint(QPainter*, QColorGroup const&, QRect const&, bool)
vfunc[17]:	QTableWidgetItem::setEnabled(bool)
vfunc[18]:	QCheckTableWidgetItem::rtti() const
vfunc[19]:	QCheckTableWidgetItem::setChecked(bool)

The Run Time Type Information for the QCheckTableWidgetItem class is described by [Table 18-542](#)

Table 18-542. typeinfo for QCheckTableWidgetItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QCheckTableWidgetItem
basetype:	typeinfo for QTableWidgetItem

18.2.27.3. Class data for QHeader

The virtual table for the QHeader class is described by [Table 18-543](#)

Table 18-543. Primary vtable for QHeader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QHeader
vfunc[0]:	NULL or QHeader::metaObject() const
vfunc[1]:	QHeader::className() const
vfunc[2]:	QHeader::qt_cast(char const*)
vfunc[3]:	QHeader::qt_invoke(int, QUObject*)
vfunc[4]:	QHeader::qt_emit(int, QUObject*)
vfunc[5]:	QHeader::qt_property(int, int, QVariant*)
vfunc[6]:	QHeader::~~QHeader()
vfunc[7]:	QHeader::~~QHeader()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)

vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QHeader::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)

vfunc[58]:	QHeader::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QHeader::mousePressEvent(QMouseEvent*)
vfunc[70]:	QHeader::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QHeader::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QHeader::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QHeader::keyPressEvent(QKeyEvent*)
vfunc[75]:	QHeader::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QHeader::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QHeader::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)

vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QHeader::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QHeader::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QHeader::setLabel(int, QString const&, int)
vfunc[111]:	QHeader::setLabel(int, QIconSet const&, QString const&, int)
vfunc[112]:	QHeader::setOrientation(Qt::Orientation)
vfunc[113]:	NULL or QHeader::setTracking(bool)
vfunc[114]:	QHeader::setClickEnabled(bool, int)
vfunc[115]:	QHeader::setResizeEnabled(bool, int)
vfunc[116]:	QHeader::setMovingEnabled(bool)
vfunc[117]:	QHeader::setStretchEnabled(bool, int)
vfunc[118]:	QHeader::setCellSize(int, int)
vfunc[119]:	QHeader::moveCell(int, int)
vfunc[120]:	QHeader::setOffset(int)
vfunc[121]:	QHeader::paintSection(QPainter*, int, QRect const&)
vfunc[122]:	QHeader::paintSectionLabel(QPainter*, int, QRect const&)

The Run Time Type Information for the QHeader class is described by [Table 18-544](#)

Table 18-544. typeinfo for QHeader

Base Vtable	vtable for <code>__cxxabiv1::__si_class_type_info</code>
Name	typeinfo name for QHeader
basetype:	typeinfo for QWidget

18.2.27.4. Class data for QDataTable

The virtual table for the QDataTable class is described by [Table 18-545](#)

Table 18-545. Primary vtable for QDataTable

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDataTable
vfunc[0]:	NULL or QDataTable::metaObject() const
vfunc[1]:	QDataTable::className() const
vfunc[2]:	QDataTable::qt_cast(char const*)
vfunc[3]:	QDataTable::qt_invoke(int, QUObject*)
vfunc[4]:	QDataTable::qt_emit(int, QUObject*)
vfunc[5]:	QDataTable::qt_property(int, int, QVariant*)
vfunc[6]:	QDataTable::~~QDataTable()
vfunc[7]:	QDataTable::~QDataTable()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QDataTable::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)

vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QTable::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()

vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QTable::sizeHint() const
vfunc[59]:	QScrollView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QDataTable::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QTable::focusInEvent(QFocusEvent*)
vfunc[77]:	QTable::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QTable::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QDataTable::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)

vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QTable::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QTable::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QScrollView::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QTable::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()

vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QDataTable::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)
vfunc[129]:	QDataTable::contentsMouseEvent(QMouseEvent*)
vfunc[130]:	QTable::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QTable::contentsMouseDoubleClickEvent(QMouseEvent*)
vfunc[132]:	QTable::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QTable::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QTable::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QTable::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QTable::contentsDropEvent(QDropEvent*)
vfunc[137]:	QScrollView::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QDataTable::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QTable::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMouseEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)

vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QTable::setSelectionMode(QTable::SelectionMode)
vfunc[155]:	QDataTable::setItem(int, int, QTableWidgetItem*)
vfunc[156]:	QTable::setText(int, int, QString const&)
vfunc[157]:	QDataTable::setPixmap(int, int, QPixmap const&)
vfunc[158]:	QDataTable::item(int, int) const
vfunc[159]:	QDataTable::text(int, int) const
vfunc[160]:	QTable::pixmap(int, int) const
vfunc[161]:	QDataTable::clearCell(int, int)
vfunc[162]:	QTable::cellGeometry(int, int) const
vfunc[163]:	QTable::columnWidth(int) const
vfunc[164]:	QTable::rowHeight(int) const
vfunc[165]:	QTable::columnPos(int) const
vfunc[166]:	QTable::rowPos(int) const
vfunc[167]:	QTable::columnAt(int) const
vfunc[168]:	QTable::rowAt(int) const
vfunc[169]:	QDataTable::numRows() const
vfunc[170]:	QDataTable::numCols() const
vfunc[171]:	QTable::addSelection(QTableSelection const&)
vfunc[172]:	QTable::removeSelection(QTableSelection const&)
vfunc[173]:	QTable::removeSelection(int)
vfunc[174]:	QTable::currentSelection() const
vfunc[175]:	QDataTable::sortColumn(int, bool, bool)
vfunc[176]:	QDataTable::takeItem(QTableWidgetItem*)
vfunc[177]:	QTable::setCellWidget(int, int, QWidget*)
vfunc[178]:	QTable::cellWidget(int, int) const
vfunc[179]:	QTable::clearCellWidget(int, int)
vfunc[180]:	QTable::cellRect(int, int) const
vfunc[181]:	QTable::paintCell(QPainter*, int, int, QRect const&, bool)
vfunc[182]:	QDataTable::paintCell(QPainter*, int, int, QRect const&, bool, QColorGroup const&)
vfunc[183]:	QTable::paintFocus(QPainter*, QRect const&)

vfunc[184]:	QTable::setFocusStyle(QTable::FocusStyle)
vfunc[185]:	QDataTable::setNumRows(int)
vfunc[186]:	QDataTable::setNumCols(int)
vfunc[187]:	QTable::setShowGrid(bool)
vfunc[188]:	QTable::hideRow(int)
vfunc[189]:	QDataTable::hideColumn(int)
vfunc[190]:	QTable::showRow(int)
vfunc[191]:	QDataTable::showColumn(int)
vfunc[192]:	QDataTable::setColumnWidth(int, int)
vfunc[193]:	QTable::setRowHeight(int, int)
vfunc[194]:	QDataTable::adjustColumn(int)
vfunc[195]:	QTable::adjustRow(int)
vfunc[196]:	QDataTable::setColumnStretchable(int, bool)
vfunc[197]:	QTable::setRowStretchable(int, bool)
vfunc[198]:	QTable::setSorting(bool)
vfunc[199]:	QTable::swapRows(int, int, bool)
vfunc[200]:	QDataTable::swapColumns(int, int, bool)
vfunc[201]:	QTable::swapCells(int, int, int, int)
vfunc[202]:	QTable::setLeftMargin(int)
vfunc[203]:	QTable::setTopMargin(int)
vfunc[204]:	QTable::setCurrentCell(int, int)
vfunc[205]:	QTable::setColumnMovingEnabled(bool)
vfunc[206]:	QTable::setRowMovingEnabled(bool)
vfunc[207]:	QTable::setReadOnly(bool)
vfunc[208]:	QTable::setRowReadOnly(int, bool)
vfunc[209]:	QTable::setColumnReadOnly(int, bool)
vfunc[210]:	QTable::setDragEnabled(bool)
vfunc[211]:	QTable::insertRows(int, int)
vfunc[212]:	QTable::insertColumns(int, int)
vfunc[213]:	QTable::removeRow(int)
vfunc[214]:	QTable::removeRows(QMemArray<int> const&)
vfunc[215]:	QTable::removeColumn(int)
vfunc[216]:	QTable::removeColumns(QMemArray<int> const&)

vfunc[217]:	QTable::editCell(int, int, bool)
vfunc[218]:	QTable::dragObject()
vfunc[219]:	QTable::startDrag()
vfunc[220]:	QTable::paintEmptyArea(QPainter*, int, int, int, int)
vfunc[221]:	QDataTable::activateNextCell()
vfunc[222]:	QDataTable::createEditor(int, int, bool) const
vfunc[223]:	QTable::setCellContentFromEditor(int, int)
vfunc[224]:	QDataTable::beginEdit(int, int, bool)
vfunc[225]:	QDataTable::endEdit(int, int, bool, bool)
vfunc[226]:	QDataTable::resizeData(int)
vfunc[227]:	QTable::insertWidget(int, int, QWidget*)
vfunc[228]:	QTable::columnWidthChanged(int)
vfunc[229]:	QTable::rowHeightChanged(int)
vfunc[230]:	QTable::columnIndexChanged(int, int, int)
vfunc[231]:	QTable::rowIndexChanged(int, int, int)
vfunc[232]:	QDataTable::columnClicked(int)
vfunc[233]:	QDataTable::addColumn(QString const&, QString const&, int, QIconSet const&)
vfunc[234]:	QDataTable::removeColumn(unsigned int)
vfunc[235]:	QDataTable::setColumn(unsigned int, QString const&, QString const&, int, QIconSet const&)
vfunc[236]:	QDataTable::setSqlCursor(QSqlCursor*, bool, bool)
vfunc[237]:	QDataTable::setNullText(QString const&)
vfunc[238]:	QDataTable::setTrueText(QString const&)
vfunc[239]:	QDataTable::setFalseText(QString const&)
vfunc[240]:	QDataTable::setDateFormat(Qt::DateFormat)
vfunc[241]:	QDataTable::setConfirmEdits(bool)
vfunc[242]:	QDataTable::setConfirmInsert(bool)
vfunc[243]:	QDataTable::setConfirmUpdate(bool)
vfunc[244]:	QDataTable::setConfirmDelete(bool)
vfunc[245]:	QDataTable::setConfirmCancels(bool)
vfunc[246]:	QDataTable::setAutoDelete(bool)
vfunc[247]:	QDataTable::setAutoEdit(bool)
vfunc[248]:	QDataTable::setFilter(QString const&)

vfunc[249]:	QDataTable::setSort(QStringList const&)
vfunc[250]:	QDataTable::setSort(QSqlIndex const&)
vfunc[251]:	QDataTable::find(QString const&, bool, bool)
vfunc[252]:	QDataTable::sortAscending(int)
vfunc[253]:	QDataTable::sortDescending(int)
vfunc[254]:	QDataTable::refresh()
vfunc[255]:	QDataTable::insertCurrent()
vfunc[256]:	QDataTable::updateCurrent()
vfunc[257]:	QDataTable::deleteCurrent()
vfunc[258]:	QDataTable::confirmEdit(QSql::Op)
vfunc[259]:	QDataTable::confirmCancel(QSql::Op)
vfunc[260]:	QDataTable::handleError(QSqlError const&)
vfunc[261]:	QDataTable::beginInsert()
vfunc[262]:	QDataTable::beginUpdate(int, int, bool)
vfunc[263]:	QDataTable::paintField(QPainter*, QSqlField const*, QRect const&, bool)
vfunc[264]:	QDataTable::fieldAlignment(QSqlField const*)

The Run Time Type Information for the QDataTable class is described by [Table 18-546](#)

Table 18-546. typeinfo for QDataTable

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDataTable
basetype:	typeinfo for QTable

18.2.27.5. Class data for QComboTableItem

The virtual table for the QComboTableItem class is described by [Table 18-547](#)

Table 18-547. Primary vtable for QComboTableItem

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QComboTableItem
vfunc[0]:	QComboTableItem::~~QComboTableItem()
vfunc[1]:	QComboTableItem::~~QComboTableItem()

vfunc[2]:	QTableWidgetItem::pixmap() const
vfunc[3]:	QTableWidgetItem::text() const
vfunc[4]:	QTableWidgetItem::setPixmap(QPixmap const&)
vfunc[5]:	QTableWidgetItem::setText(QString const&)
vfunc[6]:	QTableWidgetItem::alignment() const
vfunc[7]:	QTableWidgetItem::setWordWrap(bool)
vfunc[8]:	QComboBoxItem::createEditor() const
vfunc[9]:	QComboBoxItem::setContentFromEditor(QWidget*)
vfunc[10]:	QTableWidgetItem::setReplaceable(bool)
vfunc[11]:	QTableWidgetItem::key() const
vfunc[12]:	QComboBoxItem::sizeHint() const
vfunc[13]:	QTableWidgetItem::setSpan(int, int)
vfunc[14]:	QTableWidgetItem::setRow(int)
vfunc[15]:	QTableWidgetItem::setCol(int)
vfunc[16]:	QComboBoxItem::paint(QPainter*, QColorGroup const&, QRect const&, bool)
vfunc[17]:	QTableWidgetItem::setEnabled(bool)
vfunc[18]:	QComboBoxItem::rtti() const
vfunc[19]:	QComboBoxItem::setCurrentItem(int)
vfunc[20]:	QComboBoxItem::setCurrentItem(QString const&)
vfunc[21]:	QComboBoxItem::setEditable(bool)
vfunc[22]:	QComboBoxItem::setStringList(QStringList const&)

The Run Time Type Information for the QComboBoxItem class is described by [Table 18-548](#)

Table 18-548. typeinfo for QComboBoxItem

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QComboBoxItem
basetype:	typeinfo for QTableWidgetItem

18.2.27.6. Class data for QTable

The virtual table for the QTable class is described by [Table 18-549](#)

Table 18-549. Primary vtable for QTable

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTable
vfunc[0]:	NULL or QTable::metaObject() const
vfunc[1]:	QTable::className() const
vfunc[2]:	QTable::qt_cast(char const*)
vfunc[3]:	QTable::qt_invoke(int, QUObject*)
vfunc[4]:	QTable::qt_emit(int, QUObject*)
vfunc[5]:	QTable::qt_property(int, int, QVariant*)
vfunc[6]:	QTable::~~QTable()
vfunc[7]:	QTable::~QTable()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QTable::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QScrollView::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QTable::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)

vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)
vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QScrollView::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QScrollView::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QTable::sizeHint() const
vfunc[59]:	QScrollView::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const

vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::repaint(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QScrollView::mousePressEvent(QMouseEvent*)
vfunc[70]:	QScrollView::mouseReleaseEvent(QMouseEvent*)
vfunc[71]:	QScrollView::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QScrollView::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QScrollView::wheelEvent(QWheelEvent*)
vfunc[74]:	QTable::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QTable::focusInEvent(QFocusEvent*)
vfunc[77]:	QTable::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QTable::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QScrollView::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QScrollView::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QTable::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)

vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QScrollView::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QScrollView::fontChange(QFont const&)
vfunc[101]:	QTable::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)
vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QScrollView::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QFrame::setFrameStyle(int)
vfunc[111]:	QFrame::setLineWidth(int)
vfunc[112]:	QFrame::setMargin(int)
vfunc[113]:	QFrame::setMidLineWidth(int)
vfunc[114]:	QFrame::setFrameRect(QRect const&)
vfunc[115]:	QFrame::drawFrame(QPainter*)
vfunc[116]:	QTable::drawContents(QPainter*)
vfunc[117]:	QScrollView::frameChanged()
vfunc[118]:	QScrollView::setResizePolicy(QScrollView::ResizePolicy)
vfunc[119]:	QScrollView::addChild(QWidget*, int, int)
vfunc[120]:	QScrollView::moveChild(QWidget*, int, int)
vfunc[121]:	QScrollView::setVScrollBarMode(QScrollView::ScrollBarMode)
vfunc[122]:	QScrollView::setHScrollBarMode(QScrollView::ScrollBarMode)
vfunc[123]:	QScrollView::setCornerWidget(QWidget*)
vfunc[124]:	QScrollView::setDragAutoScroll(bool)
vfunc[125]:	QScrollView::resizeContents(int, int)
vfunc[126]:	QScrollView::setContentsPos(int, int)
vfunc[127]:	QTable::drawContents(QPainter*, int, int, int, int)
vfunc[128]:	QScrollView::drawContentsOffset(QPainter*, int, int, int, int, int, int)

vfunc[129]:	QTable::contentsMousePressEvent(QMouseEvent*)
vfunc[130]:	QTable::contentsMouseReleaseEvent(QMouseEvent*)
vfunc[131]:	QTable::contentsMouseDoubleClickEvent(QMouseEvent*)
vfunc[132]:	QTable::contentsMouseMoveEvent(QMouseEvent*)
vfunc[133]:	QTable::contentsDragEnterEvent(QDragEnterEvent*)
vfunc[134]:	QTable::contentsDragMoveEvent(QDragMoveEvent*)
vfunc[135]:	QTable::contentsDragLeaveEvent(QDragLeaveEvent*)
vfunc[136]:	QTable::contentsDropEvent(QDropEvent*)
vfunc[137]:	QScrollView::contentsWheelEvent(QWheelEvent*)
vfunc[138]:	QTable::contentsContextMenuEvent(QContextMenuEvent*)
vfunc[139]:	QScrollView::viewportPaintEvent(QPaintEvent*)
vfunc[140]:	QTable::viewportResizeEvent(QResizeEvent*)
vfunc[141]:	QScrollView::viewportMousePressEvent(QMouseEvent*)
vfunc[142]:	QScrollView::viewportMouseReleaseEvent(QMouseEvent*)
vfunc[143]:	QScrollView::viewportMouseDoubleClickEvent(QMouseEvent*)
vfunc[144]:	QScrollView::viewportMouseMoveEvent(QMouseEvent*)
vfunc[145]:	QScrollView::viewportDragEnterEvent(QDragEnterEvent*)
vfunc[146]:	QScrollView::viewportDragMoveEvent(QDragMoveEvent*)
vfunc[147]:	QScrollView::viewportDragLeaveEvent(QDragLeaveEvent*)
vfunc[148]:	QScrollView::viewportDropEvent(QDropEvent*)
vfunc[149]:	QScrollView::viewportWheelEvent(QWheelEvent*)
vfunc[150]:	QScrollView::viewportContextMenuEvent(QContextMenuEvent*)
vfunc[151]:	QScrollView::setMargins(int, int, int, int)
vfunc[152]:	QScrollView::setHBarGeometry(QScrollBar&, int, int, int, int)
vfunc[153]:	QScrollView::setVBarGeometry(QScrollBar&, int, int, int, int)
vfunc[154]:	QTable::setSelectionMode(QTable::SelectionMode)
vfunc[155]:	QTable::setItem(int, int, QTableWidgetItem*)
vfunc[156]:	QTable::setText(int, int, QString const&)
vfunc[157]:	QTable::setPixmap(int, int, QPixmap const&)
vfunc[158]:	QTable::item(int, int) const
vfunc[159]:	QTable::text(int, int) const
vfunc[160]:	QTable::pixmap(int, int) const
vfunc[161]:	QTable::clearCell(int, int)

vfunc[162]:	QTable::cellGeometry(int, int) const
vfunc[163]:	QTable::columnWidth(int) const
vfunc[164]:	QTable::rowHeight(int) const
vfunc[165]:	QTable::columnPos(int) const
vfunc[166]:	QTable::rowPos(int) const
vfunc[167]:	QTable::columnAt(int) const
vfunc[168]:	QTable::rowAt(int) const
vfunc[169]:	QTable::numRows() const
vfunc[170]:	QTable::numCols() const
vfunc[171]:	QTable::addSelection(QTableSelection const&)
vfunc[172]:	QTable::removeSelection(QTableSelection const&)
vfunc[173]:	QTable::removeSelection(int)
vfunc[174]:	QTable::currentSelection() const
vfunc[175]:	QTable::sortColumn(int, bool, bool)
vfunc[176]:	QTable::takeItem(QTableWidgetItem*)
vfunc[177]:	QTable::setCellWidget(int, int, QWidget*)
vfunc[178]:	QTable::cellWidget(int, int) const
vfunc[179]:	QTable::clearCellWidget(int, int)
vfunc[180]:	QTable::cellRect(int, int) const
vfunc[181]:	QTable::paintCell(QPainter*, int, int, QRect const&, bool)
vfunc[182]:	QTable::paintCell(QPainter*, int, int, QRect const&, bool, QColorGroup const&)
vfunc[183]:	QTable::paintFocus(QPainter*, QRect const&)
vfunc[184]:	QTable::setFocusStyle(QTable::FocusStyle)
vfunc[185]:	QTable::setNumRows(int)
vfunc[186]:	QTable::setNumCols(int)
vfunc[187]:	QTable::setShowGrid(bool)
vfunc[188]:	QTable::hideRow(int)
vfunc[189]:	QTable::hideColumn(int)
vfunc[190]:	QTable::showRow(int)
vfunc[191]:	QTable::showColumn(int)
vfunc[192]:	QTable::setColumnWidth(int, int)
vfunc[193]:	QTable::setRowHeight(int, int)
vfunc[194]:	QTable::adjustColumn(int)

vfunc[195]:	QTable::adjustRow(int)
vfunc[196]:	QTable::setColumnStretchable(int, bool)
vfunc[197]:	QTable::setRowStretchable(int, bool)
vfunc[198]:	QTable::setSorting(bool)
vfunc[199]:	QTable::swapRows(int, int, bool)
vfunc[200]:	QTable::swapColumns(int, int, bool)
vfunc[201]:	QTable::swapCells(int, int, int, int)
vfunc[202]:	QTable::setLeftMargin(int)
vfunc[203]:	QTable::setTopMargin(int)
vfunc[204]:	QTable::setCurrentCell(int, int)
vfunc[205]:	QTable::setColumnMovingEnabled(bool)
vfunc[206]:	QTable::setRowMovingEnabled(bool)
vfunc[207]:	QTable::setReadOnly(bool)
vfunc[208]:	QTable::setRowReadOnly(int, bool)
vfunc[209]:	QTable::setColumnReadOnly(int, bool)
vfunc[210]:	QTable::setDragEnabled(bool)
vfunc[211]:	QTable::insertRows(int, int)
vfunc[212]:	QTable::insertColumns(int, int)
vfunc[213]:	QTable::removeRow(int)
vfunc[214]:	QTable::removeRows(QMemArray<int> const&)
vfunc[215]:	QTable::removeColumn(int)
vfunc[216]:	QTable::removeColumns(QMemArray<int> const&)
vfunc[217]:	QTable::editCell(int, int, bool)
vfunc[218]:	QTable::dragObject()
vfunc[219]:	QTable::startDrag()
vfunc[220]:	QTable::paintEmptyArea(QPainter*, int, int, int, int)
vfunc[221]:	QTable::activateNextCell()
vfunc[222]:	QTable::createEditor(int, int, bool) const
vfunc[223]:	QTable::setCellContentFromEditor(int, int)
vfunc[224]:	QTable::beginEdit(int, int, bool)
vfunc[225]:	QTable::endEdit(int, int, bool, bool)
vfunc[226]:	QTable::resizeData(int)
vfunc[227]:	QTable::insertWidget(int, int, QWidget*)

vfunc[228]:	QTable::columnWidthChanged(int)
vfunc[229]:	QTable::rowHeightChanged(int)
vfunc[230]:	QTable::columnIndexChanged(int, int, int)
vfunc[231]:	QTable::rowIndexChanged(int, int, int)
vfunc[232]:	QTable::columnClicked(int)

The Run Time Type Information for the QTable class is described by [Table 18-550](#)

Table 18-550. typeinfo for QTable

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTable
basetype:	typeinfo for QScrollView

18.2.27.7. Interfaces for Qt3 Tables

An LSB conforming implementation shall provide the generic functions for Qt3 Tables specified in [Table 18-551](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-551. libqt-mt - Qt3 Tables Function Interfaces

_ZN10QDataTable10findBufferERK9QSqlIndexi [qt-mt]	_ZN10QDataTable10hideColumnEi [qt-mt]
_ZN10QDataTable10paintFieldEP8QPainterPK9QSqlFieldRK5QRectb [qt-mt]	_ZN10QDataTable10resizeDataEi [qt-mt]
_ZN10QDataTable10setNumColsEi [qt-mt]	_ZN10QDataTable10setNumRowsEi [qt-mt]
_ZN10QDataTable10showColumnEi [qt-mt]	_ZN10QDataTable10sortColumnEibb [qt-mt]
_ZN10QDataTable11beginInsertEv [qt-mt]	_ZN10QDataTable11beginUpdateEiib [qt-mt]
_ZN10QDataTable11confirmEditEN4QSql2OpE [qt-mt]	_ZN10QDataTable11eventFilterEP7QEvent [qt-mt]
_ZN10QDataTable11handleErrorERK9QSqlError [qt-mt]	_ZN10QDataTable11primeDeleteEP10QSqlRecord [qt-mt]
_ZN10QDataTable11primeInsertEP10QSqlRecord [qt-mt]	_ZN10QDataTable11primeUpdateEP10QSqlRecord [qt-mt]
_ZN10QDataTable11qt_propertyEiiP8QVariant [qt-mt]	_ZN10QDataTable11repaintCellEii [qt-mt]
_ZN10QDataTable11resizeEventEP12QResizeEvent [qt-mt]	_ZN10QDataTable11setAutoEditEb [qt-mt]
_ZN10QDataTable11setNullTextERK7QString [qt-mt]	_ZN10QDataTable11setTrueTextERK7QString [qt-mt]
_ZN10QDataTable11swapColumnsEiib [qt-mt]	_ZN10QDataTable12adjustColumnEi [qt-mt]
_ZN10QDataTable12beforeDeleteEP10QSqlRecord [qt-mt]	_ZN10QDataTable12beforeInsertEP10QSqlRecord [qt-mt]
_ZN10QDataTable12beforeUpdateEP10QSqlRecord [qt-mt]	_ZN10QDataTable12drawContentsEP8QPainter [qt-mt]
_ZN10QDataTable12loadNextPageEv [qt-mt]	_ZN10QDataTable12removeColumnEj [qt-mt]

_ZN10QDataTable12setFalseTextERK7QString [qt-mt]	_ZN10QDataTable12setSqlCursorEP10QSqlCursor [qt-mt]
_ZN10QDataTable13columnClickedEi [qt-mt]	_ZN10QDataTable13confirmCancelE [qt-mt]
_ZN10QDataTable13cursorChangedEN4QSql2OpE [qt-mt]	_ZN10QDataTable13deleteCurrentEv [qt-mt]
_ZN10QDataTable13fieldToStringEPK9QSqlField [qt-mt]	_ZN10QDataTable13insertCurrentEv [qt-mt]
_ZN10QDataTable13keyPressEventEP9QKeyEvent [qt-mt]	_ZN10QDataTable13setAutoDeleteEb [qt-mt]
_ZN10QDataTable13setDateFormatEN2Qt10DateFormatE [qt-mt]	_ZN10QDataTable13sliderPressedEv [qt-mt]
_ZN10QDataTable13sortAscendingEi [qt-mt]	_ZN10QDataTable13updateCurrentEv [qt-mt]
_ZN10QDataTable14currentChangedEP10QSqlRecord [qt-mt]	_ZN10QDataTable14fieldAlignmentE [qt-mt]
_ZN10QDataTable14setColumnWidthEii [qt-mt]	_ZN10QDataTable14sliderReleasedEv [qt-mt]
_ZN10QDataTable14sortDescendingEi [qt-mt]	_ZN10QDataTable15doInsertCurrentEv [qt-mt]
_ZN10QDataTable15doUpdateCurrentEv [qt-mt]	_ZN10QDataTable15setConfirmEditsEb [qt-mt]
_ZN10QDataTable16activateNextCellEv [qt-mt]	_ZN10QDataTable16setConfirmDeleteEb [qt-mt]
_ZN10QDataTable16setConfirmInsertEb [qt-mt]	_ZN10QDataTable16setConfirmUpdateEb [qt-mt]
_ZN10QDataTable16staticMetaObjectEv [qt-mt]	_ZN10QDataTable17setConfirmCancelEb [qt-mt]
_ZN10QDataTable18installPropertyMapEP15QSqlPropertyMap [qt-mt]	_ZN10QDataTable18qt_static_property [qt-mt]
_ZN10QDataTable19setCurrentSelectionEii [qt-mt]	_ZN10QDataTable20installEditorFactory [qt-mt]
_ZN10QDataTable20setColumnStretchableEib [qt-mt]	_ZN10QDataTable22updateCurrentSelection [qt-mt]
_ZN10QDataTable23contentsMouseEventEP11QMouseEvent [qt-mt]	_ZN10QDataTable24contentsContextMenu [qt-mt]
ZN10QDataTable2trEPKcS1 [qt-mt]	_ZN10QDataTable4findERK7QString [qt-mt]
_ZN10QDataTable4initEv [qt-mt]	_ZN10QDataTable5resetEv [qt-mt]
ZN10QDataTable6trUtf8EPKcS1 [qt-mt]	_ZN10QDataTable7endEditEiibb [qt-mt]
_ZN10QDataTable7qt_castEPKc [qt-mt]	_ZN10QDataTable7qt_emitEiP8QUObject [qt-mt]
_ZN10QDataTable7refreshENS_7RefreshE [qt-mt]	_ZN10QDataTable7refreshEv [qt-mt]
_ZN10QDataTable7setItemEiiP10QTableWidgetItem [qt-mt]	_ZN10QDataTable7setSizeEP10QSqlCursor [qt-mt]
_ZN10QDataTable7setSortERK11QStringList [qt-mt]	_ZN10QDataTable7setSortERK9QSqlField [qt-mt]
_ZN10QDataTable8takeItemEP10QTableWidgetItem [qt-mt]	_ZN10QDataTable9addColumnERK7QString [qt-mt]
_ZN10QDataTable9beginEditEiib [qt-mt]	_ZN10QDataTable9clearCellEii [qt-mt]
_ZN10QDataTable9endInsertEv [qt-mt]	_ZN10QDataTable9endUpdateEv [qt-mt]
_ZN10QDataTable9paintCellEP8QPainteriiRK5QRectbRK11QColorGroup [qt-mt]	_ZN10QDataTable9qt_invokeEiP8QUObject [qt-mt]
_ZN10QDataTable9setColumnEjRK7QStringS2_iRK8QIconSet [qt-mt]	_ZN10QDataTable9setFilterERK7QString [qt-mt]
_ZN10QDataTable9setPixmapEiiRK7QPixmap [qt-mt]	_ZN10QDataTable9updateRowEi [qt-mt]
_ZN10QDataTableC1EP10QSqlCursorbP7QWidgetPKc [qt-mt]	_ZN10QDataTableC1EP7QWidgetPKc [qt-mt]

_ZN10QDataTableC2EP10QSqlCursorBP7QWidgetPKc [qt-mt]	_ZN10QDataTableC2EP7QWidgetPKc [qt-mt]
_ZN10QDataTableD0Ev [qt-mt]	_ZN10QDataTableD1Ev [qt-mt]
_ZN10QDataTableD2Ev [qt-mt]	_ZN10QTableWidgetItem10setEnabledEb [qt-mt]
_ZN10QTableWidgetItem11setWordWrapEb [qt-mt]	_ZN10QTableWidgetItem12updateEditorEii [qt-mt]
_ZN10QTableWidgetItem14setReplaceableEb [qt-mt]	_ZN10QTableWidgetItem20setContentFromE [qt-mt]
_ZN10QTableWidgetItem5paintEP8QPainterRK11QColorGroupRK5QRectb [qt-mt]	_ZN10QTableWidgetItem6setColEi [qt-mt]
_ZN10QTableWidgetItem6setRowEi [qt-mt]	_ZN10QTableWidgetItem7setSpanEii [qt-mt]
_ZN10QTableWidgetItem7setTextERK7QString [qt-mt]	_ZN10QTableWidgetItem9setPixmapERK7QPixmap [qt-mt]
_ZN10QTableWidgetItemC1EP6QTableNS_8EditTypeE [qt-mt]	_ZN10QTableWidgetItemC1EP6QTableNS_8EditTypeE [qt-mt]
_ZN10QTableWidgetItemC1EP6QTableNS_8EditTypeERK7QStringRK7QPixmap [qt-mt]	_ZN10QTableWidgetItemC2EP6QTableNS_8EditTypeE [qt-mt]
_ZN10QTableWidgetItemC2EP6QTableNS_8EditTypeERK7QString [qt-mt]	_ZN10QTableWidgetItemC2EP6QTableNS_8EditTypeE [qt-mt]
_ZN10QTableWidgetItemD0Ev [qt-mt]	_ZN10QTableWidgetItemD1Ev [qt-mt]
_ZN10QTableWidgetItemD2Ev [qt-mt]	_ZN12QTableHeader10paintEventEP11QMouseEvent [qt-mt]
_ZN12QTableHeader10saveStatesEv [qt-mt]	_ZN12QTableHeader10setCachingEb [qt-mt]
_ZN12QTableHeader11doSelectionEP11QMouseEvent [qt-mt]	_ZN12QTableHeader11qt_propertyEiil [qt-mt]
_ZN12QTableHeader11removeLabelEi [qt-mt]	_ZN12QTableHeader11resizeEventEP11QMouseEvent [qt-mt]
_ZN12QTableHeader11updateCacheEv [qt-mt]	_ZN12QTableHeader12doAutoScrollE [qt-mt]
_ZN12QTableHeader12indexChangedEiii [qt-mt]	_ZN12QTableHeader12paintSectionEP11QMouseEvent [qt-mt]
_ZN12QTableHeader12resizeArraysEi [qt-mt]	_ZN12QTableHeader12swapSectionsE [qt-mt]
_ZN12QTableHeader14mouseMoveEventEP11QMouseEvent [qt-mt]	_ZN12QTableHeader15mousePressEventEP11QMouseEvent [qt-mt]
_ZN12QTableHeader15setSectionStateEiNS_12SectionStateE [qt-mt]	_ZN12QTableHeader15updateStretchesE [qt-mt]
_ZN12QTableHeader16staticMetaObjectEv [qt-mt]	_ZN12QTableHeader16updateSelectionE [qt-mt]
_ZN12QTableHeader17mouseReleaseEventEP11QMouseEvent [qt-mt]	_ZN12QTableHeader18qt_static_propertyE [qt-mt]
_ZN12QTableHeader18sectionSizeChangedEi [qt-mt]	_ZN12QTableHeader19sectionLabelChangedE [qt-mt]
_ZN12QTableHeader19sectionWidthChangedEiii [qt-mt]	_ZN12QTableHeader20setSectionStateE [qt-mt]
_ZN12QTableHeader21mouseDoubleClickEventEP11QMouseEvent [qt-mt]	_ZN12QTableHeader21setSectionStretchE [qt-mt]
_ZN12QTableHeader21updateWidgetStretchesEv [qt-mt]	_ZN12QTableHeader2trEPKcS1_ [qt-mt]
ZN12QTableHeader6trUtf8EPKcS1 [qt-mt]	_ZN12QTableHeader7qt_castEPKc [qt-mt]
_ZN12QTableHeader7qt_emitEiP8QUObject [qt-mt]	_ZN12QTableHeader8addLabelERK7QString [qt-mt]
_ZN12QTableHeader8setLabelEiRK7QStringi [qt-mt]	_ZN12QTableHeader8setLabelEiRK8QString [qt-mt]
_ZN12QTableHeader9qt_invokeEiP8QUObject [qt-mt]	_ZN12QTableHeader9setLabelsERK11QStringList [qt-mt]

_ZN12QTableHeaderC1EiP6QTableP7QWidgetPKc [qt-mt]	_ZN12QTableHeaderC2EiP6QTableP7QWidgetPKc [qt-mt]
_ZN15QCheckTableItem10setCheckedEb [qt-mt]	_ZN15QCheckTableItem20setContentFromEditorEP7QWidget [qt-mt]
_ZN15QCheckTableItem5paintEP8QPainterRK11QColorGroupRK5QRectb [qt-mt]	_ZN15QCheckTableItem7setTextERK11QString [qt-mt]
_ZN15QCheckTableItemC1EP6QTableRK7QString [qt-mt]	_ZN15QCheckTableItemC2EP6QTableRK7QString [qt-mt]
_ZN15QComboTableItem11setEditableEb [qt-mt]	_ZN15QComboTableItem13setStringListEP7QList [qt-mt]
_ZN15QComboTableItem14setCurrentItemERK7QString [qt-mt]	_ZN15QComboTableItem14setCurrentIndexEi [qt-mt]
_ZN15QComboTableItem20setContentFromEditorEP7QWidget [qt-mt]	_ZN15QComboTableItem5paintEP8QPainterRK11QColorGroupRK5QRectb [qt-mt]
_ZN15QComboTableItemC1EP6QTableRK11QStringListb [qt-mt]	_ZN15QComboTableItemC2EP6QTableRK11QStringListb [qt-mt]
_ZN15QComboTableItemD0Ev [qt-mt]	_ZN15QComboTableItemD1Ev [qt-mt]
_ZN15QComboTableItemD2Ev [qt-mt]	_ZN15QTableSelection4initEii [qt-mt]
_ZN15QTableSelection8expandToEii [qt-mt]	_ZN15QTableSelectionC1Eiiii [qt-mt]
_ZN15QTableSelectionC1Ev [qt-mt]	_ZN15QTableSelectionC2Eiiii [qt-mt]
_ZN15QTableSelectionC2Ev [qt-mt]	_ZN6QTable10dragObjectEv [qt-mt]
_ZN6QTable10hideColumnEi [qt-mt]	_ZN6QTable10insertRowsEii [qt-mt]
_ZN6QTable10paintEventEP11QPaintEvent [qt-mt]	_ZN6QTable10paintFocusEP8QPainterRK11QColorGroupRK5QRectb [qt-mt]
_ZN6QTable10removeRowsERK9QMemArrayIiE [qt-mt]	_ZN6QTable10resizeDataEi [qt-mt]
_ZN6QTable10setEnabledEb [qt-mt]	_ZN6QTable10setNumColsEi [qt-mt]
_ZN6QTable10setNumRowsEi [qt-mt]	_ZN6QTable10setSortingEb [qt-mt]
_ZN6QTable10showColumnEi [qt-mt]	_ZN6QTable10sortColumnEiib [qt-mt]
_ZN6QTable10updateCellEii [qt-mt]	_ZN6QTable11eventFilterEP7QObjectRK11QColorGroupRK5QRectb [qt-mt]
_ZN6QTable11qt_propertyEiiP8QVariant [qt-mt]	_ZN6QTable11repaintCellEii [qt-mt]
_ZN6QTable11selectCellsEiiii [qt-mt]	_ZN6QTable11setEditModeENS_8EditMode [qt-mt]
_ZN6QTable11setReadOnlyEb [qt-mt]	_ZN6QTable11setShowGridEb [qt-mt]
_ZN6QTable11swapColumnsEiib [qt-mt]	_ZN6QTable12addSelectionERK15QTableSelection [qt-mt]
_ZN6QTable12adjustColumnEi [qt-mt]	_ZN6QTable12doAutoScrollEv [qt-mt]
_ZN6QTable12drawContentsEP8QPainter [qt-mt]	_ZN6QTable12drawContentsEP8QPainterRK11QColorGroupRK5QRectb [qt-mt]
_ZN6QTable12focusInEventEP11QFocusEvent [qt-mt]	_ZN6QTable12insertWidgetEiiP7QWidget [qt-mt]
_ZN6QTable12removeColumnEi [qt-mt]	_ZN6QTable12saveContentsER10QPtr [qt-mt]
_ZN6QTable12selectColumnEi [qt-mt]	_ZN6QTable12setRowHeightEii [qt-mt]
_ZN6QTable12setRowLabelsERK11QStringList [qt-mt]	_ZN6QTable12setTopMarginEi [qt-mt]
_ZN6QTable12valueChangedEii [qt-mt]	_ZN6QTable13columnClickedEi [qt-mt]

_ZN6QTable13doubleClickedEiiiRK6QPoint [qt-mt]	_ZN6QTable13focusOutEventEP11QFocusEvent [qt-mt]
_ZN6QTable13insertColumnsEii [qt-mt]	_ZN6QTable13keyPressEventEP9QKeyEvent [qt-mt]
_ZN6QTable13rangeGeometryEiiiiRb [qt-mt]	_ZN6QTable13removeColumnsERK9QModelIndex [qt-mt]
_ZN6QTable13setCellWidgetEiiP7QWidget [qt-mt]	_ZN6QTable13setFocusStyleENS_10FocusStyle [qt-mt]
_ZN6QTable13setLeftMarginEi [qt-mt]	_ZN6QTable14clearSelectionEb [qt-mt]
_ZN6QTable14currentChangedEii [qt-mt]	_ZN6QTable14doValueChangedEv [qt-mt]
_ZN6QTable14paintEmptyAreaEP8QPainteriiii [qt-mt]	_ZN6QTable14setColumnWidthEii [qt-mt]
_ZN6QTable14setCurrentCellEii [qt-mt]	_ZN6QTable14setCurrentCellEiibb [qt-mt]
_ZN6QTable14setDragEnabledEb [qt-mt]	_ZN6QTable14setRowReadOnlyEib [qt-mt]
_ZN6QTable15clearCellWidgetEii [qt-mt]	_ZN6QTable15removeSelectionERK15QModelIndex [qt-mt]
_ZN6QTable15removeSelectionEi [qt-mt]	_ZN6QTable15restoreContentsER10QModelIndex [qt-mt]
_ZN6QTable15rowIndexChangedEiii [qt-mt]	_ZN6QTable15setColumnLabelsERK15QModelIndex [qt-mt]
_ZN6QTable16activateNextCellEv [qt-mt]	_ZN6QTable16rowHeightChangedEi [qt-mt]
_ZN6QTable16selectionChangedEv [qt-mt]	_ZN6QTable16setSelectionModeENS_16SelectionMode [qt-mt]
_ZN6QTable16staticMetaObjectEv [qt-mt]	_ZN6QTable16updateColWidgetsEi [qt-mt]
_ZN6QTable16updateGeometriesEv [qt-mt]	_ZN6QTable16updateRowWidgetsEi [qt-mt]
_ZN6QTable17contentsDropEventEP10QDropEvent [qt-mt]	_ZN6QTable17ensureCellVisibleEii [qt-mt]
_ZN6QTable17repaintSelectionsEP15QTableSelectionS1_bb [qt-mt]	_ZN6QTable17repaintSelectionsEv [qt-mt]
_ZN6QTable17setColumnReadOnlyEib [qt-mt]	_ZN6QTable17setRowStretchableEib [qt-mt]
_ZN6QTable18columnIndexChangedEiii [qt-mt]	_ZN6QTable18columnWidthChangedEi [qt-mt]
_ZN6QTable18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN6QTable18updateHeaderStatesEv [qt-mt]
_ZN6QTable19contentsToViewport2ERK6QPoint [qt-mt]	_ZN6QTable19contentsToViewport2E [qt-mt]
_ZN6QTable19finishContentsResizeEb [qt-mt]	_ZN6QTable19setRowMovingEnabledEb [qt-mt]
_ZN6QTable19viewportResizeEventEP12QResizeEvent [qt-mt]	_ZN6QTable19viewportToContents2E [qt-mt]
ZN6QTable19viewportToContents2EiiRiS0 [qt-mt]	_ZN6QTable20contextMenuRequestedEv [qt-mt]
_ZN6QTable20setColumnStretchableEib [qt-mt]	_ZN6QTable20updateGeometriesSlotEv [qt-mt]
_ZN6QTable21contentsDragMoveEventEP14QDragMoveEvent [qt-mt]	_ZN6QTable22contentsDragEnterEventEP14QDragEnterEvent [qt-mt]
_ZN6QTable22contentsDragLeaveEventEP15QDragLeaveEvent [qt-mt]	_ZN6QTable22contentsMouseMoveEventEP14QMouseEvent [qt-mt]
_ZN6QTable22setColumnMovingEnabledEb [qt-mt]	_ZN6QTable22windowActivationChangeEv [qt-mt]
_ZN6QTable23contentsMousePressEventEP11QMouseEvent [qt-mt]	_ZN6QTable23delayedUpdateGeometriesEv [qt-mt]
_ZN6QTable24contentsContextMenuEventEP17QContextMenuEvent [qt-mt]	_ZN6QTable24setCellContentFromEditor [qt-mt]

_ZN6QTable25contentsMousePressEventExEP11QMouseEvent [qt-mt]	_ZN6QTable25contentsMouseReleaseEventExEP11QMouseEvent [qt-mt]
_ZN6QTable29contentsMouseDoubleClickEventEP11QMouseEvent [qt-mt]	_ZN6QTable29updateHeaderAndResizeEventEP11QMouseEvent [qt-mt]
ZN6QTable2trEPKcS1 [qt-mt]	_ZN6QTable4initEii [qt-mt]
_ZN6QTable6fixColERii [qt-mt]	_ZN6QTable6fixRowERii [qt-mt]
ZN6QTable6trUtf8EPKcS1 [qt-mt]	_ZN6QTable7clickedEiiiRK6QPoint [qt-mt]
_ZN6QTable7droppedEP10QDropEvent [qt-mt]	_ZN6QTable7endEditEiibb [qt-mt]
_ZN6QTable7fixCellERiS0_i [qt-mt]	_ZN6QTable7hideRowEi [qt-mt]
_ZN6QTable7pressedEiiiRK6QPoint [qt-mt]	_ZN6QTable7qt_castEPKc [qt-mt]
_ZN6QTable7qt_emitEiP8QUObject [qt-mt]	_ZN6QTable7setItemEiiP10QTableWidgetItem [qt-mt]
_ZN6QTable7setTextEiiRK7QString [qt-mt]	_ZN6QTable7showRowEi [qt-mt]
_ZN6QTable8editCellEiib [qt-mt]	_ZN6QTable8swapRowsEiib [qt-mt]
_ZN6QTable8takeItemEP10QTableWidgetItem [qt-mt]	_ZN6QTable9adjustRowEi [qt-mt]
_ZN6QTable9beginEditEiib [qt-mt]	_ZN6QTable9clearCellEii [qt-mt]
_ZN6QTable9paintCellEP8QPainteriiRK5QRectb [qt-mt]	_ZN6QTable9paintCellEP8QPainteriiRK5QRectb [qt-mt]
_ZN6QTable9qt_invokeEiP8QUObject [qt-mt]	_ZN6QTable9removeRowEi [qt-mt]
_ZN6QTable9selectRowEi [qt-mt]	_ZN6QTable9setPixmapEiiRK7QPixmap [qt-mt]
_ZN6QTable9showEventEP10QShowEvent [qt-mt]	_ZN6QTable9startDragEv [qt-mt]
_ZN6QTable9swapCellsEiiii [qt-mt]	_ZN6QTableC1EP7QWidgetPKc [qt-mt]
_ZN6QTableC1EiiP7QWidgetPKc [qt-mt]	_ZN6QTableC2EP7QWidgetPKc [qt-mt]
_ZN6QTableC2EiiP7QWidgetPKc [qt-mt]	_ZN6QTableD0Ev [qt-mt]
_ZN6QTableD1Ev [qt-mt]	_ZN6QTableD2Ev [qt-mt]
_ZN7QHeader10fontChangeERK5QFont [qt-mt]	_ZN7QHeader10paintEventEP11QPainter [qt-mt]
_ZN7QHeader10sizeChangeEiii [qt-mt]	_ZN7QHeader10unMarkLineEi [qt-mt]
_ZN7QHeader11indexChangeEiii [qt-mt]	_ZN7QHeader11moveSectionEii [qt-mt]
_ZN7QHeader11qt_propertyEiiP8QVariant [qt-mt]	_ZN7QHeader11removeLabelEi [qt-mt]
_ZN7QHeader11resizeEventEP12QResizeEvent [qt-mt]	_ZN7QHeader11setCellSizeEii [qt-mt]
_ZN7QHeader12paintSectionEP8QPainteriRK5QRect [qt-mt]	_ZN7QHeader12resizeArraysEi [qt-mt]
_ZN7QHeader13keyPressEventEP9QKeyEvent [qt-mt]	_ZN7QHeader13resizeSectionEii [qt-mt]
_ZN7QHeader14mouseMoveEventEP11QMouseEvent [qt-mt]	_ZN7QHeader14sectionClickedEi [qt-mt]
_ZN7QHeader14setOrientationEN2Qt11OrientationE [qt-mt]	_ZN7QHeader15keyReleaseEventEP9QKeyEvent [qt-mt]
_ZN7QHeader15mousePressEventEP11QMouseEvent [qt-mt]	_ZN7QHeader15setClickEnabledEbi [qt-mt]
_ZN7QHeader16adjustHeaderSizeEi [qt-mt]	_ZN7QHeader16handleColumnMoveEventEP11QMouseEvent [qt-mt]

_ZN7QHeader16setMovingEnabledEb [qt-mt]	_ZN7QHeader16setResizeEnabledEbi
_ZN7QHeader16setSortIndicatorEib [qt-mt]	_ZN7QHeader16staticMetaObjectEv [qt-mt]
_ZN7QHeader17mouseReleaseEventEP11QMouseEvent [qt-mt]	_ZN7QHeader17paintSectionLabelEP8
_ZN7QHeader17setIsATableHeaderEb [qt-mt]	_ZN7QHeader17setStretchEnabledEbi
_ZN7QHeader17setUpdatesEnabledEb [qt-mt]	_ZN7QHeader18calculatePositionsEbi
_ZN7QHeader18handleColumnResizeEiibb [qt-mt]	_ZN7QHeader18qt_static_propertyEP7
_ZN7QHeader21mouseDoubleClickEventEP11QMouseEvent [qt-mt]	_ZN7QHeader23setSectionSizeAndHe
_ZN7QHeader26sectionHandleDoubleClickedEi [qt-mt]	_ZN7QHeader2trEPKcS1_ [qt-mt]
_ZN7QHeader4initEi [qt-mt]	_ZN7QHeader5movedEii [qt-mt]
_ZN7QHeader5sRectEi [qt-mt]	_ZN7QHeader6trUtf8EPKcS1_ [qt-mt]
_ZN7QHeader7clickedEi [qt-mt]	_ZN7QHeader7pressedEi [qt-mt]
_ZN7QHeader7qt_castEPKc [qt-mt]	_ZN7QHeader7qt_emitEiP8QUObject
_ZN7QHeader8addLabelERK7QStringi [qt-mt]	_ZN7QHeader8addLabelERK8QIconS
_ZN7QHeader8findLineEi [qt-mt]	_ZN7QHeader8handleAtEi [qt-mt]
_ZN7QHeader8markLineEi [qt-mt]	_ZN7QHeader8moveCellEii [qt-mt]
_ZN7QHeader8releasedEi [qt-mt]	_ZN7QHeader8setLabelEiRK7QString
_ZN7QHeader8setLabelEiRK8QIconSetRK7QStringi [qt-mt]	_ZN7QHeader9paintRectEii [qt-mt]
_ZN7QHeader9qt_invokeEiP8QUObject [qt-mt]	_ZN7QHeader9setOffsetEi [qt-mt]
_ZN7QHeader9showEventEP10QShowEvent [qt-mt]	_ZN7QHeaderC1EP7QWidgetPKc [qt-mt]
_ZN7QHeaderC1EiP7QWidgetPKc [qt-mt]	_ZN7QHeaderC2EP7QWidgetPKc [qt-mt]
_ZN7QHeaderC2EiP7QWidgetPKc [qt-mt]	_ZN7QHeaderD0Ev [qt-mt]
_ZN7QHeaderD1Ev [qt-mt]	_ZN7QHeaderD2Ev [qt-mt]
_ZNK10QDataTable10autoDeleteEv [qt-mt]	_ZNK10QDataTable10dateFormatEv [qt-mt]
_ZNK10QDataTable12confirmEditsEv [qt-mt]	_ZNK10QDataTable12createEditorEiib
_ZNK10QDataTable13confirmDeleteEv [qt-mt]	_ZNK10QDataTable13confirmInsertEv
_ZNK10QDataTable13confirmUpdateEv [qt-mt]	_ZNK10QDataTable13currentRecordE
_ZNK10QDataTable14confirmCancelsEv [qt-mt]	_ZNK10QDataTable4itemEii [qt-mt]
_ZNK10QDataTable4sortEv [qt-mt]	_ZNK10QDataTable4textEii [qt-mt]
_ZNK10QDataTable5valueEii [qt-mt]	_ZNK10QDataTable6filterEv [qt-mt]
_ZNK10QDataTable7indexOfEj [qt-mt]	_ZNK10QDataTable7numColsEv [qt-mt]
_ZNK10QDataTable7numRowsEv [qt-mt]	_ZNK10QDataTable8autoEditEv [qt-mt]
_ZNK10QDataTable8nullTextEv [qt-mt]	_ZNK10QDataTable8trueTextEv [qt-mt]
_ZNK10QDataTable9classNameEv [qt-mt]	_ZNK10QDataTable9falseTextEv [qt-mt]

_Znk10QDataTable9sqlCursorEv [qt-mt]	_Znk10QTableWidgetItem12createEditorEv [qt-mt]
_Znk10QTableWidgetItem13isReplaceableEv [qt-mt]	_Znk10QTableWidgetItem3colEv [qt-mt]
_Znk10QTableWidgetItem3keyEv [qt-mt]	_Znk10QTableWidgetItem3rowEv [qt-mt]
_Znk10QTableWidgetItem4rttiEv [qt-mt]	_Znk10QTableWidgetItem4textEv [qt-mt]
_Znk10QTableWidgetItem6pixmapEv [qt-mt]	_Znk10QTableWidgetItem7colSpanEv [qt-mt]
_Znk10QTableWidgetItem7rowSpanEv [qt-mt]	_Znk10QTableWidgetItem8editTypeEv [qt-mt]
_Znk10QTableWidgetItem8sizeHintEv [qt-mt]	_Znk10QTableWidgetItem8wordWrapEv [qt-mt]
_Znk10QTableWidgetItem9alignmentEv [qt-mt]	_Znk10QTableWidgetItem9isEnabledEv [qt-mt]
_Znk12QTableHeader10sectionPosEi [qt-mt]	_Znk12QTableHeader11sectionSizeEi [qt-mt]
_Znk12QTableHeader12sectionStateEi [qt-mt]	_Znk12QTableHeader20isSectionStretchableEi [qt-mt]
_Znk12QTableHeader9classNameEv [qt-mt]	_Znk12QTableHeader9sectionAtEi [qt-mt]
_Znk15QCheckTableWidgetItem12createEditorEv [qt-mt]	_Znk15QCheckTableWidgetItem4rttiEv [qt-mt]
_Znk15QCheckTableWidgetItem8sizeHintEv [qt-mt]	_Znk15QCheckTableWidgetItem9isCheckedEv [qt-mt]
_Znk15QComboTableWidgetItem10isEditableEv [qt-mt]	_Znk15QComboTableWidgetItem11currentItemEv [qt-mt]
_Znk15QComboTableWidgetItem11currentTextEv [qt-mt]	_Znk15QComboTableWidgetItem12createEditorEv [qt-mt]
_Znk15QComboTableWidgetItem4rttiEv [qt-mt]	_Znk15QComboTableWidgetItem4textEi [qt-mt]
_Znk15QComboTableWidgetItem5countEv [qt-mt]	_Znk15QComboTableWidgetItem8sizeHintEv [qt-mt]
_Znk15QTableSelection7numColsEv [qt-mt]	_Znk15QTableSelection7numRowsEv [qt-mt]
Znk15QTableSelectioneqERKS [qt-mt]	_Znk6QTable10cellWidgetEii [qt-mt]
_Znk6QTable10focusStyleEv [qt-mt]	_Znk6QTable10isReadOnlyEv [qt-mt]
_Znk6QTable10isSelectedEii [qt-mt]	_Znk6QTable10isSelectedEiib [qt-mt]
_Znk6QTable11columnWidthEi [qt-mt]	_Znk6QTable11currEditColEv [qt-mt]
_Znk6QTable11currEditRowEv [qt-mt]	_Znk6QTable11dragEnabledEv [qt-mt]
_Znk6QTable11isRowHiddenEi [qt-mt]	_Znk6QTable12cellGeometryEii [qt-mt]
_Znk6QTable12createEditorEiib [qt-mt]	_Znk6QTable13isRowReadOnlyEi [qt-mt]
_Znk6QTable13isRowSelectedEib [qt-mt]	_Znk6QTable13numSelectionsEv [qt-mt]
_Znk6QTable13selectionModeEv [qt-mt]	_Znk6QTable14isColumnHiddenEi [qt-mt]
_Znk6QTable14verticalHeaderEv [qt-mt]	_Znk6QTable16currentSelectionEv [qt-mt]
_Znk6QTable16horizontalHeaderEv [qt-mt]	_Znk6QTable16isColumnReadOnlyEi [qt-mt]
_Znk6QTable16isColumnSelectedEib [qt-mt]	_Znk6QTable16isRowStretchableEi [qt-mt]
_Znk6QTable16rowMovingEnabledEv [qt-mt]	_Znk6QTable19columnMovingEnabledEv [qt-mt]
_Znk6QTable19isColumnStretchableEi [qt-mt]	_Znk6QTable4itemEii [qt-mt]
_Znk6QTable4textEii [qt-mt]	_Znk6QTable5rowAtEi [qt-mt]

_ZNK6QTable6pixmapEii [qt-mt]	_ZNK6QTable6rowPosEi [qt-mt]
_ZNK6QTable7indexOfEii [qt-mt]	_ZNK6QTable7numColsEv [qt-mt]
_ZNK6QTable7numRowsEv [qt-mt]	_ZNK6QTable7sortingEv [qt-mt]
_ZNK6QTable8cellRectEii [qt-mt]	_ZNK6QTable8columnAtEi [qt-mt]
_ZNK6QTable8editModeEv [qt-mt]	_ZNK6QTable8showGridEv [qt-mt]
_ZNK6QTable8sizeHintEv [qt-mt]	_ZNK6QTable9classNameEv [qt-mt]
_ZNK6QTable9columnPosEi [qt-mt]	_ZNK6QTable9isEditingEv [qt-mt]
_ZNK6QTable9rowHeightEi [qt-mt]	_ZNK6QTable9selectionEi [qt-mt]
_ZNK6QTable9tableSizeEv [qt-mt]	_ZNK7QHeader10mapToIndexEi [qt-mt]
_ZNK7QHeader10sectionPosEi [qt-mt]	_ZNK7QHeader11headerWidthEv [qt-mt]
_ZNK7QHeader11mapToActualEi [qt-mt]	_ZNK7QHeader11sectionRectEi [qt-mt]
_ZNK7QHeader11sectionSizeEi [qt-mt]	_ZNK7QHeader12mapToLogicalEi [qt-mt]
_ZNK7QHeader12mapToSectionEi [qt-mt]	_ZNK7QHeader14isClickEnabledEi [qt-mt]
_ZNK7QHeader15isMovingEnabledEv [qt-mt]	_ZNK7QHeader15isResizeEnabledEi [qt-mt]
_ZNK7QHeader15sectionSizeHintEiRK12QFontMetrics [qt-mt]	_ZNK7QHeader16isStretchEnabledEi [qt-mt]
_ZNK7QHeader16isStretchEnabledEv [qt-mt]	_ZNK7QHeader18sortIndicatorOrderEi [qt-mt]
_ZNK7QHeader20sortIndicatorSectionEv [qt-mt]	_ZNK7QHeader4pPosEi [qt-mt]
_ZNK7QHeader5countEv [qt-mt]	_ZNK7QHeader5labelEi [qt-mt]
_ZNK7QHeader5pSizeEi [qt-mt]	_ZNK7QHeader6offsetEv [qt-mt]
_ZNK7QHeader7cellPosEi [qt-mt]	_ZNK7QHeader7iconSetEi [qt-mt]
_ZNK7QHeader7reverseEv [qt-mt]	_ZNK7QHeader8sizeHintEv [qt-mt]
_ZNK7QHeader9classNameEv [qt-mt]	_ZNK7QHeader9sectionAtEi [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Tables specified in [Table 18-552](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-552. libqt-mt - Qt3 Tables Data Interfaces

_ZN10QDataTable7metaObjE [qt-mt]	_ZN10QTableWidgetItem4RTTIE [qt-mt]
_ZN12QTableHeader7metaObjE [qt-mt]	_ZN15QCheckTableWidgetItem4RTTIE [qt-mt]
_ZN15QComboTableWidgetItem15fakeComboWidgetE [qt-mt]	_ZN15QComboTableWidgetItem4RTTIE [qt-mt]
_ZN15QComboTableWidgetItem7fakeRefE [qt-mt]	_ZN15QComboTableWidgetItem9fakeComboE [qt-mt]
_ZN6QTable7metaObjE [qt-mt]	_ZN7QHeader7metaObjE [qt-mt]
_ZTI10QDataTable [CXXABI-1.86]	_ZTI10QTableWidgetItem [CXXABI-1.86]
_ZTI12QTableHeader [CXXABI-1.86]	_ZTI15QCheckTableWidgetItem [CXXABI-1.86]

_ZTI15QComboTableWidgetItem [CXXABI-1.86]	_ZTI6QTable [CXXABI-1.86]
_ZTI7QHeader [CXXABI-1.86]	_ZTV10QDataTable [CXXABI-1.86]
_ZTV10QTableWidgetItem [CXXABI-1.86]	_ZTV12QTableHeader [CXXABI-1.86]
_ZTV15QCheckTableWidgetItem [CXXABI-1.86]	_ZTV15QComboTableWidgetItem [CXXABI-1.86]
_ZTV6QTable [CXXABI-1.86]	_ZTV7QHeader [CXXABI-1.86]

18.2.28. Qt3 Plugins

18.2.28.1. Class data for QGPlugin

The virtual table for the QGPlugin class is described by [Table 18-553](#)

Table 18-553. Primary vtable for QGPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGPlugin
vfunc[0]:	NULL or QGPlugin::metaObject() const
vfunc[1]:	QGPlugin::className() const
vfunc[2]:	QGPlugin::qt_cast(char const*)
vfunc[3]:	QGPlugin::qt_invoke(int, QUObject*)
vfunc[4]:	QGPlugin::qt_emit(int, QUObject*)
vfunc[5]:	QGPlugin::qt_property(int, int, QVariant*)
vfunc[6]:	QGPlugin::~QGPlugin()
vfunc[7]:	QGPlugin::~QGPlugin()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)

vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QGPlugin class is described by [Table 18-554](#)

Table 18-554. typeinfo for QGPlugin

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGPlugin
basetype:	typeinfo for QObject

18.2.28.2. Class data for QStylePlugin

The virtual table for the QStylePlugin class is described by [Table 18-555](#)

Table 18-555. Primary vtable for QStylePlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QStylePlugin
vfunc[0]:	NULL or QStylePlugin::metaObject() const
vfunc[1]:	QStylePlugin::className() const
vfunc[2]:	QStylePlugin::qt_cast(char const*)
vfunc[3]:	QStylePlugin::qt_invoke(int, QUObject*)
vfunc[4]:	QStylePlugin::qt_emit(int, QUObject*)
vfunc[5]:	QStylePlugin::qt_property(int, int, QVariant*)
vfunc[6]:	QStylePlugin::~~QStylePlugin()
vfunc[7]:	QStylePlugin::~~QStylePlugin()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const

vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	__cxa_pure_virtual
vfunc[22]:	__cxa_pure_virtual

The Run Time Type Information for the QStylePlugin class is described by [Table 18-556](#)

Table 18-556. typeinfo for QStylePlugin

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QStylePlugin
basetype:	typeinfo for QGPlugin

18.2.28.3. Class data for QTextCodecPlugin

The virtual table for the QTextCodecPlugin class is described by [Table 18-557](#)

Table 18-557. Primary vtable for QTextCodecPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QTextCodecPlugin
vfunc[0]:	NULL or QTextCodecPlugin::metaObject() const
vfunc[1]:	QTextCodecPlugin::className() const
vfunc[2]:	QTextCodecPlugin::qt_cast(char const*)
vfunc[3]:	QTextCodecPlugin::qt_invoke(int, QUObject*)
vfunc[4]:	QTextCodecPlugin::qt_emit(int, QUObject*)
vfunc[5]:	QTextCodecPlugin::qt_property(int, int, QVariant*)
vfunc[6]:	QTextCodecPlugin::~~QTextCodecPlugin()
vfunc[7]:	QTextCodecPlugin::~~QTextCodecPlugin()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)

vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	__cxa_pure_virtual
vfunc[22]:	__cxa_pure_virtual
vfunc[23]:	__cxa_pure_virtual
vfunc[24]:	__cxa_pure_virtual

The Run Time Type Information for the QTextCodecPlugin class is described by [Table 18-558](#)

Table 18-558. typeinfo for QTextCodecPlugin

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QTextCodecPlugin
basetype:	typeinfo for QGPlugin

18.2.28.4. Class data for QWidgetPlugin

The virtual table for the QWidgetPlugin class is described by [Table 18-559](#)

Table 18-559. Primary vtable for QWidgetPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QWidgetPlugin
vfunc[0]:	NULL or QWidgetPlugin::metaObject() const
vfunc[1]:	QWidgetPlugin::className() const
vfunc[2]:	QWidgetPlugin::qt_cast(char const*)

vfunc[3]:	QWidgetPlugin::qt_invoke(int, QUObject*)
vfunc[4]:	QWidgetPlugin::qt_emit(int, QUObject*)
vfunc[5]:	QWidgetPlugin::qt_property(int, int, QVariant*)
vfunc[6]:	QWidgetPlugin::~~QWidgetPlugin()
vfunc[7]:	QWidgetPlugin::~~QWidgetPlugin()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	__cxa_pure_virtual
vfunc[22]:	__cxa_pure_virtual
vfunc[23]:	QWidgetPlugin::group(QString const&) const
vfunc[24]:	QWidgetPlugin::iconSet(QString const&) const
vfunc[25]:	QWidgetPlugin::includeFile(QString const&) const
vfunc[26]:	QWidgetPlugin::toolTip(QString const&) const
vfunc[27]:	QWidgetPlugin::whatsThis(QString const&) const
vfunc[28]:	QWidgetPlugin::isContainer(QString const&) const

The Run Time Type Information for the QWidgetPlugin class is described by [Table 18-560](#)

Table 18-560. typeinfo for QWidgetPlugin

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QWidgetPlugin
basetype:	typeinfo for QGPlugin

18.2.28.5. Class data for QLibrary

The virtual table for the QLibrary class is described by [Table 18-561](#)

Table 18-561. Primary vtable for QLibrary

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QLibrary
vfunc[0]:	QLibrary::~~QLibrary()
vfunc[1]:	QLibrary::~~QLibrary()
vfunc[2]:	QLibrary::unload()

The Run Time Type Information for the QLibrary class is described by [Table 18-562](#)

Table 18-562. typeinfo for QLibrary

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QLibrary

18.2.28.6. Class data for QImageFormatPlugin

The virtual table for the QImageFormatPlugin class is described by [Table 18-563](#)

Table 18-563. Primary vtable for QImageFormatPlugin

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QImageFormatPlugin
vfunc[0]:	NULL or QImageFormatPlugin::metaObject() const
vfunc[1]:	QImageFormatPlugin::className() const
vfunc[2]:	QImageFormatPlugin::qt_cast(char const*)
vfunc[3]:	QImageFormatPlugin::qt_invoke(int, QUObject*)
vfunc[4]:	QImageFormatPlugin::qt_emit(int, QUObject*)
vfunc[5]:	QImageFormatPlugin::qt_property(int, int, QVariant*)
vfunc[6]:	QImageFormatPlugin::~~QImageFormatPlugin()
vfunc[7]:	QImageFormatPlugin::~~QImageFormatPlugin()
vfunc[8]:	QObject::event(QEvent*)

vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	__cxa_pure_virtual
vfunc[22]:	QImageFormatPlugin::loadImage(QString const&, QString const&, QImage*)
vfunc[23]:	QImageFormatPlugin::saveImage(QString const&, QString const&, QImage const&)
vfunc[24]:	__cxa_pure_virtual

The Run Time Type Information for the QImageFormatPlugin class is described by [Table 18-564](#)

Table 18-564. typeinfo for QImageFormatPlugin

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QImageFormatPlugin
basetype:	typeinfo for QGPlugin

18.2.28.7. Interfaces for Qt3 Plugins

An LSB conforming implementation shall provide the generic functions for Qt3 Plugins specified in [Table 18-565](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-565. libqt-mt - Qt3 Plugins Function Interfaces

_ZN12QStylePlugin11qt_propertyEiiP8QVariant [qt-mt]	_ZN12QStylePlugin1
_ZN12QStylePlugin18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN12QStylePlugin2
ZN12QStylePlugin6trUtf8EPKcS1 [qt-mt]	_ZN12QStylePlugin7
_ZN12QStylePlugin7qt_emitEiP8QUObject [qt-mt]	_ZN12QStylePlugin9
_ZN12QStylePluginC1Ev [qt-mt]	_ZN12QStylePluginC

_ZN12QStylePluginD0Ev [qt-mt]	_ZN12QStylePluginD
_ZN12QStylePluginD2Ev [qt-mt]	_ZN13QWidgetPlugi
_ZN13QWidgetPlugin16staticMetaObjectEv [qt-mt]	_ZN13QWidgetPlugi [qt-mt]
ZN13QWidgetPlugin2trEPKcS1 [qt-mt]	_ZN13QWidgetPlugi
_ZN13QWidgetPlugin7qt_castEPKc [qt-mt]	_ZN13QWidgetPlugi
_ZN13QWidgetPlugin9qt_invokeEiP8QUObject [qt-mt]	_ZN13QWidgetPlugi
_ZN13QWidgetPluginC2Ev [qt-mt]	_ZN13QWidgetPlugi
_ZN13QWidgetPluginD1Ev [qt-mt]	_ZN13QWidgetPlugi
_ZN15QGPluginManager10addLibraryEP8QLibrary [qt-mt]	_ZN15QGPluginMan
_ZN15QGPluginManagerC1ERK5QUuidRK11QStringListRK7QStringb [qt-mt]	_ZN15QGPluginMan [qt-mt]
_ZN15QGPluginManagerD1Ev [qt-mt]	_ZN15QGPluginMan
_ZN16QTextCodecPlugin11qt_propertyEiiP8QVariant [qt-mt]	_ZN16QTextCodecPl
_ZN16QTextCodecPlugin18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN16QTextCodecPl
ZN16QTextCodecPlugin6trUtf8EPKcS1 [qt-mt]	_ZN16QTextCodecPl
_ZN16QTextCodecPlugin7qt_emitEiP8QUObject [qt-mt]	_ZN16QTextCodecPl
_ZN16QTextCodecPluginC1Ev [qt-mt]	_ZN16QTextCodecPl
_ZN16QTextCodecPluginD0Ev [qt-mt]	_ZN16QTextCodecPl
_ZN16QTextCodecPluginD2Ev [qt-mt]	_ZN18QImageForma
_ZN18QImageFormatPlugin16staticMetaObjectEv [qt-mt]	_ZN18QImageForma [qt-mt]
ZN18QImageFormatPlugin2trEPKcS1 [qt-mt]	_ZN18QImageForma
_ZN18QImageFormatPlugin7qt_castEPKc [qt-mt]	_ZN18QImageForma
_ZN18QImageFormatPlugin9loadImageERK7QStringS2_P6QImage [qt-mt]	_ZN18QImageForma
_ZN18QImageFormatPlugin9saveImageERK7QStringS2_RK6QImage [qt-mt]	_ZN18QImageForma
_ZN18QImageFormatPluginC2Ev [qt-mt]	_ZN18QImageForma
_ZN18QImageFormatPluginD1Ev [qt-mt]	_ZN18QImageForma
_ZN8QGPlugin11qt_propertyEiiP8QVariant [qt-mt]	_ZN8QGPlugin16stat
_ZN8QGPlugin18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN8QGPlugin2trEP
_ZN8QGPlugin5ifaceEv [qt-mt]	_ZN8QGPlugin6trUtf
_ZN8QGPlugin7qt_castEPKc [qt-mt]	_ZN8QGPlugin7qt_e
_ZN8QGPlugin8setIfaceEP17QUnknownInterface [qt-mt]	_ZN8QGPlugin9qt_in
_ZN8QGPluginC1EP17QUnknownInterface [qt-mt]	_ZN8QGPluginC1Ev

_ZN8QGPluginC2EP17QUnknownInterface [qt-mt]	_ZN8QGPluginC2Ev
_ZN8QGPluginD0Ev [qt-mt]	_ZN8QGPluginD1Ev
_ZN8QGPluginD2Ev [qt-mt]	_ZN8QLibrary13setA
_ZN8QLibrary4loadEv [qt-mt]	_ZN8QLibrary6unloa
_ZN8QLibrary7resolveEPKc [qt-mt]	_ZN8QLibrary7resolv
_ZN8QLibraryC1ERK7QString [qt-mt]	_ZN8QLibraryC2ER
_ZN8QLibraryD0Ev [qt-mt]	_ZN8QLibraryD1Ev
_ZN8QLibraryD2Ev [qt-mt]	_ZNK12QStylePlugin
_ZNK13QWidgetPlugin1lincludeFileERK7QString [qt-mt]	_ZNK13QWidgetPlu
_ZNK13QWidgetPlugin5groupERK7QString [qt-mt]	_ZNK13QWidgetPlu
_ZNK13QWidgetPlugin7toolTipERK7QString [qt-mt]	_ZNK13QWidgetPlu
_ZNK13QWidgetPlugin9whatsThisERK7QString [qt-mt]	_ZNK15QGPluginMa
_ZNK15QGPluginManager2lqueryUnknownInterfaceERK7QStringPP17QUnknownInterface [qt-mt]	_ZNK15QGPluginMa
_ZNK15QGPluginManager7libraryERK7QString [qt-mt]	_ZNK16QTextCodec
_ZNK18QImageFormatPlugin9classNameEv [qt-mt]	_ZNK8QGPlugin9cla
_ZNK8QLibrary10autoUnloadEv [qt-mt]	_ZNK8QLibrary7libr
_ZNK8QLibrary8isLoadedEv [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Plugins specified in [Table 18-566](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-566. libqt-mt - Qt3 Plugins Data Interfaces

_ZN12QStylePlugin7metaObjE [qt-mt]	_ZN13QWidgetPlugin7metaObjE [qt-mt]
_ZN16QTextCodecPlugin7metaObjE [qt-mt]	_ZN18QImageFormatPlugin7metaObjE [qt-mt]
_ZN8QGPlugin7metaObjE [qt-mt]	_ZTI12QStylePlugin [CXXABI-1.86]
_ZTI13QWidgetPlugin [CXXABI-1.86]	_ZTI16QTextCodecPlugin [CXXABI-1.86]
_ZTI18QImageFormatPlugin [CXXABI-1.86]	_ZTI8QGPlugin [CXXABI-1.86]
_ZTI8QLibrary [CXXABI-1.86]	_ZTV12QStylePlugin [CXXABI-1.86]
_ZTV13QWidgetPlugin [CXXABI-1.86]	_ZTV16QTextCodecPlugin [CXXABI-1.86]
_ZTV18QImageFormatPlugin [CXXABI-1.86]	_ZTV8QGPlugin [CXXABI-1.86]
_ZTV8QLibrary [CXXABI-1.86]	

18.2.29. Qt3 XML

18.2.29.1. Class data for QXmlEntityResolver

The virtual table for the QXmlEntityResolver class is described by [Table 18-567](#)

Table 18-567. Primary vtable for QXmlEntityResolver

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlEntityResolver
vfunc[0]:	__cxa_pure_virtual
vfunc[1]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlEntityResolver class is described by [Table 18-568](#)

Table 18-568. typeinfo for QXmlEntityResolver

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlEntityResolver

18.2.29.2. Class data for QXmlLocator

The virtual table for the QXmlLocator class is described by [Table 18-569](#)

Table 18-569. Primary vtable for QXmlLocator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlLocator
vfunc[0]:	QXmlLocator::~~QXmlLocator()
vfunc[1]:	QXmlLocator::~~QXmlLocator()
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlLocator class is described by [Table 18-570](#)

Table 18-570. typeinfo for QXmlLocator

Base Vtable	vtable for __cxxabiv1::__class_type_info

Name	typeinfo name for QDomLocator

18.2.29.3. Class data for QDomElement

The virtual table for the QDomElement class is described by [Table 18-571](#)

Table 18-571. Primary vtable for QDomElement

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomElement
vfunc[0]:	QDomElement::~~QDomElement()
vfunc[1]:	QDomElement::~~QDomElement()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomElement::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomElement::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const

vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomElement::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const
vfunc[41]:	QDomElement::elementsByTagName(QString const&) const
vfunc[42]:	QDomElement::elementsByTagNameNS(QString const&, QString const&) const

The Run Time Type Information for the QDomElement class is described by [Table 18-572](#)

Table 18-572. typeinfo for QDomElement

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomElement
basetype:	typeinfo for QDomNode

18.2.29.4. Class data for QDomImplementation

The virtual table for the QDomImplementation class is described by [Table 18-573](#)

Table 18-573. Primary vtable for QDomImplementation

Base Offset	0

Virtual Base Offset	0
RTTI	typeinfo for QDomImplementation
vfunc[0]:	QDomImplementation::~~QDomImplementation()
vfunc[1]:	QDomImplementation::~~QDomImplementation()
vfunc[2]:	QDomImplementation::hasFeature(QString const&, QString const&)
vfunc[3]:	QDomImplementation::createDocumentType(QString const&, QString const&, QString const&)
vfunc[4]:	QDomImplementation::createDocument(QString const&, QString const&, QDomDocumentType const&)

The Run Time Type Information for the QDomImplementation class is described by [Table 18-574](#)

Table 18-574. typeinfo for QDomImplementation

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QDomImplementation

18.2.29.5. Class data for QDomDocumentType

The virtual table for the QDomDocumentType class is described by [Table 18-575](#)

Table 18-575. Primary vtable for QDomDocumentType

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomDocumentType
vfunc[0]:	QDomDocumentType::~~QDomDocumentType()
vfunc[1]:	QDomDocumentType::~~QDomDocumentType()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()

vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomDocumentType::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomDocumentType::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const
vfunc[41]:	QDomDocumentType::name() const
vfunc[42]:	QDomDocumentType::entities() const

vfunc[43]:	QDomDocumentType::notations() const
vfunc[44]:	QDomDocumentType::publicId() const
vfunc[45]:	QDomDocumentType::systemId() const
vfunc[46]:	QDomDocumentType::internalSubset() const

The Run Time Type Information for the QDomDocumentType class is described by [Table 18-576](#)

Table 18-576. typeinfo for QDomDocumentType

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomDocumentType
basetype:	typeinfo for QDomNode

18.2.29.6. Class data for QDomDocument

The virtual table for the QDomDocument class is described by [Table 18-577](#)

Table 18-577. Primary vtable for QDomDocument

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomDocument
vfunc[0]:	QDomDocument::~~QDomDocument()
vfunc[1]:	QDomDocument::~~QDomDocument()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomDocument::nodeType() const
vfunc[13]:	QDomNode::parentNode() const

vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomDocument::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const

The Run Time Type Information for the QDomDocument class is described by [Table 18-578](#)

Table 18-578. typeinfo for QDomDocument

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomDocument

basetype:	typeinfo for QDomNode

18.2.29.7. Class data for QDomAttr

The virtual table for the QDomAttr class is described by [Table 18-579](#)

Table 18-579. Primary vtable for QDomAttr

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomAttr
vfunc[0]:	QDomAttr::~~QDomAttr()
vfunc[1]:	QDomAttr::~~QDomAttr()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomAttr::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const

vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomAttr::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const
vfunc[41]:	QDomAttr::name() const
vfunc[42]:	QDomAttr::specified() const
vfunc[43]:	QDomAttr::ownerElement() const
vfunc[44]:	QDomAttr::value() const
vfunc[45]:	QDomAttr::setValue(QString const&)

The Run Time Type Information for the QDomAttr class is described by [Table 18-580](#)

Table 18-580. typeinfo for QDomAttr

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomAttr
basetype:	typeinfo for QDomNode

18.2.29.8. Class data for QDomNodeList

The virtual table for the QDomNodeList class is described by [Table 18-581](#)

Table 18-581. Primary vtable for QDomNodeList

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomNodeList
vfunc[0]:	QDomNodeList::~~QDomNodeList()
vfunc[1]:	QDomNodeList::~~QDomNodeList()
vfunc[2]:	QDomNodeList::item(int) const
vfunc[3]:	QDomNodeList::length() const

The Run Time Type Information for the QDomNodeList class is described by [Table 18-582](#)

Table 18-582. typeinfo for QDomNodeList

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QDomNodeList

18.2.29.9. Class data for QDomReader

The virtual table for the QDomReader class is described by [Table 18-583](#)

Table 18-583. Primary vtable for QDomReader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomReader
vfunc[0]:	__cxa_pure_virtual
vfunc[1]:	__cxa_pure_virtual
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual

vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	__cxa_pure_virtual
vfunc[10]:	__cxa_pure_virtual
vfunc[11]:	__cxa_pure_virtual
vfunc[12]:	__cxa_pure_virtual
vfunc[13]:	__cxa_pure_virtual
vfunc[14]:	__cxa_pure_virtual
vfunc[15]:	__cxa_pure_virtual
vfunc[16]:	__cxa_pure_virtual
vfunc[17]:	__cxa_pure_virtual
vfunc[18]:	__cxa_pure_virtual
vfunc[19]:	__cxa_pure_virtual

The Run Time Type Information for the QDomReader class is described by [Table 18-584](#)

Table 18-584. typeinfo for QDomReader

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QDomReader

18.2.29.10. Class data for QDomEntity

The virtual table for the QDomEntity class is described by [Table 18-585](#)

Table 18-585. Primary vtable for QDomEntity

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomEntity
vfunc[0]:	QDomEntity::~~QDomEntity()
vfunc[1]:	QDomEntity::~~QDomEntity()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)

vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomEntity::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomEntity::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const

vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const
vfunc[41]:	QDomEntity::publicId() const
vfunc[42]:	QDomEntity::systemId() const
vfunc[43]:	QDomEntity::notationName() const

The Run Time Type Information for the QDomEntity class is described by [Table 18-586](#)

Table 18-586. typeinfo for QDomEntity

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomEntity
basetype:	typeinfo for QDomNode

18.2.29.11. Class data for QXmlDeclHandler

The virtual table for the QXmlDeclHandler class is described by [Table 18-587](#)

Table 18-587. Primary vtable for QXmlDeclHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlDeclHandler
vfunc[0]:	__cxa_pure_virtual
vfunc[1]:	__cxa_pure_virtual
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlDeclHandler class is described by [Table 18-588](#)

Table 18-588. typeinfo for QXmlDeclHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlDeclHandler

18.2.29.12. Class data for QDomNode

The virtual table for the QDomNode class is described by [Table 18-589](#)

Table 18-589. Primary vtable for QDomNode

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomNode
vfunc[0]:	QDomNode::~~QDomNode()
vfunc[1]:	QDomNode::~~QDomNode()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomNode::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)

vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const

The Run Time Type Information for the QDomNode class is described by [Table 18-590](#)

Table 18-590. typeinfo for QDomNode

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QDomNode

18.2.29.13. Class data for QDomText

The virtual table for the QDomText class is described by [Table 18-591](#)

Table 18-591. Primary vtable for QDomText

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomText
vfunc[0]:	QDomText::~~QDomText()
vfunc[1]:	QDomText::~~QDomText()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)

vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomText::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomText::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const

vfunc[39]:	QDomCharacterData::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const
vfunc[41]:	QDomCharacterData::substringData(unsigned long, unsigned long)
vfunc[42]:	QDomCharacterData::appendData(QString const&)
vfunc[43]:	QDomCharacterData::insertData(unsigned long, QString const&)
vfunc[44]:	QDomCharacterData::deleteData(unsigned long, unsigned long)
vfunc[45]:	QDomCharacterData::replaceData(unsigned long, unsigned long, QString const&)
vfunc[46]:	QDomCharacterData::length() const
vfunc[47]:	QDomCharacterData::data() const
vfunc[48]:	QDomCharacterData::setData(QString const&)

The Run Time Type Information for the QDomText class is described by [Table 18-592](#)

Table 18-592. typeinfo for QDomText

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomText
basetype:	typeinfo for QDomCharacterData

18.2.29.14. Class data for QDomCharacterData

The virtual table for the QDomCharacterData class is described by [Table 18-593](#)

Table 18-593. Primary vtable for QDomCharacterData

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomCharacterData
vfunc[0]:	QDomCharacterData::~QDomCharacterData()
vfunc[1]:	QDomCharacterData::~~QDomCharacterData()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const

vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomCharacterData::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomCharacterData::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const

vfunc[41]:	QDomCharacterData::substringData(unsigned long, unsigned long)
vfunc[42]:	QDomCharacterData::appendData(QString const&)
vfunc[43]:	QDomCharacterData::insertData(unsigned long, QString const&)
vfunc[44]:	QDomCharacterData::deleteData(unsigned long, unsigned long)
vfunc[45]:	QDomCharacterData::replaceData(unsigned long, unsigned long, QString const&)
vfunc[46]:	QDomCharacterData::length() const
vfunc[47]:	QDomCharacterData::data() const
vfunc[48]:	QDomCharacterData::setData(QString const&)

The Run Time Type Information for the QDomCharacterData class is described by [Table 18-594](#)

Table 18-594. typeinfo for QDomCharacterData

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomCharacterData
basetype:	typeinfo for QDomNode

18.2.29.15. Class data for QDomComment

The virtual table for the QDomComment class is described by [Table 18-595](#)

Table 18-595. Primary vtable for QDomComment

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomComment
vfunc[0]:	QDomComment::~~QDomComment()
vfunc[1]:	QDomComment::~~QDomComment()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()

vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomComment::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomCharacterData::isCharacterData() const
vfunc[40]:	QDomComment::isComment() const
vfunc[41]:	QDomCharacterData::substringData(unsigned long, unsigned long)
vfunc[42]:	QDomCharacterData::appendData(QString const&)

vfunc[43]:	QDomCharacterData::insertData(unsigned long, QString const&)
vfunc[44]:	QDomCharacterData::deleteData(unsigned long, unsigned long)
vfunc[45]:	QDomCharacterData::replaceData(unsigned long, unsigned long, QString const&)
vfunc[46]:	QDomCharacterData::length() const
vfunc[47]:	QDomCharacterData::data() const
vfunc[48]:	QDomCharacterData::setData(QString const&)

The Run Time Type Information for the QDomComment class is described by [Table 18-596](#)

Table 18-596. typeinfo for QDomComment

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomComment
basetype:	typeinfo for QDomCharacterData

18.2.29.16. Class data for QDomDefaultHandler

The virtual table for the QDomDefaultHandler class is described by [Table 18-597](#)

Table 18-597. Primary vtable for QDomDefaultHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomDefaultHandler
vfunc[0]:	QDomDefaultHandler::setDocumentLocator(QDomLocator*)
vfunc[1]:	QDomDefaultHandler::startDocument()
vfunc[2]:	QDomDefaultHandler::endDocument()
vfunc[3]:	QDomDefaultHandler::startPrefixMapping(QString const&, QString const&)
vfunc[4]:	QDomDefaultHandler::endPrefixMapping(QString const&)
vfunc[5]:	QDomDefaultHandler::startElement(QString const&, QString const&, QString const&, QDomAttributes const&)
vfunc[6]:	QDomDefaultHandler::endElement(QString const&, QString const&, QString const&)
vfunc[7]:	QDomDefaultHandler::characters(QString const&)
vfunc[8]:	QDomDefaultHandler::ignorableWhitespace(QString const&)
vfunc[9]:	QDomDefaultHandler::processingInstruction(QString const&, QString const&)
vfunc[10]:	QDomDefaultHandler::skippedEntity(QString const&)

vfunc[11]:	QXmlDefaultHandler::errorString()
vfunc[12]:	NULL or QXmlDefaultHandler::~~QXmlDefaultHandler()
vfunc[13]:	NULL or QXmlDefaultHandler::~~QXmlDefaultHandler()
vfunc[14]:	QXmlDefaultHandler::warning(QXmlParseException const&)
vfunc[15]:	QXmlDefaultHandler::error(QXmlParseException const&)
vfunc[16]:	QXmlDefaultHandler::fatalError(QXmlParseException const&)
vfunc[17]:	QXmlDefaultHandler::notationDecl(QString const&, QString const&, QString const&)
vfunc[18]:	QXmlDefaultHandler::unparsedEntityDecl(QString const&, QString const&, QString const&, QString const&)
vfunc[19]:	QXmlDefaultHandler::resolveEntity(QString const&, QString const&, QXmlInputSource*&)
vfunc[20]:	QXmlDefaultHandler::startDTD(QString const&, QString const&, QString const&)
vfunc[21]:	QXmlDefaultHandler::endDTD()
vfunc[22]:	QXmlDefaultHandler::startEntity(QString const&)
vfunc[23]:	QXmlDefaultHandler::endEntity(QString const&)
vfunc[24]:	QXmlDefaultHandler::startCDATA()
vfunc[25]:	QXmlDefaultHandler::endCDATA()
vfunc[26]:	QXmlDefaultHandler::comment(QString const&)
vfunc[27]:	QXmlDefaultHandler::attributeDecl(QString const&, QString const&, QString const&, QString const&, QString const&)
vfunc[28]:	QXmlDefaultHandler::internalEntityDecl(QString const&, QString const&)
vfunc[29]:	QXmlDefaultHandler::externalEntityDecl(QString const&, QString const&, QString const&)

The Run Time Type Information for the QXmlDefaultHandler class is described by [Table 18-598](#)

Table 18-598. typeinfo for QXmlDefaultHandler

Base Vtable	vtable for __cxxabiv1::__vmi_class_type_info	
Name	typeinfo name for QXmlDefaultHandler	
flags:	0	
basetype:	typeinfo for QXmlContentHandler	2
basetype:	typeinfo for QXmlErrorHandler	1026
basetype:	typeinfo for QXmlErrorHandler	2050
basetype:	typeinfo for QXmlErrorHandler	1026
basetype:	typeinfo for QXmlErrorHandler	2050

basetype:	typeinfo for QDomErrorHandler	1026

18.2.29.17. Class data for QDomNotation

The virtual table for the QDomNotation class is described by [Table 18-599](#)

Table 18-599. Primary vtable for QDomNotation

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomNotation
vfunc[0]:	QDomNotation::~~QDomNotation()
vfunc[1]:	QDomNotation::~~QDomNotation()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomNotation::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const

vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNotation::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const

The Run Time Type Information for the QDomNotation class is described by [Table 18-600](#)

Table 18-600. typeinfo for QDomNotation

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomNotation
basetype:	typeinfo for QDomNode

18.2.29.18. Class data for QXmlSimpleReader

The virtual table for the QXmlSimpleReader class is described by [Table 18-601](#)

Table 18-601. Primary vtable for QXmlSimpleReader

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlSimpleReader

vfunc[0]:	QXmlSimpleReader::feature(QString const&, bool*) const
vfunc[1]:	QXmlSimpleReader::setFeature(QString const&, bool)
vfunc[2]:	QXmlSimpleReader::hasFeature(QString const&) const
vfunc[3]:	QXmlSimpleReader::property(QString const&, bool*) const
vfunc[4]:	QXmlSimpleReader::setProperty(QString const&, void*)
vfunc[5]:	QXmlSimpleReader::hasProperty(QString const&) const
vfunc[6]:	QXmlSimpleReader::setEntityResolver(QXmlEntityResolver*)
vfunc[7]:	QXmlSimpleReader::entityResolver() const
vfunc[8]:	QXmlSimpleReader::setDTDHandler(QXmlDTDHandler*)
vfunc[9]:	QXmlSimpleReader::DTDHandler() const
vfunc[10]:	QXmlSimpleReader::setContentHandler(QXmlContentHandler*)
vfunc[11]:	QXmlSimpleReader::contentHandler() const
vfunc[12]:	QXmlSimpleReader::setErrorHandler(QXmlErrorHandler*)
vfunc[13]:	QXmlSimpleReader::errorHandler() const
vfunc[14]:	QXmlSimpleReader::setLexicalHandler(QXmlLexicalHandler*)
vfunc[15]:	QXmlSimpleReader::lexicalHandler() const
vfunc[16]:	QXmlSimpleReader::setDeclHandler(QXmlDeclHandler*)
vfunc[17]:	QXmlSimpleReader::declHandler() const
vfunc[18]:	QXmlSimpleReader::parse(QXmlInputSource const&)
vfunc[19]:	QXmlSimpleReader::parse(QXmlInputSource const*)
vfunc[20]:	QXmlSimpleReader::~~QXmlSimpleReader()
vfunc[21]:	QXmlSimpleReader::~QXmlSimpleReader()
vfunc[22]:	QXmlSimpleReader::parse(QXmlInputSource const*, bool)
vfunc[23]:	QXmlSimpleReader::parseContinue()

The Run Time Type Information for the QXmlSimpleReader class is described by [Table 18-602](#)

Table 18-602. typeid for QXmlSimpleReader

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QXmlSimpleReader
basetype:	typeid for QXmlReader

18.2.29.19. Class data for QXmlLexicalHandler

The virtual table for the QXmlLexicalHandler class is described by [Table 18-603](#)

Table 18-603. Primary vtable for QXmlLexicalHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlLexicalHandler
vfunc[0]:	__cxa_pure_virtual
vfunc[1]:	__cxa_pure_virtual
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlLexicalHandler class is described by [Table 18-604](#)

Table 18-604. typeinfo for QXmlLexicalHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlLexicalHandler

18.2.29.20. Class data for QXmlAttributes

The virtual table for the QXmlAttributes class is described by [Table 18-605](#)

Table 18-605. Primary vtable for QXmlAttributes

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlAttributes
vfunc[0]:	NULL or QXmlAttributes::~~QXmlAttributes()
vfunc[1]:	NULL or QXmlAttributes::~~QXmlAttributes()

The Run Time Type Information for the QXmlAttributes class is described by [Table 18-606](#)

Table 18-606. typeid for QDomAttributes

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QDomAttributes

18.2.29.21. Class data for QDomProcessingInstruction

The virtual table for the QDomProcessingInstruction class is described by [Table 18-607](#)

Table 18-607. Primary vtable for QDomProcessingInstruction

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QDomProcessingInstruction
vfunc[0]:	QDomProcessingInstruction::~~QDomProcessingInstruction()
vfunc[1]:	QDomProcessingInstruction::~~QDomProcessingInstruction()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomProcessingInstruction::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const

vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomProcessingInstruction::isProcessingInstruction() const
vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const
vfunc[41]:	QDomProcessingInstruction::target() const
vfunc[42]:	QDomProcessingInstruction::data() const
vfunc[43]:	QDomProcessingInstruction::setData(QString const&)

The Run Time Type Information for the QDomProcessingInstruction class is described by [Table 18-608](#)

Table 18-608. typeinfo for QDomProcessingInstruction

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomProcessingInstruction
basetype:	typeinfo for QDomNode

18.2.29.22. Class data for QXmlContentHandler

The virtual table for the QXmlContentHandler class is described by [Table 18-609](#)

Table 18-609. Primary vtable for QXmlContentHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlContentHandler
vfunc[0]:	__cxa_pure_virtual
vfunc[1]:	__cxa_pure_virtual
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual
vfunc[4]:	__cxa_pure_virtual
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	__cxa_pure_virtual
vfunc[7]:	__cxa_pure_virtual
vfunc[8]:	__cxa_pure_virtual
vfunc[9]:	__cxa_pure_virtual
vfunc[10]:	__cxa_pure_virtual
vfunc[11]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlContentHandler class is described by [Table 18-610](#)

Table 18-610. typeinfo for QXmlContentHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlContentHandler

18.2.29.23. Class data for QDomEntityReference

The virtual table for the QDomEntityReference class is described by [Table 18-611](#)

Table 18-611. Primary vtable for QDomEntityReference

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomEntityReference

vfunc[0]:	QDomEntityReference::~QDomEntityReference()
vfunc[1]:	QDomEntityReference::~QDomEntityReference()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomEntityReference::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const

vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomEntityReference::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const

The Run Time Type Information for the QDomEntityReference class is described by [Table 18-612](#)

Table 18-612. typeinfo for QDomEntityReference

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomEntityReference
basetype:	typeinfo for QDomNode

18.2.29.24. Class data for QDomCDATASection

The virtual table for the QDomCDATASection class is described by [Table 18-613](#)

Table 18-613. Primary vtable for QDomCDATASection

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomCDATASection
vfunc[0]:	QDomCDATASection::~~QDomCDATASection()
vfunc[1]:	QDomCDATASection::~~QDomCDATASection()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()

vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomCDATASection::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const
vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomCDATASection::isCDATASection() const
vfunc[30]:	QDomNode::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomText::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomCharacterData::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const
vfunc[41]:	QDomCharacterData::substringData(unsigned long, unsigned long)
vfunc[42]:	QDomCharacterData::appendData(QString const&)

vfunc[43]:	QDomCharacterData::insertData(unsigned long, QString const&)
vfunc[44]:	QDomCharacterData::deleteData(unsigned long, unsigned long)
vfunc[45]:	QDomCharacterData::replaceData(unsigned long, unsigned long, QString const&)
vfunc[46]:	QDomCharacterData::length() const
vfunc[47]:	QDomCharacterData::data() const
vfunc[48]:	QDomCharacterData::setData(QString const&)

The Run Time Type Information for the QDomCDATASection class is described by [Table 18-614](#)

Table 18-614. typeinfo for QDomCDATASection

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDomCDATASection
basetype:	typeinfo for QDomText

18.2.29.25. Class data for QDomDTDHandler

The virtual table for the QDomDTDHandler class is described by [Table 18-615](#)

Table 18-615. Primary vtable for QDomDTDHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDomDTDHandler
vfunc[0]:	__cxa_pure_virtual
vfunc[1]:	__cxa_pure_virtual
vfunc[2]:	__cxa_pure_virtual

The Run Time Type Information for the QDomDTDHandler class is described by [Table 18-616](#)

Table 18-616. typeinfo for QDomDTDHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QDomDTDHandler

18.2.29.26. Class data for QDomInputSource

The virtual table for the QDomInputSource class is described by [Table 18-617](#)

Table 18-617. Primary vtable for QXmlInputSource

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlInputSource
vfunc[0]:	QXmlInputSource::~~QXmlInputSource()
vfunc[1]:	QXmlInputSource::~~QXmlInputSource()
vfunc[2]:	QXmlInputSource::setData(QString const&)
vfunc[3]:	QXmlInputSource::setData(QMemArray<char> const&)
vfunc[4]:	QXmlInputSource::fetchData()
vfunc[5]:	QXmlInputSource::data()
vfunc[6]:	QXmlInputSource::next()
vfunc[7]:	QXmlInputSource::reset()
vfunc[8]:	QXmlInputSource::fromRawData(QMemArray<char> const&, bool)

The Run Time Type Information for the QXmlInputSource class is described by [Table 18-618](#)

Table 18-618. typeinfo for QXmlInputSource

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QXmlInputSource

18.2.29.27. Class data for QXmlErrorHandler

The virtual table for the QXmlErrorHandler class is described by [Table 18-619](#)

Table 18-619. Primary vtable for QXmlErrorHandler

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QXmlErrorHandler
vfunc[0]:	__cxa_pure_virtual
vfunc[1]:	__cxa_pure_virtual
vfunc[2]:	__cxa_pure_virtual
vfunc[3]:	__cxa_pure_virtual

The Run Time Type Information for the QXmlErrorHandler class is described by [Table 18-620](#)

Table 18-620. typeid for QDomErrorHandler

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeid name for QDomErrorHandler

18.2.29.28. Class data for QDomDocumentFragment

The virtual table for the QDomDocumentFragment class is described by [Table 18-621](#)

Table 18-621. Primary vtable for QDomDocumentFragment

Base Offset	0
Virtual Base Offset	0
RTTI	typeid for QDomDocumentFragment
vfunc[0]:	QDomDocumentFragment::~~QDomDocumentFragment()
vfunc[1]:	QDomDocumentFragment::~~QDomDocumentFragment()
vfunc[2]:	QDomNode::insertBefore(QDomNode const&, QDomNode const&)
vfunc[3]:	QDomNode::insertAfter(QDomNode const&, QDomNode const&)
vfunc[4]:	QDomNode::replaceChild(QDomNode const&, QDomNode const&)
vfunc[5]:	QDomNode::removeChild(QDomNode const&)
vfunc[6]:	QDomNode::appendChild(QDomNode const&)
vfunc[7]:	QDomNode::hasChildNodes() const
vfunc[8]:	QDomNode::cloneNode(bool) const
vfunc[9]:	QDomNode::normalize()
vfunc[10]:	QDomNode::isSupported(QString const&, QString const&) const
vfunc[11]:	QDomNode::nodeName() const
vfunc[12]:	QDomDocumentFragment::nodeType() const
vfunc[13]:	QDomNode::parentNode() const
vfunc[14]:	QDomNode::childNodes() const
vfunc[15]:	QDomNode::firstChild() const
vfunc[16]:	QDomNode::lastChild() const
vfunc[17]:	QDomNode::previousSibling() const
vfunc[18]:	QDomNode::nextSibling() const
vfunc[19]:	QDomNode::attributes() const
vfunc[20]:	QDomNode::ownerDocument() const

vfunc[21]:	QDomNode::namespaceURI() const
vfunc[22]:	QDomNode::localName() const
vfunc[23]:	QDomNode::hasAttributes() const
vfunc[24]:	QDomNode::nodeValue() const
vfunc[25]:	QDomNode::setNodeValue(QString const&)
vfunc[26]:	QDomNode::prefix() const
vfunc[27]:	QDomNode::setPrefix(QString const&)
vfunc[28]:	QDomNode::isAttr() const
vfunc[29]:	QDomNode::isCDATASection() const
vfunc[30]:	QDomDocumentFragment::isDocumentFragment() const
vfunc[31]:	QDomNode::isDocument() const
vfunc[32]:	QDomNode::isDocumentType() const
vfunc[33]:	QDomNode::isElement() const
vfunc[34]:	QDomNode::isEntityReference() const
vfunc[35]:	QDomNode::isText() const
vfunc[36]:	QDomNode::isEntity() const
vfunc[37]:	QDomNode::isNotation() const
vfunc[38]:	QDomNode::isProcessingInstruction() const
vfunc[39]:	QDomNode::isCharacterData() const
vfunc[40]:	QDomNode::isComment() const

The Run Time Type Information for the QDomDocumentFragment class is described by [Table 18-622](#)

Table 18-622. typeid for QDomDocumentFragment

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QDomDocumentFragment
basetype:	typeid for QDomNode

18.2.29.29. Interfaces for Qt3 XML

An LSB conforming implementation shall provide the generic functions for Qt3 XML specified in [Table 18-623](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-623. libqt-mt - Qt3 XML Function Interfaces

_ZN10QDomEntityC1EP17QDomEntityPrivate [qt-mt]	_ZN10QDomEntityC

_ZN10QDomEntityC1Ev [qt-mt]	_ZN10QDomEntityC
ZN10QDomEntityC2ERKS [qt-mt]	_ZN10QDomEntityC
_ZN10QDomEntityD0Ev [qt-mt]	_ZN10QDomEntityD
_ZN10QDomEntityD2Ev [qt-mt]	_ZN10QDomEntitya
_ZN11QDomCommentC1EP18QDomCommentPrivate [qt-mt]	_ZN11QDomComme
_ZN11QDomCommentC1Ev [qt-mt]	_ZN11QDomComme
ZN11QDomCommentC2ERKS [qt-mt]	_ZN11QDomComme
_ZN11QDomCommentD0Ev [qt-mt]	_ZN11QDomComme
_ZN11QDomCommentD2Ev [qt-mt]	_ZN11QDomComme
_ZN11QDomElement10setTagNameERK7QString [qt-mt]	_ZN11QDomElemen
_ZN11QDomElement12setAttributeERK7QStringd [qt-mt]	_ZN11QDomElemen
_ZN11QDomElement12setAttributeERK7QStringj [qt-mt]	_ZN11QDomElemen
_ZN11QDomElement12setAttributeERK7QStringgm [qt-mt]	_ZN11QDomElemen
_ZN11QDomElement14setAttributeNSE7QStringRKS0_S2_ [qt-mt]	_ZN11QDomElemen
_ZN11QDomElement14setAttributeNSE7QStringRKS0_i [qt-mt]	_ZN11QDomElemen
_ZN11QDomElement14setAttributeNSE7QStringRKS0_l [qt-mt]	_ZN11QDomElemen
ZN11QDomElement15attributeNodeNSERK7QStringS2 [qt-mt]	_ZN11QDomElemen
_ZN11QDomElement16setAttributeNodeERK8QDomAttr [qt-mt]	_ZN11QDomElemen
_ZN11QDomElement18setAttributeNodeNSERK8QDomAttr [qt-mt]	_ZN11QDomElemen
_ZN11QDomElementC1EP18QDomElementPrivate [qt-mt]	_ZN11QDomElemen
_ZN11QDomElementC1Ev [qt-mt]	_ZN11QDomElemen
ZN11QDomElementC2ERKS [qt-mt]	_ZN11QDomElemen
_ZN11QDomElementD0Ev [qt-mt]	_ZN11QDomElemen
_ZN11QDomElementD2Ev [qt-mt]	_ZN11QDomElemen
_ZN11QXmlLocatorC1Ev [qt-mt]	_ZN11QXmlLocato
_ZN11QXmlLocatorD0Ev [qt-mt]	_ZN11QXmlLocato
_ZN11QXmlLocatorD2Ev [qt-mt]	_ZN12QDomDocum
ZN12QDomDocument10setContentEP15QXmlInputSourceP10QXmlReaderP7QStringPiS6 [qt-mt]	_ZN12QDomDocum
ZN12QDomDocument10setContentEP9QIODevicebP7QStringPiS4 [qt-mt]	_ZN12QDomDocum
_ZN12QDomDocument10setContentERK7QStringbPS0_PiS4_ [qt-mt]	_ZN12QDomDocum
ZN12QDomDocument10setContentERK8QCStringbP7QStringPiS5 [qt-mt]	_ZN12QDomDocum
ZN12QDomDocument10setContentERK9QMemArrayIcEbP7QStringPiS6 [qt-mt]	_ZN12QDomDocum

_ZN12QDomDocument13createCommentERK7QString [qt-mt]	_ZN12QDomDocum
_ZN12QDomDocument14createTextNodeERK7QString [qt-mt]	_ZN12QDomDocum
ZN12QDomDocument15createElementNSERK7QStringS2 [qt-mt]	_ZN12QDomDocum
_ZN12QDomDocument18createCDATASectionERK7QString [qt-mt]	_ZN12QDomDocum
_ZN12QDomDocument21createEntityReferenceERK7QString [qt-mt]	_ZN12QDomDocum
ZN12QDomDocument27createProcessingInstructionERK7QStringS2 [qt-mt]	_ZN12QDomDocum
_ZN12QDomDocumentC1ERK16QDomDocumentType [qt-mt]	_ZN12QDomDocum
ZN12QDomDocumentC1ERKS [qt-mt]	_ZN12QDomDocum
_ZN12QDomDocumentC2EP19QDomDocumentPrivate [qt-mt]	_ZN12QDomDocum
_ZN12QDomDocumentC2ERK7QString [qt-mt]	_ZN12QDomDocum
_ZN12QDomDocumentC2Ev [qt-mt]	_ZN12QDomDocum
_ZN12QDomDocumentD1Ev [qt-mt]	_ZN12QDomDocum
ZN12QDomDocumentaSERKS [qt-mt]	_ZN12QDomNodeLi
ZN12QDomNodeListC1ERKS [qt-mt]	_ZN12QDomNodeLi
_ZN12QDomNodeListC2EP19QDomNodeListPrivate [qt-mt]	_ZN12QDomNodeLi
_ZN12QDomNodeListC2Ev [qt-mt]	_ZN12QDomNodeLi
_ZN12QDomNodeListD1Ev [qt-mt]	_ZN12QDomNodeLi
ZN12QDomNodeListaSERKS [qt-mt]	_ZN12QDomNotatio
ZN12QDomNotationC1ERKS [qt-mt]	_ZN12QDomNotatio
_ZN12QDomNotationC2EP19QDomNotationPrivate [qt-mt]	_ZN12QDomNotatio
_ZN12QDomNotationC2Ev [qt-mt]	_ZN12QDomNotatio
_ZN12QDomNotationD1Ev [qt-mt]	_ZN12QDomNotatio
ZN12QDomNotationaSERKS [qt-mt]	_ZN14QXmlAttribut
_ZN14QXmlAttributes6appendERK7QStringS2_S2_S2_ [qt-mt]	_ZN15QXmlInputSo
_ZN15QXmlInputSource4dataEv [qt-mt]	_ZN15QXmlInputSo
_ZN15QXmlInputSource4nextEv [qt-mt]	_ZN15QXmlInputSo
_ZN15QXmlInputSource7setDataERK7QString [qt-mt]	_ZN15QXmlInputSo
_ZN15QXmlInputSource9fetchDataEv [qt-mt]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceC1ER11QTextStream [qt-mt]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceC1Ev [qt-mt]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceC2ER11QTextStream [qt-mt]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceC2Ev [qt-mt]	_ZN15QXmlInputSo
_ZN15QXmlInputSourceD1Ev [qt-mt]	_ZN15QXmlInputSo

_ZN16QDomCDATASectionC1EP23QDomCDATASectionPrivate [qt-mt]	_ZN16QDomCDATASectionC1EP23QDomCDATASectionPrivate [qt-mt]
_ZN16QDomCDATASectionC1Ev [qt-mt]	_ZN16QDomCDATASectionC1Ev [qt-mt]
ZN16QDomCDATASectionC2ERKS [qt-mt]	_ZN16QDomCDATASectionC2ERKS_ [qt-mt]
_ZN16QDomCDATASectionD0Ev [qt-mt]	_ZN16QDomCDATASectionD0Ev [qt-mt]
_ZN16QDomCDATASectionD2Ev [qt-mt]	_ZN16QDomCDATASectionD2Ev [qt-mt]
_ZN16QDomDocumentTypeC1EP23QDomDocumentTypePrivate [qt-mt]	_ZN16QDomDocumentTypeC1EP23QDomDocumentTypePrivate [qt-mt]
_ZN16QDomDocumentTypeC1Ev [qt-mt]	_ZN16QDomDocumentTypeC1Ev [qt-mt]
ZN16QDomDocumentTypeC2ERKS [qt-mt]	_ZN16QDomDocumentTypeC2ERKS_ [qt-mt]
_ZN16QDomDocumentTypeD0Ev [qt-mt]	_ZN16QDomDocumentTypeD0Ev [qt-mt]
_ZN16QDomDocumentTypeD2Ev [qt-mt]	_ZN16QDomDocumentTypeD2Ev [qt-mt]
_ZN16QDomNamedNodeMap12setNamedItemERK8QDomNode [qt-mt]	_ZN16QDomNamedNodeMap12setNamedItemERK8QDomNode [qt-mt]
_ZN16QDomNamedNodeMap15removeNamedItemERK7QString [qt-mt]	_ZN16QDomNamedNodeMap15removeNamedItemERK7QString [qt-mt]
_ZN16QDomNamedNodeMapC1EP23QDomNamedNodeMapPrivate [qt-mt]	_ZN16QDomNamedNodeMapC1EP23QDomNamedNodeMapPrivate [qt-mt]
_ZN16QDomNamedNodeMapC1Ev [qt-mt]	_ZN16QDomNamedNodeMapC1Ev [qt-mt]
ZN16QDomNamedNodeMapC2ERKS [qt-mt]	_ZN16QDomNamedNodeMapC2ERKS_ [qt-mt]
_ZN16QDomNamedNodeMapD1Ev [qt-mt]	_ZN16QDomNamedNodeMapD1Ev [qt-mt]
ZN16QDomNamedNodeMapaSERKS [qt-mt]	_ZN16QDomNamedNodeMapaSERKS_ [qt-mt]
_ZN16QXmlSimpleReader10stringAddCERK5QChar [qt-mt]	_ZN16QXmlSimpleReader10stringAddCERK5QChar [qt-mt]
_ZN16QXmlSimpleReader11parseFailedEMS_FbvEi [qt-mt]	_ZN16QXmlSimpleReader11parseFailedEMS_FbvEi [qt-mt]
_ZN16QXmlSimpleReader11parseStringEv [qt-mt]	_ZN16QXmlSimpleReader11parseStringEv [qt-mt]
_ZN16QXmlSimpleReader12insertXmlRefERK7QStringS2_b [qt-mt]	_ZN16QXmlSimpleReader12insertXmlRefERK7QStringS2_b [qt-mt]
_ZN16QXmlSimpleReader12parseCommentEv [qt-mt]	_ZN16QXmlSimpleReader12parseCommentEv [qt-mt]
_ZN16QXmlSimpleReader12parseDoctypeEv [qt-mt]	_ZN16QXmlSimpleReader12parseDoctypeEv [qt-mt]
_ZN16QXmlSimpleReader12parseNmtokenEv [qt-mt]	_ZN16QXmlSimpleReader12parseNmtokenEv [qt-mt]
_ZN16QXmlSimpleReader13parseContinueEv [qt-mt]	_ZN16QXmlSimpleReader13parseContinueEv [qt-mt]
_ZN16QXmlSimpleReader13unexpectedEofEMS_FbvEi [qt-mt]	_ZN16QXmlSimpleReader13unexpectedEofEMS_FbvEi [qt-mt]
_ZN16QXmlSimpleReader14parseChoiceSeqEv [qt-mt]	_ZN16QXmlSimpleReader14parseChoiceSeqEv [qt-mt]
_ZN16QXmlSimpleReader14pushParseStateEMS_FbvEi [qt-mt]	_ZN16QXmlSimpleReader14pushParseStateEMS_FbvEi [qt-mt]
_ZN16QXmlSimpleReader15parseEntityDeclEv [qt-mt]	_ZN16QXmlSimpleReader15parseEntityDeclEv [qt-mt]
_ZN16QXmlSimpleReader15parseMarkupdeclEv [qt-mt]	_ZN16QXmlSimpleReader15parseMarkupdeclEv [qt-mt]
_ZN16QXmlSimpleReader16parseAttlistDeclEv [qt-mt]	_ZN16QXmlSimpleReader16parseAttlistDeclEv [qt-mt]
_ZN16QXmlSimpleReader16parseEntityValueEv [qt-mt]	_ZN16QXmlSimpleReader16parseEntityValueEv [qt-mt]
_ZN16QXmlSimpleReader16processReferenceEv [qt-mt]	_ZN16QXmlSimpleReader16processReferenceEv [qt-mt]

_ZN16QXmlSimpleReader17parseNotationDeclEv [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader17setContentHandlerEP18QXmlContentHandler [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader17setLexicalHandlerEP18QXmlLexicalHandler [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader22processElementEmptyTagEv [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader24processElementETagBegin2Ev [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader4initEPK15QXmlInputSource [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader4nextEv [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader5parseEPK15QXmlInputSourceb [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader6eat_wsEv [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader7parsePIEv [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader8initDataEv [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReader9parseMiscEv [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReaderC1Ev [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReaderD0Ev [qt-mt]	_ZN16QXmlSimpleF
_ZN16QXmlSimpleReaderD2Ev [qt-mt]	_ZN17QDomCharact
_ZN17QDomCharacterData10deleteDataEmm [qt-mt]	_ZN17QDomCharact
_ZN17QDomCharacterData11replaceDataEmmRK7QString [qt-mt]	_ZN17QDomCharact
_ZN17QDomCharacterData7setDataERK7QString [qt-mt]	_ZN17QDomCharact
ZN17QDomCharacterDataC1ERKS [qt-mt]	_ZN17QDomCharact
_ZN17QDomCharacterDataC2EP24QDomCharacterDataPrivate [qt-mt]	_ZN17QDomCharact
_ZN17QDomCharacterDataC2Ev [qt-mt]	_ZN17QDomCharact
_ZN17QDomCharacterDataD1Ev [qt-mt]	_ZN17QDomCharact
ZN17QDomCharacterDataaSERKS [qt-mt]	_ZN18QDomImplem
_ZN18QDomImplementation14createDocumentERK7QStringS2_RK16QDomDocumentType [qt-mt]	_ZN18QDomImplem
_ZN18QDomImplementation6isNullEv [qt-mt]	_ZN18QDomImplem
ZN18QDomImplementationC1ERKS [qt-mt]	_ZN18QDomImplem
_ZN18QDomImplementationC2EP25QDomImplementationPrivate [qt-mt]	_ZN18QDomImplem
_ZN18QDomImplementationC2Ev [qt-mt]	_ZN18QDomImplem
_ZN18QDomImplementationD1Ev [qt-mt]	_ZN18QDomImplem
ZN18QDomImplementationaSERKS [qt-mt]	_ZN18QXmlDefault
_ZN18QXmlDefaultHandler10endElementERK7QStringS2_S2_ [qt-mt]	_ZN18QXmlDefault
_ZN18QXmlDefaultHandler10startCDATAEv [qt-mt]	_ZN18QXmlDefault

_ZN18QXmlDefaultHandler11errorStringEv [qt-mt]	_ZN18QXmlDefaultHandler11errorStringEv [qt-mt]
_ZN18QXmlDefaultHandler12notationDeclERK7QStringS2_S2_ [qt-mt]	_ZN18QXmlDefaultHandler12notationDeclERK7QStringS2_S2_ [qt-mt]
_ZN18QXmlDefaultHandler13attributeDeclERK7QStringS2_S2_S2_S2_ [qt-mt]	_ZN18QXmlDefaultHandler13attributeDeclERK7QStringS2_S2_S2_S2_ [qt-mt]
_ZN18QXmlDefaultHandler13skippedEntityERK7QString [qt-mt]	_ZN18QXmlDefaultHandler13skippedEntityERK7QString [qt-mt]
_ZN18QXmlDefaultHandler16endPrefixMappingERK7QString [qt-mt]	_ZN18QXmlDefaultHandler16endPrefixMappingERK7QString [qt-mt]
ZN18QXmlDefaultHandler18internalEntityDeclERK7QStringS2 [qt-mt]	_ZN18QXmlDefaultHandler18internalEntityDeclERK7QStringS2_ [qt-mt]
ZN18QXmlDefaultHandler18startPrefixMappingERK7QStringS2 [qt-mt]	_ZN18QXmlDefaultHandler18startPrefixMappingERK7QStringS2_ [qt-mt]
_ZN18QXmlDefaultHandler19ignorableWhitespaceERK7QString [qt-mt]	_ZN18QXmlDefaultHandler19ignorableWhitespaceERK7QString [qt-mt]
_ZN18QXmlDefaultHandler5errorERK18QXmlParseException [qt-mt]	_ZN18QXmlDefaultHandler5errorERK18QXmlParseException [qt-mt]
_ZN18QXmlDefaultHandler7commentERK7QString [qt-mt]	_ZN18QXmlDefaultHandler7commentERK7QString [qt-mt]
_ZN18QXmlDefaultHandler8endCDATAEv [qt-mt]	_ZN18QXmlDefaultHandler8endCDATAEv [qt-mt]
_ZN18QXmlDefaultHandler9endEntityERK7QString [qt-mt]	_ZN19QDomEntityReferenceC1ERKS_ [qt-mt]
ZN19QDomEntityReferenceC1ERKS [qt-mt]	_ZN19QDomEntityReferenceC2EP26QDomEntityReferencePrivate [qt-mt]
_ZN19QDomEntityReferenceC2EP26QDomEntityReferencePrivate [qt-mt]	_ZN19QDomEntityReferenceC2Ev [qt-mt]
_ZN19QDomEntityReferenceC2Ev [qt-mt]	_ZN19QDomEntityReferenceD1Ev [qt-mt]
_ZN19QDomEntityReferenceD1Ev [qt-mt]	_ZN19QDomEntityReferenceeaSERKS_ [qt-mt]
ZN19QDomEntityReferenceeaSERKS [qt-mt]	_ZN20QDomDocumentFragmentC1ERKS_ [qt-mt]
ZN20QDomDocumentFragmentC1ERKS [qt-mt]	_ZN20QDomDocumentFragmentC2EP27QDomDocumentFragmentPrivate [qt-mt]
_ZN20QDomDocumentFragmentC2EP27QDomDocumentFragmentPrivate [qt-mt]	_ZN20QDomDocumentFragmentC2Ev [qt-mt]
_ZN20QDomDocumentFragmentC2Ev [qt-mt]	_ZN20QDomDocumentFragmentD1Ev [qt-mt]
_ZN20QDomDocumentFragmentD1Ev [qt-mt]	_ZN20QDomDocumentFragmentaSERKS_ [qt-mt]
ZN20QDomDocumentFragmentaSERKS [qt-mt]	_ZN20QXmlNamespaceSupport11pushContextEv [qt-mt]
_ZN20QXmlNamespaceSupport11pushContextEv [qt-mt]	_ZN20QXmlNamespaceSupport9setPrefixERK7QStringS2_ [qt-mt]
ZN20QXmlNamespaceSupport9setPrefixERK7QStringS2 [qt-mt]	_ZN20QXmlNamespaceSupportC2Ev [qt-mt]
_ZN20QXmlNamespaceSupportC2Ev [qt-mt]	_ZN20QXmlNamespaceSupportD2Ev [qt-mt]
_ZN20QXmlNamespaceSupportD2Ev [qt-mt]	_ZN25QDomProcessingInstructionC1EP32QDomProcessingInstructionPrivate [qt-mt]
_ZN25QDomProcessingInstructionC1EP32QDomProcessingInstructionPrivate [qt-mt]	_ZN25QDomProcessingInstructionC1Ev [qt-mt]
_ZN25QDomProcessingInstructionC1Ev [qt-mt]	_ZN25QDomProcessingInstructionC2ERKS_ [qt-mt]
ZN25QDomProcessingInstructionC2ERKS [qt-mt]	_ZN25QDomProcessingInstructionD0Ev [qt-mt]
_ZN25QDomProcessingInstructionD0Ev [qt-mt]	_ZN25QDomProcessingInstructionD2Ev [qt-mt]
_ZN25QDomProcessingInstructionD2Ev [qt-mt]	

_ZN8QDomAttr8setValueERK7QString [qt-mt]	_ZN8QDomAttrC1E
ZN8QDomAttrC1ERKS [qt-mt]	_ZN8QDomAttrC1E
_ZN8QDomAttrC2EP15QDomAttrPrivate [qt-mt]	_ZN8QDomAttrC2E
_ZN8QDomAttrC2Ev [qt-mt]	_ZN8QDomAttrD0E
_ZN8QDomAttrD1Ev [qt-mt]	_ZN8QDomAttrD2E
ZN8QDomAttrasERKS [qt-mt]	_ZN8QDomNode10t
_ZN8QDomNode10toNotationEv [qt-mt]	_ZN8QDomNode11a
_ZN8QDomNode11insertAfterERKS_S1_ [qt-mt]	_ZN8QDomNode11r
_ZN8QDomNode12insertBeforeERKS_S1_ [qt-mt]	_ZN8QDomNode12r
_ZN8QDomNode12setNodeValueERK7QString [qt-mt]	_ZN8QDomNode14t
_ZN8QDomNode14toDocumentTypeEv [qt-mt]	_ZN8QDomNode15t
_ZN8QDomNode17toEntityReferenceEv [qt-mt]	_ZN8QDomNode18t
_ZN8QDomNode23toProcessingInstructionEv [qt-mt]	_ZN8QDomNode5cl
_ZN8QDomNode6toAttrEv [qt-mt]	_ZN8QDomNode6to
_ZN8QDomNode8toEntityEv [qt-mt]	_ZN8QDomNode9nc
_ZN8QDomNode9setPrefixERK7QString [qt-mt]	_ZN8QDomNode9to
_ZN8QDomNode9toElementEv [qt-mt]	_ZN8QDomNodeC1l
ZN8QDomNodeC1ERKS [qt-mt]	_ZN8QDomNodeC1l
_ZN8QDomNodeC2EP15QDomNodePrivate [qt-mt]	_ZN8QDomNodeC2l
_ZN8QDomNodeC2Ev [qt-mt]	_ZN8QDomNodeD0l
_ZN8QDomNodeD1Ev [qt-mt]	_ZN8QDomNodeD2l
ZN8QDomNodeasERKS [qt-mt]	_ZN8QDomText9spl
_ZN8QDomTextC1EP15QDomTextPrivate [qt-mt]	_ZN8QDomTextC1E
_ZN8QDomTextC1Ev [qt-mt]	_ZN8QDomTextC2E
ZN8QDomTextC2ERKS [qt-mt]	_ZN8QDomTextC2E
_ZN8QDomTextD0Ev [qt-mt]	_ZN8QDomTextD1E
_ZN8QDomTextD2Ev [qt-mt]	_ZN8QDomTextaSE
_ZNK10QDomEntity12notationNameEv [qt-mt]	_ZNK10QDomEntity
_ZNK10QDomEntity8nodeTypeEv [qt-mt]	_ZNK10QDomEntity
_ZNK10QDomEntity8systemIdEv [qt-mt]	_ZNK11QDomComr
_ZNK11QDomComment9isCommentEv [qt-mt]	_ZNK11QDomElem
_ZNK11QDomElement11attributeNSE7QStringRKS0_S2_ [qt-mt]	_ZNK11QDomElem
ZNK11QDomElement14hasAttributeNSERK7QStringS2 [qt-mt]	_ZNK11QDomElem

ZNK11QDomElement19elementsByTagNameNSERK7QStringS2 [qt-mt]	_ZNK11QDomElement19elementsByTagNameNSERK7QStringS2_ [qt-mt]
_ZNK11QDomElement7tagNameEv [qt-mt]	_ZNK11QDomElement7tagNameEv [qt-mt]
ZNK11QDomElement9attributeERK7QStringS2 [qt-mt]	_ZNK11QDomElement9attributeERK7QStringS2_ [qt-mt]
_ZNK12QDomDocument10isDocumentEv [qt-mt]	_ZNK12QDomDocument10isDocumentEv [qt-mt]
_ZNK12QDomDocument15documentElementEv [qt-mt]	_ZNK12QDomDocument15documentElementEv [qt-mt]
_ZNK12QDomDocument7doctypeEv [qt-mt]	_ZNK12QDomDocument7doctypeEv [qt-mt]
_ZNK12QDomDocument8toStringEi [qt-mt]	_ZNK12QDomDocument8toStringEi [qt-mt]
_ZNK12QDomDocument9toCStringEi [qt-mt]	_ZNK12QDomDocument9toCStringEi [qt-mt]
_ZNK12QDomNodeList4itemEi [qt-mt]	_ZNK12QDomNodeList4itemEi [qt-mt]
ZNK12QDomNodeListeqERKS [qt-mt]	_ZNK12QDomNodeListeqERKS_ [qt-mt]
_ZNK12QDomNotation10isNotationEv [qt-mt]	_ZNK12QDomNotation10isNotationEv [qt-mt]
_ZNK12QDomNotation8publicIdEv [qt-mt]	_ZNK12QDomNotation8publicIdEv [qt-mt]
_ZNK14QXmlAttributes3uriEi [qt-mt]	_ZNK14QXmlAttributes3uriEi [qt-mt]
ZNK14QXmlAttributes4typeERK7QStringS2 [qt-mt]	_ZNK14QXmlAttributes4typeERK7QStringS2_ [qt-mt]
_ZNK14QXmlAttributes5indexERK7QString [qt-mt]	_ZNK14QXmlAttributes5indexERK7QString [qt-mt]
_ZNK14QXmlAttributes5qNameEi [qt-mt]	_ZNK14QXmlAttributes5qNameEi [qt-mt]
ZNK14QXmlAttributes5valueERK7QStringS2 [qt-mt]	_ZNK14QXmlAttributes5valueERK7QStringS2_ [qt-mt]
_ZNK14QXmlAttributes6lengthEv [qt-mt]	_ZNK14QXmlAttributes6lengthEv [qt-mt]
_ZNK16QDomCDATASection14isCDATASectionEv [qt-mt]	_ZNK16QDomCDATASection14isCDATASectionEv [qt-mt]
_ZNK16QDomDocumentType14internalSubsetEv [qt-mt]	_ZNK16QDomDocumentType14internalSubsetEv [qt-mt]
_ZNK16QDomDocumentType4nameEv [qt-mt]	_ZNK16QDomDocumentType4nameEv [qt-mt]
_ZNK16QDomDocumentType8nodeTypeEv [qt-mt]	_ZNK16QDomDocumentType8nodeTypeEv [qt-mt]
_ZNK16QDomDocumentType8systemIdEv [qt-mt]	_ZNK16QDomDocumentType8systemIdEv [qt-mt]
ZNK16QDomNamedNodeMap11namedItemNSERK7QStringS2 [qt-mt]	_ZNK16QDomNamedNodeMap11namedItemNSERK7QStringS2_ [qt-mt]
_ZNK16QDomNamedNodeMap6lengthEv [qt-mt]	_ZNK16QDomNamedNodeMap6lengthEv [qt-mt]
_ZNK16QDomNamedNodeMap9namedItemERK7QString [qt-mt]	_ZNK16QDomNamedNodeMap9namedItemERK7QString [qt-mt]
ZNK16QDomNamedNodeMapneERKS [qt-mt]	_ZNK16QDomNamedNodeMapneERKS_ [qt-mt]
_ZNK16QXmlSimpleReader10hasFeatureERK7QString [qt-mt]	_ZNK16QXmlSimpleReader10hasFeatureERK7QString [qt-mt]
_ZNK16QXmlSimpleReader11entityExistERK7QString [qt-mt]	_ZNK16QXmlSimpleReader11entityExistERK7QString [qt-mt]
_ZNK16QXmlSimpleReader12errorHandlerEv [qt-mt]	_ZNK16QXmlSimpleReader12errorHandlerEv [qt-mt]
_ZNK16QXmlSimpleReader14entityResolverEv [qt-mt]	_ZNK16QXmlSimpleReader14entityResolverEv [qt-mt]
_ZNK16QXmlSimpleReader7featureERK7QStringPb [qt-mt]	_ZNK16QXmlSimpleReader7featureERK7QStringPb [qt-mt]
_ZNK17QDomCharacterData15isCharacterDataEv [qt-mt]	_ZNK17QDomCharacterData15isCharacterDataEv [qt-mt]

_ZNK17QDomCharacterData6lengthEv [qt-mt]	_ZNK17QDomChara
ZNK18QDomImplementationeqERKS [qt-mt]	_ZNK18QDomImple
_ZNK18QXmlParseException10lineNumberEv [qt-mt]	_ZNK18QXmlParseE
_ZNK18QXmlParseException7messageEv [qt-mt]	_ZNK18QXmlParseE
_ZNK18QXmlParseException8systemIdEv [qt-mt]	_ZNK19QDomEntity
_ZNK19QDomEntityReference8nodeTypeEv [qt-mt]	_ZNK20QDomDocu
_ZNK20QDomDocumentFragment8nodeTypeEv [qt-mt]	_ZNK20QXmlName
_ZNK20QXmlNamespaceSupport3uriERK7QString [qt-mt]	_ZNK20QXmlName
_ZNK20QXmlNamespaceSupport8prefixesERK7QString [qt-mt]	_ZNK20QXmlName
_ZNK20QXmlNamespaceSupport9splitNameERK7QStringRS0_S3_ [qt-mt]	_ZNK25QDomProce
_ZNK25QDomProcessingInstruction4dataEv [qt-mt]	_ZNK25QDomProce
_ZNK25QDomProcessingInstruction8nodeTypeEv [qt-mt]	_ZNK8QDomAttr12
_ZNK8QDomAttr4nameEv [qt-mt]	_ZNK8QDomAttr5v
_ZNK8QDomAttr6isAttrEv [qt-mt]	_ZNK8QDomAttr8n
_ZNK8QDomAttr9specifiedEv [qt-mt]	_ZNK8QDomNode1
_ZNK8QDomNode10childNodesEv [qt-mt]	_ZNK8QDomNode1
_ZNK8QDomNode10isDocumentEv [qt-mt]	_ZNK8QDomNode1
_ZNK8QDomNode10parentNodeEv [qt-mt]	_ZNK8QDomNode1
_ZNK8QDomNode11nextSiblingEv [qt-mt]	_ZNK8QDomNode1
_ZNK8QDomNode13hasAttributesEv [qt-mt]	_ZNK8QDomNode1
_ZNK8QDomNode13ownerDocumentEv [qt-mt]	_ZNK8QDomNode1
_ZNK8QDomNode14isDocumentTypeEv [qt-mt]	_ZNK8QDomNode1
_ZNK8QDomNode15previousSiblingEv [qt-mt]	_ZNK8QDomNode1
_ZNK8QDomNode18isDocumentFragmentEv [qt-mt]	_ZNK8QDomNode2
_ZNK8QDomNode4saveER11QTextStreami [qt-mt]	_ZNK8QDomNode6
_ZNK8QDomNode6isNullEv [qt-mt]	_ZNK8QDomNode6
_ZNK8QDomNode6prefixEv [qt-mt]	_ZNK8QDomNode8
_ZNK8QDomNode8nodeNameEv [qt-mt]	_ZNK8QDomNode8
_ZNK8QDomNode9cloneNodeEb [qt-mt]	_ZNK8QDomNode9
_ZNK8QDomNode9isElementEv [qt-mt]	_ZNK8QDomNode9
_ZNK8QDomNode9localNameEv [qt-mt]	_ZNK8QDomNode9
_ZNK8QDomNode9nodeValueEv [qt-mt]	_ZNK8QDomNodee
ZNK8QDomNodeneERKS [qt-mt]	_ZNK8QDomText6i

[_ZNK8QDomText8nodeTypeEv \[qt-mt\]](#)

An LSB conforming implementation shall provide the generic data interfaces for Qt3 XML specified in [Table 18-624](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-624. libqt-mt - Qt3 XML Data Interfaces

_ZN15QXmlInputSource13EndOfDocumentE [qt-mt]	_ZN15QXmlInputSource9EndOfDataE [qt-mt]
_ZTI10QDomEntity [CXXABI-1.86]	_ZTI10QXmlReader [CXXABI-1.86]
_ZTI11QDomComment [CXXABI-1.86]	_ZTI11QDomElement [CXXABI-1.86]
_ZTI11QXmlLocator [CXXABI-1.86]	_ZTI12QDomDocument [CXXABI-1.86]
_ZTI12QDomNodeList [CXXABI-1.86]	_ZTI12QDomNotation [CXXABI-1.86]
_ZTI14QXmlAttributes [CXXABI-1.86]	_ZTI14QXmlDTDHandler [CXXABI-1.86]
_ZTI15QXmlDeclHandler [CXXABI-1.86]	_ZTI15QXmlInputSource [CXXABI-1.86]
_ZTI16QDomCDATASection [CXXABI-1.86]	_ZTI16QDomDocumentType [CXXABI-1.86]
_ZTI16QXmlErrorHandler [CXXABI-1.86]	_ZTI16QXmlSimpleReader [CXXABI-1.86]
_ZTI17QDomCharacterData [CXXABI-1.86]	_ZTI18QDomImplementation [CXXABI-1.86]
_ZTI18QXmlContentHandler [CXXABI-1.86]	_ZTI18QXmlDefaultHandler [CXXABI-1.86]
_ZTI18QXmlEntityResolver [CXXABI-1.86]	_ZTI18QXmlLexicalHandler [CXXABI-1.86]
_ZTI19QDomEntityReference [CXXABI-1.86]	_ZTI20QDomDocumentFragment [CXXABI-1.86]
_ZTI25QDomProcessingInstruction [CXXABI-1.86]	_ZTI8QDomAttr [CXXABI-1.86]
_ZTI8QDomNode [CXXABI-1.86]	_ZTI8QDomText [CXXABI-1.86]
_ZTV10QDomEntity [CXXABI-1.86]	_ZTV10QXmlReader [CXXABI-1.86]
_ZTV11QDomComment [CXXABI-1.86]	_ZTV11QDomElement [CXXABI-1.86]
_ZTV11QXmlLocator [CXXABI-1.86]	_ZTV12QDomDocument [CXXABI-1.86]
_ZTV12QDomNodeList [CXXABI-1.86]	_ZTV12QDomNotation [CXXABI-1.86]
_ZTV14QXmlAttributes [CXXABI-1.86]	_ZTV14QXmlDTDHandler [CXXABI-1.86]
_ZTV15QXmlDeclHandler [CXXABI-1.86]	_ZTV15QXmlInputSource [CXXABI-1.86]
_ZTV16QDomCDATASection [CXXABI-1.86]	_ZTV16QDomDocumentType [CXXABI-1.86]
_ZTV16QXmlErrorHandler [CXXABI-1.86]	_ZTV16QXmlSimpleReader [CXXABI-1.86]
_ZTV17QDomCharacterData [CXXABI-1.86]	_ZTV18QDomImplementation [CXXABI-1.86]
_ZTV18QXmlContentHandler [CXXABI-1.86]	_ZTV18QXmlDefaultHandler [CXXABI-1.86]
_ZTV18QXmlEntityResolver [CXXABI-1.86]	_ZTV18QXmlLexicalHandler [CXXABI-1.86]
_ZTV19QDomEntityReference [CXXABI-1.86]	_ZTV20QDomDocumentFragment [CXXABI-1.86]
_ZTV25QDomProcessingInstruction [CXXABI-1.86]	_ZTV8QDomAttr [CXXABI-1.86]

[_ZTV8QDomNode \[CXXABI-1.86\]](#)[_ZTV8QDomText \[CXXABI-1.86\]](#)

18.2.30. Qt3 Namespace

18.2.30.1. Interfaces for Qt3 Namespace

No external functions are defined for libqt-mt - Qt3 Namespace in this part of the specification. See also the relevant architecture specific part of this specification.

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Namespace specified in [Table 18-625](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-625. libqt-mt - Qt3 Namespace Data Interfaces

[_ZTI2Qt \[CXXABI-1.86\]](#)

18.2.31. Qt3 Colors

18.2.31.1. Interfaces for Qt3 Colors

An LSB conforming implementation shall provide the generic functions for Qt3 Colors specified in [Table 18-626](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-626. libqt-mt - Qt3 Colors Function Interfaces

_ZN11QColorGroup8setBrushENS_9ColorRoleERK6QBrush [qt-mt]	_ZN11QColorGroup8setColorENS_9ColorRoleERK6QColor [qt-mt]
_ZN11QColorGroupC1ERK6QBrushS2_S2_S2_S2_S2_S2_S2_S2_S2_S2 [qt-mt]	_ZN11QColorGroupC1ERK6QColorS2_S2_S2_S2_S2_S2_S2_S2_S2 [qt-mt]
ZN11QColorGroupC1ERKS [qt-mt]	_ZN11QColorGroupC1Ev [qt-mt]
_ZN11QColorGroupC2ERK6QBrushS2_S2_S2_S2_S2_S2_S2_S2_S2_S2 [qt-mt]	_ZN11QColorGroupC2ERK6QColorS2_S2_S2_S2_S2_S2_S2_S2_S2 [qt-mt]
ZN11QColorGroupC2ERKS [qt-mt]	_ZN11QColorGroupC2Ev [qt-mt]
_ZN11QColorGroupD1Ev [qt-mt]	_ZN11QColorGroupD2Ev [qt-mt]
ZN11QColorGroupaSERKS [qt-mt]	_ZN6QColor10colorNamesEv [qt-mt]
_ZN6QColor10initializeEv [qt-mt]	_ZN6QColor12globalColorsEv [qt-mt]
_ZN6QColor12numBitPlanesEv [qt-mt]	_ZN6QColor13setNamedColorERK7QColor [qt-mt]
_ZN6QColor16initGlobalColorsEv [qt-mt]	_ZN6QColor17enterAllocContextEv [qt-mt]
_ZN6QColor17leaveAllocContextEv [qt-mt]	_ZN6QColor19currentAllocContextEv [qt-mt]
_ZN6QColor19destroyAllocContextEv [qt-mt]	_ZN6QColor19setSystemNamedColorEv [qt-mt]

_ZN6QColor5allocEi [qt-mt]	_ZN6QColor5allocEv [qt-mt]
_ZN6QColor6setHsvEiii [qt-mt]	_ZN6QColor6setRgbEiii [qt-mt]
_ZN6QColor6setRgbEj [qt-mt]	_ZN6QColor7cleanupEv [qt-mt]
_ZN6QColor8setPixelEj [qt-mt]	_ZN6QColor9maxColorsEv [qt-mt]
_ZN6QColorC1EPKc [qt-mt]	_ZN6QColorC1ERK7QString [qt-mt]
ZN6QColorC1ERKS [qt-mt]	_ZN6QColorC1EiiiNS_4SpecE [qt-mt]
_ZN6QColorC1Ejj [qt-mt]	_ZN6QColorC2EPKc [qt-mt]
_ZN6QColorC2ERK7QString [qt-mt]	_ZN6QColorC2ERKS_ [qt-mt]
_ZN6QColorC2EiiiNS_4SpecE [qt-mt]	_ZN6QColorC2Ejj [qt-mt]
ZN6QColoraSERKS [qt-mt]	_ZN8QPalette11setDisabledERK11QColorGroup [qt-mt]
_ZN8QPalette11setInactiveERK11QColorGroup [qt-mt]	_ZN8QPalette14directSetBrushENS_10ColorGroup [qt-mt]
_ZN8QPalette22backgroundRoleFromModeEN2Qt14BackgroundModeE [qt-mt]	_ZN8QPalette22foregroundRoleFromModeEN2Qt14BackgroundModeE [qt-mt]
_ZN8QPalette6detachEv [qt-mt]	_ZN8QPalette8isCopyOfERKS_ [qt-mt]
_ZN8QPalette8setBrushEN11QColorGroup9ColorRoleERK6QBrush [qt-mt]	_ZN8QPalette8setBrushENS_10ColorGroup9ColorRoleERK6QBrush [qt-mt]
_ZN8QPalette8setColorEN11QColorGroup9ColorRoleERK6QColor [qt-mt]	_ZN8QPalette8setColorENS_10ColorGroup9ColorRoleERK6QColor [qt-mt]
_ZN8QPalette9setActiveERK11QColorGroup [qt-mt]	_ZN8QPaletteC1ERK11QColorGroupS2_ [qt-mt]
_ZN8QPaletteC1ERK6QColor [qt-mt]	_ZN8QPaletteC1ERK6QColorS2_ [qt-mt]
ZN8QPaletteC1ERKS [qt-mt]	_ZN8QPaletteC1Ev [qt-mt]
_ZN8QPaletteC2ERK11QColorGroupS2_S2_ [qt-mt]	_ZN8QPaletteC2ERK6QColor [qt-mt]
ZN8QPaletteC2ERK6QColorS2 [qt-mt]	_ZN8QPaletteC2ERKS_ [qt-mt]
_ZN8QPaletteC2Ev [qt-mt]	_ZN8QPaletteD1Ev [qt-mt]
_ZN8QPaletteD2Ev [qt-mt]	_ZN8QPaletteaSERKS_ [qt-mt]
_ZNK11QColorGroup5brushENS_9ColorRoleE [qt-mt]	_ZNK11QColorGroup5colorENS_9ColorRoleE [qt-mt]
ZNK11QColorGroupeqERKS [qt-mt]	_ZNK6QColor3hsvEPiS0_S0_ [qt-mt]
_ZNK6QColor3rgbEPiS0_S0_ [qt-mt]	_ZNK6QColor4darkEi [qt-mt]
_ZNK6QColor4nameEv [qt-mt]	_ZNK6QColor5lightEi [qt-mt]
_ZNK6QColor5pixelEi [qt-mt]	_ZNK6QColor5pixelEv [qt-mt]
_ZNK6QColor7isDirtyEv [qt-mt]	_ZNK8QPalette11directBrushENS_10ColorGroup [qt-mt]
_ZNK8QPalette4copyEv [qt-mt]	_ZNK8QPalette5brushENS_10ColorGroup [qt-mt]
_ZNK8QPalette5colorENS_10ColorGroupEN11QColorGroup9ColorRoleE [qt-mt]	_ZNK8QPaletteeqERKS_ [qt-mt]

[\[qt-mt\]](#)

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Colors specified in [Table 18-627](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-627. libqt-mt - Qt3 Colors Data Interfaces

_ZN6QColor10color_initE [qt-mt]	_ZN6QColor10colormodelE [qt-mt]
_ZN6QColor12globals_initE [qt-mt]	

18.2.32. Qt3 Fonts

18.2.32.1. Interfaces for Qt3 Fonts

An LSB conforming implementation shall provide the generic functions for Qt3 Fonts specified in [Table 18-628](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-628. libqt-mt - Qt3 Fonts Function Interfaces

_ZN12QFontMetricsC1EPK8QPainter [qt-mt]	_ZN12QFontMetricsC1ERK8QPainter [qt-mt]
_ZN12QFontMetricsC1ERK5QFontNS0_6ScriptE [qt-mt]	_ZN12QFontMetricsC1ERK5QFontNS0_6ScriptE [qt-mt]
_ZN12QFontMetricsC2EPK8QPainter [qt-mt]	_ZN12QFontMetricsC2ERK8QPainter [qt-mt]
_ZN12QFontMetricsC2ERK5QFontNS0_6ScriptE [qt-mt]	_ZN12QFontMetricsC2ERK5QFontNS0_6ScriptE [qt-mt]
_ZN12QFontMetricsD1Ev [qt-mt]	_ZN12QFontMetricsD2Ev [qt-mt]
ZN12QFontMetricsaSERKS [qt-mt]	_ZN13QFontDatabase10pointSize [qt-mt]
_ZN13QFontDatabase10scriptNameEN5QFont6ScriptE [qt-mt]	_ZN13QFontDatabase11smooth [qt-mt]
_ZN13QFontDatabase11styleStringERK5QFont [qt-mt]	_ZN13QFontDatabase12scriptName [qt-mt]
_ZN13QFontDatabase13parseFontNameERK7QStringRS0_S3_ [qt-mt]	_ZN13QFontDatabase13standard [qt-mt]
_ZN13QFontDatabase14createDatabaseEv [qt-mt]	_ZN13QFontDatabase4font [qt-mt]
_ZN13QFontDatabase8findFontEN5QFont6ScriptEPK12QFontPrivateRK8QFontDefi [qt-mt]	_ZN13QFontDatabaseC1Ev [qt-mt]
_ZN13QFontDatabaseC2Ev [qt-mt]	_ZN5QFont10fromStringERK7QString [qt-mt]
_ZN5QFont10initializeEv [qt-mt]	_ZN5QFont10setRawMode [qt-mt]
_ZN5QFont10setRawNameERK7QString [qt-mt]	_ZN5QFont10setStretchEi [qt-mt]
_ZN5QFont10substituteERK7QString [qt-mt]	_ZN5QFont11defaultFontEv [qt-mt]
_ZN5QFont11setOverlineEb [qt-mt]	_ZN5QFont11substitutesERK7QString [qt-mt]
_ZN5QFont12setPixelSizeEi [qt-mt]	_ZN5QFont12setPointSizeEi [qt-mt]
_ZN5QFont12setStrikeOutEb [qt-mt]	

	_ZN5QFont12setStyleHintEN [qt-mt]
_ZN5QFont12setUnderlineEb [qt-mt]	_ZN5QFont12x11SetScreenE
_ZN5QFont13setFixedPitchEb [qt-mt]	_ZN5QFont13substitutionsEv
ZN5QFont14setDefaultFontERKS [qt-mt]	_ZN5QFont15cacheStatistics
_ZN5QFont16setStyleStrategyENS_13StyleStrategyE [qt-mt]	_ZN5QFont17setPixelSizeFlo
_ZN5QFont17setPointSizeFloatEf [qt-mt]	_ZN5QFont18insertSubstituti
_ZN5QFont18removeSubstitutionERK7QString [qt-mt]	_ZN5QFont19insertSubstituti [qt-mt]
_ZN5QFont6detachEv [qt-mt]	_ZN5QFont7cleanupEv [qt-m
_ZN5QFont9setFamilyERK7QString [qt-mt]	_ZN5QFont9setItalicEb [qt-n
_ZN5QFont9setWeightEi [qt-mt]	_ZN5QFontC1EP12QFontPri
_ZN5QFontC1ERK7QStringiib [qt-mt]	_ZN5QFontC1ERKS_ [qt-mt]
_ZN5QFontC1Ev [qt-mt]	_ZN5QFontC2EP12QFontPri
_ZN5QFontC2ERK7QStringiib [qt-mt]	_ZN5QFontC2ERKS_ [qt-mt]
_ZN5QFontC2Ev [qt-mt]	_ZN5QFontD1Ev [qt-mt]
_ZN5QFontD2Ev [qt-mt]	_ZN5QFontaSERKS_ [qt-mt]
_ZN9QFontInfoC1EPK8QPainter [qt-mt]	_ZN9QFontInfoC1ERK5QFo
_ZN9QFontInfoC1ERK5QFontNS0_6ScriptE [qt-mt]	_ZN9QFontInfoC1ERKS_ [q
_ZN9QFontInfoC2EPK8QPainter [qt-mt]	_ZN9QFontInfoC2ERK5QFo
_ZN9QFontInfoC2ERK5QFontNS0_6ScriptE [qt-mt]	_ZN9QFontInfoC2ERKS_ [q
_ZN9QFontInfoD1Ev [qt-mt]	_ZN9QFontInfoD2Ev [qt-mt]
ZN9QFontInfoaSERKS [qt-mt]	_ZNK12QFontMetrics11leftE
_ZNK12QFontMetrics11lineSpacingEv [qt-mt]	_ZNK12QFontMetrics11over
_ZNK12QFontMetrics12boundingRectE5QChar [qt-mt]	_ZNK12QFontMetrics12boun
_ZNK12QFontMetrics12boundingRectEiiiiRK7QStringiiPiPP10QTextParag [qt-mt]	_ZNK12QFontMetrics12righ
_ZNK12QFontMetrics12strikeOutPosEv [qt-mt]	_ZNK12QFontMetrics12unde
_ZNK12QFontMetrics14minLeftBearingEv [qt-mt]	_ZNK12QFontMetrics15min
_ZNK12QFontMetrics4sizeEiRK7QStringiiPiPP10QTextParag [qt-mt]	_ZNK12QFontMetrics5width
_ZNK12QFontMetrics5widthERK7QStringi [qt-mt]	_ZNK12QFontMetrics6ascen
_ZNK12QFontMetrics6heightEv [qt-mt]	_ZNK12QFontMetrics6inFor
_ZNK12QFontMetrics7descentEv [qt-mt]	_ZNK12QFontMetrics7leadin
_ZNK12QFontMetrics8maxWidthEv [qt-mt]	_ZNK12QFontMetrics9charV

_Znk12QFontMetrics9lineWidthEv [qt-mt]	_Znk13QFontDatabase10isS
Znk13QFontDatabase12isFixedPitchERK7QStringS2 [qt-mt]	_Znk13QFontDatabase16isE [qt-mt]
Znk13QFontDatabase18isSmoothlyScalableERK7QStringS2 [qt-mt]	_Znk13QFontDatabase4bold
Znk13QFontDatabase6italicERK7QStringS2 [qt-mt]	_Znk13QFontDatabase6styl
Znk13QFontDatabase6weightERK7QStringS2 [qt-mt]	_Znk13QFontDatabase8fam
_Znk13QFontDatabase8familiesEv [qt-mt]	_Znk5QFont10exactMatchE
_Znk5QFont10fixedPitchEv [qt-mt]	_Znk5QFont13deciPointSize
_Znk5QFont13defaultFamilyEv [qt-mt]	_Znk5QFont13styleStrategy
_Znk5QFont14lastResortFontEv [qt-mt]	_Znk5QFont14pointSizeFlo
_Znk5QFont16lastResortFamilyEv [qt-mt]	_Znk5QFont3keyEv [qt-mt]
_Znk5QFont5dirtyEv [qt-mt]	_Znk5QFont6familyEv [qt-r
_Znk5QFont6handleEv [qt-mt]	_Znk5QFont6italicEv [qt-m
_Znk5QFont6weightEv [qt-mt]	_Znk5QFont7rawModeEv [q
_Znk5QFont7rawNameEv [qt-mt]	_Znk5QFont7resolveERKS_
_Znk5QFont7stretchEv [qt-mt]	_Znk5QFont8isCopyOfERK
_Znk5QFont8overlineEv [qt-mt]	_Znk5QFont8toStringEv [qt
_Znk5QFont9pixelSizeEv [qt-mt]	_Znk5QFont9pointSizeEv [q
_Znk5QFont9strikeOutEv [qt-mt]	_Znk5QFont9styleHintEv [q
_Znk5QFont9underlineEv [qt-mt]	_Znk5QFont9x11ScreenEv [
Znk5QFonteqERKS [qt-mt]	_Znk5QFontneERKS_ [qt-m
_Znk9QFontInfo10exactMatchEv [qt-mt]	_Znk9QFontInfo10fixedPitc
_Znk9QFontInfo6familyEv [qt-mt]	_Znk9QFontInfo6italicEv [q
_Znk9QFontInfo6weightEv [qt-mt]	_Znk9QFontInfo7rawModel
_Znk9QFontInfo8overlineEv [qt-mt]	_Znk9QFontInfo9pixelSizeE
_Znk9QFontInfo9pointSizeEv [qt-mt]	_Znk9QFontInfo9strikeOutE
_Znk9QFontInfo9styleHintEv [qt-mt]	_Znk9QFontInfo9underline

18.2.33. Qt3 2D Graphics

18.2.33.1. Class data for QIconSet

The virtual table for the QIconSet class is described by [Table 18-629](#)

Table 18-629. Primary vtable for QIconSet

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIconSet
vfunc[0]:	QIconSet::~~QIconSet()
vfunc[1]:	QIconSet::~~QIconSet()
vfunc[2]:	QIconSet::setPixmap(QPixmap const&, QIconSet::Size, QIconSet::Mode, QIconSet::State)
vfunc[3]:	QIconSet::setPixmap(QString const&, QIconSet::Size, QIconSet::Mode, QIconSet::State)

The Run Time Type Information for the QIconSet class is described by [Table 18-630](#)

Table 18-630. typeinfo for QIconSet

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QIconSet

18.2.33.2. Interfaces for Qt3 2D Graphics

An LSB conforming implementation shall provide the generic functions for Qt3 2D Graphics specified in [Table 18-631](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-631. libqt-mt - Qt3 2D Graphics Function Interfaces

_ZN4QPen11setCapStyleEN2Qt11PenCapStyleE [qt-mt]	_ZN4QPen12setJoinStyleE [qt-mt]
_ZN4QPen4initERK6QColorjj [qt-mt]	_ZN4QPen6detachEv [qt-mt]
_ZN4QPen8setColorERK6QColor [qt-mt]	_ZN4QPen8setStyleEN2Qt8PenStyleE [qt-mt]
_ZN4QPen8setWidthEj [qt-mt]	_ZN4QPenC1EN2Qt8PenStyleE [qt-mt]
_ZN4QPenC1ERK6QColorjN2Qt8PenStyleE [qt-mt]	_ZN4QPenC1ERK6QColorjN2Qt8PenStyleE [qt-mt]
ZN4QPenC1ERKS [qt-mt]	_ZN4QPenC1Ev [qt-mt]
_ZN4QPenC2EN2Qt8PenStyleE [qt-mt]	_ZN4QPenC2ERK6QColorjN2Qt8PenStyleE [qt-mt]
_ZN4QPenC2ERK6QColorjN2Qt8PenStyleENS3_11PenCapStyleENS3_12PenJoinStyleE [qt-mt]	_ZN4QPenC2ERKS_ [qt-mt]
_ZN4QPenC2Ev [qt-mt]	_ZN4QPenD1Ev [qt-mt]
_ZN4QPenD2Ev [qt-mt]	_ZN4QPenD2Ev [qt-mt]
_ZN5QRect10moveBottomEi [qt-mt]	_ZN5QRect10moveCenterEi [qt-mt]

_ZN5QRect10setTopLeftERK6QPoint [qt-mt]	_ZN5QRect11moveTopL
_ZN5QRect11setTopRightERK6QPoint [qt-mt]	_ZN5QRect12moveTopR
_ZN5QRect13setBottomLeftERK6QPoint [qt-mt]	_ZN5QRect14moveBott
_ZN5QRect14setBottomRightERK6QPoint [qt-mt]	_ZN5QRect15moveBott
_ZN5QRect6moveByEii [qt-mt]	_ZN5QRect7moveTopEi
_ZN5QRect7setRectEiiii [qt-mt]	_ZN5QRect7setSizeERK
_ZN5QRect8moveLeftEi [qt-mt]	_ZN5QRect8setWidthEi
_ZN5QRect9addCoordsEiiii [qt-mt]	_ZN5QRect9moveRightl
_ZN5QRect9setCoordsEiiii [qt-mt]	_ZN5QRect9setHeightEi
_ZN5QRectC1ERK6QPointRK5QSize [qt-mt]	_ZN5QRectC1ERK6QP
_ZN5QRectC2ERK6QPointRK5QSize [qt-mt]	_ZN5QRectC2ERK6QP
ZN5QRectaNERKS [qt-mt]	_ZN5QRectoRERKS_ [q
_ZN5QSize16warningDivByZeroEv [qt-mt]	_ZN5QSize5scaleERKS_
_ZN5QSize5scaleEiiNS_9ScaleModeE [qt-mt]	_ZN5QSize9transposeEv
_ZN6QBrush4initERK6QColorN2Qt10BrushStyleE [qt-mt]	_ZN6QBrush6detachEv [
_ZN6QBrush8setColorERK6QColor [qt-mt]	_ZN6QBrush8setStyleE
_ZN6QBrush9setPixmapERK7QPixmap [qt-mt]	_ZN6QBrushC1EN2Qt1
_ZN6QBrushC1ERK6QColorN2Qt10BrushStyleE [qt-mt]	_ZN6QBrushC1ERK6Q
ZN6QBrushC1ERKS [qt-mt]	_ZN6QBrushC1Ev [qt-m
_ZN6QBrushC2EN2Qt10BrushStyleE [qt-mt]	_ZN6QBrushC2ERK6Q
_ZN6QBrushC2ERK6QColorRK7QPixmap [qt-mt]	_ZN6QBrushC2ERKS_ [
_ZN6QBrushC2Ev [qt-mt]	_ZN6QBrushD1Ev [qt-m
_ZN6QBrushD2Ev [qt-mt]	_ZN6QBrushaSERKS_ [
_ZN6QPoint16warningDivByZeroEv [qt-mt]	_ZN7QRegion4execERK
_ZN7QRegion6detachEv [qt-mt]	_ZN7QRegion8setRects
_ZN7QRegion9translateEii [qt-mt]	_ZN7QRegionC1ERK11
_ZN7QRegionC1ERK5QRectNS_10RegionTypeE [qt-mt]	_ZN7QRegionC1ERK7Q
ZN7QRegionC1ERKS [qt-mt]	_ZN7QRegionC1Eb [qt-
_ZN7QRegionC1EiiiiNS_10RegionTypeE [qt-mt]	_ZN7QRegionC1Ev [qt-
_ZN7QRegionC2ERK11QPointArrayb [qt-mt]	_ZN7QRegionC2ERK5Q
_ZN7QRegionC2ERK7QBitmap [qt-mt]	_ZN7QRegionC2ERKS_
_ZN7QRegionC2Eb [qt-mt]	_ZN7QRegionC2EiiiiNS
_ZN7QRegionC2Ev [qt-mt]	_ZN7QRegionD1Ev [qt-

_ZN7QRegionD2Ev [qt-mt]	_ZN7QRegionaNERKS_
ZN7QRegionaSERKS [qt-mt]	_ZN7QRegionoERKS_
ZN7QRegionmIERKS [qt-mt]	_ZN7QRegionoRERKS_
ZN7QRegionpLERKS [qt-mt]	_ZN8QIconSet11setIcon
_ZN8QIconSet14clearGeneratedEv [qt-mt]	_ZN8QIconSet18installI
_ZN8QIconSet5resetERK7QPixmapNS_4SizeE [qt-mt]	_ZN8QIconSet6detachEv
_ZN8QIconSet8iconSizeENS_4SizeE [qt-mt]	_ZN8QIconSet9normaliz
_ZN8QIconSet9setPixmapERK7QPixmapNS_4SizeENS_4ModeENS_5StateE [qt-mt]	_ZN8QIconSet9setPixa
_ZN8QIconSetC1ERK7QPixmapNS_4SizeE [qt-mt]	_ZN8QIconSetC1ERK7Q
ZN8QIconSetC1ERKS [qt-mt]	_ZN8QIconSetC1Ev [qt-
_ZN8QIconSetC2ERK7QPixmapNS_4SizeE [qt-mt]	_ZN8QIconSetC2ERK7Q
ZN8QIconSetC2ERKS [qt-mt]	_ZN8QIconSetC2Ev [qt-
_ZN8QIconSetD0Ev [qt-mt]	_ZN8QIconSetD1Ev [qt-
_ZN8QIconSetD2Ev [qt-mt]	_ZN8QIconSetaSERKS_
_ZN8QPainter10drawPixmapERK5QRectRK7QPixmap [qt-mt]	_ZN8QPainter10drawPix
_ZN8QPainter10drawPixmapEiiRK7QPixmapiiii [qt-mt]	_ZN8QPainter10drawPo
_ZN8QPainter10initializeEv [qt-mt]	_ZN8QPainter10killIPSta
_ZN8QPainter10resetXFormEv [qt-mt]	_ZN8QPainter10updateF
_ZN8QPainter11drawEllipseEiiii [qt-mt]	_ZN8QPainter11drawPic
_ZN8QPainter11drawPictureERK8QPicture [qt-mt]	_ZN8QPainter11drawPic
_ZN8QPainter11drawPolygonERK11QPointArrayyii [qt-mt]	_ZN8QPainter11setClipB
_ZN8QPainter11setClippingEb [qt-mt]	_ZN8QPainter11setRaste
_ZN8QPainter11setTabArrayEPi [qt-mt]	_ZN8QPainter11setTabS
_ZN8QPainter11setViewportEiiii [qt-mt]	_ZN8QPainter11updateB
_ZN8QPainter11updateXFormEv [qt-mt]	_ZN8QPainter12boundin
_ZN8QPainter12drawPolylineERK11QPointArrayyii [qt-mt]	_ZN8QPainter12fix_neg
_ZN8QPainter12setViewXFormEb [qt-mt]	_ZN8QPainter13drawRo
_ZN8QPainter13setClipRegionERK7QRegionNS_14CoordinateModeE [qt-mt]	_ZN8QPainter13setWork
_ZN8QPainter14setBrushOriginEii [qt-mt]	_ZN8QPainter14setWork
_ZN8QPainter14updateInvXFormEv [qt-mt]	_ZN8QPainter15drawCu
_ZN8QPainter15drawTiledPixmapEiiiiRK7QPixmapii [qt-mt]	_ZN8QPainter15saveWo
_ZN8QPainter16drawLineSegmentsERK11QPointArrayyii [qt-mt]	_ZN8QPainter16drawPo
_ZN8QPainter16drawWinFocusRectEiiii [qt-mt]	_ZN8QPainter16drawWi

_ZN8QPainter16drawWinFocusRectEiiiiBRK6QColor [qt-mt]	_ZN8QPainter17drawCo
_ZN8QPainter17setBackgroundModeEN2Qt6BGModeE [qt-mt]	_ZN8QPainter18restoreV
_ZN8QPainter18setBackgroundColorERK6QColor [qt-mt]	_ZN8QPainter3endEv [q
_ZN8QPainter4initEv [qt-mt]	_ZN8QPainter4saveEv [q
_ZN8QPainter4setfEjb [qt-mt]	_ZN8QPainter5beginEPI
_ZN8QPainter5beginEPK12QPaintDeviceb [qt-mt]	_ZN8QPainter5flushERK
_ZN8QPainter5flushEv [qt-mt]	_ZN8QPainter5scaleEdd
_ZN8QPainter5shearEdd [qt-mt]	_ZN8QPainter6lineToEii
_ZN8QPainter6moveToEii [qt-mt]	_ZN8QPainter6rotateEd
_ZN8QPainter6setPenEN2Qt8PenStyleE [qt-mt]	_ZN8QPainter6setPenER
_ZN8QPainter6setPenERK6QColor [qt-mt]	_ZN8QPainter7cleanupE
_ZN8QPainter7destroyEv [qt-mt]	_ZN8QPainter7drawArch
_ZN8QPainter7drawPieEiiiiii [qt-mt]	_ZN8QPainter7restoreEv
_ZN8QPainter7setFontERK5QFont [qt-mt]	_ZN8QPainter8drawLine
_ZN8QPainter8drawRectEiii [qt-mt]	_ZN8QPainter8drawText
_ZN8QPainter8drawTextEiiRK7QStringiNS_13TextDirectionE [qt-mt]	_ZN8QPainter8drawText
_ZN8QPainter8fillRectEiiiRK6QBrush [qt-mt]	_ZN8QPainter8redirectE
ZN8QPainter8redirectEP12QPaintDeviceS1 [qt-mt]	_ZN8QPainter8setBrush
_ZN8QPainter8setBrushERK6QBrush [qt-mt]	_ZN8QPainter8setBrush
_ZN8QPainter9drawChordEiiiiii [qt-mt]	_ZN8QPainter9drawIma
_ZN8QPainter9drawImageERK6QPointRK6QImagei [qt-mt]	_ZN8QPainter9drawIma
_ZN8QPainter9drawPointEii [qt-mt]	_ZN8QPainter9setWind
_ZN8QPainter9translateEdd [qt-mt]	_ZN8QPainter9updatePe
_ZN8QPainterC1EPK12QPaintDevicePK7QWidgetb [qt-mt]	_ZN8QPainterC1EPK12
_ZN8QPainterC1Ev [qt-mt]	_ZN8QPainterC2EPK12
_ZN8QPainterC2EPK12QPaintDeviceb [qt-mt]	_ZN8QPainterC2Ev [qt-
_ZN8QPainterD1Ev [qt-mt]	_ZN8QPainterD2Ev [qt-
_ZN8QWMatrix18transformationModeEv [qt-mt]	_ZN8QWMatrix21setTra
_ZN8QWMatrix5resetEv [qt-mt]	_ZN8QWMatrix5scaleEd
_ZN8QWMatrix5shearEdd [qt-mt]	_ZN8QWMatrix6rotateE
_ZN8QWMatrix9setMatrixEdddddd [qt-mt]	_ZN8QWMatrix9translat
_ZN8QWMatrixC1Edddddd [qt-mt]	_ZN8QWMatrixC1Ev [q
_ZN8QWMatrixC2Edddddd [qt-mt]	_ZN8QWMatrixC2Ev [q

ZN8QWMatrixmLERKS [qt-mt]	_ZNK4QPen4copyEv [qt-mt]
_ZNK4QPen8capStyleEv [qt-mt]	_ZNK4QPen9joinStyleEv [qt-mt]
ZNK4QPeneqERKS [qt-mt]	_ZNK5QRect10intersectERKS_ [qt-mt]
_ZNK5QRect4rectEPiS0_S0_S0_ [qt-mt]	_ZNK5QRect5uniteERKS_ [qt-mt]
_ZNK5QRect6coordsEPiS0_S0_S0_ [qt-mt]	_ZNK5QRect8containsERKS_ [qt-mt]
_ZNK5QRect8containsERKS_b [qt-mt]	_ZNK5QRect9intersectERKS_ [qt-mt]
_ZNK5QRect9normalizeEv [qt-mt]	_ZNK5QRectanERKS_ [qt-mt]
ZNK5QRectorERKS [qt-mt]	_ZNK6QBrush4copyEv [qt-mt]
ZNK6QBrusheqERKS [qt-mt]	_ZNK6QPoint15manhattanDistance [qt-mt]
_ZNK7QRegion12boundingRectEv [qt-mt]	_ZNK7QRegion14clipRegion [qt-mt]
_ZNK7QRegion15updateX11RegionEv [qt-mt]	_ZNK7QRegion3eorERKS_ [qt-mt]
_ZNK7QRegion4copyEv [qt-mt]	_ZNK7QRegion5rectsEv [qt-mt]
ZNK7QRegion5uniteERKS [qt-mt]	_ZNK7QRegion6isNullEv [qt-mt]
_ZNK7QRegion7isEmptyEv [qt-mt]	_ZNK7QRegion8containsERKS_ [qt-mt]
_ZNK7QRegion8containsERK6QPoint [qt-mt]	_ZNK7QRegion8subtract [qt-mt]
ZNK7QRegion9intersectERKS [qt-mt]	_ZNK7QRegionanERKS_ [qt-mt]
ZNK7QRegioneoERKS [qt-mt]	_ZNK7QRegioneqERKS_ [qt-mt]
ZNK7QRegionmiERKS [qt-mt]	_ZNK7QRegionorERKS_ [qt-mt]
ZNK7QRegionplERKS [qt-mt]	_ZNK8QIconSet11isGenerated [qt-mt]
_ZNK8QIconSet12createScaledENS_4SizeEPK7QPixmap [qt-mt]	_ZNK8QIconSet14createScaled [qt-mt]
_ZNK8QIconSet6isNullEv [qt-mt]	_ZNK8QIconSet6pixmap [qt-mt]
_ZNK8QIconSet6pixmapENS_4SizeEbNS_5StateE [qt-mt]	_ZNK8QIconSet6pixmapEv [qt-mt]
_ZNK8QPainter10clipRegionENS_14CoordinateModeE [qt-mt]	_ZNK8QPainter11fontMetrics [qt-mt]
_ZNK8QPainter11worldMatrixEv [qt-mt]	_ZNK8QPainter3mapEii [qt-mt]
_ZNK8QPainter3mapEiiiiPiS0_S0_S0_ [qt-mt]	_ZNK8QPainter3posEv [qt-mt]
_ZNK8QPainter5xFormERK11QPointArray [qt-mt]	_ZNK8QPainter5xFormEv [qt-mt]
_ZNK8QPainter5xFormERK5QRect [qt-mt]	_ZNK8QPainter5xFormEv [qt-mt]
ZNK8QPainter6mapInvEiiPiS0 [qt-mt]	_ZNK8QPainter6mapInvEv [qt-mt]
_ZNK8QPainter6windowEv [qt-mt]	_ZNK8QPainter8fontInfo [qt-mt]
_ZNK8QPainter8viewportEv [qt-mt]	_ZNK8QPainter8xFormEv [qt-mt]
_ZNK8QPainter8xFormDevERK11QPointArrayii [qt-mt]	_ZNK8QPainter8xFormEv [qt-mt]
_ZNK8QPainter8xFormDevERK6QPoint [qt-mt]	_ZNK8QWMatrix10isIdempotent [qt-mt]
_ZNK8QWMatrix12mapToPolygonERK5QRect [qt-mt]	_ZNK8QWMatrix3mapEv [qt-mt]

ZNK8QWMatrix3mapEiiPiS0 [qt-mt]	_ZNK8QWMatrix6inver
_ZNK8QWMatrix7mapRectERK5QRect [qt-mt]	_ZNK8QWMatrixeqERK
_ZNK8QWMatrixmlERK11QPointArray [qt-mt]	_ZNK8QWMatrixmlER
_ZNK8QWMatrixmlERK6QPoint [qt-mt]	_ZNK8QWMatrixmlER
ZNK8QWMatrixneERKS [qt-mt]	

An LSB conforming implementation shall provide the generic data interfaces for Qt3 2D Graphics specified in [Table 18-632](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-632. libqt-mt - Qt3 2D Graphics Data Interfaces

_ZTI8QIconSet [CXXABI-1.86]	_ZTV8QIconSet [CXXABI-1.86]

18.2.34. Qt3 Validators

18.2.34.1. Class data for QRegExpValidator

The virtual table for the QRegExpValidator class is described by [Table 18-633](#)

Table 18-633. Primary vtable for QRegExpValidator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QRegExpValidator
vfunc[0]:	NULL or QRegExpValidator::metaObject() const
vfunc[1]:	QRegExpValidator::className() const
vfunc[2]:	QRegExpValidator::qt_cast(char const*)
vfunc[3]:	QRegExpValidator::qt_invoke(int, QUObject*)
vfunc[4]:	QRegExpValidator::qt_emit(int, QUObject*)
vfunc[5]:	QRegExpValidator::qt_property(int, int, QVariant*)
vfunc[6]:	QRegExpValidator::~~QRegExpValidator()
vfunc[7]:	QRegExpValidator::~~QRegExpValidator()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)

vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QRegExpValidator::validate(QString&, int&) const
vfunc[22]:	QValidator::fixup(QString&) const

The Run Time Type Information for the QRegExpValidator class is described by [Table 18-634](#)

Table 18-634. typeinfo for QRegExpValidator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QRegExpValidator
basetype:	typeinfo for QValidator

18.2.34.2. Class data for QIntValidator

The virtual table for the QIntValidator class is described by [Table 18-635](#)

Table 18-635. Primary vtable for QIntValidator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QIntValidator
vfunc[0]:	NULL or QIntValidator::metaObject() const
vfunc[1]:	QIntValidator::className() const
vfunc[2]:	QIntValidator::qt_cast(char const*)
vfunc[3]:	QIntValidator::qt_invoke(int, QUObject*)
vfunc[4]:	QIntValidator::qt_emit(int, QUObject*)
vfunc[5]:	QIntValidator::qt_property(int, int, QVariant*)
vfunc[6]:	QIntValidator::~~QIntValidator()
vfunc[7]:	QIntValidator::~~QIntValidator()

vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QIntValidator::validate(QString&, int&) const
vfunc[22]:	QValidator::fixup(QString&) const
vfunc[23]:	QIntValidator::setRange(int, int)

The Run Time Type Information for the QIntValidator class is described by [Table 18-636](#)

Table 18-636. typeinfo for QIntValidator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QIntValidator
basetype:	typeinfo for QValidator

18.2.34.3. Class data for QValidator

The virtual table for the QValidator class is described by [Table 18-637](#)

Table 18-637. Primary vtable for QValidator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QValidator
vfunc[0]:	NULL or QValidator::metaObject() const
vfunc[1]:	QValidator::className() const

vfunc[2]:	QValidator::qt_cast(char const*)
vfunc[3]:	QValidator::qt_invoke(int, QUObject*)
vfunc[4]:	QValidator::qt_emit(int, QUObject*)
vfunc[5]:	QValidator::qt_property(int, int, QVariant*)
vfunc[6]:	QValidator::~~QValidator()
vfunc[7]:	QValidator::~~QValidator()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	__cxa_pure_virtual
vfunc[22]:	QValidator::fixup(QString&) const

The Run Time Type Information for the QValidator class is described by [Table 18-638](#)

Table 18-638. typeinfo for QValidator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QValidator
basetype:	typeinfo for QObject

18.2.34.4. Class data for QDoubleValidator

The virtual table for the QDoubleValidator class is described by [Table 18-639](#)

Table 18-639. Primary vtable for QDoubleValidator

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QDoubleValidator
vfunc[0]:	NULL or QDoubleValidator::metaObject() const
vfunc[1]:	QDoubleValidator::className() const
vfunc[2]:	QDoubleValidator::qt_cast(char const*)
vfunc[3]:	QDoubleValidator::qt_invoke(int, QUObject*)
vfunc[4]:	QDoubleValidator::qt_emit(int, QUObject*)
vfunc[5]:	QDoubleValidator::qt_property(int, int, QVariant*)
vfunc[6]:	QDoubleValidator::~~QDoubleValidator()
vfunc[7]:	QDoubleValidator::~~QDoubleValidator()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QDoubleValidator::validate(QString&, int&) const
vfunc[22]:	QValidator::fixup(QString&) const
vfunc[23]:	QDoubleValidator::setRange(double, double, int)

The Run Time Type Information for the QDoubleValidator class is described by [Table 18-640](#)

Table 18-640. typeinfo for QDoubleValidator

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QDoubleValidator

basetype:	typeinfo for QValidator

18.2.34.5. Interfaces for Qt3 Validators

An LSB conforming implementation shall provide the generic functions for Qt3 Validators specified in [Table 18-641](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-641. libqt-mt - Qt3 Validators Function Interfaces

_ZN10QValidator11qt_propertyEiiP8QVariant [qt-mt]	_ZN10QValidator16staticMetaObjectEv [qt-mt]
_ZN10QValidator18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN10QValidator2trEPKcS1_ [qt-mt]
ZN10QValidator6trUtf8EPKcS1 [qt-mt]	_ZN10QValidator7qt_castEPKc [qt-mt]
_ZN10QValidator7qt_emitEiP8QUObject [qt-mt]	_ZN10QValidator9qt_invokeEiP8QUObject [qt-mt]
_ZN10QValidatorC1EP7QObjectPKc [qt-mt]	_ZN10QValidatorC2EP7QObjectPKc [qt-mt]
_ZN10QValidatorD0Ev [qt-mt]	_ZN10QValidatorD1Ev [qt-mt]
_ZN10QValidatorD2Ev [qt-mt]	_ZN13QIntValidator11qt_propertyEiiP8QVariant [qt-mt]
_ZN13QIntValidator16staticMetaObjectEv [qt-mt]	_ZN13QIntValidator18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]
ZN13QIntValidator2trEPKcS1 [qt-mt]	_ZN13QIntValidator6setTopEi [qt-mt]
ZN13QIntValidator6trUtf8EPKcS1 [qt-mt]	_ZN13QIntValidator7qt_castEPKc [qt-mt]
_ZN13QIntValidator7qt_emitEiP8QUObject [qt-mt]	_ZN13QIntValidator8setRangeEii [qt-mt]
_ZN13QIntValidator9qt_invokeEiP8QUObject [qt-mt]	_ZN13QIntValidator9setBottomEi [qt-mt]
_ZN13QIntValidatorC1EP7QObjectPKc [qt-mt]	_ZN13QIntValidatorC1EiiP7QObjectPKc [qt-mt]
_ZN13QIntValidatorC2EP7QObjectPKc [qt-mt]	_ZN13QIntValidatorC2EiiP7QObjectPKc [qt-mt]
_ZN13QIntValidatorD0Ev [qt-mt]	_ZN13QIntValidatorD1Ev [qt-mt]
_ZN13QIntValidatorD2Ev [qt-mt]	_ZN16QDoubleValidator11qt_propertyEiiP8QVariant [qt-mt]
_ZN16QDoubleValidator11setDecimalsEi [qt-mt]	_ZN16QDoubleValidator16staticMetaObjectEv [qt-mt]
_ZN16QDoubleValidator18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN16QDoubleValidator2trEPKcS1_ [qt-mt]
_ZN16QDoubleValidator6setTopEd [qt-mt]	_ZN16QDoubleValidator6trUtf8EPKcS1_ [qt-mt]
_ZN16QDoubleValidator7qt_castEPKc [qt-mt]	_ZN16QDoubleValidator7qt_emitEiP8QUObject [qt-mt]
_ZN16QDoubleValidator8setRangeEddi [qt-mt]	_ZN16QDoubleValidator9qt_invokeEiP8QUObject [qt-mt]
_ZN16QDoubleValidator9setBottomEd [qt-mt]	_ZN16QDoubleValidatorC1EP7QObjectPKc [qt-mt]
_ZN16QDoubleValidatorC1EddiP7QObjectPKc [qt-mt]	_ZN16QDoubleValidatorC2EP7QObjectPKc [qt-mt]
_ZN16QDoubleValidatorC2EddiP7QObjectPKc [qt-mt]	_ZN16QDoubleValidatorD0Ev [qt-mt]

_ZN16QDoubleValidatorD1Ev [qt-mt]	_ZN16QDoubleValidatorD2Ev [qt-mt]
_ZN16QRegExpValidator11qt_propertyEiiP8QVariant [qt-mt]	_ZN16QRegExpValidator16staticMetaObjE [qt-mt]
_ZN16QRegExpValidator18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN16QRegExpValidator2trEPKcS1_ [qt-mt]
ZN16QRegExpValidator6trUtf8EPKcS1 [qt-mt]	_ZN16QRegExpValidator7qt_castEPKc [qt-mt]
_ZN16QRegExpValidator7qt_emitEiP8QUObject [qt-mt]	_ZN16QRegExpValidator9qt_invokeEiP8QUObject [qt-mt]
_ZN16QRegExpValidator9setRegExpERK7QRegExp [qt-mt]	_ZN16QRegExpValidatorC1EP7QObjectP [qt-mt]
_ZN16QRegExpValidatorC1ERK7QRegExpP7QObjectPKc [qt-mt]	_ZN16QRegExpValidatorC2EP7QObjectP [qt-mt]
_ZN16QRegExpValidatorC2ERK7QRegExpP7QObjectPKc [qt-mt]	_ZN16QRegExpValidatorD0Ev [qt-mt]
_ZN16QRegExpValidatorD1Ev [qt-mt]	_ZN16QRegExpValidatorD2Ev [qt-mt]
_ZNK10QValidator5fixupER7QString [qt-mt]	_ZNK10QValidator9classNameEv [qt-mt]
_ZNK13QIntValidator8validateER7QStringRi [qt-mt]	_ZNK13QIntValidator9classNameEv [qt-mt]
_ZNK16QDoubleValidator8validateER7QStringRi [qt-mt]	_ZNK16QDoubleValidator9classNameEv [qt-mt]
_ZNK16QRegExpValidator8validateER7QStringRi [qt-mt]	_ZNK16QRegExpValidator9classNameEv [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Validators specified in [Table 18-642](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-642. libqt-mt - Qt3 Validators Data Interfaces

_ZN10QValidator7metaObjE [qt-mt]	_ZN13QIntValidator7metaObjE [qt-mt]
_ZN16QDoubleValidator7metaObjE [qt-mt]	_ZN16QRegExpValidator7metaObjE [qt-mt]
_ZTI10QValidator [CXXABI-1.86]	_ZTI13QIntValidator [CXXABI-1.86]
_ZTI16QDoubleValidator [CXXABI-1.86]	_ZTI16QRegExpValidator [CXXABI-1.86]
_ZTV10QValidator [CXXABI-1.86]	_ZTV13QIntValidator [CXXABI-1.86]
_ZTV16QDoubleValidator [CXXABI-1.86]	_ZTV16QRegExpValidator [CXXABI-1.86]

18.2.35. Qt3 Internals

18.2.35.1. Class data for QGVector

The virtual table for the QGVector class is described by [Table 18-643](#)

Table 18-643. Primary vtable for QGVector

Base Offset	0
Virtual Base Offset	0

RTTI	typeinfo for QVector
vfunc[0]:	NULL or QVector::count() const
vfunc[1]:	QVector::clear()
vfunc[2]:	QVector::~~QVector()
vfunc[3]:	QVector::~~QVector()
vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	QVector::compareItems(void*, void*)
vfunc[7]:	QVector::read(QDataStream&, void*&)
vfunc[8]:	QVector::write(QDataStream&, void*) const

The Run Time Type Information for the QVector class is described by [Table 18-644](#)

Table 18-644. typeinfo for QVector

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QVector
basetype:	typeinfo for QPtrCollection

18.2.35.2. Class data for QList

The virtual table for the QList class is described by [Table 18-645](#)

Table 18-645. Primary vtable for QList

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QList
vfunc[0]:	NULL or QList::count() const
vfunc[1]:	QList::clear()
vfunc[2]:	QList::~~QList()
vfunc[3]:	QList::~~QList()
vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	__cxa_pure_virtual
vfunc[6]:	QList::compareItems(void*, void*)
vfunc[7]:	QList::read(QDataStream&, void*&)

vfunc[8]:	QGList::write(QDataStream&, void*) const

The Run Time Type Information for the QGList class is described by [Table 18-646](#)

Table 18-646. typeinfo for QGList

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGList
basetype:	typeinfo for QPtrCollection

18.2.35.3. Class data for QPolygonScanner

The virtual table for the QPolygonScanner class is described by [Table 18-647](#)

Table 18-647. Primary vtable for QPolygonScanner

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QPolygonScanner
vfunc[0]:	__cxa_pure_virtual

The Run Time Type Information for the QPolygonScanner class is described by [Table 18-648](#)

Table 18-648. typeinfo for QPolygonScanner

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QPolygonScanner

18.2.35.4. Class data for QGCache

The virtual table for the QGCache class is described by [Table 18-649](#)

Table 18-649. Primary vtable for QGCache

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGCache
vfunc[0]:	QGCache::count() const
vfunc[1]:	QGCache::clear()
vfunc[2]:	QGCache::~~QGCache()

vfunc[3]:	QGCACHE::~~QGCACHE()
vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	__cxa_pure_virtual

The Run Time Type Information for the QGCACHE class is described by [Table 18-650](#)

Table 18-650. typeinfo for QGCACHE

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QGCACHE
basetype:	typeinfo for QPtrCollection

18.2.35.5. Class data for QGArray

The virtual table for the QGArray class is described by [Table 18-651](#)

Table 18-651. Primary vtable for QGArray

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGArray
vfunc[0]:	QGArray::~~QGArray()
vfunc[1]:	QGArray::~~QGArray()
vfunc[2]:	NULL or QGArray::detach()
vfunc[3]:	QGArray::newData()
vfunc[4]:	QGArray::deleteData(QGArray::array_data*)

The Run Time Type Information for the QGArray class is described by [Table 18-652](#)

Table 18-652. typeinfo for QGArray

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QGArray

18.2.35.6. Class data for QSignalVec

The virtual table for the QSignalVec class is described by [Table 18-653](#)

Table 18-653. Primary vtable for QSignalVec

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSignalVec
vfunc[0]:	NULL or QPtrVector<QConnectionList>::count() const
vfunc[1]:	NULL or QPtrVector<QConnectionList>::clear()
vfunc[2]:	NULL or QSignalVec::~~QSignalVec()
vfunc[3]:	NULL or QSignalVec::~~QSignalVec()
vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	NULL or QPtrVector<QConnectionList>::deleteItem(void*)
vfunc[6]:	QGVector::compareItems(void*, void*)
vfunc[7]:	QGVector::read(QDataStream&, void*&)
vfunc[8]:	QGVector::write(QDataStream&, void*) const

The Run Time Type Information for the QSignalVec class is described by [Table 18-654](#)

Table 18-654. typeinfo for QSignalVec

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSignalVec
basetype:	typeinfo for QPtrVector<QConnectionList>

18.2.35.7. Class data for QGDict

The virtual table for the QGDict class is described by [Table 18-655](#)

Table 18-655. Primary vtable for QGDict

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QGDict
vfunc[0]:	NULL or QGDict::count() const
vfunc[1]:	QGDict::clear()
vfunc[2]:	QGDict::~~QGDict()
vfunc[3]:	QGDict::~~QGDict()
vfunc[4]:	QPtrCollection::newItem(void*)
vfunc[5]:	__cxa_pure_virtual

vfunc[6]:	QGDICT::read(QDataStream&, void*&)
vfunc[7]:	QGDICT::write(QDataStream&, void*) const

The Run Time Type Information for the QGDICT class is described by [Table 18-656](#)

Table 18-656. typeid for QGDICT

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeid name for QGDICT
basetype:	typeid for QPtrCollection

18.2.35.8. Interfaces for Qt3 Internals

An LSB conforming implementation shall provide the generic functions for Qt3 Internals specified in [Table 18-657](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-657. libqt-mt - Qt3 Internals Function Interfaces

_ZN14QGDICTIterator7toFirstEv [qt-mt]	_ZN14QGDICTIteratorC1ERK6QGDICT [qt-mt]
ZN14QGDICTIteratorC1ERKS [qt-mt]	_ZN14QGDICTIteratorC2ERK6QGDICT [qt-mt]
ZN14QGDICTIteratorC2ERKS [qt-mt]	_ZN14QGDICTIteratorD1Ev [qt-mt]
_ZN14QGDICTIteratorD2Ev [qt-mt]	_ZN14QGDICTIteratoraSERKS_ [qt-mt]
_ZN14QGDICTIteratorclEv [qt-mt]	_ZN14QGDICTIteratorpLEj [qt-mt]
_ZN14QGDICTIteratorppEv [qt-mt]	_ZN14QGLISTIterator6toLastEv [qt-mt]
_ZN14QGLISTIterator7toFirstEv [qt-mt]	_ZN14QGLISTIteratorC1ERK6QGLIST [qt-mt]
ZN14QGLISTIteratorC1ERKS [qt-mt]	_ZN14QGLISTIteratorC2ERK6QGLIST [qt-mt]
ZN14QGLISTIteratorC2ERKS [qt-mt]	_ZN14QGLISTIteratorD1Ev [qt-mt]
_ZN14QGLISTIteratorD2Ev [qt-mt]	_ZN14QGLISTIteratoraSERKS_ [qt-mt]
_ZN14QGLISTIteratorclEv [qt-mt]	_ZN14QGLISTIteratormIEj [qt-mt]
_ZN14QGLISTIteratormmEv [qt-mt]	_ZN14QGLISTIteratorpLEj [qt-mt]
_ZN14QGLISTIteratorppEv [qt-mt]	_ZN15QGCACHEIterator6toLastEv [qt-mt]
_ZN15QGCACHEIterator7toFirstEv [qt-mt]	_ZN15QGCACHEIteratorC1ERK7QGCACHE [qt-mt]
ZN15QGCACHEIteratorC1ERKS [qt-mt]	_ZN15QGCACHEIteratorC2ERK7QGCACHE [qt-mt]
ZN15QGCACHEIteratorC2ERKS [qt-mt]	_ZN15QGCACHEIteratorD1Ev [qt-mt]
_ZN15QGCACHEIteratorD2Ev [qt-mt]	_ZN15QGCACHEIteratoraSERKS_ [qt-mt]
_ZN15QGCACHEIteratorclEv [qt-mt]	_ZN15QGCACHEIteratormIEj [qt-mt]
_ZN15QGCACHEIteratormmEv [qt-mt]	_ZN15QGCACHEIteratorpLEj [qt-mt]

_ZN15QGCatchIteratorppEv [qt-mt]	_ZN15QPolygonScanner4scanERK11QPointArra [qt-mt]
_ZN15QPolygonScanner4scanERK11QPointArraybiiNS_4EdgeE [qt-mt]	_ZN15QPolygonScanner4scanERK11QPointArra [qt-mt]
_ZN6QGDict10look_asciiEPKcPv [qt-mt]	_ZN6QGDict10remove_intElPv [qt-mt]
_ZN6QGDict10remove_ptrEPvS0_ [qt-mt]	_ZN6QGDict10take_asciiEPKc [qt-mt]
_ZN6QGDict10unlink_intElPv [qt-mt]	_ZN6QGDict10unlink_ptrEPvS0_ [qt-mt]
_ZN6QGDict11look_stringERK7QStringPv [qt-mt]	_ZN6QGDict11take_stringERK7QString [qt-mt]
_ZN6QGDict12hashKeyAsciiEPKc [qt-mt]	_ZN6QGDict12remove_asciiEPKcPv [qt-mt]
_ZN6QGDict12unlink_asciiEPKcPv [qt-mt]	_ZN6QGDict13hashKeyStringERK7QString [qt-mt]
_ZN6QGDict13remove_stringERK7QStringPv [qt-mt]	_ZN6QGDict13unlink_commonEiP11QBaseBuck [qt-mt]
_ZN6QGDict13unlink_stringERK7QStringPv [qt-mt]	_ZN6QGDict4initEjNS_7KeyTypeEbb [qt-mt]
_ZN6QGDict4readER11QDataStream [qt-mt]	_ZN6QGDict4readER11QDataStreamRPv [qt-mt]
_ZN6QGDict5clearEv [qt-mt]	_ZN6QGDict6resizeEj [qt-mt]
_ZN6QGDict8look_intElPv [qt-mt]	_ZN6QGDict8look_ptrEPvS0_i [qt-mt]
_ZN6QGDict8take_intEl [qt-mt]	_ZN6QGDict8take_ptrEPv [qt-mt]
ZN6QGDictC1ERKS [qt-mt]	_ZN6QGDictC1EjNS_7KeyTypeEbb [qt-mt]
ZN6QGDictC2ERKS [qt-mt]	_ZN6QGDictC2EjNS_7KeyTypeEbb [qt-mt]
_ZN6QGDictD0Ev [qt-mt]	_ZN6QGDictD1Ev [qt-mt]
_ZN6QGDictD2Ev [qt-mt]	_ZN6QGDictaSERKS_ [qt-mt]
_ZN6QGList10relinkNodeEP6QLNode [qt-mt]	_ZN6QGList10removeNodeEP6QLNode [qt-mt]
ZN6QGList12compareItemsEPvS0 [qt-mt]	_ZN6QGList16heapSortPushDownEPPvii [qt-mt]
_ZN6QGList4findEPvb [qt-mt]	_ZN6QGList4lastEv [qt-mt]
_ZN6QGList4nextEv [qt-mt]	_ZN6QGList4prevEv [qt-mt]
_ZN6QGList4readER11QDataStream [qt-mt]	_ZN6QGList4readER11QDataStreamRPv [qt-mt]
_ZN6QGList4sortEv [qt-mt]	_ZN6QGList4takeEv [qt-mt]
_ZN6QGList5clearEv [qt-mt]	_ZN6QGList5eraseEP6QLNode [qt-mt]
_ZN6QGList5firstEv [qt-mt]	_ZN6QGList6appendEPv [qt-mt]
_ZN6QGList6inSortEPv [qt-mt]	_ZN6QGList6locateEj [qt-mt]
_ZN6QGList6removeEPv [qt-mt]	_ZN6QGList6takeAtEj [qt-mt]
_ZN6QGList6unlinkEv [qt-mt]	_ZN6QGList7findRefEPvb [qt-mt]
_ZN6QGList7prependEPv [qt-mt]	_ZN6QGList8insertAtEjPv [qt-mt]
_ZN6QGList8removeAtEj [qt-mt]	_ZN6QGList8takeLastEv [qt-mt]

_ZN6QGList8takeNodeEP6QLNode [qt-mt]	_ZN6QGList9removeRefEPv [qt-mt]
_ZN6QGList9replaceAtEjPv [qt-mt]	_ZN6QGList9takeFirstEv [qt-mt]
ZN6QGListC1ERKS [qt-mt]	_ZN6QGListC1Ev [qt-mt]
ZN6QGListC2ERKS [qt-mt]	_ZN6QGListC2Ev [qt-mt]
_ZN6QGListD0Ev [qt-mt]	_ZN6QGListD1Ev [qt-mt]
_ZN6QGListD2Ev [qt-mt]	_ZN6QGListaSERKS_ [qt-mt]
_ZN7QGArray10deleteDataEPNS_10array_dataE [qt-mt]	_ZN7QGArray10setRawDataEPKcj [qt-mt]
_ZN7QGArray12resetRawDataEPKcj [qt-mt]	_ZN7QGArray4fillEPKcij [qt-mt]
_ZN7QGArray4sortEj [qt-mt]	_ZN7QGArray5storeEPKcj [qt-mt]
_ZN7QGArray6assignEPKcj [qt-mt]	_ZN7QGArray6assignERKS_ [qt-mt]
_ZN7QGArray6resizeEj [qt-mt]	_ZN7QGArray6resizeEjNS_12OptimizationE [qt-mt]
_ZN7QGArray7newDataEv [qt-mt]	_ZN7QGArray9duplicateEPKcj [qt-mt]
ZN7QGArray9duplicateERKS [qt-mt]	_ZN7QGArray9msg_indexEj [qt-mt]
_ZN7QGArray9setExpandEjPKcj [qt-mt]	_ZN7QGArrayC1ERKS_ [qt-mt]
_ZN7QGArrayC1Ei [qt-mt]	_ZN7QGArrayC1Eii [qt-mt]
_ZN7QGArrayC1Ev [qt-mt]	_ZN7QGArrayC2ERKS_ [qt-mt]
_ZN7QGArrayC2Ei [qt-mt]	_ZN7QGArrayC2Eii [qt-mt]
_ZN7QGArrayC2Ev [qt-mt]	_ZN7QGArrayD0Ev [qt-mt]
_ZN7QGArrayD1Ev [qt-mt]	_ZN7QGArrayD2Ev [qt-mt]
_ZN7QGCACHE10setMaxCostEi [qt-mt]	_ZN7QGCACHE10take_otherEPKc [qt-mt]
_ZN7QGCACHE11makeRoomForEii [qt-mt]	_ZN7QGCACHE11take_stringERK7QString [qt-mt]
_ZN7QGCACHE12insert_otherEPKcPvii [qt-mt]	_ZN7QGCACHE12remove_otherEPKc [qt-mt]
_ZN7QGCACHE13insert_stringERK7QStringPvii [qt-mt]	_ZN7QGCACHE13remove_stringERK7QString [qt-mt]
_ZN7QGCACHE5clearEv [qt-mt]	_ZN7QGCACHEC1EijNS_7KeyTypeEbb [qt-mt]
_ZN7QGCACHEC2EijNS_7KeyTypeEbb [qt-mt]	_ZN7QGCACHED0Ev [qt-mt]
_ZN7QGCACHED1Ev [qt-mt]	_ZN7QGCACHED2Ev [qt-mt]
ZN8QGVector12compareItemsEPvS0 [qt-mt]	_ZN8QGVector12insertExpandEjPv [qt-mt]
_ZN8QGVector17warningIndexRangeEj [qt-mt]	_ZN8QGVector4fillEPvi [qt-mt]
_ZN8QGVector4readER11QDataStream [qt-mt]	_ZN8QGVector4readER11QDataStreamRPv [qt-mt]
_ZN8QGVector4sortEv [qt-mt]	_ZN8QGVector4takeEj [qt-mt]
_ZN8QGVector5clearEv [qt-mt]	_ZN8QGVector6insertEjPv [qt-mt]
_ZN8QGVector6removeEj [qt-mt]	_ZN8QGVector6resizeEj [qt-mt]
ZN8QGVectorC1ERKS [qt-mt]	_ZN8QGVectorC1Ej [qt-mt]

_ZN8QGVectorC1Ev [qt-mt]	_ZN8QGVectorC2ERKS_ [qt-mt]
_ZN8QGVectorC2Ej [qt-mt]	_ZN8QGVectorC2Ev [qt-mt]
_ZN8QGVectorD0Ev [qt-mt]	_ZN8QGVectorD1Ev [qt-mt]
_ZN8QGVectorD2Ev [qt-mt]	_ZN8QGVectoraSERKS_ [qt-mt]
_ZNK15QGCACHEIterator11getKeyAsciiEv [qt-mt]	_ZNK15QGCACHEIterator12getKeyStringEv [qt-mt]
_ZNK15QGCACHEIterator3getEv [qt-mt]	_ZNK15QGCACHEIterator5countEv [qt-mt]
_ZNK15QGCACHEIterator6atLastEv [qt-mt]	_ZNK15QGCACHEIterator7atFirstEv [qt-mt]
_ZNK15QGCACHEIterator9getKeyIntEv [qt-mt]	_ZNK6QGDICT10statisticsEv [qt-mt]
_ZNK6QGDICT5writeER11QDataStream [qt-mt]	_ZNK6QGDICT5writeER11QDataStreamPv [qt-mt]
_ZNK6QGLIST11containsRefEPv [qt-mt]	_ZNK6QGLIST5writeER11QDataStream [qt-mt]
_ZNK6QGLIST5writeER11QDataStreamPv [qt-mt]	_ZNK6QGLIST8containsEPv [qt-mt]
_ZNK6QGLIST8toVectorEP8QGVector [qt-mt]	_ZNK6QGLISTeqERKS_ [qt-mt]
_ZNK7QGArray4findEPKcjj [qt-mt]	_ZNK7QGArray7bsearchEPKcj [qt-mt]
ZNK7QGArray7isEqualERKS [qt-mt]	_ZNK7QGArray8containsEPKcj [qt-mt]
_ZNK7QGCACHE10find_otherEPKcb [qt-mt]	_ZNK7QGCACHE10statisticsEv [qt-mt]
_ZNK7QGCACHE11find_stringERK7QStringb [qt-mt]	_ZNK7QGCACHE4sizeEv [qt-mt]
_ZNK7QGCACHE5countEv [qt-mt]	_ZNK8QGVector11containsRefEPv [qt-mt]
_ZNK8QGVector4findEPvj [qt-mt]	_ZNK8QGVector5writeER11QDataStream [qt-mt]
_ZNK8QGVector5writeER11QDataStreamPv [qt-mt]	_ZNK8QGVector6toListEP6QGLIST [qt-mt]
_ZNK8QGVector7bsearchEPv [qt-mt]	_ZNK8QGVector7findRefEPvj [qt-mt]
_ZNK8QGVector8containsEPv [qt-mt]	_ZNK8QGVectoreqERKS_ [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Internals specified in [Table 18-658](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-658. libqt-mt - Qt3 Internals Data Interfaces

_ZTI15QPolygonScanner [CXXABI-1.86]	_ZTI6QGDICT [CXXABI-1.86]
_ZTI6QGLIST [CXXABI-1.86]	_ZTI7QGArray [CXXABI-1.86]
_ZTI7QGCACHE [CXXABI-1.86]	_ZTI7QShared [CXXABI-1.86]
_ZTI8QGVector [CXXABI-1.86]	_ZTV15QPolygonScanner [CXXABI-1.86]
_ZTV6QGDICT [CXXABI-1.86]	_ZTV6QGLIST [CXXABI-1.86]
_ZTV7QGArray [CXXABI-1.86]	_ZTV7QGCACHE [CXXABI-1.86]
_ZTV8QGVector [CXXABI-1.86]	

18.2.36. Qt3 Miscellaneous

18.2.36.1. Class data for QRangeControl

The virtual table for the QRangeControl class is described by [Table 18-659](#)

Table 18-659. Primary vtable for QRangeControl

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QRangeControl
vfunc[0]:	QRangeControl::~~QRangeControl()
vfunc[1]:	QRangeControl::~~QRangeControl()
vfunc[2]:	QRangeControl::valueChange()
vfunc[3]:	QRangeControl::rangeChange()
vfunc[4]:	QRangeControl::stepChange()

The Run Time Type Information for the QRangeControl class is described by [Table 18-660](#)

Table 18-660. typeinfo for QRangeControl

Base Vtable	vtable for __cxxabiv1::__class_type_info
Name	typeinfo name for QRangeControl

18.2.36.2. Class data for QSplashScreen

The virtual table for the QSplashScreen class is described by [Table 18-661](#)

Table 18-661. Primary vtable for QSplashScreen

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QSplashScreen
vfunc[0]:	NULL or QSplashScreen::metaObject() const
vfunc[1]:	QSplashScreen::className() const
vfunc[2]:	QSplashScreen::qt_cast(char const*)
vfunc[3]:	QSplashScreen::qt_invoke(int, QUObject*)
vfunc[4]:	QSplashScreen::qt_emit(int, QUObject*)

vfunc[5]:	QSplashScreen::qt_property(int, int, QVariant*)
vfunc[6]:	QSplashScreen::~~QSplashScreen()
vfunc[7]:	QSplashScreen::~~QSplashScreen()
vfunc[8]:	QWidget::event(QEvent*)
vfunc[9]:	QObject::eventFilter(QObject*, QEvent*)
vfunc[10]:	QWidget::setName(char const*)
vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)
vfunc[21]:	QWidget::setEnabled(bool)
vfunc[22]:	QWidget::setMinimumSize(int, int)
vfunc[23]:	QWidget::setMaximumSize(int, int)
vfunc[24]:	QWidget::setSizeIncrement(int, int)
vfunc[25]:	QWidget::setBackgroundMode(Qt::BackgroundMode)
vfunc[26]:	QWidget::setEraseColor(QColor const&)
vfunc[27]:	QWidget::setErasePixmap(QPixmap const&)
vfunc[28]:	QWidget::setPalette(QPalette const&)
vfunc[29]:	QWidget::setPaletteBackgroundColor(QColor const&)
vfunc[30]:	QWidget::setPaletteBackgroundPixmap(QPixmap const&)
vfunc[31]:	QWidget::setFont(QFont const&)
vfunc[32]:	QWidget::setCursor(QCursor const&)
vfunc[33]:	QWidget::unsetCursor()
vfunc[34]:	QWidget::setMask(QBitmap const&)
vfunc[35]:	QWidget::setMask(QRegion const&)
vfunc[36]:	QWidget::setBackgroundColor(QColor const&)
vfunc[37]:	QWidget::setBackgroundPixmap(QPixmap const&)

vfunc[38]:	QWidget::setCaption(QString const&)
vfunc[39]:	QWidget::setIcon(QPixmap const&)
vfunc[40]:	QWidget::setIconText(QString const&)
vfunc[41]:	QWidget::setMouseTracking(bool)
vfunc[42]:	QWidget::setFocus()
vfunc[43]:	QWidget::setActiveWindow()
vfunc[44]:	QWidget::setFocusPolicy(QWidget::FocusPolicy)
vfunc[45]:	QWidget::setFocusProxy(QWidget*)
vfunc[46]:	QWidget::setUpdatesEnabled(bool)
vfunc[47]:	QWidget::show()
vfunc[48]:	QWidget::hide()
vfunc[49]:	QWidget::showMinimized()
vfunc[50]:	QWidget::showMaximized()
vfunc[51]:	QWidget::showNormal()
vfunc[52]:	QWidget::polish()
vfunc[53]:	QWidget::move(int, int)
vfunc[54]:	QWidget::resize(int, int)
vfunc[55]:	QWidget::setGeometry(int, int, int, int)
vfunc[56]:	NULL or QWidget::setGeometry(QRect const&)
vfunc[57]:	QWidget::close(bool)
vfunc[58]:	QWidget::sizeHint() const
vfunc[59]:	QWidget::minimumSizeHint() const
vfunc[60]:	QWidget::sizePolicy() const
vfunc[61]:	QWidget::setSizePolicy(QSizePolicy)
vfunc[62]:	QWidget::heightForWidth(int) const
vfunc[63]:	QWidget::adjustSize()
vfunc[64]:	QWidget::reparent(QWidget*, unsigned int, QPoint const&, bool)
vfunc[65]:	QWidget::setAcceptDrops(bool)
vfunc[66]:	QWidget::setAutoMask(bool)
vfunc[67]:	QWidget::setBackgroundOrigin(QWidget::BackgroundOrigin)
vfunc[68]:	QWidget::customWhatsThis() const
vfunc[69]:	QSplashScreen::mousePressEvent(QMouseEvent*)
vfunc[70]:	QWidget::mouseReleaseEvent(QMouseEvent*)

vfunc[71]:	QWidget::mouseDoubleClickEvent(QMouseEvent*)
vfunc[72]:	QWidget::mouseMoveEvent(QMouseEvent*)
vfunc[73]:	QWidget::wheelEvent(QWheelEvent*)
vfunc[74]:	QWidget::keyPressEvent(QKeyEvent*)
vfunc[75]:	QWidget::keyReleaseEvent(QKeyEvent*)
vfunc[76]:	QWidget::focusInEvent(QFocusEvent*)
vfunc[77]:	QWidget::focusOutEvent(QFocusEvent*)
vfunc[78]:	QWidget::enterEvent(QEvent*)
vfunc[79]:	QWidget::leaveEvent(QEvent*)
vfunc[80]:	QWidget::paintEvent(QPaintEvent*)
vfunc[81]:	QWidget::moveEvent(QMoveEvent*)
vfunc[82]:	QWidget::resizeEvent(QResizeEvent*)
vfunc[83]:	QWidget::closeEvent(QCloseEvent*)
vfunc[84]:	QWidget::contextMenuEvent(QContextMenuEvent*)
vfunc[85]:	QWidget::imStartEvent(QIMEvent*)
vfunc[86]:	QWidget::imComposeEvent(QIMEvent*)
vfunc[87]:	QWidget::imEndEvent(QIMEvent*)
vfunc[88]:	QWidget::tabletEvent(QTabletEvent*)
vfunc[89]:	QWidget::dragEnterEvent(QDragEnterEvent*)
vfunc[90]:	QWidget::dragMoveEvent(QDragMoveEvent*)
vfunc[91]:	QWidget::dragLeaveEvent(QDragLeaveEvent*)
vfunc[92]:	QWidget::dropEvent(QDropEvent*)
vfunc[93]:	QWidget::showEvent(QShowEvent*)
vfunc[94]:	QWidget::hideEvent(QHideEvent*)
vfunc[95]:	QWidget::x11Event(_XEvent*)
vfunc[96]:	QWidget::updateMask()
vfunc[97]:	QWidget::styleChange(QStyle&)
vfunc[98]:	QWidget::enabledChange(bool)
vfunc[99]:	QWidget::paletteChange(QPalette const&)
vfunc[100]:	QWidget::fontChange(QFont const&)
vfunc[101]:	QWidget::windowActivationChange(bool)
vfunc[102]:	QWidget::metric(int) const
vfunc[103]:	QWidget::create(unsigned long, bool, bool)

vfunc[104]:	QWidget::destroy(bool, bool)
vfunc[105]:	NULL or QWidget::setWState(unsigned int)
vfunc[106]:	NULL or QWidget::setWFlags(unsigned int)
vfunc[107]:	QWidget::focusNextPrevChild(bool)
vfunc[108]:	QWidget::setKeyCompression(bool)
vfunc[109]:	QWidget::setMicroFocusHint(int, int, int, int, bool, QFont*)
vfunc[110]:	QSplashScreen::drawContents(QPainter*)

The Run Time Type Information for the QSplashScreen class is described by [Table 18-662](#)

Table 18-662. typeinfo for QSplashScreen

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QSplashScreen
basetype:	typeinfo for QWidget

18.2.36.3. Class data for QAccel

The virtual table for the QAccel class is described by [Table 18-663](#)

Table 18-663. Primary vtable for QAccel

Base Offset	0
Virtual Base Offset	0
RTTI	typeinfo for QAccel
vfunc[0]:	NULL or QAccel::metaObject() const
vfunc[1]:	QAccel::className() const
vfunc[2]:	QAccel::qt_cast(char const*)
vfunc[3]:	QAccel::qt_invoke(int, QUObject*)
vfunc[4]:	QAccel::qt_emit(int, QUObject*)
vfunc[5]:	QAccel::qt_property(int, int, QVariant*)
vfunc[6]:	QAccel::~QAccel()
vfunc[7]:	QAccel::~QAccel()
vfunc[8]:	QObject::event(QEvent*)
vfunc[9]:	QAccel::eventFilter(QObject*, QEvent*)
vfunc[10]:	QObject::setName(char const*)

vfunc[11]:	QObject::insertChild(QObject*)
vfunc[12]:	QObject::removeChild(QObject*)
vfunc[13]:	QObject::setProperty(char const*, QVariant const&)
vfunc[14]:	QObject::property(char const*) const
vfunc[15]:	QObject::timerEvent(QTimerEvent*)
vfunc[16]:	QObject::childEvent(QChildEvent*)
vfunc[17]:	QObject::customEvent(QCustomEvent*)
vfunc[18]:	QObject::connectNotify(char const*)
vfunc[19]:	QObject::disconnectNotify(char const*)
vfunc[20]:	QObject::checkConnectArgs(char const*, QObject const*, char const*)

The Run Time Type Information for the QAccel class is described by [Table 18-664](#)

Table 18-664. typeinfo for QAccel

Base Vtable	vtable for __cxxabiv1::__si_class_type_info
Name	typeinfo name for QAccel
basetype:	typeinfo for QObject

18.2.36.4. Interfaces for Qt3 Miscellaneous

An LSB conforming implementation shall provide the generic functions for Qt3 Miscellaneous specified in [Table 18-665](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-665. libqt-mt - Qt3 Miscellaneous Function Interfaces

_ZN10QFocusData4homeEv [qt-mt]	_ZN10QFocusData4nextEv [qt-mt]
_ZN10QFocusData4prevEv [qt-mt]	_ZN12QKeySequence12decodeStringERK7QString [qt-mt]
_ZN12QKeySequence12encodeStringEi [qt-mt]	_ZN12QKeySequence6assignE7QString [qt-mt]
_ZN12QKeySequence6setKeyEii [qt-mt]	_ZN12QKeySequenceC1ERK7QString [qt-mt]
ZN12QKeySequenceC1ERKS [qt-mt]	_ZN12QKeySequenceC1Ei [qt-mt]
_ZN12QKeySequenceC1Eiiii [qt-mt]	_ZN12QKeySequenceC1Ev [qt-mt]
_ZN12QKeySequenceC2ERK7QString [qt-mt]	_ZN12QKeySequenceC2ERKS_ [qt-mt]
_ZN12QKeySequenceC2Ei [qt-mt]	_ZN12QKeySequenceC2Eiiii [qt-mt]
_ZN12QKeySequenceC2Ev [qt-mt]	_ZN12QKeySequenceD1Ev [qt-mt]
_ZN12QKeySequenceD2Ev [qt-mt]	_ZN12QKeySequenceeaSERKS_ [qt-mt]

_ZN13QRangeControl10stepChangeEv [qt-mt]	_ZN13QRangeControl11rangeChangeEv [qt-mt]
_ZN13QRangeControl11setMaxValueEi [qt-mt]	_ZN13QRangeControl11setMinValueEi [qt-mt]
_ZN13QRangeControl11valueChangeEv [qt-mt]	_ZN13QRangeControl12subtractLineEv [qt-mt]
_ZN13QRangeControl12subtractPageEv [qt-mt]	_ZN13QRangeControl14directSetValueEi [qt-mt]
_ZN13QRangeControl7addLineEv [qt-mt]	_ZN13QRangeControl7addPageEv [qt-mt]
_ZN13QRangeControl8setRangeEii [qt-mt]	_ZN13QRangeControl8setStepsEii [qt-mt]
_ZN13QRangeControl8setValueEi [qt-mt]	_ZN13QRangeControlC1Eiiii [qt-mt]
_ZN13QRangeControlC1Ev [qt-mt]	_ZN13QRangeControlC2Eiiii [qt-mt]
_ZN13QRangeControlC2Ev [qt-mt]	_ZN13QRangeControlD0Ev [qt-mt]
_ZN13QRangeControlD1Ev [qt-mt]	_ZN13QRangeControlD2Ev [qt-mt]
_ZN13QSplashScreen11qt_propertyEiiP8QVariant [qt-mt]	_ZN13QSplashScreen12drawContentsEP8QPainter [qt-mt]
_ZN13QSplashScreen12drawContentsEv [qt-mt]	_ZN13QSplashScreen14messageChangedERK7QString [qt-mt]
_ZN13QSplashScreen15mousePressEventEP11QMouseEvent [qt-mt]	_ZN13QSplashScreen16staticMetaObjectEv [qt-mt]
_ZN13QSplashScreen18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN13QSplashScreen2trEPKcS1_ [qt-mt]
_ZN13QSplashScreen5clearEv [qt-mt]	_ZN13QSplashScreen6finishEP7QWidget [qt-mt]
ZN13QSplashScreen6trUtf8EPKcS1 [qt-mt]	_ZN13QSplashScreen7messageERK7QString [qt-mt]
_ZN13QSplashScreen7qt_castEPKc [qt-mt]	_ZN13QSplashScreen7qt_emitEiP8QUObject [qt-mt]
_ZN13QSplashScreen7repaintEv [qt-mt]	_ZN13QSplashScreen9qt_invokeEiP8QUObject [qt-mt]
_ZN13QSplashScreen9setPixmapERK7QPixmap [qt-mt]	_ZN13QSplashScreenC1ERK7QPixmapj [qt-mt]
_ZN13QSplashScreenC2ERK7QPixmapj [qt-mt]	_ZN13QSplashScreenD0Ev [qt-mt]
_ZN13QSplashScreenD1Ev [qt-mt]	_ZN13QSplashScreenD2Ev [qt-mt]
_ZN6QAccel10insertItemERK12QKeySequencei [qt-mt]	_ZN6QAccel10removeItemEi [qt-mt]
_ZN6QAccel10setEnabledEb [qt-mt]	_ZN6QAccel11connectItemEiPK7QObjectPKC [qt-mt]
_ZN6QAccel11eventFilterEP7QObjectP6QEvent [qt-mt]	_ZN6QAccel11keyToStringE12QKeySequence [qt-mt]
_ZN6QAccel11qt_propertyEiiP8QVariant [qt-mt]	_ZN6QAccel11shortcutKeyERK7QString [qt-mt]
_ZN6QAccel11stringToKeyERK7QString [qt-mt]	_ZN6QAccel12setWhatsThisEiRK7QString [qt-mt]
_ZN6QAccel14disconnectItemEiPK7QObjectPKc [qt-mt]	_ZN6QAccel14setItemEnabledEib [qt-mt]
_ZN6QAccel16staticMetaObjectEv [qt-mt]	_ZN6QAccel17repairEventFilterEv [qt-mt]
_ZN6QAccel18qt_static_propertyEP7QObjectiiP8QVariant [qt-mt]	_ZN6QAccel18setIgnoreWhatsThisEb [qt-mt]

_ZN6QAccel20activatedAmbiguouslyEi [qt-mt]	_ZN6QAccel2trEPKcS1_ [qt-mt]
_ZN6QAccel3keyEi [qt-mt]	_ZN6QAccel5clearEv [qt-mt]
ZN6QAccel6trUtf8EPKcS1 [qt-mt]	_ZN6QAccel7qt_castEPKc [qt-mt]
_ZN6QAccel7qt_emitEiP8QUObject [qt-mt]	_ZN6QAccel9activatedEi [qt-mt]
_ZN6QAccel9qt_invokeEiP8QUObject [qt-mt]	_ZN6QAccelC1EP7QWidgetP7QObjectPKc [qt-mt]
_ZN6QAccelC1EP7QWidgetPKc [qt-mt]	_ZN6QAccelC2EP7QWidgetP7QObjectPKc [qt-mt]
_ZN6QAccelC2EP7QWidgetPKc [qt-mt]	_ZN6QAccelD0Ev [qt-mt]
_ZN6QAccelD1Ev [qt-mt]	_ZN6QAccelD2Ev [qt-mt]
_ZN7QCursor10initializeEv [qt-mt]	_ZN7QCursor3posEv [qt-mt]
_ZN7QCursor6setPosEii [qt-mt]	_ZN7QCursor7cleanupEv [qt-mt]
_ZN7QCursor8find_curEi [qt-mt]	_ZN7QCursor8setShapeEi [qt-mt]
_ZN7QCursor9setBitmapERK7QBitmapS2_ii [qt-mt]	_ZN7QCursor9x11ScreenEv [qt-mt]
_ZN7QCursorC1ERK7QBitmapS2_ii [qt-mt]	_ZN7QCursorC1ERK7QPixmapii [qt-mt]
ZN7QCursorC1ERKS [qt-mt]	_ZN7QCursorC1Ei [qt-mt]
_ZN7QCursorC1Em [qt-mt]	_ZN7QCursorC1Ev [qt-mt]
_ZN7QCursorC2ERK7QBitmapS2_ii [qt-mt]	_ZN7QCursorC2ERK7QPixmapii [qt-mt]
ZN7QCursorC2ERKS [qt-mt]	_ZN7QCursorC2Ei [qt-mt]
_ZN7QCursorC2Em [qt-mt]	_ZN7QCursorC2Ev [qt-mt]
_ZN7QCursorD1Ev [qt-mt]	_ZN7QCursorD2Ev [qt-mt]
ZN7QCursoraSERKS [qt-mt]	_ZN7QRegExp10caretIndexEiNS_9CaretMode [qt-mt]
_ZN7QRegExp10setMinimalEb [qt-mt]	_ZN7QRegExp10setPatternERK7QString [qt-mt]
_ZN7QRegExp11errorStringEv [qt-mt]	_ZN7QRegExp11setWildcardEb [qt-mt]
_ZN7QRegExp13capturedTextsEv [qt-mt]	_ZN7QRegExp16invalidateEngineEv [qt-mt]
_ZN7QRegExp16setCaseSensitiveEb [qt-mt]	_ZN7QRegExp3capEi [qt-mt]
_ZN7QRegExp3posEi [qt-mt]	_ZN7QRegExp6escapeERK7QString [qt-mt]
_ZN7QRegExpC1ERK7QStringbb [qt-mt]	_ZN7QRegExpC1ERKS_ [qt-mt]
_ZN7QRegExpC1Ev [qt-mt]	_ZN7QRegExpC2ERK7QStringbb [qt-mt]
ZN7QRegExpC2ERKS [qt-mt]	_ZN7QRegExpC2Ev [qt-mt]
_ZN7QRegExpD1Ev [qt-mt]	_ZN7QRegExpD2Ev [qt-mt]
ZN7QRegExpaSERKS [qt-mt]	_ZNK10QFocusData4lastEv [qt-mt]
_ZNK10QFocusData5firstEv [qt-mt]	_ZNK12QKeySequence5countEv [qt-mt]
_ZNK12QKeySequence7isEmptyEv [qt-mt]	_ZNK12QKeySequence7matchesERKS_ [qt-mt]
_ZNK12QKeySequencecv7QStringEv [qt-mt]	_ZNK12QKeySequencecviEv [qt-mt]

ZNK12QKeySequenceeqERKS [qt-mt]	_ZNK12QKeySequenceixEj [qt-mt]
ZNK12QKeySequenceneERKS [qt-mt]	_ZNK13QRangeControl17positionFromValueE [qt-mt]
_ZNK13QRangeControl17valueFromPositionEii [qt-mt]	_ZNK13QRangeControl5boundEi [qt-mt]
_ZNK13QSplashScreen6pixmapEv [qt-mt]	_ZNK13QSplashScreen9classNameEv [qt-mt]
_ZNK6QAccel13isItemEnabledEi [qt-mt]	_ZNK6QAccel15ignoreWhatsThisEv [qt-mt]
_ZNK6QAccel5countEv [qt-mt]	_ZNK6QAccel7findKeyERK12QKeySequence [qt-mt]
_ZNK6QAccel9classNameEv [qt-mt]	_ZNK6QAccel9isEnabledEv [qt-mt]
_ZNK6QAccel9whatsThisEi [qt-mt]	_ZNK7QCursor4maskEv [qt-mt]
_ZNK7QCursor5shapeEv [qt-mt]	_ZNK7QCursor6bitmapEv [qt-mt]
_ZNK7QCursor6handleEv [qt-mt]	_ZNK7QCursor6updateEv [qt-mt]
_ZNK7QCursor7hotSpotEv [qt-mt]	_ZNK7QRegExp10exactMatchERK7QString [qt-mt]
_ZNK7QRegExp11numCapturesEv [qt-mt]	_ZNK7QRegExp13caseSensitiveEv [qt-mt]
_ZNK7QRegExp13matchedLengthEv [qt-mt]	_ZNK7QRegExp13prepareEngineEv [qt-mt]
_ZNK7QRegExp21prepareEngineForMatchERK7QString [qt-mt]	_ZNK7QRegExp5matchERK7QStringiPib [qt-mt]
_ZNK7QRegExp6searchERK7QStringi [qt-mt]	_ZNK7QRegExp6searchERK7QStringiNS_9CaretModeE [qt-mt]
_ZNK7QRegExp7isEmptyEv [qt-mt]	_ZNK7QRegExp7isValidEv [qt-mt]
_ZNK7QRegExp7minimalEv [qt-mt]	_ZNK7QRegExp7patternEv [qt-mt]
_ZNK7QRegExp8wildcardEv [qt-mt]	_ZNK7QRegExp9searchRevERK7QStringi [qt-mt]
_ZNK7QRegExp9searchRevERK7QStringiNS_9CaretModeE [qt-mt]	_ZNK7QRegExpeqERKS_ [qt-mt]

An LSB conforming implementation shall provide the generic data interfaces for Qt3 Miscellaneous specified in [Table 18-666](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 18-666. libqt-mt - Qt3 Miscellaneous Data Interfaces

_ZN13QSplashScreen7metaObjE [qt-mt]	_ZN6QAccel7metaObjE [qt-mt]
_ZTI13QRangeControl [CXXABI-1.86]	_ZTI13QSplashScreen [CXXABI-1.86]
_ZTI6QAccel [CXXABI-1.86]	_ZTV13QRangeControl [CXXABI-1.86]
_ZTV13QSplashScreen [CXXABI-1.86]	_ZTV6QAccel [CXXABI-1.86]

XIV. XML2 library

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Chapter 19. Libraries

19.1. Interfaces for libxml2

[Table 19-1](#) defines the library name and shared object name for the libxml2 library

Table 19-1. libxml2 Definition

Library:	libxml2
SONAME:	libxml2.so.2

The behavior of the interfaces in this library is specified by the following specifications:

[\[libXML2\] Reference Manual for libxml2](#)

19.1.1. The XML C parser and toolkit for XML processing

19.1.1.1. Interfaces for The XML C parser and toolkit for XML processing

An LSB conforming implementation shall provide the generic functions for The XML C parser and toolkit for XML processing specified in [Table 19-2](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 19-2. libxml2 - The XML C parser and toolkit for XML processing Function Interfaces

UTF8ToHtml [libXML2]	UTF8ToIsolat1 [libXML2]	__docbDefault
__htmlDefaultSAXHandler [libXML2]	__oldXMLWDcompatibility [libXML2]	__xmlBuffer
__xmlDefaultBufferSize [libXML2]	__xmlDefaultSAXHandler [libXML2]	__xmlDefault
__xmlDeregisterNodeDefaultValue [libXML2]	__xmlDoValidityCheckingDefaultValue [libXML2]	__xmlGeneri
__xmlGenericErrorContext [libXML2]	__xmlGetWarningsDefaultValue [libXML2]	__xmlIndent
__xmlKeepBlanksDefaultValue [libXML2]	__xmlLastError [libXML2]	__xmlLineN
__xmlLoadExtDtdDefaultValue [libXML2]	__xmlOutputBufferCreateFilenameValue [libXML2]	__xmlParser
__xmlParserInputBufferCreateFilenameValue [libXML2]	__xmlParserVersion [libXML2]	__xmlPedant
__xmlRegisterNodeDefaultValue [libXML2]	__xmlSaveNoEmptyTags [libXML2]	__xmlStruct
__xmlSubstituteEntitiesDefaultValue [libXML2]	__xmlTreeIndentString [libXML2]	docbDefault
htmlAttrAllowed [libXML2]	htmlAutoCloseTag [libXML2]	htmlCreateFi
htmlCreateMemoryParserCtxt [libXML2]	htmlCreatePushParserCtxt [libXML2]	htmlCtxtRea

htmlCtxtReadFd [libXML2]	htmlCtxtReadFile [libXML2]	htmlCtxtRea
htmlCtxtReadMemory [libXML2]	htmlCtxtReset [libXML2]	htmlCtxtUse
htmlDefaultSAXHandlerInit [libXML2]	htmlDocContentDumpFormatOutput [libXML2]	htmlDocCon
htmlDocDump [libXML2]	htmlDocDumpMemory [libXML2]	htmlElement
htmlElementStatusHere [libXML2]	htmlEncodeEntities [libXML2]	htmlEntityLo
htmlEntityValueLookup [libXML2]	htmlFreeParserCtxt [libXML2]	htmlGetMeta
htmlHandleOmittedElem [libXML2]	htmlInitAutoClose [libXML2]	htmlIsAutoC
htmlIsBooleanAttr [libXML2]	htmlIsScriptAttribute [libXML2]	htmlNewDoc
htmlNewDocNoDtD [libXML2]	htmlNodeDump [libXML2]	htmlNodeDu
htmlNodeDumpFileFormat [libXML2]	htmlNodeDumpFormatOutput [libXML2]	htmlNodeDu
htmlParseCharRef [libXML2]	htmlParseChunk [libXML2]	htmlParseDo
htmlParseDocument [libXML2]	htmlParseElement [libXML2]	htmlParseEn
htmlParseFile [libXML2]	htmlReadDoc [libXML2]	htmlReadFd
htmlReadFile [libXML2]	htmlReadIO [libXML2]	htmlReadMe
htmlSAXParseDoc [libXML2]	htmlSAXParseFile [libXML2]	htmlSaveFile
htmlSaveFileEnc [libXML2]	htmlSaveFileFormat [libXML2]	htmlSetMeta
htmlTagLookup [libXML2]	initGenericErrorDefaultFunc [libXML2]	inputPop [lib
inputPush [libXML2]	islat1ToUTF8 [libXML2]	namePop [lib
namePush [libXML2]	nodePop [libXML2]	nodePush [lib
valuePop [libXML2]	valuePush [libXML2]	xmlACatalog
xmlACatalogDump [libXML2]	xmlACatalogRemove [libXML2]	xmlACatalog
xmlACatalogResolvePublic [libXML2]	xmlACatalogResolveSystem [libXML2]	xmlACatalog
xmlAddAttributeDecl [libXML2]	xmlAddChild [libXML2]	xmlAddChil
xmlAddDocEntity [libXML2]	xmlAddDtdEntity [libXML2]	xmlAddElem
xmlAddEncodingAlias [libXML2]	xmlAddID [libXML2]	xmlAddNext
xmlAddNotationDecl [libXML2]	xmlAddPrevSibling [libXML2]	xmlAddRef [
xmlAddSibling [libXML2]	xmlAllocOutputBuffer [libXML2]	xmlAllocPar
xmlAttrSerializeTxtContent [libXML2]	xmlAutomataCompile [libXML2]	xmlAutomata
xmlAutomataIsDeterminist [libXML2]	xmlAutomataNewAllTrans [libXML2]	xmlAutomata
xmlAutomataNewCountTrans2 [libXML2]	xmlAutomataNewCountedTrans [libXML2]	xmlAutomata
xmlAutomataNewCounterTrans [libXML2]	xmlAutomataNewEpsilon [libXML2]	xmlAutomata
xmlAutomataNewOnceTrans [libXML2]	xmlAutomataNewOnceTrans2 [libXML2]	xmlAutomata
xmlAutomataNewTransition [libXML2]	xmlAutomataNewTransition2 [libXML2]	xmlAutomata

xmlBoolToText [libXML2]	xmlBufferAdd [libXML2]	xmlBufferAc
xmlBufferCCat [libXML2]	xmlBufferCat [libXML2]	xmlBufferCo
xmlBufferCreate [libXML2]	xmlBufferCreateSize [libXML2]	xmlBufferCr
xmlBufferDump [libXML2]	xmlBufferEmpty [libXML2]	xmlBufferFr
xmlBufferGrow [libXML2]	xmlBufferLength [libXML2]	xmlBufferRe
xmlBufferSetAllocationScheme [libXML2]	xmlBufferShrink [libXML2]	xmlBufferW
xmlBufferWriteChar [libXML2]	xmlBufferWriteQuotedString [libXML2]	xmlBuildQN
xmlBuildRelativeURI [libXML2]	xmlBuildURI [libXML2]	xmlByteCon
xmlC14NDocDumpMemory [libXML2]	xmlC14NDocSave [libXML2]	xmlC14NDoc
xmlC14NExecute [libXML2]	xmlCanonicPath [libXML2]	xmlCatalogA
xmlCatalogAddLocal [libXML2]	xmlCatalogCleanup [libXML2]	xmlCatalogC
xmlCatalogDump [libXML2]	xmlCatalogFreeLocal [libXML2]	xmlCatalogC
xmlCatalogIsEmpty [libXML2]	xmlCatalogLocalResolve [libXML2]	xmlCatalogL
xmlCatalogRemove [libXML2]	xmlCatalogResolve [libXML2]	xmlCatalogR
xmlCatalogResolveSystem [libXML2]	xmlCatalogResolveURI [libXML2]	xmlCatalogS
xmlCatalogSetDefaultPrefer [libXML2]	xmlCatalogSetDefaults [libXML2]	xmlCharEnc
xmlCharEncFirstLine [libXML2]	xmlCharEncInFunc [libXML2]	xmlCharEnc
xmlCharStrdup [libXML2]	xmlCharStrndup [libXML2]	xmlCheckFil
xmlCheckHTTPInput [libXML2]	xmlCheckUTF8 [libXML2]	xmlCheckVe
xmlCleanupCharEncodingHandlers [libXML2]	xmlCleanupEncodingAliases [libXML2]	xmlCleanupC
xmlCleanupInputCallbacks [libXML2]	xmlCleanupMemory [libXML2]	xmlCleanupC
xmlCleanupParser [libXML2]	xmlCleanupThreads [libXML2]	xmlClearNoc
xmlClearParserCtxt [libXML2]	xmlConvertSGMLCatalog [libXML2]	xmlCopyAttr
xmlCopyChar [libXML2]	xmlCopyCharMultiByte [libXML2]	xmlCopyDoc
xmlCopyDocElementContent [libXML2]	xmlCopyDtd [libXML2]	xmlCopyEle
xmlCopyEntitiesTable [libXML2]	xmlCopyEnumeration [libXML2]	xmlCopyErr
xmlCopyNamespace [libXML2]	xmlCopyNamespaceList [libXML2]	xmlCopyNoc
xmlCopyNodeList [libXML2]	xmlCopyNotationTable [libXML2]	xmlCopyPro
xmlCopyPropList [libXML2]	xmlCreateDocParserCtxt [libXML2]	xmlCreateEn
xmlCreateEnumeration [libXML2]	xmlCreateFileParserCtxt [libXML2]	xmlCreateIO
xmlCreateIntSubset [libXML2]	xmlCreateMemoryParserCtxt [libXML2]	xmlCreatePu
xmlCreateURI [libXML2]	xmlCreateURLParserCtxt [libXML2]	xmlCtxtGetL
xmlCtxtReadDoc [libXML2]	xmlCtxtReadFd [libXML2]	xmlCtxtRead

xmlCtxtReadIO [libXML2]	xmlCtxtReadMemory [libXML2]	xmlCtxtReset
xmlCtxtResetLastError [libXML2]	xmlCtxtResetPush [libXML2]	xmlCtxtUseOptions
xmlCurrentChar [libXML2]	xmlDOMWrapFreeCtxt [libXML2]	xmlDOMWrapGetDoc
xmlDebugCheckDocument [libXML2]	xmlDebugDumpAttr [libXML2]	xmlDebugDumpDoc
xmlDebugDumpDTD [libXML2]	xmlDebugDumpDocument [libXML2]	xmlDebugDumpEntity
xmlDebugDumpEntities [libXML2]	xmlDebugDumpNode [libXML2]	xmlDebugDumpOutput
xmlDebugDumpOneNode [libXML2]	xmlDebugDumpString [libXML2]	xmlDefaultSAX
xmlDelEncodingAlias [libXML2]	xmlDeregisterNodeDefault [libXML2]	xmlDetectCharEncoding
xmlDictCleanup [libXML2]	xmlDictCreate [libXML2]	xmlDictCreateEntry
xmlDictExists [libXML2]	xmlDictFree [libXML2]	xmlDictLookup
xmlDictOwns [libXML2]	xmlDictQLookup [libXML2]	xmlDictReference
xmlDictSize [libXML2]	xmlDocCopyNode [libXML2]	xmlDocCopyText
xmlDocDump [libXML2]	xmlDocDumpFormatMemory [libXML2]	xmlDocDumpText
xmlDocDumpMemory [libXML2]	xmlDocDumpMemoryEnc [libXML2]	xmlDocFormat
xmlDocGetRootElement [libXML2]	xmlDocSetRootElement [libXML2]	xmlDumpAttributeTable
xmlDumpAttributeTable [libXML2]	xmlDumpElementDecl [libXML2]	xmlDumpElementTable
xmlDumpEntitiesTable [libXML2]	xmlDumpEntityDecl [libXML2]	xmlDumpEntityTable
xmlDumpNotationTable [libXML2]	xmlElemDump [libXML2]	xmlEncodeEntities
xmlEncodeSpecialChars [libXML2]	xmlExpCtxtNbCons [libXML2]	xmlExpCtxtNbCons
xmlExpDump [libXML2]	xmlExpExpDerive [libXML2]	xmlExpFreeCtxt
xmlExpFreeCtxt [libXML2]	xmlExpGetLanguage [libXML2]	xmlExpGetSAX
xmlExpIsNillable [libXML2]	xmlExpMaxToken [libXML2]	xmlExpNewCtxt
xmlExpNewCtxt [libXML2]	xmlExpNewOr [libXML2]	xmlExpNewSeq
xmlExpNewSeq [libXML2]	xmlExpParse [libXML2]	xmlExpRef
xmlExpStringDerive [libXML2]	xmlExpSubsume [libXML2]	xmlFileClose
xmlFileMatch [libXML2]	xmlFileOpen [libXML2]	xmlFileRead
xmlFindCharEncodingHandler [libXML2]	xmlFreeAttributeTable [libXML2]	xmlFreeAutotable
xmlFreeCatalog [libXML2]	xmlFreeDoc [libXML2]	xmlFreeDocTable
xmlFreeDtd [libXML2]	xmlFreeElementTable [libXML2]	xmlFreeEntityTable
xmlFreeEnumeration [libXML2]	xmlFreeIDTable [libXML2]	xmlFreeInput
xmlFreeMutex [libXML2]	xmlFreeNode [libXML2]	xmlFreeNodeTable
xmlFreeNotationTable [libXML2]	xmlFreeNs [libXML2]	xmlFreeNsList
xmlFreeParserCtxt [libXML2]	xmlFreeParserInputBuffer [libXML2]	xmlFreePattern

xmlFreePatternList [libXML2]	xmlFreeProp [libXML2]	xmlFreeProp
xmlFreeRMutex [libXML2]	xmlFreeRefTable [libXML2]	xmlFreeStrea
xmlFreeTextReader [libXML2]	xmlFreeTextWriter [libXML2]	xmlFreeURI
xmlFreeValidCtxt [libXML2]	xmlGcMemGet [libXML2]	xmlGcMemS
xmlGetBufferAllocationScheme [libXML2]	xmlGetCharEncodingHandler [libXML2]	xmlGetCharl
xmlGetCompressMode [libXML2]	xmlGetDocCompressMode [libXML2]	xmlGetDocE
xmlGetDtdAttrDesc [libXML2]	xmlGetDtdElementDesc [libXML2]	xmlGetDtdE
xmlGetDtdNotationDesc [libXML2]	xmlGetDtdQAttrDesc [libXML2]	xmlGetDtdQ
xmlGetEncodingAlias [libXML2]	xmlGetExternalEntityLoader [libXML2]	xmlGetGloba
xmlGetID [libXML2]	xmlGetIntSubset [libXML2]	xmlGetLastC
xmlGetLastError [libXML2]	xmlGetLineNo [libXML2]	xmlGetNoNs
xmlGetNodePath [libXML2]	xmlGetNsList [libXML2]	xmlGetNsPro
xmlGetParameterEntity [libXML2]	xmlGetPredefinedEntity [libXML2]	xmlGetProp
xmlGetRefs [libXML2]	xmlGetThreadId [libXML2]	xmlGetUTF8
xmlHasFeature [libXML2]	xmlHasNsProp [libXML2]	xmlHasProp
xmlHashAddEntry [libXML2]	xmlHashAddEntry2 [libXML2]	xmlHashAdd
xmlHashCopy [libXML2]	xmlHashCreate [libXML2]	xmlHashCre
xmlHashFree [libXML2]	xmlHashLookup [libXML2]	xmlHashLoo
xmlHashLookup3 [libXML2]	xmlHashQLookup [libXML2]	xmlHashQLo
xmlHashQLookup3 [libXML2]	xmlHashRemoveEntry [libXML2]	xmlHashRen
xmlHashRemoveEntry3 [libXML2]	xmlHashScan [libXML2]	xmlHashScan
xmlHashScanFull [libXML2]	xmlHashScanFull3 [libXML2]	xmlHashSize
xmlHashUpdateEntry [libXML2]	xmlHashUpdateEntry2 [libXML2]	xmlHashUpd
xmlIOFTPclose [libXML2]	xmlIOFTPMatch [libXML2]	xmlIOFTPOpen
xmlIOFTPRead [libXML2]	xmlIOHTTFClose [libXML2]	xmlIOHTTPO
xmlIOHTTPOpen [libXML2]	xmlIOHTTPOpenW [libXML2]	xmlIOHTTPT
xmlIOParseDTD [libXML2]	xmlInitCharEncodingHandlers [libXML2]	xmlInitGloba
xmlInitMemory [libXML2]	xmlInitNodeInfoSeq [libXML2]	xmlInitParse
xmlInitParserCtxt [libXML2]	xmlInitThreads [libXML2]	xmlInitializ
xmlInitializeGlobalState [libXML2]	xmlIsBlankNode [libXML2]	xmlIsID [lib
xmlIsLetter [libXML2]	xmlIsMainThread [libXML2]	xmlIsMixedD
xmlIsRef [libXML2]	xmlIsXHTML [libXML2]	xmlKeepBlar
xmlLineNumbersDefault [libXML2]	xmlLinkGetData [libXML2]	xmlListAppe

xmlListClear [libXML2]	xmlListCopy [libXML2]	xmlListCreat
xmlListDelete [libXML2]	xmlListDup [libXML2]	xmlListEmpt
xmlListEnd [libXML2]	xmlListFront [libXML2]	xmlListInser
xmlListMerge [libXML2]	xmlListPopBack [libXML2]	xmlListPopF
xmlListPushBack [libXML2]	xmlListPushFront [libXML2]	xmlListRemo
xmlListRemoveFirst [libXML2]	xmlListRemoveLast [libXML2]	xmlListReve
xmlListReverseSearch [libXML2]	xmlListReverseWalk [libXML2]	xmlListSearc
xmlListSize [libXML2]	xmlListSort [libXML2]	xmlListWalk
xmlLoadACatalog [libXML2]	xmlLoadCatalog [libXML2]	xmlLoadCata
xmlLoadExternalEntity [libXML2]	xmlLoadSGMLSuperCatalog [libXML2]	xmlLockLibr
xmlLsCountNode [libXML2]	xmlLsOneNode [libXML2]	xmlMallocA
xmlMallocLoc [libXML2]	xmlMemBlocks [libXML2]	xmlMemDisp
xmlMemFree [libXML2]	xmlMemGet [libXML2]	xmlMemMal
xmlMemRealloc [libXML2]	xmlMemSetup [libXML2]	xmlMemSho
xmlMemStrdupLoc [libXML2]	xmlMemUsed [libXML2]	xmlMemoryl
xmlMemoryStrdup [libXML2]	xmlModuleClose [libXML2]	xmlModuleF
xmlModuleOpen [libXML2]	xmlModuleSymbol [libXML2]	xmlMutexLo
xmlMutexUnlock [libXML2]	xmlNewAutomata [libXML2]	xmlNewCDa
xmlNewCatalog [libXML2]	xmlNewCharEncodingHandler [libXML2]	xmlNewChar
xmlNewChild [libXML2]	xmlNewComment [libXML2]	xmlNewDoc
xmlNewDocComment [libXML2]	xmlNewDocElementContent [libXML2]	xmlNewDoc
xmlNewDocNode [libXML2]	xmlNewDocNodeEatName [libXML2]	xmlNewDoc
xmlNewDocProp [libXML2]	xmlNewDocRawNode [libXML2]	xmlNewDoc
xmlNewDocTextLen [libXML2]	xmlNewDtd [libXML2]	xmlNewEnti
xmlNewIOInputStream [libXML2]	xmlNewInputFromFile [libXML2]	xmlNewInpu
xmlNewMutex [libXML2]	xmlNewNode [libXML2]	xmlNewNod
xmlNewNs [libXML2]	xmlNewNsProp [libXML2]	xmlNewNsP
xmlNewPI [libXML2]	xmlNewParserCtxt [libXML2]	xmlNewProp
xmlNewRMutex [libXML2]	xmlNewReference [libXML2]	xmlNewStrin
xmlNewText [libXML2]	xmlNewTextChild [libXML2]	xmlNewText
xmlNewTextReader [libXML2]	xmlNewTextReaderFilename [libXML2]	xmlNewText
xmlNewTextWriterDoc [libXML2]	xmlNewTextWriterFilename [libXML2]	xmlNewText
xmlNewTextWriterPushParser [libXML2]	xmlNewTextWriterTree [libXML2]	xmlNewVali

xmlNextChar [libXML2]	xmlNoNetExternalEntityLoader [libXML2]	xmlNodeAdd
xmlNodeAddContentLen [libXML2]	xmlNodeBufGetContent [libXML2]	xmlNodeDur
xmlNodeDumpOutput [libXML2]	xmlNodeGetBase [libXML2]	xmlNodeGet
xmlNodeGetLang [libXML2]	xmlNodeGetSpacePreserve [libXML2]	xmlNodeIsT
xmlNodeListGetRawString [libXML2]	xmlNodeListGetString [libXML2]	xmlNodeSet
xmlNodeSetContent [libXML2]	xmlNodeSetContentLen [libXML2]	xmlNodeSet
xmlNodeSetName [libXML2]	xmlNodeSetSpacePreserve [libXML2]	xmlNormaliz
xmlNormalizeWindowsPath [libXML2]	xmlOutputBufferClose [libXML2]	xmlOutputBu
xmlOutputBufferCreateFile [libXML2]	xmlOutputBufferCreateFilename [libXML2]	xmlOutputBu [libXML2]
xmlOutputBufferCreateIO [libXML2]	xmlOutputBufferFlush [libXML2]	xmlOutputBu
xmlOutputBufferWriteEscape [libXML2]	xmlOutputBufferWriteString [libXML2]	xmlParseAtt
xmlParseAttribute [libXML2]	xmlParseAttributeListDecl [libXML2]	xmlParseAttr
xmlParseBalancedChunkMemory [libXML2]	xmlParseBalancedChunkMemoryRecover [libXML2]	xmlParseCD
xmlParseCatalogFile [libXML2]	xmlParseCharData [libXML2]	xmlParseCha
xmlParseCharRef [libXML2]	xmlParseChunk [libXML2]	xmlParseCor
xmlParseContent [libXML2]	xmlParseCtxtExternalEntity [libXML2]	xmlParseDT
xmlParseDefaultDecl [libXML2]	xmlParseDoc [libXML2]	xmlParseDoc
xmlParseDocument [libXML2]	xmlParseElement [libXML2]	xmlParseEle [libXML2]
xmlParseElementContentDecl [libXML2]	xmlParseElementDecl [libXML2]	xmlParseEle
xmlParseEncName [libXML2]	xmlParseEncodingDecl [libXML2]	xmlParseEnc
xmlParseEntity [libXML2]	xmlParseEntityDecl [libXML2]	xmlParseEnt
xmlParseEntityValue [libXML2]	xmlParseEnumeratedType [libXML2]	xmlParseEnu
xmlParseExtParsedEnt [libXML2]	xmlParseExternalEntity [libXML2]	xmlParseExt
xmlParseExternalSubset [libXML2]	xmlParseFile [libXML2]	xmlParseInN
xmlParseMarkupDecl [libXML2]	xmlParseMemory [libXML2]	xmlParseMis
xmlParseName [libXML2]	xmlParseNmtoken [libXML2]	xmlParseNot
xmlParseNotationType [libXML2]	xmlParsePEReference [libXML2]	xmlParsePI [libXML2]
xmlParsePITarget [libXML2]	xmlParsePubidLiteral [libXML2]	xmlParseRef
xmlParseSDDDecl [libXML2]	xmlParseStartTag [libXML2]	xmlParseSys
xmlParseTextDecl [libXML2]	xmlParseURI [libXML2]	xmlParseUR
xmlParseURIReference [libXML2]	xmlParseVersionInfo [libXML2]	xmlParseVer

xmlParseXMLDecl [libXML2]	xmlParserAddNodeInfo [libXML2]	xmlParserErr
xmlParserFindNodeInfo [libXML2]	xmlParserFindNodeInfoIndex [libXML2]	xmlParserGe
xmlParserHandlePEReference [libXML2]	xmlParserInputBufferCreateFd [libXML2]	xmlParserInp
xmlParserInputBufferCreateFilename [libXML2]	xmlParserInputBufferCreateFilenameDefault [libXML2]	xmlParserInp
xmlParserInputBufferCreateMem [libXML2]	xmlParserInputBufferCreateStatic [libXML2]	xmlParserInp
xmlParserInputBufferPush [libXML2]	xmlParserInputBufferRead [libXML2]	xmlParserInp
xmlParserInputRead [libXML2]	xmlParserInputShrink [libXML2]	xmlParserPri
xmlParserPrintFileInfo [libXML2]	xmlParserValidityError [libXML2]	xmlParserVa
xmlParserWarning [libXML2]	xmlPatternFromRoot [libXML2]	xmlPatternG
xmlPatternMatch [libXML2]	xmlPatternMaxDepth [libXML2]	xmlPatternM
xmlPatternStreamable [libXML2]	xmlPatterncompile [libXML2]	xmlPedantic
xmlPopInput [libXML2]	xmlPopInputCallbacks [libXML2]	xmlPrintURI
xmlPushInput [libXML2]	xmlRMutexLock [libXML2]	xmlRMutexU
xmlReadDoc [libXML2]	xmlReadFd [libXML2]	xmlReadFile
xmlReadIO [libXML2]	xmlReadMemory [libXML2]	xmlReaderFo
xmlReaderForFd [libXML2]	xmlReaderForFile [libXML2]	xmlReaderFo
xmlReaderForMemory [libXML2]	xmlReaderNewDoc [libXML2]	xmlReaderN
xmlReaderNewFile [libXML2]	xmlReaderNewIO [libXML2]	xmlReaderN
xmlReaderNewWalker [libXML2]	xmlReaderWalker [libXML2]	xmlReallocL
xmlReconciliateNs [libXML2]	xmlRecoverDoc [libXML2]	xmlRecoverF
xmlRecoverMemory [libXML2]	xmlRegExecErrInfo [libXML2]	xmlRegExec
xmlRegExecPushString [libXML2]	xmlRegExecPushString2 [libXML2]	xmlRegFree
xmlRegFreeRegexp [libXML2]	xmlRegNewExecCtxt [libXML2]	xmlRegexpC
xmlRegexpExec [libXML2]	xmlRegexpIsDeterminist [libXML2]	xmlRegexpP
xmlRegisterCharEncodingHandler [libXML2]	xmlRegisterDefaultInputCallbacks [libXML2]	xmlRegisterF
xmlRegisterHTTPPostCallbacks [libXML2]	xmlRegisterInputCallbacks [libXML2]	xmlRegisterF
xmlRegisterOutputCallbacks [libXML2]	xmlRelaxNGCleanupTypes [libXML2]	xmlRelaxNG
xmlRelaxNGDumpTree [libXML2]	xmlRelaxNGFree [libXML2]	xmlRelaxNG
xmlRelaxNGFreeValidCtxt [libXML2]	xmlRelaxNGGetParserErrors [libXML2]	xmlRelaxNG
xmlRelaxNGInitTypes [libXML2]	xmlRelaxNGNewDocParserCtxt [libXML2]	xmlRelaxNG
xmlRelaxNGNewParserCtxt [libXML2]	xmlRelaxNGNewValidCtxt [libXML2]	xmlRelaxNG
xmlRelaxNGSetParserErrors [libXML2]	xmlRelaxNGSetValidErrors [libXML2]	xmlRelaxNG

		[libXML2]
xmlRelaxNGValidateDoc [libXML2]	xmlRelaxNGValidateFullElement [libXML2]	xmlRelaxNG
xmlRelaxNGValidatePushCDATA [libXML2]	xmlRelaxNGValidatePushElement [libXML2]	xmlRelaxPar
xmlRemoveID [libXML2]	xmlRemoveProp [libXML2]	xmlRemoveE
xmlReplaceNode [libXML2]	xmlResetError [libXML2]	xmlResetLas
xmlSAX2AttributeDecl [libXML2]	xmlSAX2CDATABlock [libXML2]	xmlSAX2Ch
xmlSAX2Comment [libXML2]	xmlSAX2ElementDecl [libXML2]	xmlSAX2En
xmlSAX2EndElement [libXML2]	xmlSAX2EndElementNs [libXML2]	xmlSAX2En
xmlSAX2ExternalSubset [libXML2]	xmlSAX2GetColumnNumber [libXML2]	xmlSAX2Ge
xmlSAX2GetLineNumber [libXML2]	xmlSAX2GetParameterEntity [libXML2]	xmlSAX2Ge
xmlSAX2GetSystemId [libXML2]	xmlSAX2HasExternalSubset [libXML2]	xmlSAX2Ha
xmlSAX2IgnorableWhitespace [libXML2]	xmlSAX2InitDefaultSAXHandler [libXML2]	xmlSAX2Ini [libXML2]
xmlSAX2InitHtmlDefaultSAXHandler [libXML2]	xmlSAX2InternalSubset [libXML2]	xmlSAX2IsS
xmlSAX2NotationDecl [libXML2]	xmlSAX2ProcessingInstruction [libXML2]	xmlSAX2Re
xmlSAX2ResolveEntity [libXML2]	xmlSAX2SetDocumentLocator [libXML2]	xmlSAX2Sta
xmlSAX2StartElement [libXML2]	xmlSAX2StartElementNs [libXML2]	xmlSAX2Un
xmlSAXDefaultVersion [libXML2]	xmlSAXParseDTD [libXML2]	xmlSAXPar
xmlSAXParseEntity [libXML2]	xmlSAXParseFile [libXML2]	xmlSAXPar
xmlSAXParseMemory [libXML2]	xmlSAXParseMemoryWithData [libXML2]	xmlSAXUse
xmlSAXUserParseMemory [libXML2]	xmlSAXVersion [libXML2]	xmlSaveClos
xmlSaveDoc [libXML2]	xmlSaveFile [libXML2]	xmlSaveFile
xmlSaveFileTo [libXML2]	xmlSaveFlush [libXML2]	xmlSaveForm
xmlSaveFormatFileEnc [libXML2]	xmlSaveFormatFileTo [libXML2]	xmlSaveSetA
xmlSaveSetEscape [libXML2]	xmlSaveToFd [libXML2]	xmlSaveToF
xmlSaveToIO [libXML2]	xmlSaveTree [libXML2]	xmlSaveUri
xmlSchemaCleanupTypes [libXML2]	xmlSchemaCollapseString [libXML2]	xmlSchemaC
xmlSchemaDump [libXML2]	xmlSchemaFree [libXML2]	xmlSchemaF
xmlSchemaFreeValidCtxt [libXML2]	xmlSchemaFreeValue [libXML2]	xmlSchemaC
xmlSchemaGetCanonValue [libXML2]	xmlSchemaGetParserErrors [libXML2]	xmlSchemaC
xmlSchemaGetValidErrors [libXML2]	xmlSchemaInitTypes [libXML2]	xmlSchemaI
xmlSchemaNewDocParserCtxt [libXML2]	xmlSchemaNewMemParserCtxt [libXML2]	xmlSchemaN

xmlSchemaNewValidCtxt [libXML2]	xmlSchemaParse [libXML2]	xmlSchemaS
xmlSchemaSAXUnplug [libXML2]	xmlSchemaSetParserErrors [libXML2]	xmlSchemaS
xmlSchemaSetValidOptions [libXML2]	xmlSchemaSetValidStructuredErrors [libXML2]	xmlSchemaV
xmlSchemaValidCtxtGetOptions [libXML2]	xmlSchemaValidateDoc [libXML2]	xmlSchemaV
xmlSchemaValidateOneElement [libXML2]	xmlSchemaValidateStream [libXML2]	xmlSchematr
xmlSchematronFreeParserCtxt [libXML2]	xmlSchematronFreeValidCtxt [libXML2]	xmlSchematr
xmlSchematronNewMemParserCtxt [libXML2]	xmlSchematronNewParserCtxt [libXML2]	xmlSchematr
xmlSchematronParse [libXML2]	xmlSchematronValidateDoc [libXML2]	xmlSearchNs
xmlSearchNsByHref [libXML2]	xmlSetBufferAllocationScheme [libXML2]	xmlSetComp
xmlSetDocCompressMode [libXML2]	xmlSetEntityReferenceFunc [libXML2]	xmlSetExtern
xmlSetGenericErrorFunc [libXML2]	xmlSetListDoc [libXML2]	xmlSetNs [li
xmlSetNsProp [libXML2]	xmlSetProp [libXML2]	xmlSetStruct
xmlSetTreeDoc [libXML2]	xmlSetupParserForBuffer [libXML2]	xmlShell [lib
xmlShellBase [libXML2]	xmlShellCat [libXML2]	xmlShellDir
xmlShellDu [libXML2]	xmlShellList [libXML2]	xmlShellLoa
xmlShellPrintNode [libXML2]	xmlShellPrintXPathError [libXML2]	xmlShellPrim
xmlShellPwd [libXML2]	xmlShellSave [libXML2]	xmlShellVal
xmlShellWrite [libXML2]	xmlSkipBlankChars [libXML2]	xmlSnprintf
xmlSplitQName [libXML2]	xmlSplitQName2 [libXML2]	xmlSplitQNa
xmlStopParser [libXML2]	xmlStrEqual [libXML2]	xmlStrPrintf
xmlStrQEqual [libXML2]	xmlStrVPrintf [libXML2]	xmlStrcasecr
xmlStrcasestr [libXML2]	xmlStrcat [libXML2]	xmlStrchr [li
xmlStrcmp [libXML2]	xmlStrdup [libXML2]	xmlStreamPo
xmlStreamPush [libXML2]	xmlStreamPushAttr [libXML2]	xmlStringCu
xmlStringDecodeEntities [libXML2]	xmlStringGetNodeList [libXML2]	xmlStringLe
xmlStringLenGetNodeList [libXML2]	xmlStrlen [libXML2]	xmlStrncasec
xmlStrncat [libXML2]	xmlStrncatNew [libXML2]	xmlStrncmp
xmlStrndup [libXML2]	xmlStrstr [libXML2]	xmlStrsub [li
xmlSubstituteEntitiesDefault [libXML2]	xmlSwitchEncoding [libXML2]	xmlSwitchIn
xmlSwitchToEncoding [libXML2]	xmlTextConcat [libXML2]	xmlTextMer
xmlTextReaderAttributeCount [libXML2]	xmlTextReaderBaseUri [libXML2]	xmlTextRea
xmlTextReaderClose [libXML2]	xmlTextReaderConstBaseUri [libXML2]	xmlTextRea
xmlTextReaderConstLocalName [libXML2]	xmlTextReaderConstName [libXML2]	xmlTextRea

xmlTextReaderConstPrefix [libXML2]	xmlTextReaderConstString [libXML2]	xmlTextReaderConstString [libXML2]
xmlTextReaderConstXmlLang [libXML2]	xmlTextReaderConstXmlVersion [libXML2]	xmlTextReaderConstXmlVersion [libXML2]
xmlTextReaderCurrentNode [libXML2]	xmlTextReaderDepth [libXML2]	xmlTextReaderDepth [libXML2]
xmlTextReaderGetAttribute [libXML2]	xmlTextReaderGetAttributeNo [libXML2]	xmlTextReaderGetAttributeNo [libXML2]
xmlTextReaderGetErrorHandler [libXML2]	xmlTextReaderGetParserColumnNumber [libXML2]	xmlTextReaderGetParserColumnNumber [libXML2]
xmlTextReaderGetParserProp [libXML2]	xmlTextReaderGetRemainder [libXML2]	xmlTextReaderGetRemainder [libXML2]
xmlTextReaderHasValue [libXML2]	xmlTextReaderIsDefault [libXML2]	xmlTextReaderIsDefault [libXML2]
xmlTextReaderIsNamespaceDecl [libXML2]	xmlTextReaderIsValid [libXML2]	xmlTextReaderIsValid [libXML2]
xmlTextReaderLocatorBaseURI [libXML2]	xmlTextReaderLocatorLineNumber [libXML2]	xmlTextReaderLocatorLineNumber [libXML2]
xmlTextReaderMoveToAttribute [libXML2]	xmlTextReaderMoveToAttributeNo [libXML2]	xmlTextReaderMoveToAttributeNo [libXML2]
xmlTextReaderMoveToElement [libXML2]	xmlTextReaderMoveToFirstAttribute [libXML2]	xmlTextReaderMoveToFirstAttribute [libXML2]
xmlTextReaderName [libXML2]	xmlTextReaderNamespaceUri [libXML2]	xmlTextReaderNamespaceUri [libXML2]
xmlTextReaderNextSibling [libXML2]	xmlTextReaderNodeType [libXML2]	xmlTextReaderNodeType [libXML2]
xmlTextReaderPrefix [libXML2]	xmlTextReaderPreserve [libXML2]	xmlTextReaderPreserve [libXML2]
xmlTextReaderQuoteChar [libXML2]	xmlTextReaderRead [libXML2]	xmlTextReaderRead [libXML2]
xmlTextReaderReadInnerXml [libXML2]	xmlTextReaderReadOuterXml [libXML2]	xmlTextReaderReadOuterXml [libXML2]
xmlTextReaderReadString [libXML2]	xmlTextReaderRelaxNGSetSchema [libXML2]	xmlTextReaderRelaxNGSetSchema [libXML2]
xmlTextReaderSchemaValidate [libXML2]	xmlTextReaderSetErrorHandler [libXML2]	xmlTextReaderSetErrorHandler [libXML2]
xmlTextReaderSetSchema [libXML2]	xmlTextReaderSetStructuredErrorHandler [libXML2]	xmlTextReaderSetStructuredErrorHandler [libXML2]
xmlTextReaderValue [libXML2]	xmlTextReaderXmlLang [libXML2]	xmlTextReaderXmlLang [libXML2]
xmlTextWriterEndCDATA [libXML2]	xmlTextWriterEndComment [libXML2]	xmlTextWriterEndComment [libXML2]
xmlTextWriterEndDTDAttlist [libXML2]	xmlTextWriterEndDTDElement [libXML2]	xmlTextWriterEndDTDElement [libXML2]
xmlTextWriterEndDocument [libXML2]	xmlTextWriterEndElement [libXML2]	xmlTextWriterEndElement [libXML2]
xmlTextWriterFlush [libXML2]	xmlTextWriterFullEndElement [libXML2]	xmlTextWriterFullEndElement [libXML2]
xmlTextWriterSetIndentString [libXML2]	xmlTextWriterStartAttribute [libXML2]	xmlTextWriterStartAttribute [libXML2]
xmlTextWriterStartCDATA [libXML2]	xmlTextWriterStartComment [libXML2]	xmlTextWriterStartComment [libXML2]
xmlTextWriterStartDTDAttlist [libXML2]	xmlTextWriterStartDTDElement [libXML2]	xmlTextWriterStartDTDElement [libXML2]
xmlTextWriterStartDocument [libXML2]	xmlTextWriterStartElement [libXML2]	xmlTextWriterStartElement [libXML2]
xmlTextWriterStartPI [libXML2]	xmlTextWriterWriteAttribute [libXML2]	xmlTextWriterWriteAttribute [libXML2]
xmlTextWriterWriteBase64 [libXML2]	xmlTextWriterWriteBinHex [libXML2]	xmlTextWriterWriteBinHex [libXML2]
xmlTextWriterWriteComment [libXML2]	xmlTextWriterWriteDTD [libXML2]	xmlTextWriterWriteDTD [libXML2]

xmlTextWriterWriteDTDElement [libXML2]	xmlTextWriterWriteDTDEntity [libXML2]	xmlTextWriterWriteDTDEntity [libXML2]
xmlTextWriterWriteDTDEntityContents [libXML2]	xmlTextWriterWriteDTDInternalEntity [libXML2]	xmlTextWriterWriteDTDInternalEntity [libXML2]
xmlTextWriterWriteElement [libXML2]	xmlTextWriterWriteElementNS [libXML2]	xmlTextWriterWriteElementNS [libXML2]
xmlTextWriterWriteFormatAttributeNS [libXML2]	xmlTextWriterWriteFormatCDATA [libXML2]	xmlTextWriterWriteFormatCDATA [libXML2]
xmlTextWriterWriteFormatDTD [libXML2]	xmlTextWriterWriteFormatDTDAttlist [libXML2]	xmlTextWriterWriteFormatDTDAttlist [libXML2]
xmlTextWriterWriteFormatDTDInternalEntity [libXML2]	xmlTextWriterWriteFormatElement [libXML2]	xmlTextWriterWriteFormatElement [libXML2]
xmlTextWriterWriteFormatPI [libXML2]	xmlTextWriterWriteFormatRaw [libXML2]	xmlTextWriterWriteFormatRaw [libXML2]
xmlTextWriterWritePI [libXML2]	xmlTextWriterWriteRaw [libXML2]	xmlTextWriterWriteRaw [libXML2]
xmlTextWriterWriteString [libXML2]	xmlTextWriterWriteVFormatAttribute [libXML2]	xmlTextWriterWriteVFormatAttribute [libXML2]
xmlTextWriterWriteVFormatCDATA [libXML2]	xmlTextWriterWriteVFormatComment [libXML2]	xmlTextWriterWriteVFormatComment [libXML2]
xmlTextWriterWriteVFormatDTDAttlist [libXML2]	xmlTextWriterWriteVFormatDTDElement [libXML2]	xmlTextWriterWriteVFormatDTDElement [libXML2]
xmlTextWriterWriteVFormatElement [libXML2]	xmlTextWriterWriteVFormatElementNS [libXML2]	xmlTextWriterWriteVFormatElementNS [libXML2]
xmlTextWriterWriteVFormatRaw [libXML2]	xmlTextWriterWriteVFormatString [libXML2]	xmlTextWriterWriteVFormatString [libXML2]
xmlThrDefDefaultBufferSize [libXML2]	xmlThrDefDeregisterNodeDefault [libXML2]	xmlThrDefDeregisterNodeDefault [libXML2]
xmlThrDefGetWarningsDefaultValue [libXML2]	xmlThrDefIndentTreeOutput [libXML2]	xmlThrDefIndentTreeOutput [libXML2]
xmlThrDefLineNumbersDefaultValue [libXML2]	xmlThrDefLoadExtDtdDefaultValue [libXML2]	xmlThrDefLoadExtDtdDefaultValue [libXML2]
xmlThrDefParserDebugEntities [libXML2]	xmlThrDefParserInputBufferCreateFilenameDefault [libXML2]	xmlThrDefParserInputBufferCreateFilenameDefault [libXML2]
xmlThrDefRegisterNodeDefault [libXML2]	xmlThrDefSaveNoEmptyTags [libXML2]	xmlThrDefSaveNoEmptyTags [libXML2]
xmlThrDefSetStructuredErrorFunc [libXML2]	xmlThrDefSubstituteEntitiesDefaultValue [libXML2]	xmlThrDefSubstituteEntitiesDefaultValue [libXML2]
xmlURIEscape [libXML2]	xmlURIEscapeStr [libXML2]	xmlURIEscapeStr [libXML2]
xmlUTF8Charcmp [libXML2]	xmlUTF8Size [libXML2]	xmlUTF8Size [libXML2]
xmlUTF8Strloc [libXML2]	xmlUTF8Strndup [libXML2]	xmlUTF8Strndup [libXML2]
xmlUTF8Strsize [libXML2]	xmlUTF8Strsub [libXML2]	xmlUTF8Strsub [libXML2]
xmlUnlockLibrary [libXML2]	xmlUnsetNsProp [libXML2]	xmlUnsetNsProp [libXML2]

xmlValidBuildContentModel [libXML2]	xmlValidCtxtNormalizeAttributeValue [libXML2]	xmlValidGet
xmlValidGetValidElements [libXML2]	xmlValidNormalizeAttributeValue [libXML2]	xmlValidate
xmlValidateAttributeValue [libXML2]	xmlValidateDocument [libXML2]	xmlValidate
xmlValidateDtd [libXML2]	xmlValidateDtdFinal [libXML2]	xmlValidate
xmlValidateElementDecl [libXML2]	xmlValidateNCName [libXML2]	xmlValidate
xmlValidateName [libXML2]	xmlValidateNameValue [libXML2]	xmlValidate
xmlValidateNmtokenValue [libXML2]	xmlValidateNmtokensValue [libXML2]	xmlValidate
xmlValidateNotationUse [libXML2]	xmlValidateOneAttribute [libXML2]	xmlValidate
xmlValidateOneNamespace [libXML2]	xmlValidatePopElement [libXML2]	xmlValidate
xmlValidatePushElement [libXML2]	xmlValidateQName [libXML2]	xmlValidate
xmlXIncludeFreeContext [libXML2]	xmlXIncludeNewContext [libXML2]	xmlXInclude
xmlXIncludeProcessFlags [libXML2]	xmlXIncludeProcessNode [libXML2]	xmlXInclude
xmlXIncludeProcessTreeFlags [libXML2]	xmlXIncludeSetFlags [libXML2]	xmlXPathAd
xmlXPathBooleanFunction [libXML2]	xmlXPathCastBooleanToNumber [libXML2]	xmlXPathCa
xmlXPathCastNodeSetToBoolean [libXML2]	xmlXPathCastNodeSetToNumber [libXML2]	xmlXPathCa
xmlXPathCastNodeToNumber [libXML2]	xmlXPathCastNodeToString [libXML2]	xmlXPathCa
xmlXPathCastNumberToString [libXML2]	xmlXPathCastStringToBoolean [libXML2]	xmlXPathCa
xmlXPathCastToBoolean [libXML2]	xmlXPathCastToNumber [libXML2]	xmlXPathCa
xmlXPathCeilingFunction [libXML2]	xmlXPathCmpNodes [libXML2]	xmlXPathCo
xmlXPathCompile [libXML2]	xmlXPathCompiledEval [libXML2]	xmlXPathCo
xmlXPathContainsFunction [libXML2]	xmlXPathConvertBoolean [libXML2]	xmlXPathCo
xmlXPathConvertString [libXML2]	xmlXPathCountFunction [libXML2]	xmlXPathCt
xmlXPathDebugDumpCompExpr [libXML2]	xmlXPathDebugDumpObject [libXML2]	xmlXPathDi
xmlXPathDistinct [libXML2]	xmlXPathDistinctSorted [libXML2]	xmlXPathDi
xmlXPathEqualValues [libXML2]	xmlXPathErr [libXML2]	xmlXPathEv
xmlXPathEvalExpr [libXML2]	xmlXPathEvalExpression [libXML2]	xmlXPathEv
xmlXPathEvaluatePredicateResult [libXML2]	xmlXPathFalseFunction [libXML2]	xmlXPathFlo
xmlXPathFreeCompExpr [libXML2]	xmlXPathFreeContext [libXML2]	xmlXPathFre
xmlXPathFreeNodeSetList [libXML2]	xmlXPathFreeObject [libXML2]	xmlXPathFre
xmlXPathFunctionLookup [libXML2]	xmlXPathFunctionLookupNS [libXML2]	xmlXPathHa
xmlXPathIdFunction [libXML2]	xmlXPathInit [libXML2]	xmlXPathInt
xmlXPathIsInf [libXML2]	xmlXPathIsNaN [libXML2]	xmlXPathIsN
xmlXPathLangFunction [libXML2]	xmlXPathLastFunction [libXML2]	xmlXPathLe

xmlXPathLeadingSorted [libXML2]	xmlXPathLocalNameFunction [libXML2]	xmlXPathMo
xmlXPathMultValues [libXML2]	xmlXPathNamespaceURIFunction [libXML2]	xmlXPathNe
xmlXPathNewCString [libXML2]	xmlXPathNewContext [libXML2]	xmlXPathNe
xmlXPathNewNodeSet [libXML2]	xmlXPathNewNodeSetList [libXML2]	xmlXPathNe
xmlXPathNewString [libXML2]	xmlXPathNewValueTree [libXML2]	xmlXPathNe
xmlXPathNextAncestorOrSelf [libXML2]	xmlXPathNextAttribute [libXML2]	xmlXPathNe
xmlXPathNextDescendant [libXML2]	xmlXPathNextDescendantOrSelf [libXML2]	xmlXPathNe
xmlXPathNextFollowingSibling [libXML2]	xmlXPathNextNamespace [libXML2]	xmlXPathNe
xmlXPathNextPreceding [libXML2]	xmlXPathNextPrecedingSibling [libXML2]	xmlXPathNe
xmlXPathNodeLeading [libXML2]	xmlXPathNodeLeadingSorted [libXML2]	xmlXPathNo
xmlXPathNodeSetAddNs [libXML2]	xmlXPathNodeSetAddUnique [libXML2]	xmlXPathNo
xmlXPathNodeSetCreate [libXML2]	xmlXPathNodeSetDel [libXML2]	xmlXPathNo
xmlXPathNodeSetMerge [libXML2]	xmlXPathNodeSetRemove [libXML2]	xmlXPathNo
xmlXPathNodeTrailing [libXML2]	xmlXPathNodeTrailingSorted [libXML2]	xmlXPathNo
xmlXPathNotEqualValues [libXML2]	xmlXPathNotFunction [libXML2]	xmlXPathNs
xmlXPathNumberFunction [libXML2]	xmlXPathObjectCopy [libXML2]	xmlXPathOr
xmlXPathParseNCName [libXML2]	xmlXPathParseName [libXML2]	xmlXPathPo
xmlXPathPopExternal [libXML2]	xmlXPathPopNodeSet [libXML2]	xmlXPathPo
xmlXPathPopString [libXML2]	xmlXPathPositionFunction [libXML2]	xmlXPathRe
xmlXPathRegisterFunc [libXML2]	xmlXPathRegisterFuncLookup [libXML2]	xmlXPathRe
xmlXPathRegisterNs [libXML2]	xmlXPathRegisterVariable [libXML2]	xmlXPathRe
xmlXPathRegisterVariableNS [libXML2]	xmlXPathRegisteredFuncsCleanup [libXML2]	xmlXPathRe
xmlXPathRegisteredVariablesCleanup [libXML2]	xmlXPathRoot [libXML2]	xmlXPathRo
xmlXPathStartsWithFunction [libXML2]	xmlXPathStringEvalNumber [libXML2]	xmlXPathStr
xmlXPathStringLengthFunction [libXML2]	xmlXPathSubValues [libXML2]	xmlXPathSu
xmlXPathSubstringBeforeFunction [libXML2]	xmlXPathSubstringFunction [libXML2]	xmlXPathSu
xmlXPathTrailing [libXML2]	xmlXPathTrailingSorted [libXML2]	xmlXPathTra
xmlXPathTrueFunction [libXML2]	xmlXPathValueFlipSign [libXML2]	xmlXPathVa
xmlXPathVariableLookupNS [libXML2]	xmlXPathWrapCString [libXML2]	xmlXPathWr
xmlXPathWrapNodeSet [libXML2]	xmlXPathWrapString [libXML2]	xmlXPatherr
xmlXPathBuildNodeList [libXML2]	xmlXPathEval [libXML2]	xmlXPathEval
xmlXPathFreeLocationSet [libXML2]	xmlXPathLocationSetAdd [libXML2]	xmlXPathLoca

xmlXPtrLocationSetDel [libXML2]	xmlXPtrLocationSetMerge [libXML2]	xmlXPtrLoca
xmlXPtrNewCollapsedRange [libXML2]	xmlXPtrNewContext [libXML2]	xmlXPtrNew
xmlXPtrNewLocationSetNodes [libXML2]	xmlXPtrNewRange [libXML2]	xmlXPtrNew
xmlXPtrNewRangeNodePoint [libXML2]	xmlXPtrNewRangeNodes [libXML2]	xmlXPtrNew
xmlXPtrNewRangePoints [libXML2]	xmlXPtrRangeToFunction [libXML2]	xmlXPtrWra

An LSB conforming implementation shall provide the generic data interfaces for The XML C parser and toolkit for XML processing specified in [Table 19-3](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 19-3. libxml2 - The XML C parser and toolkit for XML processing Data Interfaces

emptyExp [libXML2]	forbiddenExp [libXML2]	xmlFree [libXML2]
xmlMalloc [libXML2]	xmlMallocAtomic [libXML2]	xmlMemStrdup [libXML2]
xmlParserMaxDepth [libXML2]	xmlRealloc [libXML2]	xmlStringComment [libXML2]
xmlStringText [libXML2]	xmlStringTextNoenc [libXML2]	xmlXPathNAN [libXML2]
xmlXPathNINF [libXML2]	xmlXPathPINF [libXML2]	

19.2. Data Definitions for libxml2

This section defines global identifiers and their values that are associated with interfaces contained in libxml2. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content. Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

19.2.1. libxml2/libxml/HTMLparser.h

```
#define htmlElementAllowedHereDesc(parent,elt)    \
    htmlElementAllowedHere((parent),(elt)->name)
#define htmlRequiredAttrs(elt) (elt)->attrs_req
#define htmlDefaultSubelement(elt) elt->defaultsubelt

typedef enum {
    HTML_NA = 0,
    HTML_INVALID = 1,
    HTML_DEPRECATED = 2,
    HTML_VALID = 4,
```

```

    HTML_REQUIRED = 12
} htmlStatus;
typedef struct _htmlElemDesc {
    const char *name;
    char startTag;
    char endTag;
    char saveEndTag;
    char empty;
    char depr;
    char dtd;
    char isinline;
    const char *desc;
    const char **subelts;
    const char *defaultsubelt;
    const char **attrs_opt;
    const char **attrs_depr;
    const char **attrs_req;
} htmlElemDesc;
typedef xmlDocPtr htmlDocPtr;
typedef xmlSAXHandlerPtr htmlSAXHandlerPtr;
typedef xmlParserCtxtPtr htmlParserCtxtPtr;
typedef struct _htmlEntityDesc {
    unsigned int value;
    const char *name;
    const char *desc;
} htmlEntityDesc;
typedef xmlNodePtr htmlNodePtr;
typedef enum {
    HTML_PARSE_RECOVER = 1 << 0,
    HTML_PARSE_NOERROR = 1 << 5,
    HTML_PARSE_NOWARNING = 1 << 6,
    HTML_PARSE_PEDANTIC = 1 << 7,
    HTML_PARSE_NOBLANKS = 1 << 8,
    HTML_PARSE_NONET = 1 << 11,
    HTML_PARSE_COMPACT = 1 << 16
} htmlParserOption;
typedef xmlParserInputPtr htmlParserInputPtr;
typedef htmlElemDesc *htmlElemDescPtr;
typedef htmlEntityDesc *htmlEntityDescPtr;
typedef xmlParserInput htmlParserInput;
typedef xmlSAXHandler htmlSAXHandler;
extern int UTF8ToHtml(unsigned char *out, int *outlen,
                     const unsigned char *in, int *inlen);
extern htmlStatus htmlAttrAllowed(const htmlElemDesc *, const xmlChar *,
                                  int);
extern int htmlAutoCloseTag(htmlDocPtr doc, const xmlChar * name,
                            htmlNodePtr elem);
extern htmlParserCtxtPtr htmlCreateMemoryParserCtxt(const char *buffer,
                                                    int size);
extern htmlParserCtxtPtr htmlCreatePushParserCtxt(htmlSAXHandlerPtr sax,
                                                  void *user_data,
                                                  const char *chunk,
                                                  int size,
                                                  const char *filename,
                                                  xmlCharEncoding enc);
extern htmlDocPtr htmlCtxtReadDoc(htmlParserCtxtPtr ctxt,
                                  const xmlChar * cur, const char *URL,
                                  const char *encoding, int options);
extern htmlDocPtr htmlCtxtReadFd(htmlParserCtxtPtr ctxt, int fd,
                                  const char *URL, const char *encoding,
                                  int options);
extern htmlDocPtr htmlCtxtReadFile(htmlParserCtxtPtr ctxt,

```

```

        const char *filename,
        const char *encoding, int options);
extern htmlDocPtr htmlCtxtReadIO(htmlParserCtxtPtr ctxt,
        xmlInputReadCallback ioread,
        xmlInputCloseCallback ioclose,
        void *ioctx, const char *URL,
        const char *encoding, int options);
extern htmlDocPtr htmlCtxtReadMemory(htmlParserCtxtPtr ctxt,
        const char *buffer, int size,
        const char *URL, const char *encoding,
        int options);
extern void htmlCtxtReset(htmlParserCtxtPtr ctxt);
extern int htmlCtxtUseOptions(htmlParserCtxtPtr ctxt, int options);
extern int htmlElementAllowedHere(const htmlElemDesc *, const xmlChar *);
extern htmlStatus htmlElementStatusHere(const htmlElemDesc *,
        const htmlElemDesc *);
extern int htmlEncodeEntities(unsigned char *out, int *outlen,
        const unsigned char *in, int *inlen,
        int quoteChar);
extern const htmlEntityDesc *htmlEntityLookup(const xmlChar * name);
extern const htmlEntityDesc *htmlEntityValueLookup(unsigned int value);
extern void htmlFreeParserCtxt(htmlParserCtxtPtr ctxt);
extern int htmlHandleOmittedElem(int val);
extern int htmlIsAutoClosed(htmlDocPtr doc, htmlNodePtr elem);
extern int htmlIsScriptAttribute(const xmlChar * name);
extern int htmlParseCharRef(htmlParserCtxtPtr ctxt);
extern int htmlParseChunk(htmlParserCtxtPtr ctxt, const char *chunk,
        int size, int terminate);
extern htmlDocPtr htmlParseDoc(xmlChar * cur, const char *encoding);
extern int htmlParseDocument(htmlParserCtxtPtr ctxt);
extern void htmlParseElement(htmlParserCtxtPtr ctxt);
extern const htmlEntityDesc *htmlParseEntityRef(htmlParserCtxtPtr ctxt,
        const xmlChar * *str);
extern htmlDocPtr htmlParseFile(const char *filename,
        const char *encoding);
extern htmlDocPtr htmlReadDoc(const xmlChar * cur, const char *URL,
        const char *encoding, int options);
extern htmlDocPtr htmlReadFd(int fd, const char *URL, const char *encoding,
        int options);
extern htmlDocPtr htmlReadFile(const char *URL, const char *encoding,
        int options);
extern htmlDocPtr htmlReadIO(xmlInputReadCallback ioread,
        xmlInputCloseCallback ioclose, void *ioctx,
        const char *URL, const char *encoding,
        int options);
extern htmlDocPtr htmlReadMemory(const char *buffer, int size,
        const char *URL, const char *encoding,
        int options);
extern htmlDocPtr htmlSAXParseDoc(xmlChar * cur, const char *encoding,
        htmlSAXHandlerPtr sax, void *userData);
extern htmlDocPtr htmlSAXParseFile(const char *filename,
        const char *encoding,
        htmlSAXHandlerPtr sax, void *userData);
extern const htmlElemDesc *htmlTagLookup(const xmlChar * tag);

```

19.2.2. libxml2/libxml/HTMLtree.h

```

#define HTML_PRESERVE_NODE      XML_CDATA_SECTION_NODE
#define HTML_COMMENT_NODE      XML_COMMENT_NODE
#define HTML_ENTITY_REF_NODE    XML_ENTITY_REF_NODE
#define HTML_PI_NODE           XML_PI_NODE

```

```

#define HTML_TEXT_NODE XML_TEXT_NODE

extern void htmlDocContentDumpFormatOutput(xmlOutputBufferPtr buf,
                                           xmlDocPtr cur,
                                           const char *encoding,
                                           int format);
extern void htmlDocContentDumpOutput(xmlOutputBufferPtr buf, xmlDocPtr cur,
                                     const char *encoding);
extern int htmlDocDump(FILE * f, xmlDocPtr cur);
extern void htmlDocDumpMemory(xmlDocPtr cur, xmlChar * *mem, int *size);
extern const xmlChar *htmlGetMetaEncoding(xmlDocPtr doc);
extern int htmlIsBooleanAttr(const xmlChar * name);
extern xmlDocPtr htmlNewDoc(const xmlChar * URI,
                           const xmlChar * ExternalID);
extern xmlDocPtr htmlNewDocNoDtD(const xmlChar * URI,
                                 const xmlChar * ExternalID);
extern int htmlNodeDump(xmlBufferPtr buf, xmlDocPtr doc, xmlNodePtr cur);
extern void htmlNodeDumpFile(FILE * out, xmlDocPtr doc, xmlNodePtr cur);
extern int htmlNodeDumpFileFormat(FILE * out, xmlDocPtr doc,
                                  xmlNodePtr cur, const char *encoding,
                                  int format);
extern void htmlNodeDumpFormatOutput(xmlOutputBufferPtr buf, xmlDocPtr doc,
                                     xmlNodePtr cur, const char *encoding,
                                     int format);
extern void htmlNodeDumpOutput(xmlOutputBufferPtr buf, xmlDocPtr doc,
                              xmlNodePtr cur, const char *encoding);
extern int htmlSaveFile(const char *filename, xmlDocPtr cur);
extern int htmlSaveFileEnc(const char *filename, xmlDocPtr cur,
                           const char *encoding);
extern int htmlSaveFileFormat(const char *filename, xmlDocPtr cur,
                              const char *encoding, int format);
extern int htmlSetMetaEncoding(xmlDocPtr doc, const xmlChar * encoding);

```

19.2.3. libxml2/libxml/SAX2.h

```

typedef void (*internalSubsetSAXFunc) (void *, const xmlChar *,
                                       const xmlChar *, const xmlChar *);
typedef int (*isStandaloneSAXFunc) (void *);
typedef int (*hasInternalSubsetSAXFunc) (void *);
typedef int (*hasExternalSubsetSAXFunc) (void *);
typedef xmlParserInputPtr (*resolveEntitySAXFunc) (void *, const xmlChar *,
                                                  const xmlChar *);
typedef xmlEntityPtr (*getEntitySAXFunc) (void *, const xmlChar *);
typedef void (*entityDeclSAXFunc) (void *, const xmlChar *, int,
                                   const xmlChar *, const xmlChar *,
                                   xmlChar *);
typedef void (*notationDeclSAXFunc) (void *, const xmlChar *,
                                      const xmlChar *, const xmlChar *);
typedef struct _xmlEnumeration {
    struct _xmlEnumeration *next;
    const xmlChar *name;
} xmlEnumeration;
typedef xmlEnumeration *xmlEnumerationPtr;
typedef void (*attributeDeclSAXFunc) (void *, const xmlChar *,
                                       const xmlChar *, int, int,
                                       const xmlChar *, xmlEnumerationPtr);

typedef enum {
    XML_ELEMENT_CONTENT_PCDATA = 1,
    XML_ELEMENT_CONTENT_ELEMENT = 2,
    XML_ELEMENT_CONTENT_SEQ = 3,
    XML_ELEMENT_CONTENT_OR = 4
}

```

```

} xmlElementContentType;
typedef enum {
    XML_ELEMENT_CONTENT_ONCE = 1,
    XML_ELEMENT_CONTENT_OPT = 2,
    XML_ELEMENT_CONTENT_MULT = 3,
    XML_ELEMENT_CONTENT_PLUS = 4
} xmlElementContentOccur;
typedef struct _xmlElementContent {
    xmlElementContentType type;
    xmlElementContentOccur ocur;
    const xmlChar *name;
    struct _xmlElementContent *c1;
    struct _xmlElementContent *c2;
    struct _xmlElementContent *parent;
    const xmlChar *prefix;
} xmlElementContent;
typedef xmlElementContent *xmlElementContentPtr;
typedef void (*elementDeclSAXFunc) (void *, const xmlChar *, int,
                                     xmlElementContentPtr);
typedef void (*unparsedEntityDeclSAXFunc) (void *, const xmlChar *,
                                             const xmlChar *,
                                             const xmlChar *,
                                             const xmlChar *);
typedef struct _xmlSAXLocator {
    const xmlChar *(*getPublicId) (void *);
    const xmlChar *(*getSystemId) (void *);
    int (*getLineNumber) (void *);
    int (*getColumnNumber) (void *);
} xmlSAXLocator;
typedef xmlSAXLocator *xmlSAXLocatorPtr;
typedef void (*setDocumentLocatorSAXFunc) (void *, xmlSAXLocatorPtr);
typedef void (*startDocumentSAXFunc) (void *);
typedef void (*endDocumentSAXFunc) (void *);
typedef void (*startElementSAXFunc) (void *, const xmlChar *,
                                     const xmlChar * *);
typedef void (*endElementSAXFunc) (void *, const xmlChar *);
typedef void (*referenceSAXFunc) (void *, const xmlChar *);
typedef void (*charactersSAXFunc) (void *, const xmlChar *, int);
typedef void (*ignorableWhitespaceSAXFunc) (void *, const xmlChar *, int);
typedef void (*processingInstructionSAXFunc) (void *, const xmlChar *,
                                              const xmlChar *);
typedef void (*commentSAXFunc) (void *, const xmlChar *);
typedef void (*warningSAXFunc) (void *, const char *, ...);
typedef void (*errorSAXFunc) (void *, const char *, ...);
typedef void (*fatalErrorSAXFunc) (void *, const char *, ...);
typedef xmlEntityPtr(*getParameterEntitySAXFunc) (void *, const xmlChar *);
typedef void (*cdataBlockSAXFunc) (void *, const xmlChar *, int);
typedef void (*externalSubsetSAXFunc) (void *, const xmlChar *,
                                       const xmlChar *, const xmlChar *);
typedef void (*startElementNsSAX2Func) (void *, const xmlChar *,
                                       const xmlChar *, const xmlChar *,
                                       int, const xmlChar * *, int, int,
                                       const xmlChar * *);
typedef void (*endElementNsSAX2Func) (void *, const xmlChar *,
                                       const xmlChar *, const xmlChar *);
typedef struct _xmlSAXHandler {
    internalSubsetSAXFunc internalSubset;
    isStandaloneSAXFunc isStandalone;
    hasInternalSubsetSAXFunc hasInternalSubset;
    hasExternalSubsetSAXFunc hasExternalSubset;
    resolveEntitySAXFunc resolveEntity;
    getEntitySAXFunc getEntity;

```

```

entityDeclSAXFunc entityDecl;
notationDeclSAXFunc notationDecl;
attributeDeclSAXFunc attributeDecl;
elementDeclSAXFunc elementDecl;
unparsedEntityDeclSAXFunc unparsedEntityDecl;
setDocumentLocatorSAXFunc setDocumentLocator;
startDocumentSAXFunc startDocument;
endDocumentSAXFunc endDocument;
startElementSAXFunc startElement;
endElementSAXFunc endElement;
referenceSAXFunc reference;
charactersSAXFunc characters;
ignorableWhitespaceSAXFunc ignorableWhitespace;
processingInstructionSAXFunc processingInstruction;
commentSAXFunc comment;
warningSAXFunc warning;
errorSAXFunc error;
fatalErrorSAXFunc fatalError;
getParameterEntitySAXFunc getParameterEntity;
cdataBlockSAXFunc cdataBlock;
externalSubsetSAXFunc externalSubset;
unsigned int initialized;
void *_private;
startElementNsSAX2Func startElementNs;
endElementNsSAX2Func endElementNs;
xmlStructuredErrorFunc serror;
} xmlSAXHandler;
extern void docbDefaultSAXHandlerInit(void);
extern void htmlDefaultSAXHandlerInit(void);
extern void xmlDefaultSAXHandlerInit(void);
extern void xmlSAX2AttributeDecl(void *ctx, const xmlChar * elem,
                                const xmlChar * fullname, int type,
                                int def, const xmlChar * defaultValue,
                                xmlEnumerationPtr tree);
extern void xmlSAX2CDataBlock(void *ctx, const xmlChar * value, int len);
extern void xmlSAX2Characters(void *ctx, const xmlChar * ch, int len);
extern void xmlSAX2Comment(void *ctx, const xmlChar * value);
extern void xmlSAX2ElementDecl(void *ctx, const xmlChar * name, int type,
                               xmlElementContentPtr content);
extern void xmlSAX2EndDocument(void *ctx);
extern void xmlSAX2EndElement(void *ctx, const xmlChar * name);
extern void xmlSAX2EndElementNs(void *ctx, const xmlChar * localname,
                                const xmlChar * prefix,
                                const xmlChar * URI);
extern void xmlSAX2EntityDecl(void *ctx, const xmlChar * name, int type,
                              const xmlChar * publicId,
                              const xmlChar * systemId, xmlChar * content);
extern void xmlSAX2ExternalSubset(void *ctx, const xmlChar * name,
                                  const xmlChar * ExternalID,
                                  const xmlChar * SystemID);
extern int xmlSAX2GetColumnNumber(void *ctx);
extern xmlEntityPtr xmlSAX2GetEntity(void *ctx, const xmlChar * name);
extern int xmlSAX2GetLineNumber(void *ctx);
extern xmlEntityPtr xmlSAX2GetParameterEntity(void *ctx,
                                              const xmlChar * name);
extern const xmlChar *xmlSAX2GetPublicId(void *ctx);
extern const xmlChar *xmlSAX2GetSystemId(void *ctx);
extern int xmlSAX2HasExternalSubset(void *ctx);
extern int xmlSAX2HasInternalSubset(void *ctx);
extern void xmlSAX2IgnorableWhitespace(void *ctx, const xmlChar * ch,
                                       int len);
extern void xmlSAX2InitDefaultSAXHandler(xmlSAXHandler * hdlr,

```

```

                                int warning);
extern void xmlSAX2InitDocbDefaultSAXHandler(xmlSAXHandler * hdlr);
extern void xmlSAX2InitHtmlDefaultSAXHandler(xmlSAXHandler * hdlr);
extern void xmlSAX2InternalSubset(void *ctx, const xmlChar * name,
                                const xmlChar * ExternalID,
                                const xmlChar * SystemID);
extern int xmlSAX2IsStandalone(void *ctx);
extern void xmlSAX2NotationDecl(void *ctx, const xmlChar * name,
                                const xmlChar * publicId,
                                const xmlChar * systemId);
extern void xmlSAX2ProcessingInstruction(void *ctx, const xmlChar * target,
                                const xmlChar * data);
extern void xmlSAX2Reference(void *ctx, const xmlChar * name);
extern xmlParserInputPtr xmlSAX2ResolveEntity(void *ctx,
                                const xmlChar * publicId,
                                const xmlChar * systemId);
extern void xmlSAX2SetDocumentLocator(void *ctx, xmlSAXLocatorPtr loc);
extern void xmlSAX2StartDocument(void *ctx);
extern void xmlSAX2StartElement(void *ctx, const xmlChar * fullname,
                                const xmlChar * *atts);
extern void xmlSAX2StartElementNs(void *ctx, const xmlChar * localname,
                                const xmlChar * prefix,
                                const xmlChar * URI, int nb_namespaces,
                                const xmlChar * *namespaces,
                                int nb_attributes, int nb_defaulted,
                                const xmlChar * *attributes);
extern void xmlSAX2UnparsedEntityDecl(void *ctx, const xmlChar * name,
                                const xmlChar * publicId,
                                const xmlChar * systemId,
                                const xmlChar * notationName);
extern int xmlSAXDefaultVersion(int version);
extern int xmlSAXVersion(xmlSAXHandler * hdlr, int version);

```

19.2.4. libxml2/libxml/c14n.h

```

typedef int (*xmlC14NIsVisibleCallback) (void *, xmlNodePtr, xmlNodePtr);
extern int xmlC14NDocDumpMemory(xmlDocPtr, xmlNodeSetPtr, int, xmlChar * *,
                                int, xmlChar * *);
extern int xmlC14NDocSave(xmlDocPtr, xmlNodeSetPtr, int, xmlChar * *, int,
                           const char *, int);
extern int xmlC14NDocSaveTo(xmlDocPtr, xmlNodeSetPtr, int, xmlChar * *,
                             int, xmlOutputBufferPtr);
extern int xmlC14NExecute(xmlDocPtr, xmlC14NIsVisibleCallback, void *, int,
                           xmlChar * *, int, xmlOutputBufferPtr);

```

19.2.5. libxml2/libxml/catalog.h

```

#define XML_CATALOGS_NAMESPACE \
    (const xmlChar *) "urn:oasis:names:tc:entity:xmlns:xml:catalog"
#define XML_CATALOG_PI (const xmlChar *) "oasis-xml-catalog"

typedef enum {
    XML_CATA_ALLOW_NONE = 0,
    XML_CATA_ALLOW_GLOBAL = 1,
    XML_CATA_ALLOW_DOCUMENT = 2,
    XML_CATA_ALLOW_ALL = 3
} xmlCatalogAllow;
typedef struct _xmlCatalog xmlCatalog;
typedef xmlCatalog *xmlCatalogPtr;

```

```

typedef enum {
    XML_CATA_PREFER_NONE = 0,
    XML_CATA_PREFER_PUBLIC = 1,
    XML_CATA_PREFER_SYSTEM = 2
} xmlCatalogPrefer;
extern int xmlACatalogAdd(xmlCatalogPtr catal, const xmlChar * type,
                          const xmlChar * orig, const xmlChar * replace);
extern void xmlACatalogDump(xmlCatalogPtr catal, FILE * out);
extern int xmlACatalogRemove(xmlCatalogPtr catal, const xmlChar * value);
extern xmlChar *xmlACatalogResolve(xmlCatalogPtr catal,
                                   const xmlChar * pubID,
                                   const xmlChar * sysID);
extern xmlChar *xmlACatalogResolvePublic(xmlCatalogPtr catal,
                                         const xmlChar * pubID);
extern xmlChar *xmlACatalogResolveSystem(xmlCatalogPtr catal,
                                         const xmlChar * sysID);
extern xmlChar *xmlACatalogResolveURI(xmlCatalogPtr catal,
                                      const xmlChar * URI);
extern int xmlCatalogAdd(const xmlChar * type, const xmlChar * orig,
                        const xmlChar * replace);
extern void *xmlCatalogAddLocal(void *catalogs, const xmlChar * URL);
extern void xmlCatalogCleanup(void);
extern int xmlCatalogConvert(void);
extern void xmlCatalogDump(FILE * out);
extern void xmlCatalogFreeLocal(void *catalogs);
extern xmlCatalogAllow xmlCatalogGetDefaults(void);
extern int xmlCatalogIsEmpty(xmlCatalogPtr catal);
extern xmlChar *xmlCatalogLocalResolve(void *catalogs,
                                       const xmlChar * pubID,
                                       const xmlChar * sysID);
extern xmlChar *xmlCatalogLocalResolveURI(void *catalogs,
                                           const xmlChar * URI);
extern int xmlCatalogRemove(const xmlChar * value);
extern xmlChar *xmlCatalogResolve(const xmlChar * pubID,
                                  const xmlChar * sysID);
extern xmlChar *xmlCatalogResolvePublic(const xmlChar * pubID);
extern xmlChar *xmlCatalogResolveSystem(const xmlChar * sysID);
extern xmlChar *xmlCatalogResolveURI(const xmlChar * URI);
extern int xmlCatalogSetDebug(int level);
extern xmlCatalogPrefer xmlCatalogSetDefaultPrefer(xmlCatalogPrefer
                                                    prefer);
extern void xmlCatalogSetDefaults(xmlCatalogAllow allow);
extern int xmlConvertSGMLCatalog(xmlCatalogPtr catal);
extern void xmlFreeCatalog(xmlCatalogPtr catal);
extern void xmlInitializeCatalog(void);
extern xmlCatalogPtr xmlLoadACatalog(const char *filename);
extern int xmlLoadCatalog(const char *filename);
extern void xmlLoadCatalogs(const char *paths);
extern xmlCatalogPtr xmlLoadSGMLSuperCatalog(const char *filename);
extern xmlCatalogPtr xmlNewCatalog(int sgml);
extern xmlDocPtr xmlParseCatalogFile(const char *filename);

```

19.2.6. libxml2/libxml/debugXML.h

```

typedef char *(*xmlShellReadlineFunc) (char *);
typedef struct _xmlShellCtxt {
    char *filename;
    xmlDocPtr doc;
    xmlNodePtr node;
    xmlXPathContextPtr pctxt;
    int loaded;
}

```



```

FILE *output;
xmlShellReadlineFunc input;
} xmlShellCtxt;
typedef xmlShellCtxt *xmlShellCtxtPtr;
typedef int (*xmlShellCmd) (xmlShellCtxtPtr, char *, xmlNodePtr,
                           xmlNodePtr);
extern const char *xmlBoolToText(int boolval);
extern int xmlDebugCheckDocument(FILE * output, xmlDocPtr doc);
extern void xmlDebugDumpAttr(FILE * output, xmlAttrPtr attr, int depth);
extern void xmlDebugDumpAttrList(FILE * output, xmlAttrPtr attr,
                                int depth);
extern void xmlDebugDumpDTD(FILE * output, xmlDtdPtr dtd);
extern void xmlDebugDumpDocument(FILE * output, xmlDocPtr doc);
extern void xmlDebugDumpDocumentHead(FILE * output, xmlDocPtr doc);
extern void xmlDebugDumpEntities(FILE * output, xmlDocPtr doc);
extern void xmlDebugDumpNode(FILE * output, xmlNodePtr node, int depth);
extern void xmlDebugDumpNodeList(FILE * output, xmlNodePtr node,
                                int depth);
extern void xmlDebugDumpOneNode(FILE * output, xmlNodePtr node, int depth);
extern void xmlDebugDumpString(FILE * output, const xmlChar * str);
extern int xmlLsCountNode(xmlNodePtr node);
extern void xmlLsOneNode(FILE * output, xmlNodePtr node);
extern void xmlShell(xmlDocPtr doc, char *filename,
                    xmlShellReadlineFunc input, FILE * output);
extern int xmlShellBase(xmlShellCtxtPtr ctxt, char *arg, xmlNodePtr node,
                       xmlNodePtr node2);
extern int xmlShellCat(xmlShellCtxtPtr ctxt, char *arg, xmlNodePtr node,
                      xmlNodePtr node2);
extern int xmlShellDir(xmlShellCtxtPtr ctxt, char *arg, xmlNodePtr node,
                      xmlNodePtr node2);
extern int xmlShellDu(xmlShellCtxtPtr ctxt, char *arg, xmlNodePtr tree,
                     xmlNodePtr node2);
extern int xmlShellList(xmlShellCtxtPtr ctxt, char *arg, xmlNodePtr node,
                       xmlNodePtr node2);
extern int xmlShellLoad(xmlShellCtxtPtr ctxt, char *filename,
                       xmlNodePtr node, xmlNodePtr node2);
extern void xmlShellPrintNode(xmlNodePtr node);
extern void xmlShellPrintXPathError(int errorType, const char *arg);
extern void xmlShellPrintXPathResult(xmlXPathObjectPtr list);
extern int xmlShellPwd(xmlShellCtxtPtr ctxt, char *buffer, xmlNodePtr node,
                      xmlNodePtr node2);
extern int xmlShellSave(xmlShellCtxtPtr ctxt, char *filename,
                       xmlNodePtr node, xmlNodePtr node2);
extern int xmlShellValidate(xmlShellCtxtPtr ctxt, char *dtd,
                           xmlNodePtr node, xmlNodePtr node2);
extern int xmlShellWrite(xmlShellCtxtPtr ctxt, char *filename,
                        xmlNodePtr node, xmlNodePtr node2);

```

19.2.7. libxml2/libxml/dict.h

```

typedef struct _xmlDict xmlDict;
typedef xmlDict *xmlDictPtr;
extern void xmlDictCleanup(void);
extern xmlDictPtr xmlDictCreate(void);
extern xmlDictPtr xmlDictCreateSub(xmlDictPtr);
extern const xmlChar *xmlDictExists(xmlDictPtr, const xmlChar *, int);
extern void xmlDictFree(xmlDictPtr);
extern const xmlChar *xmlDictLookup(xmlDictPtr, const xmlChar *, int);
extern int xmlDictOwns(xmlDictPtr, const xmlChar *);
extern const xmlChar *xmlDictQLookup(xmlDictPtr, const xmlChar *,
                                    const xmlChar *);

```

```
extern int xmlDictReference(xmlDictPtr);
extern int xmlDictSize(xmlDictPtr);
```

19.2.8. libxml2/libxml/encoding.h

```
typedef enum {
    XML_CHAR_ENCODING_ERROR = -1,
    XML_CHAR_ENCODING_NONE = 0,
    XML_CHAR_ENCODING_UTF8 = 1,
    XML_CHAR_ENCODING_UTF16LE = 2,
    XML_CHAR_ENCODING_UTF16BE = 3,
    XML_CHAR_ENCODING_UCS4LE = 4,
    XML_CHAR_ENCODING_UCS4BE = 5,
    XML_CHAR_ENCODING_EBCDIC = 6,
    XML_CHAR_ENCODING_UCS4_2143 = 7,
    XML_CHAR_ENCODING_UCS4_3412 = 8,
    XML_CHAR_ENCODING_UCS2 = 9,
    XML_CHAR_ENCODING_8859_1 = 10,
    XML_CHAR_ENCODING_8859_2 = 11,
    XML_CHAR_ENCODING_8859_3 = 12,
    XML_CHAR_ENCODING_8859_4 = 13,
    XML_CHAR_ENCODING_8859_5 = 14,
    XML_CHAR_ENCODING_8859_6 = 15,
    XML_CHAR_ENCODING_8859_7 = 16,
    XML_CHAR_ENCODING_8859_8 = 17,
    XML_CHAR_ENCODING_8859_9 = 18,
    XML_CHAR_ENCODING_2022_JP = 19,
    XML_CHAR_ENCODING_SHIFT_JIS = 20,
    XML_CHAR_ENCODING_EUC_JP = 21,
    XML_CHAR_ENCODING_ASCII = 22
} xmlCharEncoding;

extern int UTF8ToisoLat1(unsigned char *out, int *outlen,
                        const unsigned char *in, int *inlen);
extern int isoLat1ToUTF8(unsigned char *out, int *outlen,
                        const unsigned char *in, int *inlen);

extern int xmlAddEncodingAlias(const char *name, const char *alias);
extern int xmlCharEncCloseFunc(xmlCharEncodingHandler * handler);
extern int xmlCharEncFirstLine(xmlCharEncodingHandler * handler,
                               xmlBufferPtr out, xmlBufferPtr in);
extern int xmlCharEncInFunc(xmlCharEncodingHandler * handler,
                           xmlBufferPtr out, xmlBufferPtr in);
extern int xmlCharEncOutFunc(xmlCharEncodingHandler * handler,
                             xmlBufferPtr out, xmlBufferPtr in);
extern void xmlCleanupCharEncodingHandlers(void);
extern void xmlCleanupEncodingAliases(void);
extern int xmlDelEncodingAlias(const char *alias);
extern xmlCharEncoding xmlDetectCharEncoding(const unsigned char *in,
                                             int len);
extern xmlCharEncodingHandlerPtr xmlFindCharEncodingHandler(const char
                                                            *name);
extern xmlCharEncodingHandlerPtr xmlGetCharEncodingHandler(xmlCharEncoding
                                                            enc);
extern const char *xmlGetCharEncodingName(xmlCharEncoding enc);
extern const char *xmlGetEncodingAlias(const char *alias);
extern void xmlInitCharEncodingHandlers(void);
extern xmlCharEncodingHandlerPtr xmlNewCharEncodingHandler(const char
                                                            *name,
                                                            xmlCharEncodingInputFunc
                                                            input,
                                                            xmlCharEncodingOutputFunc
                                                            output);
```

```
extern xmlCharEncoding xmlParseCharEncoding(const char *name);
extern void xmlRegisterCharEncodingHandler(xmlCharEncodingHandlerPtr
                                         handler);
```

19.2.9. libxml2/libxml/entities.h

```
typedef enum {
    XML_INTERNAL_GENERAL_ENTITY = 1,
    XML_EXTERNAL_GENERAL_PARSED_ENTITY = 2,
    XML_EXTERNAL_GENERAL_UNPARSED_ENTITY = 3,
    XML_INTERNAL_PARAMETER_ENTITY = 4,
    XML_EXTERNAL_PARAMETER_ENTITY = 5,
    XML_INTERNAL_PREDEFINED_ENTITY = 6
} xmlEntityType;
typedef struct _xmlEntity {
    void *_private;
    xmlElementType type;
    const xmlChar *name;
    struct _xmlNode *children;
    struct _xmlNode *last;
    struct _xmlDtd *parent;
    struct _xmlNode *next;
    struct _xmlNode *prev;
    struct _xmlDoc *doc;
    xmlChar *orig;
    xmlChar *content;
    int length;
    xmlEntityType etype;
    const xmlChar *ExternalID;
    const xmlChar *SystemID;
    struct _xmlEntity *nexte;
    const xmlChar *URI;
    int owner;
} xmlEntity;
typedef xmlEntity *xmlEntityPtr;
typedef struct _xmlHashTable xmlEntitiesTable;
typedef xmlEntitiesTable *xmlEntitiesTablePtr;
extern xmlEntityPtr xmlAddDocEntity(xmlDocPtr doc, const xmlChar * name,
                                   int type, const xmlChar * ExternalID,
                                   const xmlChar * SystemID,
                                   const xmlChar * content);
extern xmlEntityPtr xmlAddDtdEntity(xmlDocPtr doc, const xmlChar * name,
                                   int type, const xmlChar * ExternalID,
                                   const xmlChar * SystemID,
                                   const xmlChar * content);
extern xmlEntitiesTablePtr xmlCopyEntitiesTable(xmlEntitiesTablePtr table);
extern void xmlDumpEntitiesTable(xmlBufferPtr buf,
                                xmlEntitiesTablePtr table);
extern void xmlDumpEntityDecl(xmlBufferPtr buf, xmlEntityPtr ent);
extern xmlChar *xmlEncodeEntitiesReentrant(xmlDocPtr doc,
                                           const xmlChar * input);
extern xmlChar *xmlEncodeSpecialChars(xmlDocPtr doc,
                                       const xmlChar * input);
extern void xmlFreeEntitiesTable(xmlEntitiesTablePtr table);
extern xmlEntityPtr xmlGetDocEntity(xmlDocPtr doc, const xmlChar * name);
extern xmlEntityPtr xmlGetDtdEntity(xmlDocPtr doc, const xmlChar * name);
extern xmlEntityPtr xmlGetParameterEntity(xmlDocPtr doc,
                                           const xmlChar * name);
extern xmlEntityPtr xmlGetPredefinedEntity(const xmlChar * name);
```

19.2.10. libxml2/libxml/globals.h

```

#define xmlDeregisterNodeDefaultValue \
    (*(__xmlDeregisterNodeDefaultValue()))
#define xmlDoValidityCheckingDefaultValue \
    (*(__xmlDoValidityCheckingDefaultValue()))
#define xmlOutputBufferCreateFilenameValue \
    (*(__xmlOutputBufferCreateFilenameValue()))
#define xmlParserInputBufferCreateFilenameValue \
    (*(__xmlParserInputBufferCreateFilenameValue()))
#define xmlPedanticParserDefaultValue \
    (*(__xmlPedanticParserDefaultValue()))
#define xmlSubstituteEntitiesDefaultValue \
    (*(__xmlSubstituteEntitiesDefaultValue()))
#define docbDefaultSAXHandler (*(__docbDefaultSAXHandler()))
#define htmlDefaultSAXHandler (*(__htmlDefaultSAXHandler()))
#define oldXMLWDcompatibility (*(__oldXMLWDcompatibility()))
#define xmlBufferAllocScheme (*(__xmlBufferAllocScheme()))
#define xmlDefaultBufferSize (*(__xmlDefaultBufferSize()))
#define xmlDefaultSAXHandler (*(__xmlDefaultSAXHandler()))
#define xmlDefaultSAXLocator (*(__xmlDefaultSAXLocator()))
#define xmlGenericError (*(__xmlGenericError()))
#define xmlGenericErrorContext (*(__xmlGenericErrorContext()))
#define xmlGetWarningsDefaultValue (*(__xmlGetWarningsDefaultValue()))
#define xmlIndentTreeOutput (*(__xmlIndentTreeOutput()))
#define xmlKeepBlanksDefaultValue (*(__xmlKeepBlanksDefaultValue()))
#define xmlLastError (*(__xmlLastError()))
#define xmlLineNumbersDefaultValue (*(__xmlLineNumbersDefaultValue()))
#define xmlLoadExtDtdDefaultValue (*(__xmlLoadExtDtdDefaultValue()))
#define xmlParserDebugEntities (*(__xmlParserDebugEntities()))
#define xmlParserVersion (*(__xmlParserVersion()))
#define xmlRegisterNodeDefaultValue (*(__xmlRegisterNodeDefaultValue()))
#define xmlSaveNoEmptyTags (*(__xmlSaveNoEmptyTags()))
#define xmlStructuredError (*(__xmlStructuredError()))
#define xmlTreeIndentString (*(__xmlTreeIndentString()))

typedef xmlOutputBufferPtr (*xmlOutputBufferCreateFilenameFunc) (const char
                                                                *,
                                                                xmlCharEncodingHandlerPtr,
                                                                int);

typedef void (*xmlRegisterNodeFunc) (xmlNodePtr);
typedef
xmlParserInputBufferPtr (*xmlParserInputBufferCreateFilenameFunc) (const
                                                                    char *,
                                                                    xmlCharEncoding);

typedef struct _xmlSAXHandlerV1 {
    internalSubsetSAXFunc internalSubset;
    isStandaloneSAXFunc isStandalone;
    hasInternalSubsetSAXFunc hasInternalSubset;
    hasExternalSubsetSAXFunc hasExternalSubset;
    resolveEntitySAXFunc resolveEntity;
    getEntitySAXFunc getEntity;
    entityDeclSAXFunc entityDecl;
    notationDeclSAXFunc notationDecl;
    attributeDeclSAXFunc attributeDecl;
    elementDeclSAXFunc elementDecl;
    unparsedEntityDeclSAXFunc unparsedEntityDecl;
    setDocumentLocatorSAXFunc setDocumentLocator;
    startDocumentSAXFunc startDocument;
    endDocumentSAXFunc endDocument;
    startElementSAXFunc startElement;

```

```

endElementSAXFunc endElement;
referenceSAXFunc reference;
charactersSAXFunc characters;
ignorableWhitespaceSAXFunc ignorableWhitespace;
processingInstructionSAXFunc processingInstruction;
commentSAXFunc comment;
warningSAXFunc warning;
errorSAXFunc error;
fatalErrorSAXFunc fatalError;
getParameterEntitySAXFunc getParameterEntity;
cdataBlockSAXFunc cdataBlock;
externalSubsetSAXFunc externalSubset;
unsigned int initialized;
} xmlSAXHandlerV1;
typedef void (*xmlDeregisterNodeFunc) (xmlNodePtr);
typedef struct _xmlGlobalState xmlGlobalState;
typedef struct _xmlGlobalState *xmlGlobalStatePtr;
extern xmlSAXHandlerV1 *__docbDefaultSAXHandler(void);
extern xmlSAXHandlerV1 *__htmlDefaultSAXHandler(void);
extern int *__oldXMLWDcompatibility(void);
extern xmlBufferAllocationScheme *__xmlBufferAllocScheme(void);
extern int *__xmlDefaultBufferSize(void);
extern xmlSAXHandlerV1 *__xmlDefaultSAXHandler(void);
extern xmlSAXLocator *__xmlDefaultSAXLocator(void);
extern xmlDeregisterNodeFunc *__xmlDeregisterNodeDefaultValue(void);
extern int *__xmlDoValidityCheckingDefaultValue(void);
extern xmlGenericErrorFunc *__xmlGenericError(void);
extern void *__xmlGenericErrorContext(void);
extern int *__xmlGetWarningsDefaultValue(void);
extern int *__xmlIndentTreeOutput(void);
extern int *__xmlKeepBlanksDefaultValue(void);
extern xmlError *__xmlLastError(void);
extern int *__xmlLineNumbersDefaultValue(void);
extern int *__xmlLoadExtDtdDefaultValue(void);
extern xmlOutputBufferCreateFilenameFunc
    *__xmlOutputBufferCreateFilenameValue(void);
extern int *__xmlParserDebugEntities(void);
extern xmlParserInputBufferCreateFilenameFunc
    *__xmlParserInputBufferCreateFilenameValue(void);
extern const char *__xmlParserVersion(void);
extern int *__xmlPedanticParserDefaultValue(void);
extern xmlRegisterNodeFunc *__xmlRegisterNodeDefaultValue(void);
extern int *__xmlSaveNoEmptyTags(void);
extern xmlStructuredErrorFunc *__xmlStructuredError(void);
extern int *__xmlSubstituteEntitiesDefaultValue(void);
extern const char *__xmlTreeIndentString(void);
extern void xmlCleanupGlobals(void);
extern xmlDeregisterNodeFunc xmlDeregisterNodeDefault(xmlDeregisterNodeFunc
                                                         func);

extern xmlFreeFunc xmlFree;
extern void xmlInitGlobals(void);
extern void xmlInitializeGlobalState(xmlGlobalStatePtr gs);
extern xmlMallocFunc xmlMalloc;
extern xmlMallocFunc xmlMallocAtomic;
extern xmlStrdupFunc xmlMemStrdup;
extern xmlOutputBufferCreateFilenameFunc
xmlOutputBufferCreateFilenameDefault(xmlOutputBufferCreateFilenameFunc
                                     func);
extern xmlParserInputBufferPtr xmlParserInputBufferCreateFilename(const
                                                                    char
                                                                    *URI,
                                                                    xmlCharEncoding

```

```

enc);

extern xmlParserInputBufferCreateFilenameFunc
xmlParserInputBufferCreateFilenameDefault
(xmlParserInputBufferCreateFilenameFunc func);
extern xmlReallocFunc xmlRealloc;
extern xmlRegisterNodeFunc xmlRegisterNodeDefault(xmlRegisterNodeFunc
                                                    func);

extern xmlBufferAllocationScheme
xmlThrDefBufferAllocScheme(xmlBufferAllocationScheme v);
extern int xmlThrDefDefaultBufferSize(int v);
extern xmlDeregisterNodeFunc
xmlThrDefDeregisterNodeDefault(xmlDeregisterNodeFunc func);
extern int xmlThrDefDoValidityCheckingDefaultValue(int v);
extern int xmlThrDefGetWarningsDefaultValue(int v);
extern int xmlThrDefIndentTreeOutput(int v);
extern int xmlThrDefKeepBlanksDefaultValue(int v);
extern int xmlThrDefLineNumbersDefaultValue(int v);
extern int xmlThrDefLoadExtDtdDefaultValue(int v);
extern xmlOutputBufferCreateFilenameFunc
xmlThrDefOutputBufferCreateFilenameDefault
(xmlOutputBufferCreateFilenameFunc func);
extern int xmlThrDefParserDebugEntities(int v);
extern xmlParserInputBufferCreateFilenameFunc
xmlThrDefParserInputBufferCreateFilenameDefault
(xmlParserInputBufferCreateFilenameFunc func);
extern int xmlThrDefPedanticParserDefaultValue(int v);
extern xmlRegisterNodeFunc xmlThrDefRegisterNodeDefault(xmlRegisterNodeFunc
                                                         func);

extern int xmlThrDefSaveNoEmptyTags(int v);
extern void xmlThrDefSetGenericErrorFunc(void *ctx,
                                           xmlGenericErrorFunc handler);
extern void xmlThrDefSetStructuredErrorFunc(void *ctx,
                                             xmlStructuredErrorFunc
                                             handler);
extern int xmlThrDefSubstituteEntitiesDefaultValue(int v);
extern const char *xmlThrDefTreeIndentString(const char *v);

```

19.2.11. libxml2/libxml/hash.h

```

#define XML_CAST_FPTR(fptr)      fptr

typedef struct _xmlHashTable xmlHashTable;
typedef xmlHashTable *xmlHashTablePtr;
typedef void (*xmlHashDeallocator) (void *, xmlChar *);
typedef void (*xmlHashScannerFull) (void *, void *, const xmlChar *,
                                     const xmlChar *, const xmlChar *);
typedef void (*xmlHashCopier) (void *, xmlChar *);
typedef void (*xmlHashScanner) (void *, void *, xmlChar *);
extern int xmlHashAddEntry(xmlHashTablePtr table, const xmlChar * name,
                          void *userdata);
extern int xmlHashAddEntry2(xmlHashTablePtr table, const xmlChar * name,
                           const xmlChar * name2, void *userdata);
extern int xmlHashAddEntry3(xmlHashTablePtr table, const xmlChar * name,
                           const xmlChar * name2, const xmlChar * name3,
                           void *userdata);
extern xmlHashTablePtr xmlHashCopy(xmlHashTablePtr table, xmlHashCopier f);
extern xmlHashTablePtr xmlHashCreate(int size);
extern xmlHashTablePtr xmlHashCreateDict(int size, xmlDictPtr dict);
extern void xmlHashFree(xmlHashTablePtr table, xmlHashDeallocator f);
extern void *xmlHashLookup(xmlHashTablePtr table, const xmlChar * name);
extern void *xmlHashLookup2(xmlHashTablePtr table, const xmlChar * name,

```

```

        const xmlChar * name2);
extern void *xmlHashLookup3(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * name2, const xmlChar * name3);
extern void *xmlHashQLookup(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * prefix);
extern void *xmlHashQLookup2(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * prefix, const xmlChar * name2,
        const xmlChar * prefix2);
extern void *xmlHashQLookup3(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * prefix, const xmlChar * name2,
        const xmlChar * prefix2,
        const xmlChar * name3,
        const xmlChar * prefix3);
extern int xmlHashRemoveEntry(xmlHashTablePtr table, const xmlChar * name,
        xmlHashDeallocator f);
extern int xmlHashRemoveEntry2(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * name2,
        xmlHashDeallocator f);
extern int xmlHashRemoveEntry3(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * name2,
        const xmlChar * name3,
        xmlHashDeallocator f);
extern void xmlHashScan(xmlHashTablePtr table, xmlHashScanner f,
        void *data);
extern void xmlHashScan3(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * name2, const xmlChar * name3,
        xmlHashScanner f, void *data);
extern void xmlHashScanFull(xmlHashTablePtr table, xmlHashScannerFull f,
        void *data);
extern void xmlHashScanFull3(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * name2, const xmlChar * name3,
        xmlHashScannerFull f, void *data);
extern int xmlHashSize(xmlHashTablePtr table);
extern int xmlHashUpdateEntry(xmlHashTablePtr table, const xmlChar * name,
        void *userdata, xmlHashDeallocator f);
extern int xmlHashUpdateEntry2(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * name2, void *userdata,
        xmlHashDeallocator f);
extern int xmlHashUpdateEntry3(xmlHashTablePtr table, const xmlChar * name,
        const xmlChar * name2,
        const xmlChar * name3, void *userdata,
        xmlHashDeallocator f);

```

19.2.12. libxml2/libxml/list.h

```

typedef struct _xmlList xmlList;
typedef xmlList *xmlListPtr;
typedef struct _xmlLink xmlLink;
typedef xmlLink *xmlLinkPtr;
typedef int (*xmlListWalker) (const void *, const void *);
typedef void (*xmlListDeallocator) (xmlLinkPtr);
typedef int (*xmlListDataCompare) (const void *, const void *);
extern void *xmlLinkGetData(xmlLinkPtr lk);
extern int xmlListAppend(xmlListPtr l, void *data);
extern void xmlListClear(xmlListPtr l);
extern int xmlListCopy(xmlListPtr cur, const xmlListPtr old);
extern xmlListPtr xmlListCreate(xmlListDeallocator deallocator,
        xmlListDataCompare compare);
extern void xmlListDelete(xmlListPtr l);
extern xmlListPtr xmlListDup(const xmlListPtr old);
extern int xmlListEmpty(xmlListPtr l);

```

```

extern xmlLinkPtr xmlListEnd(xmlListPtr l);
extern xmlLinkPtr xmlListFront(xmlListPtr l);
extern int xmlListInsert(xmlListPtr l, void *data);
extern void xmlListMerge(xmlListPtr l1, xmlListPtr l2);
extern void xmlListPopBack(xmlListPtr l);
extern void xmlListPopFront(xmlListPtr l);
extern int xmlListPushBack(xmlListPtr l, void *data);
extern int xmlListPushFront(xmlListPtr l, void *data);
extern int xmlListRemoveAll(xmlListPtr l, void *data);
extern int xmlListRemoveFirst(xmlListPtr l, void *data);
extern int xmlListRemoveLast(xmlListPtr l, void *data);
extern void xmlListReverse(xmlListPtr l);
extern void *xmlListReverseSearch(xmlListPtr l, void *data);
extern void xmlListReverseWalk(xmlListPtr l, xmlListWalker walker,
                               const void *user);
extern void *xmlListSearch(xmlListPtr l, void *data);
extern int xmlListSize(xmlListPtr l);
extern void xmlListSort(xmlListPtr l);
extern void xmlListWalk(xmlListPtr l, xmlListWalker walker,
                        const void *user);

```

19.2.13. libxml2/libxml/parser.h

```

#define XML_DEFAULT_VERSION      "1.0"
#define XML_SAX2_MAGIC  0xDEEDBEAF
#define XML_DETECT_IDS  2
#define XML_COMPLETE_ATTRS  4
#define XML_SKIP_IDS  8

typedef xmlSAXHandler *xmlSAXHandlerPtr;
typedef xmlParserNodeInfoSeq *xmlParserNodeInfoSeqPtr;
typedef xmlParserInputPtr(*xmlExternalEntityLoader) (const char *,
                                                    const char *,
                                                    xmlParserCtxtPtr);

typedef xmlParserNodeInfo *xmlParserNodeInfoPtr;
typedef enum {
    XML_WITH_THREAD = 1,
    XML_WITH_TREE = 2,
    XML_WITH_OUTPUT = 3,
    XML_WITH_PUSH = 4,
    XML_WITH_READER = 5,
    XML_WITH_PATTERN = 6,
    XML_WITH_WRITER = 7,
    XML_WITH_SAX1 = 8,
    XML_WITH_FTP = 9,
    XML_WITH_HTTP = 10,
    XML_WITH_VALID = 11,
    XML_WITH_HTML = 12,
    XML_WITH_LEGACY = 13,
    XML_WITH_C14N = 14,
    XML_WITH_CATALOG = 15,
    XML_WITH_XPATH = 16,
    XML_WITH_XPTR = 17,
    XML_WITH_XINCLUDE = 18,
    XML_WITH_ICONV = 19,
    XML_WITH_ISO8859X = 20,
    XML_WITH_UNICODE = 21,
    XML_WITH_REGEXP = 22,
    XML_WITH_AUTOMATA = 23,
    XML_WITH_EXPR = 24,
    XML_WITH_SCHEMAS = 25,

```



```

XML_WITH_SCHEMATRON = 26,
XML_WITH_MODULES = 27,
XML_WITH_DEBUG = 28,
XML_WITH_DEBUG_MEM = 29,
XML_WITH_DEBUG_RUN = 30,
XML_WITH_NONE = 99999
} xmlFeature;
typedef enum {
    XML_PARSE_RECOVER = 1 << 0,
    XML_PARSE_NOENT = 1 << 1,
    XML_PARSE_DTDLOAD = 1 << 2,
    XML_PARSE_DTDATTR = 1 << 3,
    XML_PARSE_DTDVALID = 1 << 4,
    XML_PARSE_NOERROR = 1 << 5,
    XML_PARSE_NOWARNING = 1 << 6,
    XML_PARSE_PEDANTIC = 1 << 7,
    XML_PARSE_NOBLANKS = 1 << 8,
    XML_PARSE_SAX1 = 1 << 9,
    XML_PARSE_XINCLUDE = 1 << 10,
    XML_PARSE_NONET = 1 << 11,
    XML_PARSE_NODICT = 1 << 12,
    XML_PARSE_NSCLEAN = 1 << 13,
    XML_PARSE_NOCDATA = 1 << 14,
    XML_PARSE_NOXINCNODE = 1 << 15,
    XML_PARSE_COMPACT = 1 << 16
} xmlParserOption;
extern long int xmlByteConsumed(xmlParserCtxtPtr ctxt);
extern void xmlCleanupParser(void);
extern void xmlClearNodeInfoSeq(xmlParserNodeInfoSeqPtr seq);
extern void xmlClearParserCtxt(xmlParserCtxtPtr ctxt);
extern xmlParserCtxtPtr xmlCreateDocParserCtxt(const xmlChar * cur);
extern xmlParserCtxtPtr xmlCreateIOParserCtxt(xmlSAXHandlerPtr sax,
                                             void *user_data,
                                             xmlInputReadCallback ioread,
                                             xmlInputCloseCallback
                                             ioclose, void *ioctx,
                                             xmlCharEncoding enc);
extern xmlParserCtxtPtr xmlCreatePushParserCtxt(xmlSAXHandlerPtr sax,
                                             void *user_data,
                                             const char *chunk,
                                             int size,
                                             const char *filename);
extern xmlDocPtr xmlCtxtReadDoc(xmlParserCtxtPtr ctxt, const xmlChar * cur,
                                const char *URL, const char *encoding,
                                int options);
extern xmlDocPtr xmlCtxtReadFd(xmlParserCtxtPtr ctxt, int fd,
                                const char *URL, const char *encoding,
                                int options);
extern xmlDocPtr xmlCtxtReadFile(xmlParserCtxtPtr ctxt,
                                const char *filename,
                                const char *encoding, int options);
extern xmlDocPtr xmlCtxtReadIO(xmlParserCtxtPtr ctxt,
                                xmlInputReadCallback ioread,
                                xmlInputCloseCallback ioclose, void *ioctx,
                                const char *URL, const char *encoding,
                                int options);
extern xmlDocPtr xmlCtxtReadMemory(xmlParserCtxtPtr ctxt,
                                const char *buffer, int size,
                                const char *URL, const char *encoding,
                                int options);
extern void xmlCtxtReset(xmlParserCtxtPtr ctxt);
extern int xmlCtxtResetPush(xmlParserCtxtPtr ctxt, const char *chunk,

```

```

        int size, const char *filename,
        const char *encoding);
extern int xmlCtxtUseOptions(xmlParserCtxtPtr ctxt, int options);
extern void xmlFreeParserCtxt(xmlParserCtxtPtr ctxt);
extern xmlExternalEntityLoader xmlGetExternalEntityLoader(void);
extern int xmlHasFeature(xmlFeature feature);
extern xmlDtdPtr xmlIOParseDTD(xmlSAXHandlerPtr sax,
                                xmlParserInputBufferPtr input,
                                xmlCharEncoding enc);
extern void xmlInitNodeInfoSeq(xmlParserNodeInfoSeqPtr seq);
extern void xmlInitParser(void);
extern int xmlInitParserCtxt(xmlParserCtxtPtr ctxt);
extern int xmlKeepBlanksDefault(int val);
extern int xmlLineNumbersDefault(int val);
extern xmlParserInputPtr xmlLoadExternalEntity(const char *URL,
                                                const char *ID,
                                                xmlParserCtxtPtr ctxt);
extern xmlParserInputPtr xmlNewIOInputStream(xmlParserCtxtPtr ctxt,
                                             xmlParserInputBufferPtr input,
                                             xmlCharEncoding enc);
extern xmlParserCtxtPtr xmlNewParserCtxt(void);
extern int xmlParseBalancedChunkMemory(xmlDocPtr doc, xmlSAXHandlerPtr sax,
                                       void *user_data, int depth,
                                       const xmlChar * string,
                                       xmlNodePtr * lst);
extern int xmlParseBalancedChunkMemoryRecover(xmlDocPtr doc,
                                              xmlSAXHandlerPtr sax,
                                              void *user_data, int depth,
                                              const xmlChar * string,
                                              xmlNodePtr * lst,
                                              int recover);
extern int xmlParseChunk(xmlParserCtxtPtr ctxt, const char *chunk,
                        int size, int terminate);
extern int xmlParseCtxtExternalEntity(xmlParserCtxtPtr ctx,
                                       const xmlChar * URL,
                                       const xmlChar * ID,
                                       xmlNodePtr * lst);
extern xmlDtdPtr xmlParseDTD(const xmlChar * ExternalID,
                             const xmlChar * SystemID);
extern xmlDocPtr xmlParseDoc(const xmlChar * cur);
extern int xmlParseDocument(xmlParserCtxtPtr ctxt);
extern xmlDocPtr xmlParseEntity(const char *filename);
extern int xmlParseExtParsedEnt(xmlParserCtxtPtr ctxt);
extern int xmlParseExternalEntity(xmlDocPtr doc, xmlSAXHandlerPtr sax,
                                  void *user_data, int depth,
                                  const xmlChar * URL, const xmlChar * ID,
                                  xmlNodePtr * lst);
extern xmlDocPtr xmlParseFile(const char *filename);
extern xmlParserErrors xmlParseInNodeContext(xmlNodePtr node,
                                             const char *data, int datalen,
                                             int options,
                                             xmlNodePtr * lst);
extern xmlDocPtr xmlParseMemory(const char *buffer, int size);
extern void xmlParserAddNodeInfo(xmlParserCtxtPtr ctxt,
                                const xmlParserNodeInfoPtr info);
extern const xmlParserNodeInfo *xmlParserFindNodeInfo(const
                                                       xmlParserCtxtPtr
                                                       ctxt,
                                                       const xmlNodePtr
                                                       node);
extern long unsigned int xmlParserFindNodeInfoIndex(const
                                                    xmlParserNodeInfoSeqPtr

```

```

seq,
const xmlNodePtr node);
extern int xmlParserInputGrow(xmlParserInputPtr in, int len);
extern int xmlParserInputRead(xmlParserInputPtr in, int len);
extern int xmlPedanticParserDefault(int val);
extern xmlDocPtr xmlReadDoc(const xmlChar * cur, const char *URL,
                           const char *encoding, int options);
extern xmlDocPtr xmlReadFd(int fd, const char *URL, const char *encoding,
                           int options);
extern xmlDocPtr xmlReadFile(const char *URL, const char *encoding,
                             int options);
extern xmlDocPtr xmlReadIO(xmlInputReadCallback ioread,
                           xmlInputCloseCallback ioclose, void *ioctx,
                           const char *URL, const char *encoding,
                           int options);
extern xmlDocPtr xmlReadMemory(const char *buffer, int size,
                              const char *URL, const char *encoding,
                              int options);
extern xmlDocPtr xmlRecoverDoc(const xmlChar * cur);
extern xmlDocPtr xmlRecoverFile(const char *filename);
extern xmlDocPtr xmlRecoverMemory(const char *buffer, int size);
extern xmlDtdPtr xmlSAXParseDTD(xmlSAXHandlerPtr sax,
                               const xmlChar * ExternalID,
                               const xmlChar * SystemID);
extern xmlDocPtr xmlSAXParseDoc(xmlSAXHandlerPtr sax, const xmlChar * cur,
                               int recovery);
extern xmlDocPtr xmlSAXParseEntity(xmlSAXHandlerPtr sax,
                                   const char *filename);
extern xmlDocPtr xmlSAXParseFile(xmlSAXHandlerPtr sax,
                                 const char *filename, int recovery);
extern xmlDocPtr xmlSAXParseFileWithData(xmlSAXHandlerPtr sax,
                                         const char *filename,
                                         int recovery, void *data);
extern xmlDocPtr xmlSAXParseMemory(xmlSAXHandlerPtr sax,
                                   const char *buffer, int size,
                                   int recovery);
extern xmlDocPtr xmlSAXParseMemoryWithData(xmlSAXHandlerPtr sax,
                                           const char *buffer, int size,
                                           int recovery, void *data);
extern int xmlSAXUserParseFile(xmlSAXHandlerPtr sax, void *user_data,
                               const char *filename);
extern int xmlSAXUserParseMemory(xmlSAXHandlerPtr sax, void *user_data,
                                 const char *buffer, int size);
extern void xmlSetExternalEntityLoader(xmlExternalEntityLoader f);
extern void xmlSetupParserForBuffer(xmlParserCtxtPtr ctxt,
                                    const xmlChar * buffer,
                                    const char *filename);
extern void xmlStopParser(xmlParserCtxtPtr ctxt);
extern int xmlSubstituteEntitiesDefault(int val);

```

19.2.14. libxml2/libxml/parserInternals.h

```

#define IS_ASCII_LETTER(c) \
    (((0x41 <= (c)) && ((c) <= 0x5a)) || ((0x61 <= (c)) && ((c) <= \
    0x7a)))
#define SKIP_EOL(p) \
    if (*(p) == 0x13) { p++ ; if (*(p) == 0x10) p++; } if (*(p) == 0x10) \
    { p++ ; if (*(p) == 0x13) p++; }
#define IS_ASCII_DIGIT(c) ((0x30 <= (c)) && ((c) <= 0x39))
#define IS_LETTER(c) (IS_BASECHAR(c) || IS_IDEOGRAPHIC(c))
#define IS_COMBINING_CH(c) 0

```

```

#define XML_SUBSTITUTE_NONE      0
#define XML_SUBSTITUTE_REF      1
#define XML_MAX_NAMELEN 100
#define XML_SUBSTITUTE_PEREF    2
#define INPUT_CHUNK      250
#define XML_SUBSTITUTE_BOTH    3
#define MOVETO_STARTTAG(p)      while ((*p) && (*p) != '<')) (p)++
#define MOVETO_ENDTAG(p)        while ((*p) && (*p) != '>')) (p)++
#define IS_BASECHAR(c)    xmlIsBaseCharQ(c)
#define IS_LETTER_CH(c)   xmlIsBaseChar_ch(c)
#define IS_BLANK(c)       xmlIsBlankQ(c)
#define IS_BLANK_CH(c)    xmlIsBlank_ch(c)
#define IS_CHAR(c)        xmlIsCharQ(c)
#define IS_BYTE_CHAR(c)   xmlIsChar_ch(c)
#define IS_CHAR_CH(c)     xmlIsChar_ch(c)
#define IS_COMBINING(c)   xmlIsCombiningQ(c)
#define IS_DIGIT(c)       xmlIsDigitQ(c)
#define IS_DIGIT_CH(c)    xmlIsDigit_ch(c)
#define IS_EXTENDER(c)    xmlIsExtenderQ(c)
#define IS_EXTENDER_CH(c) xmlIsExtender_ch(c)
#define IS_IDEOGRAPHIC(c) xmlIsIdeographicQ(c)
#define IS_PUBIDCHAR(c)   xmlIsPubidCharQ(c)
#define IS_PUBIDCHAR_CH(c) xmlIsPubidChar_ch(c)

typedef void (*xmlEntityReferenceFunc) (xmlEntityPtr, xmlNodePtr,
                                       xmlNodePtr);

extern htmlParserCtxtPtr htmlCreateFileParserCtxt(const char *filename,
                                                  const char *encoding);

extern void htmlInitAutoClose(void);
extern xmlParserInputPtr inputPop(xmlParserCtxtPtr ctxt);
extern int inputPush(xmlParserCtxtPtr ctxt, xmlParserInputPtr value);
extern const xmlChar *namePop(xmlParserCtxtPtr ctxt);
extern int namePush(xmlParserCtxtPtr ctxt, const xmlChar * value);
extern xmlNodePtr nodePop(xmlParserCtxtPtr ctxt);
extern int nodePush(xmlParserCtxtPtr ctxt, xmlNodePtr value);
extern int xmlCopyChar(int len, xmlChar * out, int val);
extern int xmlCopyCharMultiByte(xmlChar * out, int val);
extern xmlParserCtxtPtr xmlCreateEntityParserCtxt(const xmlChar * URL,
                                                  const xmlChar * ID,
                                                  const xmlChar * base);
extern xmlParserCtxtPtr xmlCreateFileParserCtxt(const char *filename);
extern xmlParserCtxtPtr xmlCreateMemoryParserCtxt(const char *buffer,
                                                  int size);
extern xmlParserCtxtPtr xmlCreateURLParserCtxt(const char *filename,
                                              int options);
extern int xmlCurrentChar(xmlParserCtxtPtr ctxt, int *len);
extern void xmlFreeInputStream(xmlParserInputPtr input);
extern int xmlIsLetter(int c);
extern xmlParserInputPtr xmlNewEntityInputStream(xmlParserCtxtPtr ctxt,
                                              xmlEntityPtr entity);
extern xmlParserInputPtr xmlNewInputFromFile(xmlParserCtxtPtr ctxt,
                                              const char *filename);
extern xmlParserInputPtr xmlNewInputStream(xmlParserCtxtPtr ctxt);
extern xmlParserInputPtr xmlNewStringInputStream(xmlParserCtxtPtr ctxt,
                                              const xmlChar * buffer);

extern void xmlNextChar(xmlParserCtxtPtr ctxt);
extern xmlChar *xmlParseAttValue(xmlParserCtxtPtr ctxt);
extern const xmlChar *xmlParseAttribute(xmlParserCtxtPtr ctxt,
                                       xmlChar * *value);
extern void xmlParseAttributeListDecl(xmlParserCtxtPtr ctxt);
extern int xmlParseAttributeType(xmlParserCtxtPtr ctxt,
                                xmlEnumerationPtr * tree);

```

```

extern void xmlParseCDSect(xmlParserCtxtPtr ctxt);
extern void xmlParseCharData(xmlParserCtxtPtr ctxt, int cdata);
extern int xmlParseCharRef(xmlParserCtxtPtr ctxt);
extern void xmlParseComment(xmlParserCtxtPtr ctxt);
extern void xmlParseContent(xmlParserCtxtPtr ctxt);
extern int xmlParseDefaultDecl(xmlParserCtxtPtr ctxt, xmlChar * *value);
extern void xmlParseDocTypeDecl(xmlParserCtxtPtr ctxt);
extern void xmlParseElement(xmlParserCtxtPtr ctxt);
extern xmlElementContentPtr
xmlParseElementChildrenContentDecl(xmlParserCtxtPtr ctxt, int inputchk);
extern int xmlParseElementContentDecl(xmlParserCtxtPtr ctxt,
                                     const xmlChar * name,
                                     xmlElementContentPtr * result);
extern int xmlParseElementDecl(xmlParserCtxtPtr ctxt);
extern xmlElementContentPtr
xmlParseElementMixedContentDecl(xmlParserCtxtPtr ctxt, int inputchk);
extern xmlChar *xmlParseEncName(xmlParserCtxtPtr ctxt);
extern const xmlChar *xmlParseEncodingDecl(xmlParserCtxtPtr ctxt);
extern void xmlParseEndTag(xmlParserCtxtPtr ctxt);
extern void xmlParseEntityDecl(xmlParserCtxtPtr ctxt);
extern xmlEntityPtr xmlParseEntityRef(xmlParserCtxtPtr ctxt);
extern xmlChar *xmlParseEntityValue(xmlParserCtxtPtr ctxt,
                                    xmlChar * *orig);
extern int xmlParseEnumeratedType(xmlParserCtxtPtr ctxt,
                                   xmlEnumerationPtr * tree);
extern xmlEnumerationPtr xmlParseEnumerationType(xmlParserCtxtPtr ctxt);
extern xmlChar *xmlParseExternalID(xmlParserCtxtPtr ctxt,
                                    xmlChar * *publicID, int strict);
extern void xmlParseExternalSubset(xmlParserCtxtPtr ctxt,
                                   const xmlChar * ExternalID,
                                   const xmlChar * SystemID);
extern void xmlParseMarkupDecl(xmlParserCtxtPtr ctxt);
extern void xmlParseMisc(xmlParserCtxtPtr ctxt);
extern const xmlChar *xmlParseName(xmlParserCtxtPtr ctxt);
extern xmlChar *xmlParseNmtoken(xmlParserCtxtPtr ctxt);
extern void xmlParseNotationDecl(xmlParserCtxtPtr ctxt);
extern xmlEnumerationPtr xmlParseNotationType(xmlParserCtxtPtr ctxt);
extern void xmlParsePEReference(xmlParserCtxtPtr ctxt);
extern void xmlParsePI(xmlParserCtxtPtr ctxt);
extern const xmlChar *xmlParsePITarget(xmlParserCtxtPtr ctxt);
extern xmlChar *xmlParsePubidLiteral(xmlParserCtxtPtr ctxt);
extern void xmlParseReference(xmlParserCtxtPtr ctxt);
extern int xmlParseSDDDecl(xmlParserCtxtPtr ctxt);
extern const xmlChar *xmlParseStartTag(xmlParserCtxtPtr ctxt);
extern xmlChar *xmlParseSystemLiteral(xmlParserCtxtPtr ctxt);
extern void xmlParseTextDecl(xmlParserCtxtPtr ctxt);
extern xmlChar *xmlParseVersionInfo(xmlParserCtxtPtr ctxt);
extern xmlChar *xmlParseVersionNum(xmlParserCtxtPtr ctxt);
extern void xmlParseXMLDecl(xmlParserCtxtPtr ctxt);
extern void xmlParserHandlePEReference(xmlParserCtxtPtr ctxt);
extern void xmlParserInputShrink(xmlParserInputPtr in);
extern unsigned int xmlParserMaxDepth;
extern xmlChar xmlPopInput(xmlParserCtxtPtr ctxt);
extern void xmlPushInput(xmlParserCtxtPtr ctxt, xmlParserInputPtr input);
extern void xmlSetEntityReferenceFunc(xmlEntityReferenceFunc func);
extern int xmlSkipBlankChars(xmlParserCtxtPtr ctxt);
extern xmlChar *xmlSplitQName(xmlParserCtxtPtr ctxt, const xmlChar * name,
                              xmlChar * *prefix);
extern const xmlChar const xmlStringComment[];
extern int xmlStringCurrentChar(xmlParserCtxtPtr ctxt, const xmlChar * cur,
                              int *len);
extern xmlChar *xmlStringDecodeEntities(xmlParserCtxtPtr ctxt,

```

```

                                const xmlChar * str, int what,
                                xmlChar end, xmlChar end2,
                                xmlChar end3);
extern xmlChar *xmlStringLenDecodeEntities(xmlParserCtxtPtr ctxt,
                                const xmlChar * str, int len,
                                int what, xmlChar end,
                                xmlChar end2, xmlChar end3);
extern const xmlChar const xmlStringText[];
extern const xmlChar const xmlStringTextNoenc[];
extern int xmlSwitchEncoding(xmlParserCtxtPtr ctxt, xmlCharEncoding enc);
extern int xmlSwitchInputEncoding(xmlParserCtxtPtr ctxt,
                                xmlParserInputPtr input,
                                xmlCharEncodingHandlerPtr handler);
extern int xmlSwitchToEncoding(xmlParserCtxtPtr ctxt,
                                xmlCharEncodingHandlerPtr handler);

```

19.2.15. libxml2/libxml/pattern.h

```

typedef struct _xmlStreamCtxt xmlStreamCtxt;
typedef xmlStreamCtxt *xmlStreamCtxtPtr;
typedef struct _xmlPattern xmlPattern;
typedef xmlPattern *xmlPatternPtr;
typedef enum {
    XML_PATTERN_DEFAULT = 0,
    XML_PATTERN_XPATH = 1 << 0,
    XML_PATTERN_XSSEL = 1 << 1,
    XML_PATTERN_XSFIELD = 1 << 2
} xmlPatternFlags;
extern void xmlFreePattern(xmlPatternPtr comp);
extern void xmlFreePatternList(xmlPatternPtr comp);
extern void xmlFreeStreamCtxt(xmlStreamCtxtPtr stream);
extern int xmlPatternFromRoot(xmlPatternPtr comp);
extern xmlStreamCtxtPtr xmlPatternGetStreamCtxt(xmlPatternPtr comp);
extern int xmlPatternMatch(xmlPatternPtr comp, xmlNodePtr node);
extern int xmlPatternMaxDepth(xmlPatternPtr comp);
extern int xmlPatternMinDepth(xmlPatternPtr comp);
extern int xmlPatternStreamable(xmlPatternPtr comp);
extern xmlPatternPtr xmlPatterncompile(const xmlChar * pattern,
                                xmlDict * dict, int flags,
                                const xmlChar * *namespaces);
extern int xmlStreamPop(xmlStreamCtxtPtr stream);
extern int xmlStreamPush(xmlStreamCtxtPtr stream, const xmlChar * name,
                                const xmlChar * ns);
extern int xmlStreamPushAttr(xmlStreamCtxtPtr stream, const xmlChar * name,
                                const xmlChar * ns);

```

19.2.16. libxml2/libxml/relaxng.h

```

typedef struct _xmlRelaxNGParserCtxt xmlRelaxNGParserCtxt;
typedef xmlRelaxNGParserCtxt *xmlRelaxNGParserCtxtPtr;
typedef struct _xmlRelaxNGValidCtxt xmlRelaxNGValidCtxt;
typedef xmlRelaxNGValidCtxt *xmlRelaxNGValidCtxtPtr;
typedef struct _xmlRelaxNG xmlRelaxNG;
typedef xmlRelaxNG *xmlRelaxNGPtr;
typedef void (*xmlRelaxNGValidityErrorFunc) (void *, const char *, ...);
typedef void (*xmlRelaxNGValidityWarningFunc) (void *, const char *, ...);
typedef enum {
    XML_RELAXNG_OK = 0,
    XML_RELAXNG_ERR_MEMORY,

```

```

XML_RELAXNG_ERR_TYPE,
XML_RELAXNG_ERR_TYPEVAL,
XML_RELAXNG_ERR_DUPID,
XML_RELAXNG_ERR_TYPECMP,
XML_RELAXNG_ERR_NOSTATE,
XML_RELAXNG_ERR_NODEFINE,
XML_RELAXNG_ERR_LISTEXTRA,
XML_RELAXNG_ERR_LISTEMPTY,
XML_RELAXNG_ERR_INTERNODATA,
XML_RELAXNG_ERR_INTERSEQ,
XML_RELAXNG_ERR_INTEREXTRA,
XML_RELAXNG_ERR_ELEMNAME,
XML_RELAXNG_ERR_ATTRNAME,
XML_RELAXNG_ERR_ELEMNONS,
XML_RELAXNG_ERR_ATTRNONS,
XML_RELAXNG_ERR_ELEMWRONGNS,
XML_RELAXNG_ERR_ATTRWRONGNS,
XML_RELAXNG_ERR_ELEMEXTRANS,
XML_RELAXNG_ERR_ATTREXTRANS,
XML_RELAXNG_ERR_ELEMNOTEEMPTY,
XML_RELAXNG_ERR_NOELEM,
XML_RELAXNG_ERR_NOTELEM,
XML_RELAXNG_ERR_ATTRVALID,
XML_RELAXNG_ERR_CONTENTVALID,
XML_RELAXNG_ERR_EXTRACONTENT,
XML_RELAXNG_ERR_INVALIDATTR,
XML_RELAXNG_ERR_DATAELEM,
XML_RELAXNG_ERR_VALELEM,
XML_RELAXNG_ERR_LISTELEM,
XML_RELAXNG_ERR_DATATYPE,
XML_RELAXNG_ERR_VALUE,
XML_RELAXNG_ERR_LIST,
XML_RELAXNG_ERR_NOGRAMMAR,
XML_RELAXNG_ERR_EXTRADATA,
XML_RELAXNG_ERR_LACKDATA,
XML_RELAXNG_ERR_INTERNAL,
XML_RELAXNG_ERR_ELEMWRONG,
XML_RELAXNG_ERR_TEXTWRONG
} xmlRelaxNGValidErr;
typedef enum {
    XML_RELAXNGP_NONE = 0,
    XML_RELAXNGP_FREE_DOC = 1,
    XML_RELAXNGP_CRNG = 2
} xmlRelaxNGParserFlag;
extern void xmlRelaxNGCleanupTypes(void);
extern void xmlRelaxNGDump(FILE * output, xmlRelaxNGPtr schema);
extern void xmlRelaxNGDumpTree(FILE * output, xmlRelaxNGPtr schema);
extern void xmlRelaxNGFree(xmlRelaxNGPtr schema);
extern void xmlRelaxNGFreeParserCtxt(xmlRelaxNGParserCtxtPtr ctxt);
extern void xmlRelaxNGFreeValidCtxt(xmlRelaxNGValidCtxtPtr ctxt);
extern int xmlRelaxNGGetParserErrors(xmlRelaxNGParserCtxtPtr ctxt,
                                     xmlRelaxNGValidityErrorFunc * err,
                                     xmlRelaxNGValidityWarningFunc * warn,
                                     void **ctx);
extern int xmlRelaxNGGetValidErrors(xmlRelaxNGValidCtxtPtr ctxt,
                                    xmlRelaxNGValidityErrorFunc * err,
                                    xmlRelaxNGValidityWarningFunc * warn,
                                    void **ctx);
extern int xmlRelaxNGInitTypes(void);
extern xmlRelaxNGParserCtxtPtr xmlRelaxNGNewDocParserCtxt(xmlDocPtr doc);
extern xmlRelaxNGParserCtxtPtr xmlRelaxNGNewMemParserCtxt(const char
                                                         *buffer,

```

```

                                int size);
extern xmlRelaxNGParserCtxtPtr xmlRelaxNGNewParserCtxt(const char *URL);
extern xmlRelaxNGValidCtxtPtr xmlRelaxNGNewValidCtxt(xmlRelaxNGPtr schema);
extern xmlRelaxNGPtr xmlRelaxNGParse(xmlRelaxNGParserCtxtPtr ctxt);
extern void xmlRelaxNGSetParserErrors(xmlRelaxNGParserCtxtPtr ctxt,
                                      xmlRelaxNGValidityErrorFunc err,
                                      xmlRelaxNGValidityWarningFunc warn,
                                      void *ctx);
extern void xmlRelaxNGSetValidErrors(xmlRelaxNGValidCtxtPtr ctxt,
                                     xmlRelaxNGValidityErrorFunc err,
                                     xmlRelaxNGValidityWarningFunc warn,
                                     void *ctx);
extern void xmlRelaxNGSetValidStructuredErrors(xmlRelaxNGValidCtxtPtr ctxt,
                                              xmlStructuredErrorFunc
                                              serror, void *ctx);
extern int xmlRelaxNGValidateDoc(xmlRelaxNGValidCtxtPtr ctxt,
                                xmlDocPtr doc);
extern int xmlRelaxNGValidateFullElement(xmlRelaxNGValidCtxtPtr ctxt,
                                         xmlDocPtr doc, xmlNodePtr elem);
extern int xmlRelaxNGValidatePopElement(xmlRelaxNGValidCtxtPtr ctxt,
                                        xmlDocPtr doc, xmlNodePtr elem);
extern int xmlRelaxNGValidatePushCData(xmlRelaxNGValidCtxtPtr ctxt,
                                       const xmlChar * data, int len);
extern int xmlRelaxNGValidatePushElement(xmlRelaxNGValidCtxtPtr ctxt,
                                         xmlDocPtr doc, xmlNodePtr elem);
extern int xmlRelaxParserSetFlag(xmlRelaxNGParserCtxtPtr ctxt, int flag);

```

19.2.17. libxml2/libxml/schematron.h

```

typedef struct _xmlSchematronValidCtxt xmlSchematronValidCtxt;
typedef xmlSchematronValidCtxt *xmlSchematronValidCtxtPtr;
typedef struct _xmlSchematron xmlSchematron;
typedef xmlSchematron *xmlSchematronPtr;
typedef struct _xmlSchematronParserCtxt xmlSchematronParserCtxt;
typedef xmlSchematronParserCtxt *xmlSchematronParserCtxtPtr;
typedef enum {
    XML_SCHEMATRON_OUT_QUIET = 1 << 0,
    XML_SCHEMATRON_OUT_TEXT = 1 << 1,
    XML_SCHEMATRON_OUT_XML = 1 << 2,
    XML_SCHEMATRON_OUT_FILE = 1 << 8,
    XML_SCHEMATRON_OUT_BUFFER = 1 << 9,
    XML_SCHEMATRON_OUT_IO = 1 << 10
} xmlSchematronValidOptions;
extern void xmlSchematronFree(xmlSchematronPtr schema);
extern void xmlSchematronFreeParserCtxt(xmlSchematronParserCtxtPtr ctxt);
extern void xmlSchematronFreeValidCtxt(xmlSchematronValidCtxtPtr ctxt);
extern xmlSchematronParserCtxtPtr xmlSchematronNewDocParserCtxt(xmlDocPtr
                                                                doc);
extern xmlSchematronParserCtxtPtr xmlSchematronNewMemParserCtxt(const char
                                                                *buffer,
                                                                int size);
extern xmlSchematronParserCtxtPtr xmlSchematronNewParserCtxt(const char
                                                            *URL);
extern xmlSchematronValidCtxtPtr xmlSchematronNewValidCtxt(xmlSchematronPtr
                                                            schema,
                                                            int options);
extern xmlSchematronPtr xmlSchematronParse(xmlSchematronParserCtxtPtr
                                           ctxt);
extern int xmlSchematronValidateDoc(xmlSchematronValidCtxtPtr ctxt,
                                    xmlDocPtr instance);

```


19.2.18. libxml2/libxml/threads.h

```
typedef struct _xmlRMutex xmlRMutex;
typedef xmlRMutex *xmlRMutexPtr;
typedef struct _xmlMutex xmlMutex;
typedef xmlMutex *xmlMutexPtr;
extern void xmlCleanupThreads(void);
extern void xmlFreeMutex(xmlMutexPtr tok);
extern void xmlFreeRMutex(xmlRMutexPtr tok);
extern xmlGlobalStatePtr xmlGetGlobalState(void);
extern int xmlGetThreadId(void);
extern void xmlInitThreads(void);
extern int xmlIsMainThread(void);
extern void xmlLockLibrary(void);
extern void xmlMutexLock(xmlMutexPtr tok);
extern void xmlMutexUnlock(xmlMutexPtr tok);
extern xmlMutexPtr xmlNewMutex(void);
extern xmlRMutexPtr xmlNewRMutex(void);
extern void xmlRMutexLock(xmlRMutexPtr tok);
extern void xmlRMutexUnlock(xmlRMutexPtr tok);
extern void xmlUnlockLibrary(void);
```

19.2.19. libxml2/libxml/tree.h

```
#define XML_GET_CONTENT(n) \
    ((n)->type == XML_ELEMENT_NODE ? NULL : (n)->content)
#define XML_XML_NAMESPACE \
    (const xmlChar *) "http://www.w3.org/XML/1998/namespace"
#define XML_XML_ID (const xmlChar *) "xml:id"
#define XML_GET_LINE(n) (xmlGetLineNo(n))
#define BASE_BUFFER_SIZE 4096
#define xmlChildrenNode children
#define xmlRootNode children
#define XML_LOCAL_NAMESPACE XML_NAMESPACE_DECL

typedef enum {
    XML_BUFFER_ALLOC_DOUBLEIT = 0,
    XML_BUFFER_ALLOC_EXACT = 1,
    XML_BUFFER_ALLOC_IMMUTABLE = 2
} xmlBufferAllocationScheme;
typedef struct _xmlBuffer {
    xmlChar *content;
    unsigned int use;
    unsigned int size;
    xmlBufferAllocationScheme alloc;
} xmlBuffer;
typedef xmlBuffer *xmlBufferPtr;
typedef enum {
    XML_ELEMENT_NODE = 1,
    XML_ATTRIBUTE_NODE = 2,
    XML_TEXT_NODE = 3,
    XML_CDATA_SECTION_NODE = 4,
    XML_ENTITY_REF_NODE = 5,
    XML_ENTITY_NODE = 6,
    XML_PI_NODE = 7,
    XML_COMMENT_NODE = 8,
    XML_DOCUMENT_NODE = 9,
    XML_DOCUMENT_TYPE_NODE = 10,
```

```

XML_DOCUMENT_FRAG_NODE = 11,
XML_NOTATION_NODE = 12,
XML_HTML_DOCUMENT_NODE = 13,
XML_DTD_NODE = 14,
XML_ELEMENT_DECL = 15,
XML_ATTRIBUTE_DECL = 16,
XML_ENTITY_DECL = 17,
XML_NAMESPACE_DECL = 18,
XML_XINCLUDE_START = 19,
XML_XINCLUDE_END = 20,
XML_DOCB_DOCUMENT_NODE = 21
} xmlElementType;
typedef xmlElementType xmlNsType;
typedef struct _xmlNs {
    struct _xmlNs *next;
    xmlNsType type;
    const xmlChar *href;
    const xmlChar *prefix;
    void *_private;
} xmlNs;
typedef enum {
    XML_ATTRIBUTE_CDATA = 1,
    XML_ATTRIBUTE_ID = 2,
    XML_ATTRIBUTE_IDREF = 3,
    XML_ATTRIBUTE_IDREFS = 4,
    XML_ATTRIBUTE_ENTITY = 5,
    XML_ATTRIBUTE_ENTITIES = 6,
    XML_ATTRIBUTE_NMTOKEN = 7,
    XML_ATTRIBUTE_NMTOKENS = 8,
    XML_ATTRIBUTE_ENUMERATION = 9,
    XML_ATTRIBUTE_NOTATION = 10
} xmlAttributeType;
typedef struct _xmlNode {
    void *_private;
    xmlElementType type;
    const xmlChar *name;
    struct _xmlNode *children;
    struct _xmlNode *last;
    struct _xmlNode *parent;
    struct _xmlNode *next;
    struct _xmlNode *prev;
    struct _xmlDoc *doc;
    xmlNs *ns;
    xmlChar *content;
    struct _xmlAttr *properties;
    xmlNs *nsDef;
    void *psvi;
    unsigned short line;
    unsigned short extra;
} xmlNode;
typedef xmlNode *xmlNodePtr;
typedef struct _xmlDoc {
    void *_private;
    xmlElementType type;
    char *name;
    struct _xmlNode *children;
    struct _xmlNode *last;
    struct _xmlNode *parent;
    struct _xmlNode *next;
    struct _xmlNode *prev;
    struct _xmlDoc *doc;
    int compression;

```

```

    int standalone;
    struct _xmlDtd *intSubset;
    struct _xmlDtd *extSubset;
    struct _xmlNs *oldNs;
    const xmlChar *version;
    const xmlChar *encoding;
    void *ids;
    void *refs;
    const xmlChar *URL;
    int charset;
    struct _xmlDict *dict;
    void *psvi;
} xmlDoc;
typedef xmlDoc *xmlDocPtr;
typedef xmlNs *xmlNsPtr;
typedef struct _xmlDtd {
    void *_private;
    xmlElementType type;
    const xmlChar *name;
    struct _xmlNode *children;
    struct _xmlNode *last;
    struct _xmlDoc *parent;
    struct _xmlNode *next;
    struct _xmlNode *prev;
    struct _xmlDoc *doc;
    void *notations;
    void *elements;
    void *attributes;
    void *entities;
    const xmlChar *ExternalID;
    const xmlChar *SystemID;
    void *pentities;
} xmlDtd;
typedef xmlDtd *xmlDtdPtr;
typedef struct _xmlDOMWrapCtxt {
    void *_private;
} xmlDOMWrapCtxt;
typedef xmlDOMWrapCtxt *xmlDOMWrapCtxtPtr;
typedef struct _xmlAttr {
    void *_private;
    xmlElementType type;
    const xmlChar *name;
    struct _xmlNode *children;
    struct _xmlNode *last;
    struct _xmlNode *parent;
    struct _xmlAttr *next;
    struct _xmlAttr *prev;
    struct _xmlDoc *doc;
    xmlNs *ns;
    xmlAttributeType atype;
    void *psvi;
} xmlAttr;
typedef xmlAttr *xmlAttrPtr;
typedef int (*xmlOutputWriteCallback) (void *, const char *, int);
typedef int (*xmlOutputCloseCallback) (void *);
typedef int (*xmlCharEncodingInputFunc) (unsigned char *, int *,
                                         const unsigned char *, int *);
typedef int (*xmlCharEncodingOutputFunc) (unsigned char *, int *,
                                         const unsigned char *, int *);
typedef struct _xmlCharEncodingHandler {
    char *name;
    xmlCharEncodingInputFunc input;

```

```

    xmlCharEncodingOutputFunc output;
    iconv_t iconv_in;
    iconv_t iconv_out;
} xmlCharEncodingHandler;
typedef xmlCharEncodingHandler *xmlCharEncodingHandlerPtr;
typedef struct _xmlOutputBuffer {
    void *context;
    xmlOutputWriteCallback writcallback;
    xmlOutputCloseCallback closecallback;
    xmlCharEncodingHandlerPtr encoder;
    xmlBufferPtr buffer;
    xmlBufferPtr conv;
    int written;
    int error;
} xmlOutputBuffer;
typedef xmlOutputBuffer *xmlOutputBufferPtr;
extern xmlNodePtr xmlAddChild(xmlNodePtr parent, xmlNodePtr cur);
extern xmlNodePtr xmlAddChildList(xmlNodePtr parent, xmlNodePtr cur);
extern xmlNodePtr xmlAddNextSibling(xmlNodePtr cur, xmlNodePtr elem);
extern xmlNodePtr xmlAddPrevSibling(xmlNodePtr cur, xmlNodePtr elem);
extern xmlNodePtr xmlAddSibling(xmlNodePtr cur, xmlNodePtr elem);
extern void xmlAttrSerializeTxtContent(xmlBufferPtr buf, xmlDocPtr doc,
                                       xmlAttrPtr attr,
                                       const xmlChar * string);
extern int xmlBufferAdd(xmlBufferPtr buf, const xmlChar * str, int len);
extern int xmlBufferAddHead(xmlBufferPtr buf, const xmlChar * str,
                           int len);
extern int xmlBufferCCat(xmlBufferPtr buf, const char *str);
extern int xmlBufferCat(xmlBufferPtr buf, const xmlChar * str);
extern const xmlChar *xmlBufferContent(const xmlBufferPtr buf);
extern xmlBufferPtr xmlBufferCreate(void);
extern xmlBufferPtr xmlBufferCreateSize(size_t size);
extern xmlBufferPtr xmlBufferCreateStatic(void *mem, size_t size);
extern int xmlBufferDump(FILE * file, xmlBufferPtr buf);
extern void xmlBufferEmpty(xmlBufferPtr buf);
extern void xmlBufferFree(xmlBufferPtr buf);
extern int xmlBufferGrow(xmlBufferPtr buf, unsigned int len);
extern int xmlBufferLength(const xmlBufferPtr buf);
extern int xmlBufferResize(xmlBufferPtr buf, unsigned int size);
extern void xmlBufferSetAllocationScheme(xmlBufferPtr buf,
                                         xmlBufferAllocationScheme scheme);
extern int xmlBufferShrink(xmlBufferPtr buf, unsigned int len);
extern void xmlBufferWriteCHAR(xmlBufferPtr buf, const xmlChar * string);
extern void xmlBufferWriteChar(xmlBufferPtr buf, const char *string);
extern void xmlBufferWriteQuotedString(xmlBufferPtr buf,
                                       const xmlChar * string);
extern xmlChar *xmlBuildQName(const xmlChar * nname,
                              const xmlChar * prefix, xmlChar * memory,
                              int len);
extern xmlDocPtr xmlCopyDoc(xmlDocPtr doc, int recursive);
extern xmlDtdPtr xmlCopyDtd(xmlDtdPtr dtd);
extern xmlNsPtr xmlCopyNamespace(xmlNsPtr cur);
extern xmlNsPtr xmlCopyNamespaceList(xmlNsPtr cur);
extern xmlNodePtr xmlCopyNode(const xmlNodePtr node, int recursive);
extern xmlNodePtr xmlCopyNodeList(const xmlNodePtr node);
extern xmlAttrPtr xmlCopyProp(xmlNodePtr target, xmlAttrPtr cur);
extern xmlAttrPtr xmlCopyPropList(xmlNodePtr target, xmlAttrPtr cur);
extern xmlDtdPtr xmlCreateIntSubset(xmlDocPtr doc, const xmlChar * name,
                                    const xmlChar * ExternalID,
                                    const xmlChar * SystemID);
extern void xmlDOMWrapFreeCtxt(xmlDOMWrapCtxtPtr ctxt);
extern xmlDOMWrapCtxtPtr xmlDOMWrapNewCtxt(void);

```

```

extern xmlNodePtr xmlDocCopyNode(const xmlNodePtr node, xmlDocPtr doc,
                                int recursive);
extern xmlNodePtr xmlDocCopyNodeList(xmlDocPtr doc, const xmlNodePtr node);
extern int xmlDocDump(FILE * f, xmlDocPtr cur);
extern void xmlDocDumpFormatMemory(xmlDocPtr cur, xmlChar * *mem,
                                int *size, int format);
extern void xmlDocDumpFormatMemoryEnc(xmlDocPtr out_doc,
                                xmlChar * *doc_txt_ptr,
                                int *doc_txt_len,
                                const char *txt_encoding,
                                int format);
extern void xmlDocDumpMemory(xmlDocPtr cur, xmlChar * *mem, int *size);
extern void xmlDocDumpMemoryEnc(xmlDocPtr out_doc, xmlChar * *doc_txt_ptr,
                                int *doc_txt_len,
                                const char *txt_encoding);
extern int xmlDocFormatDump(FILE * f, xmlDocPtr cur, int format);
extern xmlNodePtr xmlDocGetRootElement(xmlDocPtr doc);
extern xmlNodePtr xmlDocSetRootElement(xmlDocPtr doc, xmlNodePtr root);
extern void xmlElemDump(FILE * f, xmlDocPtr doc, xmlNodePtr cur);
extern void xmlFreeDoc(xmlDocPtr cur);
extern void xmlFreeDtd(xmlDtdPtr cur);
extern void xmlFreeNode(xmlNodePtr cur);
extern void xmlFreeNodeList(xmlNodePtr cur);
extern void xmlFreeNs(xmlNsPtr cur);
extern void xmlFreeNsList(xmlNsPtr cur);
extern void xmlFreeProp(xmlAttrPtr cur);
extern void xmlFreePropList(xmlAttrPtr cur);
extern xmlBufferAllocationScheme xmlGetBufferAllocationScheme(void);
extern int xmlGetCompressMode(void);
extern int xmlGetDocCompressMode(xmlDocPtr doc);
extern xmlDtdPtr xmlGetIntSubset(xmlDocPtr doc);
extern xmlNodePtr xmlGetLastChild(xmlNodePtr parent);
extern long int xmlGetLineNo(xmlNodePtr node);
extern xmlChar *xmlGetNoNsProp(xmlNodePtr node, const xmlChar * name);
extern xmlChar *xmlGetNodePath(xmlNodePtr node);
extern xmlNsPtr *xmlGetNsList(xmlDocPtr doc, xmlNodePtr node);
extern xmlChar *xmlGetNsProp(xmlNodePtr node, const xmlChar * name,
                                const xmlChar * nameSpace);
extern xmlChar *xmlGetProp(xmlNodePtr node, const xmlChar * name);
extern xmlAttrPtr xmlHasNsProp(xmlNodePtr node, const xmlChar * name,
                                const xmlChar * nameSpace);
extern xmlAttrPtr xmlHasProp(xmlNodePtr node, const xmlChar * name);
extern int xmlIsBlankNode(xmlNodePtr node);
extern int xmlIsXHTML(const xmlChar * systemID, const xmlChar * publicID);
extern xmlNodePtr xmlNewCDataBlock(xmlDocPtr doc, const xmlChar * content,
                                int len);
extern xmlNodePtr xmlNewCharRef(xmlDocPtr doc, const xmlChar * name);
extern xmlNodePtr xmlNewChild(xmlNodePtr parent, xmlNsPtr ns,
                                const xmlChar * name,
                                const xmlChar * content);
extern xmlNodePtr xmlNewComment(const xmlChar * content);
extern xmlDocPtr xmlNewDoc(const xmlChar * version);
extern xmlNodePtr xmlNewDocComment(xmlDocPtr doc, const xmlChar * content);
extern xmlNodePtr xmlNewDocFragment(xmlDocPtr doc);
extern xmlNodePtr xmlNewDocNode(xmlDocPtr doc, xmlNsPtr ns,
                                const xmlChar * name,
                                const xmlChar * content);
extern xmlNodePtr xmlNewDocNodeEatName(xmlDocPtr doc, xmlNsPtr ns,
                                xmlChar * name,
                                const xmlChar * content);
extern xmlNodePtr xmlNewDocPI(xmlDocPtr doc, const xmlChar * name,
                                const xmlChar * content);

```

```

extern xmlAttrPtr xmlNewDocProp(xmlDocPtr doc, const xmlChar * name,
                                const xmlChar * value);
extern xmlNodePtr xmlNewDocRawNode(xmlDocPtr doc, xmlNsPtr ns,
                                    const xmlChar * name,
                                    const xmlChar * content);
extern xmlNodePtr xmlNewDocText(xmlDocPtr doc, const xmlChar * content);
extern xmlNodePtr xmlNewDocTextLen(xmlDocPtr doc, const xmlChar * content,
                                    int len);
extern xmlDtdPtr xmlNewDtd(xmlDocPtr doc, const xmlChar * name,
                            const xmlChar * ExternalID,
                            const xmlChar * SystemID);
extern xmlNodePtr xmlNewNode(xmlNsPtr ns, const xmlChar * name);
extern xmlNodePtr xmlNewNodeEatName(xmlNsPtr ns, xmlChar * name);
extern xmlNsPtr xmlNewNs(xmlNodePtr node, const xmlChar * href,
                          const xmlChar * prefix);
extern xmlAttrPtr xmlNewNsProp(xmlNodePtr node, xmlNsPtr ns,
                                const xmlChar * name,
                                const xmlChar * value);
extern xmlAttrPtr xmlNewNsPropEatName(xmlNodePtr node, xmlNsPtr ns,
                                       xmlChar * name,
                                       const xmlChar * value);
extern xmlNodePtr xmlNewPI(const xmlChar * name, const xmlChar * content);
extern xmlAttrPtr xmlNewProp(xmlNodePtr node, const xmlChar * name,
                              const xmlChar * value);
extern xmlNodePtr xmlNewReference(xmlDocPtr doc, const xmlChar * name);
extern xmlNodePtr xmlNewText(const xmlChar * content);
extern xmlNodePtr xmlNewTextChild(xmlNodePtr parent, xmlNsPtr ns,
                                   const xmlChar * name,
                                   const xmlChar * content);
extern xmlNodePtr xmlNewTextLen(const xmlChar * content, int len);
extern void xmlNodeAddContent(xmlNodePtr cur, const xmlChar * content);
extern void xmlNodeAddContentLen(xmlNodePtr cur, const xmlChar * content,
                                 int len);
extern int xmlNodeBufGetContent(xmlBufferPtr buffer, xmlNodePtr cur);
extern int xmlNodeDump(xmlBufferPtr buf, xmlDocPtr doc, xmlNodePtr cur,
                       int level, int format);
extern void xmlNodeDumpOutput(xmlOutputBufferPtr buf, xmlDocPtr doc,
                              xmlNodePtr cur, int level, int format,
                              const char *encoding);
extern xmlChar *xmlNodeGetBase(xmlDocPtr doc, xmlNodePtr cur);
extern xmlChar *xmlNodeGetContent(xmlNodePtr cur);
extern xmlChar *xmlNodeGetLang(xmlNodePtr cur);
extern int xmlNodeGetSpacePreserve(xmlNodePtr cur);
extern int xmlNodeIsText(xmlNodePtr node);
extern xmlChar *xmlNodeListGetRawString(xmlDocPtr doc, xmlNodePtr list,
                                         int inLine);
extern xmlChar *xmlNodeListGetString(xmlDocPtr doc, xmlNodePtr list,
                                      int inLine);
extern void xmlNodeSetBase(xmlNodePtr cur, const xmlChar * uri);
extern void xmlNodeSetContent(xmlNodePtr cur, const xmlChar * content);
extern void xmlNodeSetContentLen(xmlNodePtr cur, const xmlChar * content,
                                 int len);
extern void xmlNodeSetLang(xmlNodePtr cur, const xmlChar * lang);
extern void xmlNodeSetName(xmlNodePtr cur, const xmlChar * name);
extern void xmlNodeSetSpacePreserve(xmlNodePtr cur, int val);
extern int xmlReconciliateNs(xmlDocPtr doc, xmlNodePtr tree);
extern int xmlRemoveProp(xmlAttrPtr cur);
extern xmlNodePtr xmlReplaceNode(xmlNodePtr old, xmlNodePtr cur);
extern int xmlSaveFile(const char *filename, xmlDocPtr cur);
extern int xmlSaveFileEnc(const char *filename, xmlDocPtr cur,
                          const char *encoding);
extern int xmlSaveFileTo(xmlOutputBufferPtr buf, xmlDocPtr cur,

```

```

        const char *encoding);
extern int xmlSaveFormatFile(const char *filename, xmlDocPtr cur,
        int format);
extern int xmlSaveFormatFileEnc(const char *filename, xmlDocPtr cur,
        const char *encoding, int format);
extern int xmlSaveFormatFileTo(xmlOutputBufferPtr buf, xmlDocPtr cur,
        const char *encoding, int format);
extern xmlNsPtr xmlSearchNs(xmlDocPtr doc, xmlNodePtr node,
        const xmlChar * namespace);
extern xmlNsPtr xmlSearchNsByHref(xmlDocPtr doc, xmlNodePtr node,
        const xmlChar * href);
extern void xmlSetBufferAllocationScheme(xmlBufferAllocationScheme scheme);
extern void xmlSetCompressMode(int mode);
extern void xmlSetDocCompressMode(xmlDocPtr doc, int mode);
extern void xmlSetListDoc(xmlNodePtr list, xmlDocPtr doc);
extern void xmlSetNs(xmlNodePtr node, xmlNsPtr ns);
extern xmlAttrPtr xmlSetNsProp(xmlNodePtr node, xmlNsPtr ns,
        const xmlChar * name,
        const xmlChar * value);
extern xmlAttrPtr xmlSetProp(xmlNodePtr node, const xmlChar * name,
        const xmlChar * value);
extern void xmlSetTreeDoc(xmlNodePtr tree, xmlDocPtr doc);
extern xmlChar *xmlSplitQName2(const xmlChar * name, xmlChar * *prefix);
extern const xmlChar *xmlSplitQName3(const xmlChar * name, int *len);
extern xmlNodePtr xmlStringGetNodeList(xmlDocPtr doc,
        const xmlChar * value);
extern xmlNodePtr xmlStringLenGetNodeList(xmlDocPtr doc,
        const xmlChar * value, int len);
extern int xmlTextConcat(xmlNodePtr node, const xmlChar * content,
        int len);
extern xmlNodePtr xmlTextMerge(xmlNodePtr first, xmlNodePtr second);
extern void xmlUnlinkNode(xmlNodePtr cur);
extern int xmlUnsetNsProp(xmlNodePtr node, xmlNsPtr ns,
        const xmlChar * name);
extern int xmlUnsetProp(xmlNodePtr node, const xmlChar * name);
extern int xmlValidateNCName(const xmlChar * value, int space);
extern int xmlValidateNMTOKEN(const xmlChar * value, int space);
extern int xmlValidateName(const xmlChar * value, int space);
extern int xmlValidateQName(const xmlChar * value, int space);

```

19.2.20. libxml2/libxml/uri.h

```

typedef struct _xmlURI {
    char *scheme;
    char *opaque;
    char *authority;
    char *server;
    char *user;
    int port;
    char *path;
    char *query;
    char *fragment;
    int cleanup;
} xmlURI;
typedef xmlURI *xmlURIPtr;
extern xmlChar *xmlBuildRelativeURI(const xmlChar * URI,
        const xmlChar * base);
extern xmlChar *xmlBuildURI(const xmlChar * URI, const xmlChar * base);
extern xmlChar *xmlCanonicalPath(const xmlChar * path);
extern xmlURIPtr xmlCreateURI(void);
extern void xmlFreeURI(xmlURIPtr uri);

```

```

extern int xmlNormalizeURIPath(char *path);
extern xmlURIPtr xmlParseURI(const char *str);
extern xmlURIPtr xmlParseURIRaw(const char *str, int raw);
extern int xmlParseURIReference(xmlURIPtr uri, const char *str);
extern void xmlPrintURI(FILE * stream, xmlURIPtr uri);
extern xmlChar *xmlSaveUri(xmlURIPtr uri);
extern xmlChar *xmlURIEscape(const xmlChar * str);
extern xmlChar *xmlURIEscapeStr(const xmlChar * str, const xmlChar * list);
extern char *xmlURIUnescapeString(const char *str, int len, char *target);

```

19.2.21. libxml2/libxml/valid.h

```

typedef xmlValidCtxt *xmlValidCtxtPtr;
typedef struct _xmlHashTable xmlAttributeTable;
typedef xmlAttributeTable *xmlAttributeTablePtr;
typedef enum {
    XML_ELEMENT_TYPE_UNDEFINED = 0,
    XML_ELEMENT_TYPE_EMPTY = 1,
    XML_ELEMENT_TYPE_ANY = 2,
    XML_ELEMENT_TYPE_MIXED = 3,
    XML_ELEMENT_TYPE_ELEMENT = 4
} xmlElementTypeVal;
typedef enum {
    XML_ATTRIBUTE_NONE = 1,
    XML_ATTRIBUTE_REQUIRED = 2,
    XML_ATTRIBUTE IMPLIED = 3,
    XML_ATTRIBUTE_FIXED = 4
} xmlAttributeDefault;
typedef struct _xmlAttribute {
    void *_private;
    xmlElementType type;
    const xmlChar *name;
    struct _xmlNode *children;
    struct _xmlNode *last;
    struct _xmlDtd *parent;
    struct _xmlNode *next;
    struct _xmlNode *prev;
    struct _xmlDoc *doc;
    struct _xmlAttribute *next;
    xmlAttributeType atype;
    xmlAttributeDefault def;
    const xmlChar *defaultValue;
    xmlEnumerationPtr tree;
    const xmlChar *prefix;
    const xmlChar *elem;
} xmlAttribute;
typedef xmlAttribute *xmlAttributePtr;
typedef struct _xmlElement {
    void *_private;
    xmlElementType type;
    const xmlChar *name;
    struct _xmlNode *children;
    struct _xmlNode *last;
    struct _xmlDtd *parent;
    struct _xmlNode *next;
    struct _xmlNode *prev;
    struct _xmlDoc *doc;
    xmlElementTypeVal etype;
    xmlElementContentPtr content;
    xmlAttributePtr attributes;
    const xmlChar *prefix;
}

```



```

    xmlRegexpPtr contModel;
} xmlElement;
typedef xmlElement *xmlElementPtr;
typedef struct _xmlHashTable xmlNotationTable;
typedef xmlNotationTable *xmlNotationTablePtr;
typedef struct _xmlNotation {
    const xmlChar *name;
    const xmlChar *PublicID;
    const xmlChar *SystemID;
} xmlNotation;
typedef xmlNotation *xmlNotationPtr;
typedef struct _xmlID {
    struct _xmlID *next;
    const xmlChar *value;
    xmlAttrPtr attr;
    const xmlChar *name;
    int lineno;
    struct _xmlDoc *doc;
} xmlID;
typedef xmlID *xmlIDPtr;
typedef struct _xmlRef {
    struct _xmlRef *next;
    const xmlChar *value;
    xmlAttrPtr attr;
    const xmlChar *name;
    int lineno;
} xmlRef;
typedef xmlRef *xmlRefPtr;
typedef struct _xmlHashTable xmlElementTable;
typedef xmlElementTable *xmlElementTablePtr;
typedef struct _xmlHashTable xmlIDTable;
typedef xmlIDTable *xmlIDTablePtr;
typedef struct _xmlHashTable xmlRefTable;
typedef xmlRefTable *xmlRefTablePtr;
extern xmlAttributePtr xmlAddAttributeDecl(xmlValidCtxtPtr, xmlDtdPtr,
                                           const xmlChar *,
                                           const xmlChar *,
                                           const xmlChar *,
                                           xmlAttributeType,
                                           xmlAttributeDefault,
                                           const xmlChar *,
                                           xmlEnumerationPtr);
extern xmlElementPtr xmlAddElementDecl(xmlValidCtxtPtr, xmlDtdPtr,
                                       const xmlChar *, xmlElementTypeVal,
                                       xmlElementContentPtr);
extern xmlIDPtr xmlAddID(xmlValidCtxtPtr, xmlDocPtr, const xmlChar *,
                        xmlAttrPtr);
extern xmlNotationPtr xmlAddNotationDecl(xmlValidCtxtPtr, xmlDtdPtr,
                                         const xmlChar *, const xmlChar *,
                                         const xmlChar *);
extern xmlRefPtr xmlAddRef(xmlValidCtxtPtr, xmlDocPtr, const xmlChar *,
                          xmlAttrPtr);
extern xmlAttributeTablePtr xmlCopyAttributeTable(xmlAttributeTablePtr);
extern xmlElementContentPtr xmlCopyDocElementContent(xmlDocPtr,
                                                      xmlElementContentPtr);
extern xmlElementTablePtr xmlCopyElementTable(xmlElementTablePtr);
extern xmlEnumerationPtr xmlCopyEnumeration(xmlEnumerationPtr);
extern xmlNotationTablePtr xmlCopyNotationTable(xmlNotationTablePtr);
extern xmlEnumerationPtr xmlCreateEnumeration(const xmlChar *);
extern void xmlDumpAttributeDecl(xmlBufferPtr, xmlAttributePtr);
extern void xmlDumpAttributeTable(xmlBufferPtr, xmlAttributeTablePtr);
extern void xmlDumpElementDecl(xmlBufferPtr, xmlElementPtr);

```

```

extern void xmlDumpElementTable(xmlBufferPtr, xmlElementTablePtr);
extern void xmlDumpNotationDecl(xmlBufferPtr, xmlNotationPtr);
extern void xmlDumpNotationTable(xmlBufferPtr, xmlNotationTablePtr);
extern void xmlFreeAttributeTable(xmlAttributeTablePtr);
extern void xmlFreeDocElementContent(xmlDocPtr, xmlElementContentPtr);
extern void xmlFreeElementTable(xmlElementTablePtr);
extern void xmlFreeEnumeration(xmlEnumerationPtr);
extern void xmlFreeIDTable(xmlIDTablePtr);
extern void xmlFreeNotationTable(xmlNotationTablePtr);
extern void xmlFreeRefTable(xmlRefTablePtr);
extern void xmlFreeValidCtxt(xmlValidCtxtPtr);
extern xmlAttributePtr xmlGetDtdAttrDesc(xmlDtdPtr, const xmlChar *,
                                         const xmlChar *);
extern xmlElementPtr xmlGetDtdElementDesc(xmlDtdPtr, const xmlChar *);
extern xmlNotationPtr xmlGetDtdNotationDesc(xmlDtdPtr, const xmlChar *);
extern xmlAttributePtr xmlGetDtdQAttrDesc(xmlDtdPtr, const xmlChar *,
                                         const xmlChar *,
                                         const xmlChar *);
extern xmlElementPtr xmlGetDtdQElementDesc(xmlDtdPtr, const xmlChar *,
                                         const xmlChar *);
extern xmlAttrPtr xmlGetID(xmlDocPtr, const xmlChar *);
extern xmlListPtr xmlGetRefs(xmlDocPtr, const xmlChar *);
extern int xmlIsID(xmlDocPtr, xmlNodePtr, xmlAttrPtr);
extern int xmlIsMixedElement(xmlDocPtr, const xmlChar *);
extern int xmlIsRef(xmlDocPtr, xmlNodePtr, xmlAttrPtr);
extern xmlElementContentPtr xmlNewDocElementContent(xmlDocPtr,
                                                    const xmlChar *,
                                                    xmlElementContentType);
extern xmlValidCtxtPtr xmlNewValidCtxt(void);
extern int xmlRemoveID(xmlDocPtr, xmlAttrPtr);
extern int xmlRemoveRef(xmlDocPtr, xmlAttrPtr);
extern void xmlSprintfElementContent(char *, int, xmlElementContentPtr,
                                     int);
extern int xmlValidBuildContentModel(xmlValidCtxtPtr, xmlElementPtr);
extern xmlChar *xmlValidCtxtNormalizeAttributeValue(xmlValidCtxtPtr,
                                                    xmlDocPtr, xmlNodePtr,
                                                    const xmlChar *,
                                                    const xmlChar *);
extern int xmlValidGetPotentialChildren(xmlElementContent *,
                                         const xmlChar * *, int *, int);
extern int xmlValidGetValidElements(xmlNode *, xmlNode *,
                                     const xmlChar * *, int);
extern xmlChar *xmlValidNormalizeAttributeValue(xmlDocPtr, xmlNodePtr,
                                              const xmlChar *,
                                              const xmlChar *);
extern int xmlValidateAttributeDecl(xmlValidCtxtPtr, xmlDocPtr,
                                    xmlAttributePtr);
extern int xmlValidateAttributeValue(xmlAttributeType, const xmlChar *);
extern int xmlValidateDocument(xmlValidCtxtPtr, xmlDocPtr);
extern int xmlValidateDocumentFinal(xmlValidCtxtPtr, xmlDocPtr);
extern int xmlValidateDtd(xmlValidCtxtPtr, xmlDocPtr, xmlDtdPtr);
extern int xmlValidateDtdFinal(xmlValidCtxtPtr, xmlDocPtr);
extern int xmlValidateElement(xmlValidCtxtPtr, xmlDocPtr, xmlNodePtr);
extern int xmlValidateElementDecl(xmlValidCtxtPtr, xmlDocPtr,
                                  xmlElementPtr);
extern int xmlValidateNameValue(const xmlChar *);
extern int xmlValidateNamesValue(const xmlChar *);
extern int xmlValidateNmtokenValue(const xmlChar *);
extern int xmlValidateNmtokensValue(const xmlChar *);
extern int xmlValidateNotationDecl(xmlValidCtxtPtr, xmlDocPtr,
                                   xmlNotationPtr);
extern int xmlValidateNotationUse(xmlValidCtxtPtr, xmlDocPtr,

```

```

        const xmlChar *);
extern int xmlValidateOneAttribute(xmlValidCtxtPtr, xmlDocPtr, xmlNodePtr,
        xmlAttrPtr, const xmlChar *);
extern int xmlValidateOneElement(xmlValidCtxtPtr, xmlDocPtr, xmlNodePtr);
extern int xmlValidateOneNamespace(xmlValidCtxtPtr, xmlDocPtr, xmlNodePtr,
        const xmlChar *, xmlNsPtr,
        const xmlChar *);
extern int xmlValidatePopElement(xmlValidCtxtPtr, xmlDocPtr, xmlNodePtr,
        const xmlChar *);
extern int xmlValidatePushCData(xmlValidCtxtPtr, const xmlChar *, int);
extern int xmlValidatePushElement(xmlValidCtxtPtr, xmlDocPtr, xmlNodePtr,
        const xmlChar *);
extern int xmlValidateRoot(xmlValidCtxtPtr, xmlDocPtr);

```

19.2.22. libxml2/libxml/xinclude.h

```

#define XINCLUDE_PARSE_ENCODING (const xmlChar *) "encoding"
#define XINCLUDE_FALLBACK      (const xmlChar *) "fallback"
#define XINCLUDE_HREF          (const xmlChar *) "href"
#define XINCLUDE_OLD_NS        (const xmlChar *) "http://www.w3.org/2001/XInclude"
#define XINCLUDE_NS            (const xmlChar *) "http://www.w3.org/2003/XInclude"
#define XINCLUDE_NODE          (const xmlChar *) "include"
#define XINCLUDE_PARSE         (const xmlChar *) "parse"
#define XINCLUDE_PARSE_TEXT     (const xmlChar *) "text"
#define XINCLUDE_PARSE_XML     (const xmlChar *) "xml"
#define XINCLUDE_PARSE_XPOINTER (const xmlChar *) "xpointer"

typedef struct _xmlXIncludeCtxt xmlXIncludeCtxt;
typedef xmlXIncludeCtxt *xmlXIncludeCtxtPtr;
extern void xmlXIncludeFreeContext(xmlXIncludeCtxtPtr ctxt);
extern xmlXIncludeCtxtPtr xmlXIncludeNewContext(xmlDocPtr doc);
extern int xmlXIncludeProcess(xmlDocPtr doc);
extern int xmlXIncludeProcessFlags(xmlDocPtr doc, int flags);
extern int xmlXIncludeProcessNode(xmlXIncludeCtxtPtr ctxt,
        xmlNodePtr tree);
extern int xmlXIncludeProcessTree(xmlNodePtr tree);
extern int xmlXIncludeProcessTreeFlags(xmlNodePtr tree, int flags);
extern int xmlXIncludeSetFlags(xmlXIncludeCtxtPtr ctxt, int flags);

```

19.2.23. libxml2/libxml/xmlIO.h

```

typedef int (*xmlOutputMatchCallback) (const char *);
typedef void (*xmlOutputOpenCallback) (const char *);
typedef struct _xmlParserNodeInfo {
    const struct _xmlNode *node;
    long unsigned int begin_pos;
    long unsigned int begin_line;
    long unsigned int end_pos;
    long unsigned int end_line;
} xmlParserNodeInfo;
typedef struct _xmlParserNodeInfoSeq {
    long unsigned int maximum;
    long unsigned int length;
    xmlParserNodeInfo *buffer;
} xmlParserNodeInfoSeq;
typedef void (*xmlValidityErrorFunc) (void *, const char *, ...);
typedef void (*xmlValidityWarningFunc) (void *, const char *, ...);
typedef struct _xmlValidState xmlValidState;
typedef struct _xmlValidCtxt {

```

```

void *userData;
xmlValidityErrorFunc error;
xmlValidityWarningFunc warning;
xmlNodePtr node;
int nodeNr;
int nodeMax;
xmlNodePtr *nodeTab;
unsigned int finishDtd;
xmlDocPtr doc;
int valid;
xmlValidState *vstate;
int vstateNr;
int vstateMax;
xmlValidState *vstateTab;
xmlAutomataPtr am;
xmlAutomataStatePtr state;
} xmlValidCtxt;
typedef enum {
    XML_PARSER_EOF = -1,
    XML_PARSER_START = 0,
    XML_PARSER_MISC = 1,
    XML_PARSER_PI = 2,
    XML_PARSER_DTD = 3,
    XML_PARSER_PROLOG = 4,
    XML_PARSER_COMMENT = 5,
    XML_PARSER_START_TAG = 6,
    XML_PARSER_CONTENT = 7,
    XML_PARSER_CDATA_SECTION = 8,
    XML_PARSER_END_TAG = 9,
    XML_PARSER_ENTITY_DECL = 10,
    XML_PARSER_ENTITY_VALUE = 11,
    XML_PARSER_ATTRIBUTE_VALUE = 12,
    XML_PARSER_SYSTEM_LITERAL = 13,
    XML_PARSER_EPILOG = 14,
    XML_PARSER_IGNORE = 15,
    XML_PARSER_PUBLIC_LITERAL = 16
} xmlParserInputState;
typedef enum {
    XML_PARSE_UNKNOWN = 0,
    XML_PARSE_DOM = 1,
    XML_PARSE_SAX = 2,
    XML_PARSE_PUSH_DOM = 3,
    XML_PARSE_PUSH_SAX = 4,
    XML_PARSE_READER = 5
} xmlParserMode;
typedef struct _xmlParserCtxt {
    struct _xmlSAXHandler *sax;
    void *userData;
    xmlDocPtr myDoc;
    int wellFormed;
    int replaceEntities;
    const xmlChar *version;
    const xmlChar *encoding;
    int standalone;
    int html;
    xmlParserInputPtr input;
    int inputNr;
    int inputMax;
    xmlParserInputPtr *inputTab;
    xmlNodePtr node;
    int nodeNr;
    int nodeMax;

```

```

xmlNodePtr *nodeTab;
int record_info;
xmlParserNodeInfoSeq node_seq;
int errNo;
int hasExternalSubset;
int hasPErefs;
int external;
int valid;
int validate;
xmlValidCtxt vctx;
xmlParserInputState instate;
int token;
char *directory;
const xmlChar *name;
int nameNr;
int nameMax;
const xmlChar **nameTab;
long int nbChars;
long int checkIndex;
int keepBlanks;
int disableSAX;
int inSubset;
const xmlChar *intSubName;
xmlChar *extSubURI;
xmlChar *extSubSystem;
int *space;
int spaceNr;
int spaceMax;
int *spaceTab;
int depth;
xmlParserInputPtr entity;
int charset;
int nodelen;
int nodemem;
int pedantic;
void *_private;
int loadsubset;
int linenumbers;
void *catalogs;
int recovery;
int progressive;
xmlDictPtr dict;
const xmlChar **atts;
int maxatts;
int docdict;
const xmlChar *str_xml;
const xmlChar *str_xmlns;
const xmlChar *str_xml_ns;
int sax2;
int nsNr;
int nsMax;
const xmlChar **nsTab;
int *attallocs;
void **pushTab;
xmlHashTablePtr attsDefault;
xmlHashTablePtr attsSpecial;
int nsWellFormed;
int options;
int dictNames;
int freeElemsNr;
xmlNodePtr freeElems;
int freeAttrsNr;

```

```

    xmlAttrPtr freeAttrs;
    xmlError lastError;
    xmlParserMode parseMode;
} xmlParserCtxt;
typedef xmlParserCtxt *xmlParserCtxtPtr;
typedef int (*xmlInputMatchCallback) (const char *);
typedef void (*xmlInputOpenCallback) (const char *);
extern xmlOutputBufferPtr xmlAllocOutputBuffer(xmlCharEncodingHandlerPtr
                                              encoder);
extern xmlParserInputBufferPtr xmlAllocParserInputBuffer(xmlCharEncoding
                                                         enc);
extern int xmlCheckFilename(const char *path);
extern xmlParserInputPtr xmlCheckHTTPInput(xmlParserCtxtPtr ctxt,
                                           xmlParserInputPtr ret);
extern void xmlCleanupInputCallbacks(void);
extern void xmlCleanupOutputCallbacks(void);
extern int xmlFileClose(void *context);
extern int xmlFileMatch(const char *filename);
extern void *xmlFileOpen(const char *filename);
extern int xmlFileRead(void *context, char *buffer, int len);
extern void xmlFreeParserInputBuffer(xmlParserInputBufferPtr in);
extern int xmlIOFTPclose(void *context);
extern int xmlIOFTPMatch(const char *filename);
extern void *xmlIOFTPOpen(const char *filename);
extern int xmlIOFTPRead(void *context, char *buffer, int len);
extern int xmlIOHTTPClose(void *context);
extern int xmlIOHTTMatch(const char *filename);
extern void *xmlIOHTTPOpen(const char *filename);
extern void *xmlIOHTTPOpenW(const char *post_uri, int compression);
extern int xmlIOHTTPRead(void *context, char *buffer, int len);
extern xmlParserInputPtr xmlNoNetExternalEntityLoader(const char *URL,
                                                         const char *ID,
                                                         xmlParserCtxtPtr
                                                         ctxt);
extern xmlChar *xmlNormalizeWindowsPath(const xmlChar * path);
extern int xmlOutputBufferClose(xmlOutputBufferPtr out);
extern xmlOutputBufferPtr xmlOutputBufferCreateFd(int fd,
                                                  xmlCharEncodingHandlerPtr
                                                  encoder);
extern xmlOutputBufferPtr xmlOutputBufferCreateFile(FILE * file,
                                                  xmlCharEncodingHandlerPtr
                                                  encoder);
extern xmlOutputBufferPtr xmlOutputBufferCreateFilename(const char *URI,
                                                         xmlCharEncodingHandlerPtr
                                                         encoder,
                                                         int compression);
extern xmlOutputBufferPtr xmlOutputBufferCreateIO(xmlOutputWriteCallback
                                                  iowrite,
                                                  xmlOutputCloseCallback
                                                  ioclose, void *ioctx,
                                                  xmlCharEncodingHandlerPtr
                                                  encoder);
extern int xmlOutputBufferFlush(xmlOutputBufferPtr out);
extern int xmlOutputBufferWrite(xmlOutputBufferPtr out, int len,
                                const char *buf);
extern int xmlOutputBufferWriteEscape(xmlOutputBufferPtr out,
                                      const xmlChar * str,
                                      xmlCharEncodingOutputFunc escaping);
extern int xmlOutputBufferWriteString(xmlOutputBufferPtr out,
                                      const char *str);
extern char *xmlParserGetDirectory(const char *filename);
extern xmlParserInputBufferPtr xmlParserInputBufferCreateFd(int fd,

```

```

xmlCharEncoding
enc);
extern xmlParserInputBufferPtr xmlParserInputBufferCreateFile(FILE * file,
xmlCharEncoding
enc);
extern xmlParserInputBufferPtr
xmlParserInputBufferCreateIO(xmlInputReadCallback ioread,
xmlInputCloseCallback ioclose, void *ioctx,
xmlCharEncoding enc);
extern xmlParserInputBufferPtr xmlParserInputBufferCreateMem(const char
*mem,
int size,
xmlCharEncoding
enc);
extern xmlParserInputBufferPtr xmlParserInputBufferCreateStatic(const char
*mem,
int size,
xmlCharEncoding
enc);
extern int xmlParserInputBufferGrow(xmlParserInputBufferPtr in, int len);
extern int xmlParserInputBufferPush(xmlParserInputBufferPtr in, int len,
const char *buf);
extern int xmlParserInputBufferRead(xmlParserInputBufferPtr in, int len);
extern int xmlPopInputCallbacks(void);
extern void xmlRegisterDefaultInputCallbacks(void);
extern void xmlRegisterDefaultOutputCallbacks(void);
extern void xmlRegisterHTTPPostCallbacks(void);
extern int xmlRegisterInputCallbacks(xmlInputMatchCallback matchFunc,
xmlInputOpenCallback openFunc,
xmlInputReadCallback readFunc,
xmlInputCloseCallback closeFunc);
extern int xmlRegisterOutputCallbacks(xmlOutputMatchCallback matchFunc,
xmlOutputOpenCallback openFunc,
xmlOutputWriteCallback writeFunc,
xmlOutputCloseCallback closeFunc);

```

19.2.24. libxml2/libxml/xmlautomata.h

```

typedef struct _xmlAutomataState xmlAutomataState;
typedef xmlAutomataState *xmlAutomataStatePtr;
typedef struct _xmlAutomata xmlAutomata;
typedef xmlAutomata *xmlAutomataPtr;
extern xmlRegexpPtr xmlAutomataCompile(xmlAutomataPtr);
extern xmlAutomataStatePtr xmlAutomataGetInitState(xmlAutomataPtr);
extern int xmlAutomataIsDeterminist(xmlAutomataPtr);
extern xmlAutomataStatePtr xmlAutomataNewAllTrans(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr,
int);
extern xmlAutomataStatePtr xmlAutomataNewCountTrans(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr,
const xmlChar *, int,
int, void *);
extern xmlAutomataStatePtr xmlAutomataNewCountTrans2(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr,
const xmlChar *,
const xmlChar *, int,
int, void *);
extern xmlAutomataStatePtr xmlAutomataNewCountedTrans(xmlAutomataPtr,

```

```

xmlAutomataStatePtr,
xmlAutomataStatePtr,
int);
extern int xmlAutomataNewCounter(xmlAutomataPtr, int, int);
extern xmlAutomataStatePtr xmlAutomataNewCounterTrans(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr,
int);
extern xmlAutomataStatePtr xmlAutomataNewEpsilon(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr);
extern xmlAutomataStatePtr xmlAutomataNewNegTrans(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr,
const xmlChar *,
const xmlChar *, void *);
extern xmlAutomataStatePtr xmlAutomataNewOnceTrans(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr,
const xmlChar *, int,
int, void *);
extern xmlAutomataStatePtr xmlAutomataNewOnceTrans2(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr,
const xmlChar *,
const xmlChar *, int,
int, void *);
extern xmlAutomataStatePtr xmlAutomataNewState(xmlAutomataPtr);
extern xmlAutomataStatePtr xmlAutomataNewTransition(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr,
const xmlChar *,
void *);
extern xmlAutomataStatePtr xmlAutomataNewTransition2(xmlAutomataPtr,
xmlAutomataStatePtr,
xmlAutomataStatePtr,
const xmlChar *,
const xmlChar *,
void *);
extern int xmlAutomataSetFinalState(xmlAutomataPtr, xmlAutomataStatePtr);
extern void xmlFreeAutomata(xmlAutomataPtr);
extern xmlAutomataPtr xmlNewAutomata(void);

```

19.2.25. libxml2/libxml/xmlerror.h

```

typedef int (*xmlInputReadCallback) (void *, char *, int);
typedef int (*xmlInputCloseCallback) (void *);
typedef struct _xmlParserInputBuffer {
    void *context;
    xmlInputReadCallback readcallback;
    xmlInputCloseCallback closecallback;
    xmlCharEncodingHandlerPtr encoder;
    xmlBufferPtr buffer;
    xmlBufferPtr raw;
    int compressed;
    int error;
    long unsigned int rawconsumed;
} xmlParserInputBuffer;
typedef xmlParserInputBuffer *xmlParserInputBufferPtr;
typedef void (*xmlParserInputDeallocate) (xmlChar *);
typedef struct _xmlParserInput {

```



```

xmlParserInputBufferPtr buf;
const char *filename;
const char *directory;
const xmlChar *base;
const xmlChar *cur;
const xmlChar *end;
int length;
int line;
int col;
long unsigned int consumed;
xmlParserInputDeallocate free;
const xmlChar *encoding;
const xmlChar *version;
int standalone;
int id;
} xmlParserInput;
typedef xmlParserInput *xmlParserInputPtr;
typedef void (*xmlGenericErrorFunc) (void *, const char *, ...);
typedef enum {
    XML_ERR_NONE = 0,
    XML_ERR_WARNING = 1,
    XML_ERR_ERROR = 2,
    XML_ERR_FATAL = 3
} xmlErrorLevel;
typedef struct _xmlError {
    int domain;
    int code;
    char *message;
    xmlErrorLevel level;
    char *file;
    int line;
    char *str1;
    char *str2;
    char *str3;
    int int1;
    int int2;
    void *ctxt;
    void *node;
} xmlError;
typedef xmlError *xmlErrorPtr;
typedef void (*xmlStructuredErrorFunc) (void *, xmlErrorPtr);
typedef enum {
    XML_FROM_NONE = 0,
    XML_FROM_PARSER,
    XML_FROM_TREE,
    XML_FROM_NAMESPACE,
    XML_FROM_DTD,
    XML_FROM_HTML,
    XML_FROM_MEMORY,
    XML_FROM_OUTPUT,
    XML_FROM_IO,
    XML_FROM_FTP,
    XML_FROM_HTTP,
    XML_FROM_XINCLUDE,
    XML_FROM_XPATH,
    XML_FROM_XPOINTER,
    XML_FROM_REGEX,
    XML_FROM_DATATYPE,
    XML_FROM_SCHEMAS,
    XML_FROM_SCHEMASV,
    XML_FROM_RELAXNGP,
    XML_FROM_RELAXNGV,

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XML_FROM_CATALOG,
XML_FROM_C14N,
XML_FROM_XSLT,
XML_FROM_VALID,
XML_FROM_CHECK,
XML_FROM_WRITER,
XML_FROM_MODULE,
XML_FROM_I18N
} xmlErrorDomain;
typedef enum {
    XML_ERR_OK = 0,
    XML_ERR_INTERNAL_ERROR,
    XML_ERR_NO_MEMORY,
    XML_ERR_DOCUMENT_START,
    XML_ERR_DOCUMENT_EMPTY,
    XML_ERR_DOCUMENT_END,
    XML_ERR_INVALID_HEX_CHARREF,
    XML_ERR_INVALID_DEC_CHARREF,
    XML_ERR_INVALID_CHARREF,
    XML_ERR_INVALID_CHAR,
    XML_ERR_CHARREF_AT_EOF,
    XML_ERR_CHARREF_IN_PROLOG,
    XML_ERR_CHARREF_IN_EPILOG,
    XML_ERR_CHARREF_IN_DTD,
    XML_ERR_ENTITYREF_AT_EOF,
    XML_ERR_ENTITYREF_IN_PROLOG,
    XML_ERR_ENTITYREF_IN_EPILOG,
    XML_ERR_ENTITYREF_IN_DTD,
    XML_ERR_PREF_AT_EOF,
    XML_ERR_PREF_IN_PROLOG,
    XML_ERR_PREF_IN_EPILOG,
    XML_ERR_PREF_IN_INT_SUBSET,
    XML_ERR_ENTITYREF_NO_NAME,
    XML_ERR_ENTITYREF_SEMICOL_MISSING,
    XML_ERR_PREF_NO_NAME,
    XML_ERR_PREF_SEMICOL_MISSING,
    XML_ERR_UNDECLARED_ENTITY,
    XML_ERR_UNDECLARED_ENTITY,
    XML_ERR_UNPARSED_ENTITY,
    XML_ERR_ENTITY_IS_EXTERNAL,
    XML_ERR_ENTITY_IS_PARAMETER,
    XML_ERR_UNKNOWN_ENCODING,
    XML_ERR_UNSUPPORTED_ENCODING,
    XML_ERR_STRING_NOT_STARTED,
    XML_ERR_STRING_NOT_CLOSED,
    XML_ERR_NS_DECL_ERROR,
    XML_ERR_ENTITY_NOT_STARTED,
    XML_ERR_ENTITY_NOT_FINISHED,
    XML_ERR_LT_IN_ATTRIBUTE,
    XML_ERR_ATTRIBUTE_NOT_STARTED,
    XML_ERR_ATTRIBUTE_NOT_FINISHED,
    XML_ERR_ATTRIBUTE_WITHOUT_VALUE,
    XML_ERR_ATTRIBUTE_REDEFINED,
    XML_ERR_LITERAL_NOT_STARTED,
    XML_ERR_LITERAL_NOT_FINISHED,
    XML_ERR_COMMENT_NOT_FINISHED,
    XML_ERR_PI_NOT_STARTED,
    XML_ERR_PI_NOT_FINISHED,
    XML_ERR_NOTATION_NOT_STARTED,
    XML_ERR_NOTATION_NOT_FINISHED,
    XML_ERR_ATTLIST_NOT_STARTED,
    XML_ERR_ATTLIST_NOT_FINISHED,

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XML_ERR_MIXED_NOT_STARTED,
XML_ERR_MIXED_NOT_FINISHED,
XML_ERR_ELEMCONTENT_NOT_STARTED,
XML_ERR_ELEMCONTENT_NOT_FINISHED,
XML_ERR_XMLDECL_NOT_STARTED,
XML_ERR_XMLDECL_NOT_FINISHED,
XML_ERR_CONDSEC_NOT_STARTED,
XML_ERR_CONDSEC_NOT_FINISHED,
XML_ERR_EXT_SUBSET_NOT_FINISHED,
XML_ERR_DOCTYPE_NOT_FINISHED,
XML_ERR_MISPLACED_CDATA_END,
XML_ERR_CDATA_NOT_FINISHED,
XML_ERR_RESERVED_XML_NAME,
XML_ERR_SPACE_REQUIRED,
XML_ERR_SEPARATOR_REQUIRED,
XML_ERR_NMTOKEN_REQUIRED,
XML_ERR_NAME_REQUIRED,
XML_ERR_PCDATA_REQUIRED,
XML_ERR_URI_REQUIRED,
XML_ERR_PUBID_REQUIRED,
XML_ERR_LT_REQUIRED,
XML_ERR_GT_REQUIRED,
XML_ERR_LTSLASH_REQUIRED,
XML_ERR_EQUAL_REQUIRED,
XML_ERR_TAG_NAME_MISMATCH,
XML_ERR_TAG_NOT_FINISHED,
XML_ERR_STANDALONE_VALUE,
XML_ERR_ENCODING_NAME,
XML_ERR_HYPHEN_IN_COMMENT,
XML_ERR_INVALID_ENCODING,
XML_ERR_EXT_ENTITY_STANDALONE,
XML_ERR_CONDSEC_INVALID,
XML_ERR_VALUE_REQUIRED,
XML_ERR_NOT_WELL_BALANCED,
XML_ERR_EXTRA_CONTENT,
XML_ERR_ENTITY_CHAR_ERROR,
XML_ERR_ENTITY_PE_INTERNAL,
XML_ERR_ENTITY_LOOP,
XML_ERR_ENTITY_BOUNDARY,
XML_ERR_INVALID_URI,
XML_ERR_URI_FRAGMENT,
XML_ERR_CATALOG_PI,
XML_ERR_NO_DTD,
XML_ERR_CONDSEC_INVALID_KEYWORD,
XML_ERR_VERSION_MISSING,
XML_ERR_UNKNOWN_VERSION,
XML_ERR_LANG_VALUE,
XML_ERR_NS_URI,
XML_ERR_NS_URI_RELATIVE,
XML_ERR_MISSING_ENCODING,
XML_ERR_SPACE_VALUE,
XML_ERR_NOT_STANDALONE,
XML_ERR_ENTITY_PROCESSING,
XML_ERR_NOTATION_PROCESSING,
XML_ERR_NS_COLUMN,
XML_ERR_ENTITY_REDEFINED,
XML_ERR_XML_NAMESPACE = 200,
XML_ERR_UNDEFINED_NAMESPACE,
XML_ERR_QNAME,
XML_ERR_ATTRIBUTE_REDEFINED,
XML_ERR_EMPTY,
XML_ERR_DTD_ATTRIBUTE_DEFAULT = 500,

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XML_DTD_ATTRIBUTE_REDEFINED,
XML_DTD_ATTRIBUTE_VALUE,
XML_DTD_CONTENT_ERROR,
XML_DTD_CONTENT_MODEL,
XML_DTD_CONTENT_NOT_DETERMINIST,
XML_DTD_DIFFERENT_PREFIX,
XML_DTD_ELEM_DEFAULT_NAMESPACE,
XML_DTD_ELEM_NAMESPACE,
XML_DTD_ELEM_REDEFINED,
XML_DTD_EMPTY_NOTATION,
XML_DTD_ENTITY_TYPE,
XML_DTD_ID_FIXED,
XML_DTD_ID_REDEFINED,
XML_DTD_ID_SUBSET,
XML_DTD_INVALID_CHILD,
XML_DTD_INVALID_DEFAULT,
XML_DTD_LOAD_ERROR,
XML_DTD_MISSING_ATTRIBUTE,
XML_DTD_MIXED_CORRUPT,
XML_DTD_MULTIPLE_ID,
XML_DTD_NO_DOC,
XML_DTD_NO_DTD,
XML_DTD_NO_ELEM_NAME,
XML_DTD_NO_PREFIX,
XML_DTD_NO_ROOT,
XML_DTD_NOTATION_REDEFINED,
XML_DTD_NOTATION_VALUE,
XML_DTD_NOT_EMPTY,
XML_DTD_NOT_PCDATA,
XML_DTD_NOT_STANDALONE,
XML_DTD_ROOT_NAME,
XML_DTD_STANDALONE_WHITE_SPACE,
XML_DTD_UNKNOWN_ATTRIBUTE,
XML_DTD_UNKNOWN_ELEM,
XML_DTD_UNKNOWN_ENTITY,
XML_DTD_UNKNOWN_ID,
XML_DTD_UNKNOWN_NOTATION,
XML_DTD_STANDALONE_DEFAULTED,
XML_DTD_XMLID_VALUE,
XML_DTD_XMLID_TYPE,
XML_HTML_STRUCURE_ERROR = 800,
XML_HTML_UNKNOWN_TAG,
XML_RNGP_ANYNAME_ATTR_ANCESTOR = 1000,
XML_RNGP_ATTR_CONFLICT,
XML_RNGP_ATTRIBUTE_CHILDREN,
XML_RNGP_ATTRIBUTE_CONTENT,
XML_RNGP_ATTRIBUTE_EMPTY,
XML_RNGP_ATTRIBUTE_NOOP,
XML_RNGP_CHOICE_CONTENT,
XML_RNGP_CHOICE_EMPTY,
XML_RNGP_CREATE_FAILURE,
XML_RNGP_DATA_CONTENT,
XML_RNGP_DEF_CHOICE_AND_INTERLEAVE,
XML_RNGP_DEFINE_CREATE_FAILED,
XML_RNGP_DEFINE_EMPTY,
XML_RNGP_DEFINE_MISSING,
XML_RNGP_DEFINE_NAME_MISSING,
XML_RNGP_ELEM_CONTENT_EMPTY,
XML_RNGP_ELEM_CONTENT_ERROR,
XML_RNGP_ELEMENT_EMPTY,
XML_RNGP_ELEMENT_CONTENT,
XML_RNGP_ELEMENT_NAME,

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XML_RNGP_ELEMENT_NO_CONTENT,
XML_RNGP_ELEM_TEXT_CONFLICT,
XML_RNGP_EMPTY,
XML_RNGP_EMPTY_CONSTRUCT,
XML_RNGP_EMPTY_CONTENT,
XML_RNGP_EMPTY_NOT_EMPTY,
XML_RNGP_ERROR_TYPE_LIB,
XML_RNGP_EXCEPT_EMPTY,
XML_RNGP_EXCEPT_MISSING,
XML_RNGP_EXCEPT_MULTIPLE,
XML_RNGP_EXCEPT_NO_CONTENT,
XML_RNGP_EXTERNALREF_EMPTY,
XML_RNGP_EXTERNAL_REF_FAILURE,
XML_RNGP_EXTERNALREF_RECURSE,
XML_RNGP_FORBIDDEN_ATTRIBUTE,
XML_RNGP_FOREIGN_ELEMENT,
XML_RNGP_GRAMMAR_CONTENT,
XML_RNGP_GRAMMAR_EMPTY,
XML_RNGP_GRAMMAR_MISSING,
XML_RNGP_GRAMMAR_NO_START,
XML_RNGP_GROUP_ATTR_CONFLICT,
XML_RNGP_HREF_ERROR,
XML_RNGP_INCLUDE_EMPTY,
XML_RNGP_INCLUDE_FAILURE,
XML_RNGP_INCLUDE_RECURSE,
XML_RNGP_INTERLEAVE_ADD,
XML_RNGP_INTERLEAVE_CREATE_FAILED,
XML_RNGP_INTERLEAVE_EMPTY,
XML_RNGP_INTERLEAVE_NO_CONTENT,
XML_RNGP_INVALID_DEFINE_NAME,
XML_RNGP_INVALID_URI,
XML_RNGP_INVALID_VALUE,
XML_RNGP_MISSING_HREF,
XML_RNGP_NAME_MISSING,
XML_RNGP_NEED_COMBINE,
XML_RNGP_NOTALLOWED_NOT_EMPTY,
XML_RNGP_NSNAME_ATTR_ANCESTOR,
XML_RNGP_NSNAME_NO_NS,
XML_RNGP_PARAM_FORBIDDEN,
XML_RNGP_PARAM_NAME_MISSING,
XML_RNGP_PARENTREF_CREATE_FAILED,
XML_RNGP_PARENTREF_NAME_INVALID,
XML_RNGP_PARENTREF_NO_NAME,
XML_RNGP_PARENTREF_NO_PARENT,
XML_RNGP_PARENTREF_NOT_EMPTY,
XML_RNGP_PARSE_ERROR,
XML_RNGP_PAT_ANYNAME_EXCEPT_ANYNAME,
XML_RNGP_PAT_ATTR_ATTR,
XML_RNGP_PAT_ATTR_ELEM,
XML_RNGP_PAT_DATA_EXCEPT_ATTR,
XML_RNGP_PAT_DATA_EXCEPT_ELEM,
XML_RNGP_PAT_DATA_EXCEPT_EMPTY,
XML_RNGP_PAT_DATA_EXCEPT_GROUP,
XML_RNGP_PAT_DATA_EXCEPT_INTERLEAVE,
XML_RNGP_PAT_DATA_EXCEPT_LIST,
XML_RNGP_PAT_DATA_EXCEPT_ONEMORE,
XML_RNGP_PAT_DATA_EXCEPT_REF,
XML_RNGP_PAT_DATA_EXCEPT_TEXT,
XML_RNGP_PAT_LIST_ATTR,
XML_RNGP_PAT_LIST_ELEM,
XML_RNGP_PAT_LIST_INTERLEAVE,
XML_RNGP_PAT_LIST_LIST,

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XML_RNGP_PAT_LIST_REF,
XML_RNGP_PAT_LIST_TEXT,
XML_RNGP_PAT_NSNAME_EXCEPT_ANYNAME,
XML_RNGP_PAT_NSNAME_EXCEPT_NSNAME,
XML_RNGP_PAT_ONEMORE_GROUP_ATTR,
XML_RNGP_PAT_ONEMORE_INTERLEAVE_ATTR,
XML_RNGP_PAT_START_ATTR,
XML_RNGP_PAT_START_DATA,
XML_RNGP_PAT_START_EMPTY,
XML_RNGP_PAT_START_GROUP,
XML_RNGP_PAT_START_INTERLEAVE,
XML_RNGP_PAT_START_LIST,
XML_RNGP_PAT_START_ONEMORE,
XML_RNGP_PAT_START_TEXT,
XML_RNGP_PAT_START_VALUE,
XML_RNGP_PREFIX_UNDEFINED,
XML_RNGP_REF_CREATE_FAILED,
XML_RNGP_REF_CYCLE,
XML_RNGP_REF_NAME_INVALID,
XML_RNGP_REF_NO_DEF,
XML_RNGP_REF_NO_NAME,
XML_RNGP_REF_NOT_EMPTY,
XML_RNGP_START_CHOICE_AND_INTERLEAVE,
XML_RNGP_START_CONTENT,
XML_RNGP_START_EMPTY,
XML_RNGP_START_MISSING,
XML_RNGP_TEXT_EXPECTED,
XML_RNGP_TEXT_HAS_CHILD,
XML_RNGP_TYPE_MISSING,
XML_RNGP_TYPE_NOT_FOUND,
XML_RNGP_TYPE_VALUE,
XML_RNGP_UNKNOWN_ATTRIBUTE,
XML_RNGP_UNKNOWN_COMBINE,
XML_RNGP_UNKNOWN_CONSTRUCT,
XML_RNGP_UNKNOWN_TYPE_LIB,
XML_RNGP_URI_FRAGMENT,
XML_RNGP_URI_NOT_ABSOLUTE,
XML_RNGP_VALUE_EMPTY,
XML_RNGP_VALUE_NO_CONTENT,
XML_RNGP_XMLNS_NAME,
XML_RNGP_XML_NS,
XML_XPATH_EXPRESSION_OK = 1200,
XML_XPATH_NUMBER_ERROR,
XML_XPATH_UNFINISHED_LITERAL_ERROR,
XML_XPATH_START_LITERAL_ERROR,
XML_XPATH_VARIABLE_REF_ERROR,
XML_XPATH_UNDEF_VARIABLE_ERROR,
XML_XPATH_INVALID_PREDICATE_ERROR,
XML_XPATH_EXPR_ERROR,
XML_XPATH_UNCLOSED_ERROR,
XML_XPATH_UNKNOWN_FUNC_ERROR,
XML_XPATH_INVALID_OPERAND,
XML_XPATH_INVALID_TYPE,
XML_XPATH_INVALID_ARITY,
XML_XPATH_INVALID_CTXT_SIZE,
XML_XPATH_INVALID_CTXT_POSITION,
XML_XPATH_MEMORY_ERROR,
XML_XPTR_SYNTAX_ERROR,
XML_XPTR_RESOURCE_ERROR,
XML_XPTR_SUB_RESOURCE_ERROR,
XML_XPATH_UNDEF_PREFIX_ERROR,
XML_XPATH_ENCODING_ERROR,

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XML_XPATH_INVALID_CHAR_ERROR,
XML_TREE_INVALID_HEX = 1300,
XML_TREE_INVALID_DEC,
XML_TREE_UNTERMINATED_ENTITY,
XML_SAVE_NOT_UTF8 = 1400,
XML_SAVE_CHAR_INVALID,
XML_SAVE_NO_DOCTYPE,
XML_SAVE_UNKNOWN_ENCODING,
XML_REGEXPCOMPPILE_ERROR = 1450,
XML_IO_UNKNOWN = 1500,
XML_IO_EACCES,
XML_IO_EAGAIN,
XML_IO_EBADF,
XML_IO_EBADMSG,
XML_IO_EBUSY,
XML_IO_ECANCELED,
XML_IO_ECHILD,
XML_IO_EDEADLK,
XML_IO_EDOM,
XML_IO_EEXIST,
XML_IO_EFAULT,
XML_IO_EFBIG,
XML_IO_EINPROGRESS,
XML_IO_EINTR,
XML_IO_EINVAL,
XML_IO_EIO,
XML_IO_EISDIR,
XML_IO_EMFILE,
XML_IO_EMLINK,
XML_IO_EMSGSIZE,
XML_IO_ENAMETOOLONG,
XML_IO_ENFILE,
XML_IO_ENODEV,
XML_IO_ENOENT,
XML_IO_ENOEXEC,
XML_IO_ENOLCK,
XML_IO_ENOMEM,
XML_IO_ENOSPC,
XML_IO_ENOSYS,
XML_IO_ENOTDIR,
XML_IO_ENOTEMPTY,
XML_IO_ENOTSUP,
XML_IO_ENOTTY,
XML_IO_ENXIO,
XML_IO_EPERM,
XML_IO_EPIPE,
XML_IO_ERANGE,
XML_IO_EROFS,
XML_IO_ESPIPE,
XML_IO_ESRCH,
XML_IO_ETIMEDOUT,
XML_IO_EXDEV,
XML_IO_NETWORK_ATTEMPT,
XML_IO_ENCODER,
XML_IO_FLUSH,
XML_IO_WRITE,
XML_IO_NO_INPUT,
XML_IO_BUFFER_FULL,
XML_IO_LOAD_ERROR,
XML_IO_ENOTSOCK,
XML_IO_EISCONN,
XML_IO_ECONNREFUSED,

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XML_IO_ENETUNREACH,
XML_IO_EADDRINUSE,
XML_IO_EALREADY,
XML_IO_EAFNOSUPPORT,
XML_XINCLUDE_RECURSION = 1600,
XML_XINCLUDE_PARSE_VALUE,
XML_XINCLUDE_ENTITY_DEF_MISMATCH,
XML_XINCLUDE_NO_HREF,
XML_XINCLUDE_NO_FALLBACK,
XML_XINCLUDE_HREF_URI,
XML_XINCLUDE_TEXT_FRAGMENT,
XML_XINCLUDE_TEXT_DOCUMENT,
XML_XINCLUDE_INVALID_CHAR,
XML_XINCLUDE_BUILD_FAILED,
XML_XINCLUDE_UNKNOWN_ENCODING,
XML_XINCLUDE_MULTIPLE_ROOT,
XML_XINCLUDE_XPTR_FAILED,
XML_XINCLUDE_XPTR_RESULT,
XML_XINCLUDE_INCLUDE_IN_INCLUDE,
XML_XINCLUDE_FALLBACKS_IN_INCLUDE,
XML_XINCLUDE_FALLBACK_NOT_IN_INCLUDE,
XML_XINCLUDE_DEPRECATED_NS,
XML_XINCLUDE_FRAGMENT_ID,
XML_CATALOG_MISSING_ATTR = 1650,
XML_CATALOG_ENTRY_BROKEN,
XML_CATALOG_PREFER_VALUE,
XML_CATALOG_NOT_CATALOG,
XML_CATALOG_RECURSION,
XML_SCHEMAP_PREFIX_UNDEFINED = 1700,
XML_SCHEMAP_ATTRFORMDEFAULT_VALUE,
XML_SCHEMAP_ATTRGRP_NONAME_NOREF,
XML_SCHEMAP_ATTR_NONAME_NOREF,
XML_SCHEMAP_COMPLEXTYPE_NONAME_NOREF,
XML_SCHEMAP_ELEMFORMDEFAULT_VALUE,
XML_SCHEMAP_ELEM_NONAME_NOREF,
XML_SCHEMAP_EXTENSION_NO_BASE,
XML_SCHEMAP_FACET_NO_VALUE,
XML_SCHEMAP_FAILED_BUILD_IMPORT,
XML_SCHEMAP_GROUP_NONAME_NOREF,
XML_SCHEMAP_IMPORT_NAMESPACE_NOT_URI,
XML_SCHEMAP_IMPORT_REDEFINE_NSNAME,
XML_SCHEMAP_IMPORT_SCHEMA_NOT_URI,
XML_SCHEMAP_INVALID_BOOLEAN,
XML_SCHEMAP_INVALID_ENUM,
XML_SCHEMAP_INVALID_FACET,
XML_SCHEMAP_INVALID_FACET_VALUE,
XML_SCHEMAP_INVALID_MAXOCCURS,
XML_SCHEMAP_INVALID_MINOCCURS,
XML_SCHEMAP_INVALID_REF_AND_SUBTYPE,
XML_SCHEMAP_INVALID_WHITE_SPACE,
XML_SCHEMAP_NOATTR_NOREF,
XML_SCHEMAP_NOTATION_NO_NAME,
XML_SCHEMAP_NOTYPE_NOREF,
XML_SCHEMAP_REF_AND_SUBTYPE,
XML_SCHEMAP_RESTRICTION_NONAME_NOREF,
XML_SCHEMAP_SIMPLETYPE_NONAME,
XML_SCHEMAP_TYPE_AND_SUBTYPE,
XML_SCHEMAP_UNKNOWN_ALL_CHILD,
XML_SCHEMAP_UNKNOWN_ANYATTRIBUTE_CHILD,
XML_SCHEMAP_UNKNOWN_ATTR_CHILD,
XML_SCHEMAP_UNKNOWN_ATTRGRP_CHILD,
XML_SCHEMAP_UNKNOWN_ATTRIBUTE_GROUP,

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XML_SCHEMAP_UNKNOWN_BASE_TYPE,
XML_SCHEMAP_UNKNOWN_CHOICE_CHILD,
XML_SCHEMAP_UNKNOWN_COMPLEXCONTENT_CHILD,
XML_SCHEMAP_UNKNOWN_COMPLEXTYPE_CHILD,
XML_SCHEMAP_UNKNOWN_ELEM_CHILD,
XML_SCHEMAP_UNKNOWN_EXTENSION_CHILD,
XML_SCHEMAP_UNKNOWN_FACET_CHILD,
XML_SCHEMAP_UNKNOWN_FACET_TYPE,
XML_SCHEMAP_UNKNOWN_GROUP_CHILD,
XML_SCHEMAP_UNKNOWN_IMPORT_CHILD,
XML_SCHEMAP_UNKNOWN_LIST_CHILD,
XML_SCHEMAP_UNKNOWN_NOTATION_CHILD,
XML_SCHEMAP_UNKNOWN_PROCESSCONTENT_CHILD,
XML_SCHEMAP_UNKNOWN_REF,
XML_SCHEMAP_UNKNOWN_RESTRICTION_CHILD,
XML_SCHEMAP_UNKNOWN_SCHEMAS_CHILD,
XML_SCHEMAP_UNKNOWN_SEQUENCE_CHILD,
XML_SCHEMAP_UNKNOWN_SIMPLECONTENT_CHILD,
XML_SCHEMAP_UNKNOWN_SIMPLETYPE_CHILD,
XML_SCHEMAP_UNKNOWN_TYPE,
XML_SCHEMAP_UNKNOWN_UNION_CHILD,
XML_SCHEMAP_ELEM_DEFAULT_FIXED,
XML_SCHEMAP_REGEXP_INVALID,
XML_SCHEMAP_FAILED_LOAD,
XML_SCHEMAP_NOTHING_TO_PARSE,
XML_SCHEMAP_NOROOT,
XML_SCHEMAP_REDEFINED_GROUP,
XML_SCHEMAP_REDEFINED_TYPE,
XML_SCHEMAP_REDEFINED_ELEMENT,
XML_SCHEMAP_REDEFINED_ATTRGROUP,
XML_SCHEMAP_REDEFINED_ATTR,
XML_SCHEMAP_REDEFINED_NOTATION,
XML_SCHEMAP_FAILED_PARSE,
XML_SCHEMAP_UNKNOWN_PREFIX,
XML_SCHEMAP_DEF_AND_PREFIX,
XML_SCHEMAP_UNKNOWN_INCLUDE_CHILD,
XML_SCHEMAP_INCLUDE_SCHEMA_NOT_URI,
XML_SCHEMAP_INCLUDE_SCHEMA_NO_URI,
XML_SCHEMAP_NOT_SCHEMA,
XML_SCHEMAP_UNKNOWN_MEMBER_TYPE,
XML_SCHEMAP_INVALID_ATTR_USE,
XML_SCHEMAP_RECURSIVE,
XML_SCHEMAP_SUPERNUMEROUS_LIST_ITEM_TYPE,
XML_SCHEMAP_INVALID_ATTR_COMBINATION,
XML_SCHEMAP_INVALID_ATTR_INLINE_COMBINATION,
XML_SCHEMAP_MISSING_SIMPLETYPE_CHILD,
XML_SCHEMAP_INVALID_ATTR_NAME,
XML_SCHEMAP_REF_AND_CONTENT,
XML_SCHEMAP_CT_PROPS_CORRECT_1,
XML_SCHEMAP_CT_PROPS_CORRECT_2,
XML_SCHEMAP_CT_PROPS_CORRECT_3,
XML_SCHEMAP_CT_PROPS_CORRECT_4,
XML_SCHEMAP_CT_PROPS_CORRECT_5,
XML_SCHEMAP_DERIVATION_OK_RESTRICTION_1,
XML_SCHEMAP_DERIVATION_OK_RESTRICTION_2_1_1,
XML_SCHEMAP_DERIVATION_OK_RESTRICTION_2_1_2,
XML_SCHEMAP_DERIVATION_OK_RESTRICTION_2_2,
XML_SCHEMAP_DERIVATION_OK_RESTRICTION_3,
XML_SCHEMAP_WILDCARD_INVALID_NS_MEMBER,
XML_SCHEMAP_INTERSECTION_NOT_EXPRESSIBLE,
XML_SCHEMAP_UNION_NOT_EXPRESSIBLE,
XML_SCHEMAP_SRC_IMPORT_3_1,

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XML_SCHEMAP_SRC_IMPORT_3_2,
XML_SCHEMAP_DERIVATION_OK_RESTRICTION_4_1,
XML_SCHEMAP_DERIVATION_OK_RESTRICTION_4_2,
XML_SCHEMAP_DERIVATION_OK_RESTRICTION_4_3,
XML_SCHEMAP_COS_CT_EXTENDS_1_3,
XML_SCHEMAV_NOROOT = 1801,
XML_SCHEMAV_UNDECLAREDELEM,
XML_SCHEMAV_NOTTOPELEVEL,
XML_SCHEMAV_MISSING,
XML_SCHEMAV_WRONGELEM,
XML_SCHEMAV_NOTYPE,
XML_SCHEMAV_NOROLLBACK,
XML_SCHEMAV_ISABSTRACT,
XML_SCHEMAV_NOTEMPTY,
XML_SCHEMAV_ELEMCONT,
XML_SCHEMAV_HAVEDEFAULT,
XML_SCHEMAV_NOTNILLABLE,
XML_SCHEMAV_EXTRACONTENT,
XML_SCHEMAV_INVALIDATTR,
XML_SCHEMAV_INVALIDELEM,
XML_SCHEMAV_NOTDETERMINIST,
XML_SCHEMAV_CONSTRUCT,
XML_SCHEMAV_INTERNAL,
XML_SCHEMAV_NOTSIMPLE,
XML_SCHEMAV_ATTRUNKNOWN,
XML_SCHEMAV_ATTRINVALID,
XML_SCHEMAV_VALUE,
XML_SCHEMAV_FACET,
XML_SCHEMAV_CVC_DATATYPE_VALID_1_2_1,
XML_SCHEMAV_CVC_DATATYPE_VALID_1_2_2,
XML_SCHEMAV_CVC_DATATYPE_VALID_1_2_3,
XML_SCHEMAV_CVC_TYPE_3_1_1,
XML_SCHEMAV_CVC_TYPE_3_1_2,
XML_SCHEMAV_CVC_FACET_VALID,
XML_SCHEMAV_CVC_LENGTH_VALID,
XML_SCHEMAV_CVC_MINLENGTH_VALID,
XML_SCHEMAV_CVC_MAXLENGTH_VALID,
XML_SCHEMAV_CVC_MININCLUSIVE_VALID,
XML_SCHEMAV_CVC_MAXINCLUSIVE_VALID,
XML_SCHEMAV_CVC_MINEXCLUSIVE_VALID,
XML_SCHEMAV_CVC_MAXEXCLUSIVE_VALID,
XML_SCHEMAV_CVC_TOTALDIGITS_VALID,
XML_SCHEMAV_CVC_FRACTIONDIGITS_VALID,
XML_SCHEMAV_CVC_PATTERN_VALID,
XML_SCHEMAV_CVC_ENUMERATION_VALID,
XML_SCHEMAV_CVC_COMPLEX_TYPE_2_1,
XML_SCHEMAV_CVC_COMPLEX_TYPE_2_2,
XML_SCHEMAV_CVC_COMPLEX_TYPE_2_3,
XML_SCHEMAV_CVC_COMPLEX_TYPE_2_4,
XML_SCHEMAV_CVC_ELT_1,
XML_SCHEMAV_CVC_ELT_2,
XML_SCHEMAV_CVC_ELT_3_1,
XML_SCHEMAV_CVC_ELT_3_2_1,
XML_SCHEMAV_CVC_ELT_3_2_2,
XML_SCHEMAV_CVC_ELT_4_1,
XML_SCHEMAV_CVC_ELT_4_2,
XML_SCHEMAV_CVC_ELT_4_3,
XML_SCHEMAV_CVC_ELT_5_1_1,
XML_SCHEMAV_CVC_ELT_5_1_2,
XML_SCHEMAV_CVC_ELT_5_2_1,
XML_SCHEMAV_CVC_ELT_5_2_2_1,
XML_SCHEMAV_CVC_ELT_5_2_2_2_1,

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XML_SCHEMAV_CVC_ELT_5_2_2_2,
XML_SCHEMAV_CVC_ELT_6,
XML_SCHEMAV_CVC_ELT_7,
XML_SCHEMAV_CVC_ATTRIBUTE_1,
XML_SCHEMAV_CVC_ATTRIBUTE_2,
XML_SCHEMAV_CVC_ATTRIBUTE_3,
XML_SCHEMAV_CVC_ATTRIBUTE_4,
XML_SCHEMAV_CVC_COMPLEX_TYPE_3_1,
XML_SCHEMAV_CVC_COMPLEX_TYPE_3_2_1,
XML_SCHEMAV_CVC_COMPLEX_TYPE_3_2_2,
XML_SCHEMAV_CVC_COMPLEX_TYPE_4,
XML_SCHEMAV_CVC_COMPLEX_TYPE_5_1,
XML_SCHEMAV_CVC_COMPLEX_TYPE_5_2,
XML_SCHEMAV_ELEMENT_CONTENT,
XML_SCHEMAV_DOCUMENT_ELEMENT_MISSING,
XML_SCHEMAV_CVC_COMPLEX_TYPE_1,
XML_SCHEMAV_CVC_AU,
XML_SCHEMAV_CVC_TYPE_1,
XML_SCHEMAV_CVC_TYPE_2,
XML_SCHEMAV_CVC_IDC,
XML_SCHEMAV_CVC_WILDCARD,
XML_XPTR_UNKNOWN_SCHEME = 1900,
XML_XPTR_CHILDSEQ_START,
XML_XPTR_EVAL_FAILED,
XML_XPTR_EXTRA_OBJECTS,
XML_C14N_CREATE_CTXT = 1950,
XML_C14N_REQUIRES_UTF8,
XML_C14N_CREATE_STACK,
XML_C14N_INVALID_NODE,
XML_C14N_UNKNOW_NODE,
XML_C14N_RELATIVE_NAMESPACE,
XML_FTP_PASV_ANSWER = 2000,
XML_FTP_EPSV_ANSWER,
XML_FTP_ACCNT,
XML_FTP_URL_SYNTAX,
XML_HTTP_URL_SYNTAX = 2020,
XML_HTTP_USE_IP,
XML_HTTP_UNKNOWN_HOST,
XML_SCHEMAV_SRC_SIMPLE_TYPE_1 = 3000,
XML_SCHEMAV_SRC_SIMPLE_TYPE_2,
XML_SCHEMAV_SRC_SIMPLE_TYPE_3,
XML_SCHEMAV_SRC_SIMPLE_TYPE_4,
XML_SCHEMAV_SRC_RESOLVE,
XML_SCHEMAV_SRC_RESTRICTION_BASE_OR_SIMPLETYPE,
XML_SCHEMAV_SRC_LIST_ITEMTYPE_OR_SIMPLETYPE,
XML_SCHEMAV_SRC_UNION_MEMBERTYPES_OR_SIMPLETYPES,
XML_SCHEMAV_ST_PROPS_CORRECT_1,
XML_SCHEMAV_ST_PROPS_CORRECT_2,
XML_SCHEMAV_ST_PROPS_CORRECT_3,
XML_SCHEMAV_COS_ST_RESTRICTS_1_1,
XML_SCHEMAV_COS_ST_RESTRICTS_1_2,
XML_SCHEMAV_COS_ST_RESTRICTS_1_3_1,
XML_SCHEMAV_COS_ST_RESTRICTS_1_3_2,
XML_SCHEMAV_COS_ST_RESTRICTS_2_1,
XML_SCHEMAV_COS_ST_RESTRICTS_2_3_1_1,
XML_SCHEMAV_COS_ST_RESTRICTS_2_3_1_2,
XML_SCHEMAV_COS_ST_RESTRICTS_2_3_2_1,
XML_SCHEMAV_COS_ST_RESTRICTS_2_3_2_2,
XML_SCHEMAV_COS_ST_RESTRICTS_2_3_2_3,
XML_SCHEMAV_COS_ST_RESTRICTS_2_3_2_4,
XML_SCHEMAV_COS_ST_RESTRICTS_2_3_2_5,
XML_SCHEMAV_COS_ST_RESTRICTS_3_1,

```

```

XML_SCHEMAP_COS_ST_RESTRICTS_3_3_1,
XML_SCHEMAP_COS_ST_RESTRICTS_3_3_1_2,
XML_SCHEMAP_COS_ST_RESTRICTS_3_3_2_2,
XML_SCHEMAP_COS_ST_RESTRICTS_3_3_2_1,
XML_SCHEMAP_COS_ST_RESTRICTS_3_3_2_3,
XML_SCHEMAP_COS_ST_RESTRICTS_3_3_2_4,
XML_SCHEMAP_COS_ST_RESTRICTS_3_3_2_5,
XML_SCHEMAP_COS_ST_DERIVED_OK_2_1,
XML_SCHEMAP_COS_ST_DERIVED_OK_2_2,
XML_SCHEMAP_S4S_ELEM_NOT_ALLOWED,
XML_SCHEMAP_S4S_ELEM_MISSING,
XML_SCHEMAP_S4S_ATTR_NOT_ALLOWED,
XML_SCHEMAP_S4S_ATTR_MISSING,
XML_SCHEMAP_S4S_ATTR_INVALID_VALUE,
XML_SCHEMAP_SRC_ELEMENT_1,
XML_SCHEMAP_SRC_ELEMENT_2_1,
XML_SCHEMAP_SRC_ELEMENT_2_2,
XML_SCHEMAP_SRC_ELEMENT_3,
XML_SCHEMAP_P_PROPS_CORRECT_1,
XML_SCHEMAP_P_PROPS_CORRECT_2_1,
XML_SCHEMAP_P_PROPS_CORRECT_2_2,
XML_SCHEMAP_E_PROPS_CORRECT_2,
XML_SCHEMAP_E_PROPS_CORRECT_3,
XML_SCHEMAP_E_PROPS_CORRECT_4,
XML_SCHEMAP_E_PROPS_CORRECT_5,
XML_SCHEMAP_E_PROPS_CORRECT_6,
XML_SCHEMAP_SRC_INCLUDE,
XML_SCHEMAP_SRC_ATTRIBUTE_1,
XML_SCHEMAP_SRC_ATTRIBUTE_2,
XML_SCHEMAP_SRC_ATTRIBUTE_3_1,
XML_SCHEMAP_SRC_ATTRIBUTE_3_2,
XML_SCHEMAP_SRC_ATTRIBUTE_4,
XML_SCHEMAP_NO_XMLNS,
XML_SCHEMAP_NO_XSI,
XML_SCHEMAP_COS_VALID_DEFAULT_1,
XML_SCHEMAP_COS_VALID_DEFAULT_2_1,
XML_SCHEMAP_COS_VALID_DEFAULT_2_2_1,
XML_SCHEMAP_COS_VALID_DEFAULT_2_2_2,
XML_SCHEMAP_CVC_SIMPLE_TYPE,
XML_SCHEMAP_COS_CT_EXTENDS_1_1,
XML_SCHEMAP_SRC_IMPORT_1_1,
XML_SCHEMAP_SRC_IMPORT_1_2,
XML_SCHEMAP_SRC_IMPORT_2,
XML_SCHEMAP_SRC_IMPORT_2_1,
XML_SCHEMAP_SRC_IMPORT_2_2,
XML_SCHEMAP_INTERNAL,
XML_SCHEMAP_NOT_DETERMINISTIC,
XML_SCHEMAP_SRC_ATTRIBUTE_GROUP_1,
XML_SCHEMAP_SRC_ATTRIBUTE_GROUP_2,
XML_SCHEMAP_SRC_ATTRIBUTE_GROUP_3,
XML_SCHEMAP_MG_PROPS_CORRECT_1,
XML_SCHEMAP_MG_PROPS_CORRECT_2,
XML_SCHEMAP_SRC_CT_1,
XML_SCHEMAP_DERIVATION_OK_RESTRICTION_2_1_3,
XML_SCHEMAP_AU_PROPS_CORRECT_2,
XML_SCHEMAP_A_PROPS_CORRECT_2,
XML_SCHEMAP_C_PROPS_CORRECT,
XML_SCHEMAP_SRC_REDEFINE,
XML_SCHEMAP_SRC_IMPORT,
XML_SCHEMAP_WARN_SKIP_SCHEMA,
XML_SCHEMAP_WARN_UNLOCATED_SCHEMA,
XML_SCHEMAP_WARN_ATTR_REDECL_PROH,

```

```

XML_SCHEMAP_WARN_ATTR_POINTLESS_PROH,
XML_MODULE_OPEN = 4900,
XML_MODULE_CLOSE,
XML_CHECK_FOUND_ELEMENT = 5000,
XML_CHECK_FOUND_ATTRIBUTE,
XML_CHECK_FOUND_TEXT,
XML_CHECK_FOUND_CDATA,
XML_CHECK_FOUND_ENTITYREF,
XML_CHECK_FOUND_ENTITY,
XML_CHECK_FOUND_PI,
XML_CHECK_FOUND_COMMENT,
XML_CHECK_FOUND_DOCTYPE,
XML_CHECK_FOUND_FRAGMENT,
XML_CHECK_FOUND_NOTATION,
XML_CHECK_UNKNOWN_NODE,
XML_CHECK_ENTITY_TYPE,
XML_CHECK_NO_PARENT,
XML_CHECK_NO_DOC,
XML_CHECK_NO_NAME,
XML_CHECK_NO_ELEM,
XML_CHECK_WRONG_DOC,
XML_CHECK_NO_PREV,
XML_CHECK_WRONG_PREV,
XML_CHECK_NO_NEXT,
XML_CHECK_WRONG_NEXT,
XML_CHECK_NOT_DTD,
XML_CHECK_NOT_ATTR,
XML_CHECK_NOT_ATTR_DECL,
XML_CHECK_NOT_ELEM_DECL,
XML_CHECK_NOT_ENTITY_DECL,
XML_CHECK_NOT_NS_DECL,
XML_CHECK_NO_HREF,
XML_CHECK_WRONG_PARENT,
XML_CHECK_NS_SCOPE,
XML_CHECK_NS_ANCESTOR,
XML_CHECK_NOT_UTF8,
XML_CHECK_NO_DICT,
XML_CHECK_NOT_NCNAME,
XML_CHECK_OUTSIDE_DICT,
XML_CHECK_WRONG_NAME,
XML_CHECK_NAME_NOT_NULL,
XML_I18N_NO_NAME = 6000,
XML_I18N_NO_HANDLER,
XML_I18N_EXCESS_HANDLER,
XML_I18N_CONV_FAILED,
XML_I18N_NO_OUTPUT
} xmlParserErrors;
extern void initGenericErrorDefaultFunc(xmlGenericErrorFunc * handler);
extern int xmlCopyError(xmlErrorPtr from, xmlErrorPtr to);
extern xmlErrorPtr xmlCtxtGetLastError(void *ctx);
extern void xmlCtxtResetLastError(void *ctx);
extern xmlErrorPtr xmlGetLastError(void);
extern void xmlParserError(void *ctx, const char *msg, ...);
extern void xmlParserPrintFileContext(xmlParserInputPtr input);
extern void xmlParserPrintFileInfo(xmlParserInputPtr input);
extern void xmlParserValidityError(void *ctx, const char *msg, ...);
extern void xmlParserValidityWarning(void *ctx, const char *msg, ...);
extern void xmlParserWarning(void *ctx, const char *msg, ...);
extern void xmlResetError(xmlErrorPtr err);
extern void xmlResetLastError(void);
extern void xmlSetGenericErrorFunc(void *ctx, xmlGenericErrorFunc handler);
extern void xmlSetStructuredErrorFunc(void *ctx,

```

```
xmlStructuredErrorFunc handler);
```

19.2.26. libxml2/libxml/xmlexports.h

```
#define XMLCALL
#define XMLCDECL
#define XMLPUBFUN
#define XMLPUBVAR      extern
#define LIBXML_DLL_IMPORT XMLPUBVAR
```

19.2.27. libxml2/libxml/xmlmemory.h

```
typedef void (*xmlFreeFunc) (void *);
typedef void *(*xmlMallocFunc) (size_t);
typedef void *(*xmlReallocFunc) (void *, size_t);
typedef char *(*xmlStrdupFunc) (const char *);
extern void xmlCleanupMemory(void);
extern int xmlGcMemGet(xmlFreeFunc * freeFunc, xmlMallocFunc * mallocFunc,
                      xmlMallocFunc * mallocAtomicFunc,
                      xmlReallocFunc * reallocFunc,
                      xmlStrdupFunc * strdupFunc);
extern int xmlGcMemSetup(xmlFreeFunc freeFunc, xmlMallocFunc mallocFunc,
                        xmlMallocFunc mallocAtomicFunc,
                        xmlReallocFunc reallocFunc,
                        xmlStrdupFunc strdupFunc);
extern int xmlInitMemory(void);
extern void *xmlMallocAtomicLoc(size_t size, const char *file, int line);
extern void *xmlMallocLoc(size_t size, const char *file, int line);
extern int xmlMemBlocks(void);
extern void xmlMemDisplay(FILE * fp);
extern void xmlMemFree(void *ptr);
extern int xmlMemGet(xmlFreeFunc * freeFunc, xmlMallocFunc * mallocFunc,
                    xmlReallocFunc * reallocFunc,
                    xmlStrdupFunc * strdupFunc);
extern void *xmlMemMalloc(size_t size);
extern void *xmlMemRealloc(void *ptr, size_t size);
extern int xmlMemSetup(xmlFreeFunc freeFunc, xmlMallocFunc mallocFunc,
                      xmlReallocFunc reallocFunc,
                      xmlStrdupFunc strdupFunc);
extern void xmlMemShow(FILE * fp, int nr);
extern char *xmlMemStrdupLoc(const char *str, const char *file, int line);
extern int xmlMemUsed(void);
extern void xmlMemoryDump(void);
extern char *xmlMemoryStrdup(const char *str);
extern void *xmlReallocLoc(void *ptr, size_t size, const char *file,
                          int line);
```

19.2.28. libxml2/libxml/xmlmodule.h

```
typedef struct _xmlModule xmlModule;
typedef xmlModule *xmlModulePtr;
typedef enum {
    XML_MODULE_LAZY = 1,
    XML_MODULE_LOCAL = 2
} xmlModuleOption;
extern int xmlModuleClose(xmlModulePtr module);
extern int xmlModuleFree(xmlModulePtr module);
extern xmlModulePtr xmlModuleOpen(const char *filename, int options);
```

```
extern int xmlModuleSymbol(xmlModulePtr module, const char *name,
                          void **result);
```

19.2.29. libxml2/libxml/xmlreader.h

```
typedef struct _xmlTextReader xmlTextReader;
typedef xmlTextReader *xmlTextReaderPtr;
typedef enum {
    XML_PARSER_SEVERITY_VALIDITY_WARNING = 1,
    XML_PARSER_SEVERITY_VALIDITY_ERROR = 2,
    XML_PARSER_SEVERITY_WARNING = 3,
    XML_PARSER_SEVERITY_ERROR = 4
} xmlParserSeverities;
typedef void *xmlTextReaderLocatorPtr;
typedef void (*xmlTextReaderErrorFunc) (void *, const char *,
                                         xmlParserSeverities,
                                         xmlTextReaderLocatorPtr);

typedef enum {
    XML_PARSER_LOADDTD = 1,
    XML_PARSER_DEFAULTATTRS = 2,
    XML_PARSER_VALIDATE = 3,
    XML_PARSER_SUBST_ENTITIES = 4
} xmlParserProperties;
typedef enum {
    XML_READER_TYPE_NONE = 0,
    XML_READER_TYPE_ELEMENT = 1,
    XML_READER_TYPE_ATTRIBUTE = 2,
    XML_READER_TYPE_TEXT = 3,
    XML_READER_TYPE_CDATA = 4,
    XML_READER_TYPE_ENTITY_REFERENCE = 5,
    XML_READER_TYPE_ENTITY = 6,
    XML_READER_TYPE_PROCESSING_INSTRUCTION = 7,
    XML_READER_TYPE_COMMENT = 8,
    XML_READER_TYPE_DOCUMENT = 9,
    XML_READER_TYPE_DOCUMENT_TYPE = 10,
    XML_READER_TYPE_DOCUMENT_FRAGMENT = 11,
    XML_READER_TYPE_NOTATION = 12,
    XML_READER_TYPE_WHITESPACE = 13,
    XML_READER_TYPE_SIGNIFICANT_WHITESPACE = 14,
    XML_READER_TYPE_END_ELEMENT = 15,
    XML_READER_TYPE_END_ENTITY = 16,
    XML_READER_TYPE_XML_DECLARATION = 17
} xmlReaderTypes;
typedef enum {
    XML_TEXTREADER_MODE_INITIAL = 0,
    XML_TEXTREADER_MODE_INTERACTIVE = 1,
    XML_TEXTREADER_MODE_ERROR = 2,
    XML_TEXTREADER_MODE_EOF = 3,
    XML_TEXTREADER_MODE_CLOSED = 4,
    XML_TEXTREADER_MODE_READING = 5
} xmlTextReaderMode;

extern void xmlFreeTextReader(xmlTextReaderPtr reader);
extern xmlTextReaderPtr xmlNewTextReader(xmlParserInputBufferPtr input,
                                         const char *URI);
extern xmlTextReaderPtr xmlNewTextReaderFilename(const char *URI);
extern xmlTextReaderPtr xmlReaderForDoc(const xmlChar * cur,
                                         const char *URL,
                                         const char *encoding, int options);
extern xmlTextReaderPtr xmlReaderForFd(int fd, const char *URL,
                                       const char *encoding, int options);
extern xmlTextReaderPtr xmlReaderForFile(const char *filename,
```

```

                                const char *encoding,
                                int options);
extern xmlTextReaderPtr xmlReaderForIO(xmlInputReadCallback ioread,
                                xmlInputCloseCallback ioclose,
                                void *ioctx, const char *URL,
                                const char *encoding, int options);
extern xmlTextReaderPtr xmlReaderForMemory(const char *buffer, int size,
                                const char *URL,
                                const char *encoding,
                                int options);
extern int xmlReaderNewDoc(xmlTextReaderPtr reader, const xmlChar * cur,
                                const char *URL, const char *encoding,
                                int options);
extern int xmlReaderNewFd(xmlTextReaderPtr reader, int fd, const char *URL,
                                const char *encoding, int options);
extern int xmlReaderNewFile(xmlTextReaderPtr reader, const char *filename,
                                const char *encoding, int options);
extern int xmlReaderNewIO(xmlTextReaderPtr reader,
                                xmlInputReadCallback ioread,
                                xmlInputCloseCallback ioclose, void *ioctx,
                                const char *URL, const char *encoding,
                                int options);
extern int xmlReaderNewMemory(xmlTextReaderPtr reader, const char *buffer,
                                int size, const char *URL,
                                const char *encoding, int options);
extern int xmlReaderNewWalker(xmlTextReaderPtr reader, xmlDocPtr doc);
extern xmlTextReaderPtr xmlReaderWalker(xmlDocPtr doc);
extern int xmlTextReaderAttributeCount(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderBaseUri(xmlTextReaderPtr reader);
extern long int xmlTextReaderByteConsumed(xmlTextReaderPtr reader);
extern int xmlTextReaderClose(xmlTextReaderPtr reader);
extern const xmlChar *xmlTextReaderConstBaseUri(xmlTextReaderPtr reader);
extern const xmlChar *xmlTextReaderConstEncoding(xmlTextReaderPtr reader);
extern const xmlChar *xmlTextReaderConstLocalName(xmlTextReaderPtr reader);
extern const xmlChar *xmlTextReaderConstName(xmlTextReaderPtr reader);
extern const xmlChar *xmlTextReaderConstNamespaceUri(xmlTextReaderPtr
                                reader);
extern const xmlChar *xmlTextReaderConstPrefix(xmlTextReaderPtr reader);
extern const xmlChar *xmlTextReaderConstString(xmlTextReaderPtr reader,
                                const xmlChar * str);
extern const xmlChar *xmlTextReaderConstValue(xmlTextReaderPtr reader);
extern const xmlChar *xmlTextReaderConstXmlLang(xmlTextReaderPtr reader);
extern const xmlChar *xmlTextReaderConstXmlVersion(xmlTextReaderPtr
                                reader);
extern xmlDocPtr xmlTextReaderCurrentDoc(xmlTextReaderPtr reader);
extern xmlNodePtr xmlTextReaderCurrentNode(xmlTextReaderPtr reader);
extern int xmlTextReaderDepth(xmlTextReaderPtr reader);
extern xmlNodePtr xmlTextReaderExpand(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderGetAttribute(xmlTextReaderPtr reader,
                                const xmlChar * name);
extern xmlChar *xmlTextReaderGetAttributeNo(xmlTextReaderPtr reader,
                                int no);
extern xmlChar *xmlTextReaderGetAttributeNs(xmlTextReaderPtr reader,
                                const xmlChar * localName,
                                const xmlChar * namespaceURI);
extern void xmlTextReaderGetErrorHandler(xmlTextReaderPtr reader,
                                xmlTextReaderErrorFunc * f,
                                void **arg);
extern int xmlTextReaderGetParserColumnNumber(xmlTextReaderPtr reader);
extern int xmlTextReaderGetParserLineNumber(xmlTextReaderPtr reader);
extern int xmlTextReaderGetParserProp(xmlTextReaderPtr reader, int prop);
extern xmlParserInputBufferPtr xmlTextReaderGetRemainder(xmlTextReaderPtr

```



```

        reader);
extern int xmlTextReaderHasAttributes(xmlTextReaderPtr reader);
extern int xmlTextReaderHasValue(xmlTextReaderPtr reader);
extern int xmlTextReaderIsDefault(xmlTextReaderPtr reader);
extern int xmlTextReaderIsEmptyElement(xmlTextReaderPtr reader);
extern int xmlTextReaderIsNamespaceDecl(xmlTextReaderPtr reader);
extern int xmlTextReaderIsValid(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderLocalName(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderLocatorBaseURI(xmlTextReaderLocatorPtr
        locator);
extern int xmlTextReaderLocatorLineNumber(xmlTextReaderLocatorPtr locator);
extern xmlChar *xmlTextReaderLookupNamespace(xmlTextReaderPtr reader,
        const xmlChar * prefix);
extern int xmlTextReaderMoveToAttribute(xmlTextReaderPtr reader,
        const xmlChar * name);
extern int xmlTextReaderMoveToAttributeNo(xmlTextReaderPtr reader, int no);
extern int xmlTextReaderMoveToAttributeNs(xmlTextReaderPtr reader,
        const xmlChar * localName,
        const xmlChar * namespaceURI);
extern int xmlTextReaderMoveToElement(xmlTextReaderPtr reader);
extern int xmlTextReaderMoveToFirstAttribute(xmlTextReaderPtr reader);
extern int xmlTextReaderMoveToNextAttribute(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderName(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderNamespaceUri(xmlTextReaderPtr reader);
extern int xmlTextReaderNext(xmlTextReaderPtr reader);
extern int xmlTextReaderNextSibling(xmlTextReaderPtr reader);
extern int xmlTextReaderNodeType(xmlTextReaderPtr reader);
extern int xmlTextReaderNormalization(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderPrefix(xmlTextReaderPtr reader);
extern xmlNodePtr xmlTextReaderPreserve(xmlTextReaderPtr reader);
extern int xmlTextReaderPreservePattern(xmlTextReaderPtr reader,
        const xmlChar * pattern,
        const xmlChar * *namespaces);
extern int xmlTextReaderQuoteChar(xmlTextReaderPtr reader);
extern int xmlTextReaderRead(xmlTextReaderPtr reader);
extern int xmlTextReaderReadAttributeValue(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderReadInnerXml(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderReadOuterXml(xmlTextReaderPtr reader);
extern int xmlTextReaderReadState(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderReadString(xmlTextReaderPtr reader);
extern int xmlTextReaderRelaxNGSetSchema(xmlTextReaderPtr reader,
        xmlRelaxNGPtr schema);
extern int xmlTextReaderRelaxNGValidate(xmlTextReaderPtr reader,
        const char *rng);
extern int xmlTextReaderSchemaValidate(xmlTextReaderPtr reader,
        const char *xsd);
extern void xmlTextReaderSetErrorHandler(xmlTextReaderPtr reader,
        xmlTextReaderErrorFunc f,
        void *arg);
extern int xmlTextReaderSetParserProp(xmlTextReaderPtr reader, int prop,
        int value);
extern int xmlTextReaderSetSchema(xmlTextReaderPtr reader,
        xmlSchemaPtr schema);
extern void xmlTextReaderSetStructuredErrorHandler(xmlTextReaderPtr reader,
        xmlStructuredErrorFunc
        f, void *arg);
extern int xmlTextReaderStandalone(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderValue(xmlTextReaderPtr reader);
extern xmlChar *xmlTextReaderXmlLang(xmlTextReaderPtr reader);

```

19.2.30. libxml2/libxml/xmlregexp.h

```

typedef struct _xmlRegexp xmlRegexp;
typedef xmlRegexp *xmlRegexpPtr;
typedef struct _xmlRegExecCtxt xmlRegExecCtxt;
typedef xmlRegExecCtxt *xmlRegExecCtxtPtr;
typedef struct _xmlExpNode xmlExpNode;
typedef xmlExpNode *xmlExpNodePtr;
typedef void (*xmlRegExecCallbacks) (xmlRegExecCtxtPtr, const xmlChar *,
                                     void *, void *);

typedef struct _xmlExpCtxt xmlExpCtxt;
typedef xmlExpCtxt *xmlExpCtxtPtr;
typedef enum {
    XML_EXP_EMPTY = 0,
    XML_EXP_FORBID = 1,
    XML_EXP_ATOM = 2,
    XML_EXP_SEQ = 3,
    XML_EXP_OR = 4,
    XML_EXP_COUNT = 5
} xmlExpNodeType;
extern xmlExpNodePtr emptyExp;
extern xmlExpNodePtr forbiddenExp;
extern int xmlExpCtxtNbCons(xmlExpCtxtPtr ctxt);
extern int xmlExpCtxtNbNodes(xmlExpCtxtPtr ctxt);
extern void xmlExpDump(xmlBufferPtr buf, xmlExpNodePtr expr);
extern xmlExpNodePtr xmlExpExpDerive(xmlExpCtxtPtr ctxt,
                                     xmlExpNodePtr expr,
                                     xmlExpNodePtr sub);

extern void xmlExpFree(xmlExpCtxtPtr ctxt, xmlExpNodePtr expr);
extern void xmlExpFreeCtxt(xmlExpCtxtPtr ctxt);
extern int xmlExpGetLanguage(xmlExpCtxtPtr ctxt, xmlExpNodePtr expr,
                             const xmlChar * *langList, int len);
extern int xmlExpGetStart(xmlExpCtxtPtr ctxt, xmlExpNodePtr expr,
                           const xmlChar * *tokList, int len);
extern int xmlExpIsNull(xmlExpNodePtr expr);
extern int xmlExpMaxToken(xmlExpNodePtr expr);
extern xmlExpNodePtr xmlExpNewAtom(xmlExpCtxtPtr ctxt,
                                   const xmlChar * name, int len);
extern xmlExpCtxtPtr xmlExpNewCtxt(int maxNodes, xmlDictPtr dict);
extern xmlExpNodePtr xmlExpNewOr(xmlExpCtxtPtr ctxt, xmlExpNodePtr left,
                                 xmlExpNodePtr right);
extern xmlExpNodePtr xmlExpNewRange(xmlExpCtxtPtr ctxt,
                                    xmlExpNodePtr subset, int min,
                                    int max);
extern xmlExpNodePtr xmlExpNewSeq(xmlExpCtxtPtr ctxt, xmlExpNodePtr left,
                                  xmlExpNodePtr right);
extern xmlExpNodePtr xmlExpParse(xmlExpCtxtPtr ctxt, const char *expr);
extern void xmlExpRef(xmlExpNodePtr expr);
extern xmlExpNodePtr xmlExpStringDerive(xmlExpCtxtPtr ctxt,
                                         xmlExpNodePtr expr,
                                         const xmlChar * str, int len);
extern int xmlExpSubsume(xmlExpCtxtPtr ctxt, xmlExpNodePtr expr,
                         xmlExpNodePtr sub);
extern int xmlRegExecErrInfo(xmlRegExecCtxtPtr exec,
                             const xmlChar * *string, int *nbval,
                             int *nbneg, xmlChar * *values, int *terminal);
extern int xmlRegExecNextValues(xmlRegExecCtxtPtr exec, int *nbval,
                                int *nbneg, xmlChar * *values,
                                int *terminal);
extern int xmlRegExecPushString(xmlRegExecCtxtPtr exec,
                                const xmlChar * value, void *data);

```

```
extern int xmlRegExecPushString2(xmlRegExecCtxtPtr exec,
                                const xmlChar * value,
                                const xmlChar * value2, void *data);
extern void xmlRegFreeExecCtxt(xmlRegExecCtxtPtr exec);
extern void xmlRegFreeRegexp(xmlRegexpPtr regexp);
extern xmlRegExecCtxtPtr xmlRegNewExecCtxt(xmlRegexpPtr comp,
                                           xmlRegExecCallbacks callback,
                                           void *data);
extern xmlRegexpPtr xmlRegexpCompile(const xmlChar * regexp);
extern int xmlRegexpExec(xmlRegexpPtr comp, const xmlChar * value);
extern int xmlRegexpIsDeterminist(xmlRegexpPtr comp);
extern void xmlRegexpPrint(FILE * output, xmlRegexpPtr regexp);
```

19.2.31. libxml2/libxml/xmlsave.h

```
typedef struct _xmlSaveCtxt xmlSaveCtxt;
typedef xmlSaveCtxt *xmlSaveCtxtPtr;
typedef enum {
    XML_SAVE_FORMAT = 1 << 0,
    XML_SAVE_NO_DECL = 1 << 1,
    XML_SAVE_NO_EMPTY = 1 << 2,
    XML_SAVE_NO_XHTML = 1 << 3
} xmlSaveOption;
extern int xmlSaveClose(xmlSaveCtxtPtr ctxt);
extern long int xmlSaveDoc(xmlSaveCtxtPtr ctxt, xmlDocPtr doc);
extern int xmlSaveFlush(xmlSaveCtxtPtr ctxt);
extern int xmlSaveSetAttrEscape(xmlSaveCtxtPtr ctxt,
                                xmlCharEncodingOutputFunc escape);
extern int xmlSaveSetEscape(xmlSaveCtxtPtr ctxt,
                             xmlCharEncodingOutputFunc escape);
extern xmlSaveCtxtPtr xmlSaveToFd(int fd, const char *encoding,
                                   int options);
extern xmlSaveCtxtPtr xmlSaveToFile(const char *filename,
                                     const char *encoding, int options);
extern xmlSaveCtxtPtr xmlSaveToIO(xmlOutputWriteCallback iowrite,
                                   xmlOutputCloseCallback ioclose,
                                   void *ioctx, const char *encoding,
                                   int options);
extern long int xmlSaveTree(xmlSaveCtxtPtr ctxt, xmlNodePtr node);
```

19.2.32. libxml2/libxml/xmlschemas.h

```
typedef struct _xmlSchemaValidCtxt xmlSchemaValidCtxt;
typedef xmlSchemaValidCtxt *xmlSchemaValidCtxtPtr;
typedef struct _xmlSchemaSAXPlug xmlSchemaSAXPlugStruct;
typedef xmlSchemaSAXPlugStruct *xmlSchemaSAXPlugPtr;
typedef struct _xmlSchemaParserCtxt xmlSchemaParserCtxt;
typedef xmlSchemaParserCtxt *xmlSchemaParserCtxtPtr;
typedef void (*xmlSchemaValidityErrorFunc) (void *, const char *, ...);
typedef void (*xmlSchemaValidityWarningFunc) (void *, const char *, ...);
typedef struct _xmlSchema xmlSchema;
typedef xmlSchema *xmlSchemaPtr;
typedef enum {
    XML_SCHEMA_VAL_VC_I_CREATE = 1 << 0
} xmlSchemaValidOption;
extern void xmlSchemaDump(FILE * output, xmlSchemaPtr schema);
extern void xmlSchemaFree(xmlSchemaPtr schema);
extern void xmlSchemaFreeParserCtxt(xmlSchemaParserCtxtPtr ctxt);
extern void xmlSchemaFreeValidCtxt(xmlSchemaValidCtxtPtr ctxt);
```

```

extern int xmlSchemaGetParserErrors(xmlSchemaParserCtxtPtr ctxt,
                                   xmlSchemaValidityErrorFunc * err,
                                   xmlSchemaValidityWarningFunc * warn,
                                   void **ctx);
extern int xmlSchemaGetValidErrors(xmlSchemaValidCtxtPtr ctxt,
                                   xmlSchemaValidityErrorFunc * err,
                                   xmlSchemaValidityWarningFunc * warn,
                                   void **ctx);
extern int xmlSchemaIsValid(xmlSchemaValidCtxtPtr ctxt);
extern xmlSchemaParserCtxtPtr xmlSchemaNewDocParserCtxt(xmlDocPtr doc);
extern xmlSchemaParserCtxtPtr xmlSchemaNewMemParserCtxt(const char *buffer,
                                                         int size);
extern xmlSchemaParserCtxtPtr xmlSchemaNewParserCtxt(const char *URL);
extern xmlSchemaValidCtxtPtr xmlSchemaNewValidCtxt(xmlSchemaPtr schema);
extern xmlSchemaPtr xmlSchemaParse(xmlSchemaParserCtxtPtr ctxt);
extern xmlSchemaSAXPlugPtr xmlSchemaSAXPlug(xmlSchemaValidCtxtPtr ctxt,
                                             xmlSAXHandlerPtr * sax,
                                             void **user_data);
extern int xmlSchemaSAXUnplug(xmlSchemaSAXPlugPtr plug);
extern void xmlSchemaSetParserErrors(xmlSchemaParserCtxtPtr ctxt,
                                     xmlSchemaValidityErrorFunc err,
                                     xmlSchemaValidityWarningFunc warn,
                                     void *ctx);
extern void xmlSchemaSetValidErrors(xmlSchemaValidCtxtPtr ctxt,
                                    xmlSchemaValidityErrorFunc err,
                                    xmlSchemaValidityWarningFunc warn,
                                    void *ctx);
extern int xmlSchemaSetValidOptions(xmlSchemaValidCtxtPtr ctxt,
                                    int options);
extern void xmlSchemaSetValidStructuredErrors(xmlSchemaValidCtxtPtr ctxt,
                                              xmlStructuredErrorFunc
                                              serror, void *ctx);
extern int xmlSchemaValidCtxtGetOptions(xmlSchemaValidCtxtPtr ctxt);
extern int xmlSchemaValidateDoc(xmlSchemaValidCtxtPtr ctxt,
                                xmlDocPtr instance);
extern int xmlSchemaValidateFile(xmlSchemaValidCtxtPtr ctxt,
                                const char *filename, int options);
extern int xmlSchemaValidateOneElement(xmlSchemaValidCtxtPtr ctxt,
                                       xmlNodePtr elem);
extern int xmlSchemaValidateStream(xmlSchemaValidCtxtPtr ctxt,
                                   xmlParserInputBufferPtr input,
                                   xmlCharEncoding enc,
                                   xmlSAXHandlerPtr sax, void *user_data);

```

19.2.33. libxml2/libxml/xmlschemasypes.h

```

typedef struct _xmlSchemaType xmlSchemaType;
typedef xmlSchemaType *xmlSchemaTypePtr;
typedef struct _xmlSchemaVal xmlSchemaVal;
typedef xmlSchemaVal *xmlSchemaValPtr;
typedef enum {
    XML_SCHEMAS_UNKNOWN = 0,
    XML_SCHEMAS_STRING = 1,
    XML_SCHEMAS_NORMSTRING = 2,
    XML_SCHEMAS_DECIMAL = 3,
    XML_SCHEMAS_TIME = 4,
    XML_SCHEMAS_GDAY = 5,
    XML_SCHEMAS_GMONTH = 6,
    XML_SCHEMAS_GMONTHDAY = 7,
    XML_SCHEMAS_GYEAR = 8,
    XML_SCHEMAS_GYEARMONTH = 9,

```

```

XML_SCHEMAS_DATE = 10,
XML_SCHEMAS_DATETIME = 11,
XML_SCHEMAS_DURATION = 12,
XML_SCHEMAS_FLOAT = 13,
XML_SCHEMAS_DOUBLE = 14,
XML_SCHEMAS_BOOLEAN = 15,
XML_SCHEMAS_TOKEN = 16,
XML_SCHEMAS_LANGUAGE = 17,
XML_SCHEMAS_NMTOKEN = 18,
XML_SCHEMAS_NMTOKENS = 19,
XML_SCHEMAS_NAME = 20,
XML_SCHEMAS_QNAME = 21,
XML_SCHEMAS_NCNAME = 22,
XML_SCHEMAS_ID = 23,
XML_SCHEMAS_IDREF = 24,
XML_SCHEMAS_IDREFS = 25,
XML_SCHEMAS_ENTITY = 26,
XML_SCHEMAS_ENTITIES = 27,
XML_SCHEMAS_NOTATION = 28,
XML_SCHEMAS_ANYURI = 29,
XML_SCHEMAS_INTEGER = 30,
XML_SCHEMAS_NPINTEGER = 31,
XML_SCHEMAS_NINTEGER = 32,
XML_SCHEMAS_NNINTEGER = 33,
XML_SCHEMAS_PINTEGER = 34,
XML_SCHEMAS_INT = 35,
XML_SCHEMAS_UINT = 36,
XML_SCHEMAS_LONG = 37,
XML_SCHEMAS_ULONG = 38,
XML_SCHEMAS_SHORT = 39,
XML_SCHEMAS_USHORT = 40,
XML_SCHEMAS_BYTE = 41,
XML_SCHEMAS_UBYTE = 42,
XML_SCHEMAS_HEXBINARY = 43,
XML_SCHEMAS_BASE64BINARY = 44,
XML_SCHEMAS_ANYTYPE = 45,
XML_SCHEMAS_ANYSIMPLETYPE = 46
} xmlSchemaValType;
extern void xmlSchemaCleanupTypes(void);
extern xmlChar *xmlSchemaCollapseString(const xmlChar * value);
extern int xmlSchemaCompareValues(xmlSchemaValPtr x, xmlSchemaValPtr y);
extern void xmlSchemaFreeValue(xmlSchemaValPtr val);
extern xmlSchemaTypePtr xmlSchemaGetBuiltInType(xmlSchemaValType type);
extern int xmlSchemaGetCanonValue(xmlSchemaValPtr val,
                                   const xmlChar * *retValue);
extern xmlSchemaValType xmlSchemaGetValType(xmlSchemaValPtr val);
extern void xmlSchemaInitTypes(void);
extern int xmlSchemaValPredefTypeNode(xmlSchemaTypePtr type,
                                       const xmlChar * value,
                                       xmlSchemaValPtr * val,
                                       xmlNodePtr node);

```

19.2.34. libxml2/libxml/xmlstring.h

```

#define BAD_CAST      (xmlChar *)

typedef unsigned char xmlChar;
extern xmlChar *xmlCharStrdup(const char *cur);
extern xmlChar *xmlCharStrndup(const char *cur, int len);
extern int xmlCheckUTF8(const unsigned char *utf);
extern int xmlGetUTF8Char(const unsigned char *utf, int *len);

```

```

extern int xmlStrEqual(const xmlChar * str1, const xmlChar * str2);
extern int xmlStrPrintf(xmlChar * buf, int len, const xmlChar * msg, ...);
extern int xmlStrQEqual(const xmlChar * pref, const xmlChar * name,
                        const xmlChar * str);
extern int xmlStrVPrintf(xmlChar * buf, int len, const xmlChar * msg,
                        va_list ap);
extern int xmlStrcasecmp(const xmlChar * str1, const xmlChar * str2);
extern const xmlChar *xmlStrcasestr(const xmlChar * str,
                                    const xmlChar * val);
extern xmlChar *xmlStrcat(xmlChar * cur, const xmlChar * add);
extern const xmlChar *xmlStrchr(const xmlChar * str, xmlChar val);
extern int xmlStrcmp(const xmlChar * str1, const xmlChar * str2);
extern xmlChar *xmlStrdup(const xmlChar * cur);
extern int xmlStrlen(const xmlChar * str);
extern int xmlStrncasecmp(const xmlChar * str1, const xmlChar * str2,
                        int len);
extern xmlChar *xmlStrncat(xmlChar * cur, const xmlChar * add, int len);
extern xmlChar *xmlStrncatNew(const xmlChar * str1, const xmlChar * str2,
                        int len);
extern int xmlStrncmp(const xmlChar * str1, const xmlChar * str2, int len);
extern xmlChar *xmlStrndup(const xmlChar * cur, int len);
extern const xmlChar *xmlStrstr(const xmlChar * str, const xmlChar * val);
extern xmlChar *xmlStrsub(const xmlChar * str, int start, int len);
extern int xmlUTF8Charcmp(const xmlChar * utf1, const xmlChar * utf2);
extern int xmlUTF8Size(const xmlChar * utf);
extern int xmlUTF8Strlen(const xmlChar * utf);
extern int xmlUTF8Strloc(const xmlChar * utf, const xmlChar * utfchar);
extern xmlChar *xmlUTF8Strndup(const xmlChar * utf, int len);
extern const xmlChar *xmlUTF8Strpos(const xmlChar * utf, int pos);
extern int xmlUTF8Strsize(const xmlChar * utf, int len);
extern xmlChar *xmlUTF8Strsub(const xmlChar * utf, int start, int len);

```

19.2.35. libxml2/libxml/xmlversion.h

```

#define LIBXML_AUTOMATA_ENABLED
#define LIBXML_C14N_ENABLED
#define LIBXML_CATALOG_ENABLED
#define LIBXML_DEBUG_ENABLED
#define LIBXML_DOCB_ENABLED
#define LIBXML_EXPR_ENABLED
#define LIBXML_FTP_ENABLED
#define LIBXML_HTML_ENABLED
#define LIBXML_HTTP_ENABLED
#define LIBXML_ICONV_ENABLED
#define LIBXML_ISO8859X_ENABLED
#define LIBXML_LEGACY_ENABLED
#define LIBXML_MODULES_ENABLED
#define LIBXML_OUTPUT_ENABLED
#define LIBXML_PATTERN_ENABLED
#define LIBXML_PUSH_ENABLED
#define LIBXML_READER_ENABLED
#define LIBXML_REGEXP_ENABLED
#define LIBXML_SAX1_ENABLED
#define LIBXML_SCHEMAS_ENABLED
#define LIBXML_SCHEMATRON_ENABLED
#define LIBXML_THREAD_ENABLED
#define LIBXML_TREE_ENABLED
#define LIBXML_UNICODE_ENABLED
#define LIBXML_VALID_ENABLED
#define LIBXML_VERSION_EXTRA " "
#define LIBXML_WRITER_ENABLED

```

```
#define LIBXML_XINCLUDE_ENABLED
#define LIBXML_XPATH_ENABLED
#define LIBXML_XPTR_ENABLED
#define WITHOUT_TRIO
#define LIBXML_MODULE_EXTENSION ".so"
#define LIBXML_DOTTED_VERSION "2.6.22"
#define LIBXML_VERSION 20622
#define LIBXML_VERSION_STRING "20622"
#define LIBXML_TEST_VERSION xmlCheckVersion(20622);
#define ATTRIBUTE_UNUSED __attribute__((unused))

extern void xmlCheckVersion(int version);
```

19.2.36. libxml2/libxml/xmlwriter.h

```
#define xmlTextWriterWriteDocType xmlTextWriterWriteDTD
#define xmlTextWriterWriteProcessingInstruction xmlTextWriterWritePI

typedef struct _xmlTextWriter xmlTextWriter;
typedef xmlTextWriter *xmlTextWriterPtr;
extern void xmlFreeTextWriter(xmlTextWriterPtr writer);
extern xmlTextWriterPtr xmlNewTextWriter(xmlOutputBufferPtr out);
extern xmlTextWriterPtr xmlNewTextWriterDoc(xmlDocPtr * doc,
                                           int compression);
extern xmlTextWriterPtr xmlNewTextWriterFilename(const char *uri,
                                                int compression);
extern xmlTextWriterPtr xmlNewTextWriterMemory(xmlBufferPtr buf,
                                              int compression);
extern xmlTextWriterPtr xmlNewTextWriterPushParser(xmlParserCtxtPtr ctxt,
                                                  int compression);
extern xmlTextWriterPtr xmlNewTextWriterTree(xmlDocPtr doc,
                                           xmlNodePtr node,
                                           int compression);
extern int xmlTextWriterEndAttribute(xmlTextWriterPtr writer);
extern int xmlTextWriterEndCDATA(xmlTextWriterPtr writer);
extern int xmlTextWriterEndComment(xmlTextWriterPtr writer);
extern int xmlTextWriterEndDTD(xmlTextWriterPtr writer);
extern int xmlTextWriterEndDTDAttlist(xmlTextWriterPtr writer);
extern int xmlTextWriterEndDTDElement(xmlTextWriterPtr writer);
extern int xmlTextWriterEndDTDEntity(xmlTextWriterPtr writer);
extern int xmlTextWriterEndDocument(xmlTextWriterPtr writer);
extern int xmlTextWriterEndElement(xmlTextWriterPtr writer);
extern int xmlTextWriterEndPI(xmlTextWriterPtr writer);
extern int xmlTextWriterFlush(xmlTextWriterPtr writer);
extern int xmlTextWriterFullEndElement(xmlTextWriterPtr writer);
extern int xmlTextWriterSetIndent(xmlTextWriterPtr writer, int indent);
extern int xmlTextWriterSetIndentString(xmlTextWriterPtr writer,
                                       const xmlChar * str);
extern int xmlTextWriterStartAttribute(xmlTextWriterPtr writer,
                                       const xmlChar * name);
extern int xmlTextWriterStartAttributeNS(xmlTextWriterPtr writer,
                                       const xmlChar * prefix,
                                       const xmlChar * name,
                                       const xmlChar * namespaceURI);
extern int xmlTextWriterStartCDATA(xmlTextWriterPtr writer);
extern int xmlTextWriterStartComment(xmlTextWriterPtr writer);
extern int xmlTextWriterStartDTD(xmlTextWriterPtr writer,
                                const xmlChar * name,
                                const xmlChar * pubid,
                                const xmlChar * sysid);
extern int xmlTextWriterStartDTDAttlist(xmlTextWriterPtr writer,
```

```

                                const xmlChar * name);
extern int xmlTextWriterStartDTDElement(xmlTextWriterPtr writer,
                                const xmlChar * name);
extern int xmlTextWriterStartDTDEntity(xmlTextWriterPtr writer, int pe,
                                const xmlChar * name);
extern int xmlTextWriterStartDocument(xmlTextWriterPtr writer,
                                const char *version,
                                const char *encoding,
                                const char *standalone);
extern int xmlTextWriterStartElement(xmlTextWriterPtr writer,
                                const xmlChar * name);
extern int xmlTextWriterStartElementNS(xmlTextWriterPtr writer,
                                const xmlChar * prefix,
                                const xmlChar * name,
                                const xmlChar * namespaceURI);
extern int xmlTextWriterStartPI(xmlTextWriterPtr writer,
                                const xmlChar * target);
extern int xmlTextWriterWriteAttribute(xmlTextWriterPtr writer,
                                const xmlChar * name,
                                const xmlChar * content);
extern int xmlTextWriterWriteAttributeNS(xmlTextWriterPtr writer,
                                const xmlChar * prefix,
                                const xmlChar * name,
                                const xmlChar * namespaceURI,
                                const xmlChar * content);
extern int xmlTextWriterWriteBase64(xmlTextWriterPtr writer,
                                const char *data, int start, int len);
extern int xmlTextWriterWriteBinHex(xmlTextWriterPtr writer,
                                const char *data, int start, int len);
extern int xmlTextWriterWriteCDATA(xmlTextWriterPtr writer,
                                const xmlChar * content);
extern int xmlTextWriterWriteComment(xmlTextWriterPtr writer,
                                const xmlChar * content);
extern int xmlTextWriterWriteDTD(xmlTextWriterPtr writer,
                                const xmlChar * name,
                                const xmlChar * pubid,
                                const xmlChar * sysid,
                                const xmlChar * subset);
extern int xmlTextWriterWriteDTDAttlist(xmlTextWriterPtr writer,
                                const xmlChar * name,
                                const xmlChar * content);
extern int xmlTextWriterWriteDTDElement(xmlTextWriterPtr writer,
                                const xmlChar * name,
                                const xmlChar * content);
extern int xmlTextWriterWriteDTDEntity(xmlTextWriterPtr writer, int pe,
                                const xmlChar * name,
                                const xmlChar * pubid,
                                const xmlChar * sysid,
                                const xmlChar * ndataid,
                                const xmlChar * content);
extern int xmlTextWriterWriteDTDEntityExternalEntity(xmlTextWriterPtr writer,
                                int pe,
                                const xmlChar * name,
                                const xmlChar * pubid,
                                const xmlChar * sysid,
                                const xmlChar * ndataid);
extern int xmlTextWriterWriteDTDEntityExternalEntityContents(xmlTextWriterPtr
                                writer,
                                const xmlChar *
                                pubid,
                                const xmlChar *
                                sysid,

```



```

                                const xmlChar *
                                ndataid);
extern int xmlTextWriterWriteDTDInternalEntity(xmlTextWriterPtr writer,
                                                int pe,
                                                const xmlChar * name,
                                                const xmlChar * content);
extern int xmlTextWriterWriteDTDNotation(xmlTextWriterPtr writer,
                                          const xmlChar * name,
                                          const xmlChar * pubid,
                                          const xmlChar * sysid);
extern int xmlTextWriterWriteElement(xmlTextWriterPtr writer,
                                     const xmlChar * name,
                                     const xmlChar * content);
extern int xmlTextWriterWriteElementNS(xmlTextWriterPtr writer,
                                       const xmlChar * prefix,
                                       const xmlChar * name,
                                       const xmlChar * namespaceURI,
                                       const xmlChar * content);
extern int xmlTextWriterWriteFormatAttribute(xmlTextWriterPtr writer,
                                              const xmlChar * name,
                                              const char *format, ...);
extern int xmlTextWriterWriteFormatAttributeNS(xmlTextWriterPtr writer,
                                                const xmlChar * prefix,
                                                const xmlChar * name,
                                                const xmlChar *
                                                namespaceURI,
                                                const char *format, ...);
extern int xmlTextWriterWriteFormatCDATA(xmlTextWriterPtr writer,
                                          const char *format, ...);
extern int xmlTextWriterWriteFormatComment(xmlTextWriterPtr writer,
                                            const char *format, ...);
extern int xmlTextWriterWriteFormatDTD(xmlTextWriterPtr writer,
                                       const xmlChar * name,
                                       const xmlChar * pubid,
                                       const xmlChar * sysid,
                                       const char *format, ...);
extern int xmlTextWriterWriteFormatDTDAttlist(xmlTextWriterPtr writer,
                                               const xmlChar * name,
                                               const char *format, ...);
extern int xmlTextWriterWriteFormatDTDElement(xmlTextWriterPtr writer,
                                                const xmlChar * name,
                                                const char *format, ...);
extern int xmlTextWriterWriteFormatDTDInternalEntity(xmlTextWriterPtr
                                                      writer, int pe,
                                                      const xmlChar * name,
                                                      const char *format,
                                                      ...);
extern int xmlTextWriterWriteFormatElement(xmlTextWriterPtr writer,
                                           const xmlChar * name,
                                           const char *format, ...);
extern int xmlTextWriterWriteFormatElementNS(xmlTextWriterPtr writer,
                                              const xmlChar * prefix,
                                              const xmlChar * name,
                                              const xmlChar * namespaceURI,
                                              const char *format, ...);
extern int xmlTextWriterWriteFormatPI(xmlTextWriterPtr writer,
                                       const xmlChar * target,
                                       const char *format, ...);
extern int xmlTextWriterWriteFormatRaw(xmlTextWriterPtr writer,
                                       const char *format, ...);
extern int xmlTextWriterWriteFormatString(xmlTextWriterPtr writer,
                                          const char *format, ...);

```

```

extern int xmlTextWriterWritePI(xmlTextWriterPtr writer,
                                const xmlChar * target,
                                const xmlChar * content);
extern int xmlTextWriterWriteRaw(xmlTextWriterPtr writer,
                                const xmlChar * content);
extern int xmlTextWriterWriteRawLen(xmlTextWriterPtr writer,
                                    const xmlChar * content, int len);
extern int xmlTextWriterWriteString(xmlTextWriterPtr writer,
                                    const xmlChar * content);
extern int xmlTextWriterWriteVFormatAttribute(xmlTextWriterPtr writer,
                                              const xmlChar * name,
                                              const char *format,
                                              va_list argptr);
extern int xmlTextWriterWriteVFormatAttributeNS(xmlTextWriterPtr writer,
                                              const xmlChar * prefix,
                                              const xmlChar * name,
                                              const xmlChar *
                                              namespaceURI,
                                              const char *format,
                                              va_list argptr);
extern int xmlTextWriterWriteVFormatCDATA(xmlTextWriterPtr writer,
                                          const char *format,
                                          va_list argptr);
extern int xmlTextWriterWriteVFormatComment(xmlTextWriterPtr writer,
                                           const char *format,
                                           va_list argptr);
extern int xmlTextWriterWriteVFormatDTD(xmlTextWriterPtr writer,
                                       const xmlChar * name,
                                       const xmlChar * pubid,
                                       const xmlChar * sysid,
                                       const char *format,
                                       va_list argptr);
extern int xmlTextWriterWriteVFormatDTDAttlist(xmlTextWriterPtr writer,
                                              const xmlChar * name,
                                              const char *format,
                                              va_list argptr);
extern int xmlTextWriterWriteVFormatDTDElement(xmlTextWriterPtr writer,
                                              const xmlChar * name,
                                              const char *format,
                                              va_list argptr);
extern int xmlTextWriterWriteVFormatDTDInternalEntity(xmlTextWriterPtr
                                                       writer, int pe,
                                                       const xmlChar * name,
                                                       const char *format,
                                                       va_list argptr);
extern int xmlTextWriterWriteVFormatElement(xmlTextWriterPtr writer,
                                           const xmlChar * name,
                                           const char *format,
                                           va_list argptr);
extern int xmlTextWriterWriteVFormatElementNS(xmlTextWriterPtr writer,
                                              const xmlChar * prefix,
                                              const xmlChar * name,
                                              const xmlChar * namespaceURI,
                                              const char *format,
                                              va_list argptr);
extern int xmlTextWriterWriteVFormatPI(xmlTextWriterPtr writer,
                                       const xmlChar * target,
                                       const char *format, va_list argptr);
extern int xmlTextWriterWriteVFormatRaw(xmlTextWriterPtr writer,
                                       const char *format,
                                       va_list argptr);
extern int xmlTextWriterWriteVFormatString(xmlTextWriterPtr writer,

```

```
const char *format,
va_list argptr);
```

19.2.37. libxml2/libxml/xpath.h

```
#define xmlXPathNodeSetItem(ns,index) \
    (((ns) != NULL) && ((index) >= 0) && ((index) < (ns)->nodeNr)) ? \
    (ns)->nodeTab[(index)] : NULL)
#define xmlXPathNodeSetIsEmpty(ns) \
    (((ns) == NULL) || ((ns)->nodeNr == 0) || ((ns)->nodeTab == NULL))
#define xmlXPathNodeSetGetLength(ns) ((ns) ? (ns)->nodeNr : 0)
#define XML_XPATH_CHECKKNS (1<<0)
#define XML_XPATH_NOVAR (1<<1)

typedef struct _xmlXPathCompExpr xmlXPathCompExpr;
typedef xmlXPathCompExpr *xmlXPathCompExprPtr;
typedef enum {
    XPATH_UNDEFINED = 0,
    XPATH_NODESET = 1,
    XPATH_BOOLEAN = 2,
    XPATH_NUMBER = 3,
    XPATH_STRING = 4,
    XPATH_POINT = 5,
    XPATH_RANGE = 6,
    XPATH_LOCATIONSET = 7,
    XPATH_USERS = 8,
    XPATH_XSLT_TREE = 9
} xmlXPathObjectType;
typedef struct _xmlNodeSet {
    int nodeNr;
    int nodeMax;
    xmlNodePtr *nodeTab;
} xmlNodeSet;
typedef xmlNodeSet *xmlNodeSetPtr;
typedef struct _xmlXPathObject {
    xmlXPathObjectType type;
    xmlNodeSetPtr nodesetval;
    int boolval;
    double floatval;
    xmlChar *stringval;
    void *user;
    int index;
    void *user2;
    int index2;
} xmlXPathObject;
typedef xmlXPathObject *xmlXPathObjectPtr;
typedef int (*xmlXPathConvertFunc) (xmlXPathObjectPtr, int);
typedef struct _xmlXPathType {
    const xmlChar *name;
    xmlXPathConvertFunc func;
} xmlXPathType;
typedef xmlXPathType *xmlXPathTypePtr;
typedef struct _xmlXPathContext {
    xmlDocPtr doc;
    xmlNodePtr node;
    int nb_variables_unused;
    int max_variables_unused;
    xmlHashTablePtr varHash;
    int nb_types;
    int max_types;
    xmlXPathTypePtr types;
```

```

int nb_funcs_unused;
int max_funcs_unused;
xmlHashTablePtr funcHash;
int nb_axis;
int max_axis;
xmlXPathAxisPtr axis;
xmlNsPtr *namespaces;
int nsNr;
void *user;
int contextSize;
int proximityPosition;
int xptr;
xmlNodePtr here;
xmlNodePtr origin;
xmlHashTablePtr nsHash;
xmlXPathVariableLookupFunc varLookupFunc;
void *varLookupData;
void *extra;
const xmlChar *function;
const xmlChar *functionURI;
xmlXPathFuncLookupFunc funcLookupFunc;
void *funcLookupData;
xmlNsPtr *tmpNsList;
int tmpNsNr;
void *userData;
xmlStructuredErrorFunc error;
xmlError lastError;
xmlNodePtr debugNode;
xmlDictPtr dict;
int flags;
} xmlXPathContext;
typedef xmlXPathContext *xmlXPathContextPtr;
typedef struct _xmlXPathParserContext {
    const xmlChar *cur;
    const xmlChar *base;
    int error;
    xmlXPathContextPtr context;
    xmlXPathObjectPtr value;
    int valueNr;
    int valueMax;
    xmlXPathObjectPtr *valueTab;
    xmlXPathCompExprPtr comp;
    int xptr;
    xmlNodePtr ancestor;
} xmlXPathParserContext;
typedef xmlXPathParserContext *xmlXPathParserContextPtr;
typedef xmlXPathObjectPtr(*xmlXPathAxisFunc) (xmlXPathParserContextPtr,
                                              xmlXPathObjectPtr);
typedef struct _xmlXPathAxis {
    const xmlChar *name;
    xmlXPathAxisFunc func;
} xmlXPathAxis;
typedef xmlXPathAxis *xmlXPathAxisPtr;
typedef xmlXPathObjectPtr(*xmlXPathVariableLookupFunc) (void *,
                                                         const xmlChar *,
                                                         const xmlChar *);
typedef void (*xmlXPathFunction) (xmlXPathParserContextPtr, int);
typedef xmlXPathFunction(*xmlXPathFuncLookupFunc) (void *, const xmlChar *,
                                                    const xmlChar *);
typedef enum {
    XPATH_EXPRESSION_OK = 0,
    XPATH_NUMBER_ERROR,

```

```

    XPATH_UNFINISHED_LITERAL_ERROR,
    XPATH_START_LITERAL_ERROR,
    XPATH_VARIABLE_REF_ERROR,
    XPATH_UNDEF_VARIABLE_ERROR,
    XPATH_INVALID_PREDICATE_ERROR,
    XPATH_EXPR_ERROR,
    XPATH_UNCLOSED_ERROR,
    XPATH_UNKNOWN_FUNC_ERROR,
    XPATH_INVALID_OPERAND,
    XPATH_INVALID_TYPE,
    XPATH_INVALID_ARITY,
    XPATH_INVALID_CTXT_SIZE,
    XPATH_INVALID_CTXT_POSITION,
    XPATH_MEMORY_ERROR,
    XPTR_SYNTAX_ERROR,
    XPTR_RESOURCE_ERROR,
    XPTR_SUB_RESOURCE_ERROR,
    XPATH_UNDEF_PREFIX_ERROR,
    XPATH_ENCODING_ERROR,
    XPATH_INVALID_CHAR_ERROR,
    XPATH_INVALID_CTXT
} xmlXPathError;

typedef void (*xmlXPathEvalFunc) (xmlXPathParserContextPtr, int);
typedef struct _xmlXPathFunc {
    const xmlChar *name;
    xmlXPathEvalFunc func;
} xmlXPathFunc;

typedef struct _xmlXPathVariable {
    const xmlChar *name;
    xmlXPathObjectPtr value;
} xmlXPathVariable;

typedef xmlXPathVariable *xmlXPathVariablePtr;
typedef xmlXPathFunc *xmlXPathFuncPtr;

extern double xmlXPathCastBooleanToNumber(int val);
extern xmlChar *xmlXPathCastBooleanToString(int val);
extern int xmlXPathCastNodeSetToBoolean(xmlNodeSetPtr ns);
extern double xmlXPathCastNodeSetToNumber(xmlNodeSetPtr ns);
extern xmlChar *xmlXPathCastNodeSetToString(xmlNodeSetPtr ns);
extern double xmlXPathCastNodeToNumber(xmlNodePtr node);
extern xmlChar *xmlXPathCastNodeToString(xmlNodePtr node);
extern int xmlXPathCastNumberToBoolean(double val);
extern xmlChar *xmlXPathCastNumberToString(double val);
extern int xmlXPathCastStringToBoolean(const xmlChar * val);
extern double xmlXPathCastStringToNumber(const xmlChar * val);
extern int xmlXPathCastToBoolean(xmlXPathObjectPtr val);
extern double xmlXPathCastToNumber(xmlXPathObjectPtr val);
extern xmlChar *xmlXPathCastToString(xmlXPathObjectPtr val);
extern int xmlXPathCmpNodes(xmlNodePtr node1, xmlNodePtr node2);
extern xmlXPathCompExprPtr xmlXPathCompile(const xmlChar * str);
extern xmlXPathObjectPtr xmlXPathCompiledEval(xmlXPathCompExprPtr comp,
                                              xmlXPathContextPtr ctx);
extern xmlXPathObjectPtr xmlXPathConvertBoolean(xmlXPathObjectPtr val);
extern xmlXPathObjectPtr xmlXPathConvertNumber(xmlXPathObjectPtr val);
extern xmlXPathObjectPtr xmlXPathConvertString(xmlXPathObjectPtr val);
extern xmlXPathCompExprPtr xmlXPathCtxtCompile(xmlXPathContextPtr ctx,
                                              const xmlChar * str);
extern xmlXPathObjectPtr xmlXPathEval(const xmlChar * str,
                                      xmlXPathContextPtr ctx);
extern xmlXPathObjectPtr xmlXPathEvalExpression(const xmlChar * str,
                                              xmlXPathContextPtr ctx);
extern int xmlXPathEvalPredicate(xmlXPathContextPtr ctx,
                                xmlXPathObjectPtr res);

```

```

extern void xmlXPathFreeCompExpr(xmlXPathCompExprPtr comp);
extern void xmlXPathFreeContext(xmlXPathContextPtr ctxt);
extern void xmlXPathFreeNodeSet(xmlNodeSetPtr obj);
extern void xmlXPathFreeNodeSetList(xmlXPathObjectPtr obj);
extern void xmlXPathFreeObject(xmlXPathObjectPtr obj);
extern void xmlXPathInit(void);
extern int xmlXPathIsInf(double val);
extern int xmlXPathIsNaN(double val);
extern double xmlXPathNaN;
extern double xmlXPathNINF;
extern xmlXPathContextPtr xmlXPathNewContext(xmlDocPtr doc);
extern xmlNodeSetPtr xmlXPathNodeSetCreate(xmlNodePtr val);
extern xmlXPathObjectPtr xmlXPathObjectCopy(xmlXPathObjectPtr val);
extern long int xmlXPathOrderDocElems(xmlDocPtr doc);
extern double xmlXPathPINF;

```

19.2.38. libxml2/libxml/xpathInternals.h

```

#define xmlXPathStackIsNodeSet(ctxt) \
    (((ctxt)->value != NULL) && (((ctxt)->value->type == XPATH_NODESET) \
    || ((ctxt)->value->type == XPATH_XSLT_TREE)))
#define xmlXPathStackIsExternal(ctxt) \
    ((ctxt->value != NULL) && (ctxt->value->type == XPATH_USERS))
#define CAST_TO_BOOLEAN \
    if ((ctxt->value != NULL) && (ctxt->value->type != XPATH_BOOLEAN)) \
    xmlXPathBooleanFunction(ctxt, 1);
#define CAST_TO_NUMBER \
    if ((ctxt->value != NULL) && (ctxt->value->type != XPATH_NUMBER)) \
    xmlXPathNumberFunction(ctxt, 1);
#define CAST_TO_STRING \
    if ((ctxt->value != NULL) && (ctxt->value->type != XPATH_STRING)) \
    xmlXPathStringFunction(ctxt, 1);
#define CHECK_TYPE(typeval) \
    if ((ctxt->value == NULL) || (ctxt->value->type != typeval)) \
    XP_ERROR(XPATH_INVALID_TYPE)
#define CHECK_TYPE0(typeval) \
    if ((ctxt->value == NULL) || (ctxt->value->type != typeval)) \
    XP_ERROR0(XPATH_INVALID_TYPE)
#define CHECK_ARITY(x) \
    if (ctxt == NULL) return; if (nargs != (x)) \
    XP_ERROR(XPATH_INVALID_ARITY);
#define xmlXPathReturnBoolean(ctxt, val) \
    valuePush(ctxt, xmlXPathNewBoolean(val))
#define xmlXPathReturnEmptyString(ctxt) \
    valuePush(ctxt, xmlXPathNewCString(""))
#define xmlXPathReturnNumber(ctxt, val) \
    valuePush(ctxt, xmlXPathNewFloat(val))
#define xmlXPathReturnEmptyNodeSet(ctxt) \
    valuePush(ctxt, xmlXPathNewNodeSet(NULL))
#define xmlXPathReturnExternal(ctxt, val) \
    valuePush(ctxt, xmlXPathWrapExternal(val))
#define xmlXPathReturnNodeSet(ctxt, ns) \
    valuePush(ctxt, xmlXPathWrapNodeSet(ns))
#define xmlXPathReturnString(ctxt, str) \
    valuePush(ctxt, xmlXPathWrapString(str))
#define xmlXPathSetArityError(ctxt) \
    xmlXPathSetError(ctxt, XPATH_INVALID_ARITY)
#define xmlXPathSetTypeError(ctxt) \
    xmlXPathSetError(ctxt, XPATH_INVALID_TYPE)
#define xmlXPathEmptyNodeSet(ns) \
    { while ((ns)->nodeNr > 0) (ns)->nodeTab[(ns)->nodeNr--] = NULL; }

```

```

#define xmlXPathSetError(ctxt,err) \
    { xmlXPathError((ctxt), __FILE__, __LINE__, (err)); if ((ctxt) != \
        NULL) (ctxt)->error = (err); }
#define xmlXPathGetDocument(ctxt) ((ctxt)->context->doc)
#define xmlXPathGetContextNode(ctxt) ((ctxt)->context->node)
#define xmlXPathCheckError(ctxt) ((ctxt)->error != XPATH_EXPRESSION_OK)
#define xmlXPathGetError(ctxt) ((ctxt)->error)
#define CHECK_ERROR if (ctxt->error != XPATH_EXPRESSION_OK) return
#define CHECK_ERROR0 if (ctxt->error != XPATH_EXPRESSION_OK) return(0)
#define xmlXPathReturnFalse(ctxt) xmlXPathReturnBoolean((ctxt), 0)
#define xmlXPathReturnTrue(ctxt) xmlXPathReturnBoolean((ctxt), 1)
#define XP_ERROR0(X) { xmlXPathErr(ctxt, X); return(0); }
#define XP_ERROR(X) { xmlXPathErr(ctxt, X); return; }

extern xmlXPathObjectPtr valuePop(xmlXPathParserContextPtr ctxt);
extern int valuePush(xmlXPathParserContextPtr ctxt,
    xmlXPathObjectPtr value);
extern void xmlXPathAddValues(xmlXPathParserContextPtr ctxt);
extern void xmlXPathBooleanFunction(xmlXPathParserContextPtr ctxt,
    int nargs);
extern void xmlXPathCeilingFunction(xmlXPathParserContextPtr ctxt,
    int nargs);
extern int xmlXPathCompareValues(xmlXPathParserContextPtr ctxt, int inf,
    int strict);
extern void xmlXPathConcatFunction(xmlXPathParserContextPtr ctxt,
    int nargs);
extern void xmlXPathContainsFunction(xmlXPathParserContextPtr ctxt,
    int nargs);
extern void xmlXPathCountFunction(xmlXPathParserContextPtr ctxt,
    int nargs);
extern void xmlXPathDebugDumpCompExpr(FILE * output,
    xmlXPathCompExprPtr comp, int depth);
extern void xmlXPathDebugDumpObject(FILE * output, xmlXPathObjectPtr cur,
    int depth);
extern xmlNodeSetPtr xmlXPathDifference(xmlNodeSetPtr nodes1,
    xmlNodeSetPtr nodes2);
extern xmlNodeSetPtr xmlXPathDistinct(xmlNodeSetPtr nodes);
extern xmlNodeSetPtr xmlXPathDistinctSorted(xmlNodeSetPtr nodes);
extern void xmlXPathDivValues(xmlXPathParserContextPtr ctxt);
extern int xmlXPathEqualValues(xmlXPathParserContextPtr ctxt);
extern void xmlXPathErr(xmlXPathParserContextPtr ctxt, int error);
extern void xmlXPathEvalExpr(xmlXPathParserContextPtr ctxt);
extern int xmlXPathEvaluatePredicateResult(xmlXPathParserContextPtr ctxt,
    xmlXPathObjectPtr res);
extern void xmlXPathFalseFunction(xmlXPathParserContextPtr ctxt,
    int nargs);
extern void xmlXPathFloorFunction(xmlXPathParserContextPtr ctxt,
    int nargs);
extern void xmlXPathFreeParserContext(xmlXPathParserContextPtr ctxt);
extern xmlXPathFunction xmlXPathFunctionLookup(xmlXPathContextPtr ctxt,
    const xmlChar * name);
extern xmlXPathFunction xmlXPathFunctionLookupNS(xmlXPathContextPtr ctxt,
    const xmlChar * name,
    const xmlChar * ns_uri);
extern int xmlXPathHasSameNodes(xmlNodeSetPtr nodes1,
    xmlNodeSetPtr nodes2);
extern void xmlXPathIdFunction(xmlXPathParserContextPtr ctxt, int nargs);
extern xmlNodeSetPtr xmlXPathIntersection(xmlNodeSetPtr nodes1,
    xmlNodeSetPtr nodes2);
extern int xmlXPathIsNodeType(const xmlChar * name);
extern void xmlXPathLangFunction(xmlXPathParserContextPtr ctxt, int nargs);
extern void xmlXPathLastFunction(xmlXPathParserContextPtr ctxt, int nargs);

```

```

extern xmlNodeSetPtr xmlXPathLeading(xmlNodeSetPtr nodes1,
                                   xmlNodeSetPtr nodes2);
extern xmlNodeSetPtr xmlXPathLeadingSorted(xmlNodeSetPtr nodes1,
                                         xmlNodeSetPtr nodes2);
extern void xmlXPathLocalNameFunction(xmlXPathParserContextPtr ctxt,
                                     int nargs);
extern void xmlXPathModValues(xmlXPathParserContextPtr ctxt);
extern void xmlXPathMultValues(xmlXPathParserContextPtr ctxt);
extern void xmlXPathNamespaceURIFunction(xmlXPathParserContextPtr ctxt,
                                         int nargs);
extern xmlXPathObjectPtr xmlXPathNewBoolean(int val);
extern xmlXPathObjectPtr xmlXPathNewCString(const char *val);
extern xmlXPathObjectPtr xmlXPathNewFloat(double val);
extern xmlXPathObjectPtr xmlXPathNewNodeSet(xmlNodePtr val);
extern xmlXPathObjectPtr xmlXPathNewNodeSetList(xmlNodeSetPtr val);
extern xmlXPathParserContextPtr xmlXPathNewParserContext(const xmlChar *
                                                         str,
                                                         xmlXPathContextPtr
                                                         ctxt);
extern xmlXPathObjectPtr xmlXPathNewString(const xmlChar * val);
extern xmlXPathObjectPtr xmlXPathNewValueTree(xmlNodePtr val);
extern xmlNodePtr xmlXPathNextAncestor(xmlXPathParserContextPtr ctxt,
                                       xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextAncestorOrSelf(xmlXPathParserContextPtr ctxt,
                                             xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextAttribute(xmlXPathParserContextPtr ctxt,
                                       xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextChild(xmlXPathParserContextPtr ctxt,
                                    xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextDescendant(xmlXPathParserContextPtr ctxt,
                                       xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextDescendantOrSelf(xmlXPathParserContextPtr
                                              ctxt, xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextFollowing(xmlXPathParserContextPtr ctxt,
                                       xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextFollowingSibling(xmlXPathParserContextPtr
                                              ctxt, xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextNamespace(xmlXPathParserContextPtr ctxt,
                                       xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextParent(xmlXPathParserContextPtr ctxt,
                                    xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextPreceding(xmlXPathParserContextPtr ctxt,
                                       xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextPrecedingSibling(xmlXPathParserContextPtr
                                              ctxt, xmlNodePtr cur);
extern xmlNodePtr xmlXPathNextSelf(xmlXPathParserContextPtr ctxt,
                                   xmlNodePtr cur);
extern xmlNodeSetPtr xmlXPathNodeLeading(xmlNodeSetPtr nodes,
                                       xmlNodePtr node);
extern xmlNodeSetPtr xmlXPathNodeLeadingSorted(xmlNodeSetPtr nodes,
                                              xmlNodePtr node);
extern void xmlXPathNodeSetAdd(xmlNodeSetPtr cur, xmlNodePtr val);
extern void xmlXPathNodeSetAddNs(xmlNodeSetPtr cur, xmlNodePtr node,
                                xmlNsPtr ns);
extern void xmlXPathNodeSetAddUnique(xmlNodeSetPtr cur, xmlNodePtr val);
extern int xmlXPathNodeSetContains(xmlNodeSetPtr cur, xmlNodePtr val);
extern void xmlXPathNodeSetDel(xmlNodeSetPtr cur, xmlNodePtr val);
extern void xmlXPathNodeSetFreeNs(xmlNsPtr ns);
extern xmlNodeSetPtr xmlXPathNodeSetMerge(xmlNodeSetPtr val1,
                                         xmlNodeSetPtr val2);
extern void xmlXPathNodeSetRemove(xmlNodeSetPtr cur, int val);
extern void xmlXPathNodeSetSort(xmlNodeSetPtr set);

```



```

extern xmlNodeSetPtr xmlXPathNodeTrailing(xmlNodeSetPtr nodes,
                                           xmlNodePtr node);
extern xmlNodeSetPtr xmlXPathNodeTrailingSorted(xmlNodeSetPtr nodes,
                                                xmlNodePtr node);
extern void xmlXPathNormalizeFunction(xmlXPathParserContextPtr ctxt,
                                     int nargs);
extern int xmlXPathNotEqualValues(xmlXPathParserContextPtr ctxt);
extern void xmlXPathNotFunction(xmlXPathParserContextPtr ctxt, int nargs);
extern const xmlChar *xmlXPathNsLookup(xmlXPathContextPtr ctxt,
                                       const xmlChar * prefix);
extern void xmlXPathNumberFunction(xmlXPathParserContextPtr ctxt,
                                  int nargs);
extern xmlChar *xmlXPathParseNCName(xmlXPathParserContextPtr ctxt);
extern xmlChar *xmlXPathParseName(xmlXPathParserContextPtr ctxt);
extern int xmlXPathPopBoolean(xmlXPathParserContextPtr ctxt);
extern void *xmlXPathPopExternal(xmlXPathParserContextPtr ctxt);
extern xmlNodeSetPtr xmlXPathPopNodeSet(xmlXPathParserContextPtr ctxt);
extern double xmlXPathPopNumber(xmlXPathParserContextPtr ctxt);
extern xmlChar *xmlXPathPopString(xmlXPathParserContextPtr ctxt);
extern void xmlXPathPositionFunction(xmlXPathParserContextPtr ctxt,
                                    int nargs);
extern void xmlXPathRegisterAllFunctions(xmlXPathContextPtr ctxt);
extern int xmlXPathRegisterFunc(xmlXPathContextPtr ctxt,
                               const xmlChar * name, xmlXPathFunction f);
extern void xmlXPathRegisterFuncLookup(xmlXPathContextPtr ctxt,
                                       xmlXPathFuncLookupFunc f,
                                       void *funcCtxt);
extern int xmlXPathRegisterFuncNS(xmlXPathContextPtr ctxt,
                                  const xmlChar * name,
                                  const xmlChar * ns_uri,
                                  xmlXPathFunction f);
extern int xmlXPathRegisterNs(xmlXPathContextPtr ctxt,
                              const xmlChar * prefix,
                              const xmlChar * ns_uri);
extern int xmlXPathRegisterVariable(xmlXPathContextPtr ctxt,
                                    const xmlChar * name,
                                    xmlXPathObjectPtr value);
extern void xmlXPathRegisterVariableLookup(xmlXPathContextPtr ctxt,
                                           xmlXPathVariableLookupFunc f,
                                           void *data);
extern int xmlXPathRegisterVariableNS(xmlXPathContextPtr ctxt,
                                      const xmlChar * name,
                                      const xmlChar * ns_uri,
                                      xmlXPathObjectPtr value);
extern void xmlXPathRegisteredFuncsCleanup(xmlXPathContextPtr ctxt);
extern void xmlXPathRegisteredNsCleanup(xmlXPathContextPtr ctxt);
extern void xmlXPathRegisteredVariablesCleanup(xmlXPathContextPtr ctxt);
extern void xmlXPathRoot(xmlXPathParserContextPtr ctxt);
extern void xmlXPathRoundFunction(xmlXPathParserContextPtr ctxt,
                                  int nargs);
extern void xmlXPathStartsWithFunction(xmlXPathParserContextPtr ctxt,
                                       int nargs);
extern double xmlXPathStringEvalNumber(const xmlChar * str);
extern void xmlXPathStringFunction(xmlXPathParserContextPtr ctxt,
                                  int nargs);
extern void xmlXPathStringLengthFunction(xmlXPathParserContextPtr ctxt,
                                         int nargs);
extern void xmlXPathSubValues(xmlXPathParserContextPtr ctxt);
extern void xmlXPathSubstringAfterFunction(xmlXPathParserContextPtr ctxt,
                                          int nargs);
extern void xmlXPathSubstringBeforeFunction(xmlXPathParserContextPtr ctxt,
                                           int nargs);

```

```

extern void xmlXPathSubstringFunction(xmlXPathParserContextPtr ctxt,
                                     int nargs);
extern void xmlXPathSumFunction(xmlXPathParserContextPtr ctxt, int nargs);
extern xmlNodeSetPtr xmlXPathTrailing(xmlNodeSetPtr nodes1,
                                     xmlNodeSetPtr nodes2);
extern xmlNodeSetPtr xmlXPathTrailingSorted(xmlNodeSetPtr nodes1,
                                     xmlNodeSetPtr nodes2);
extern void xmlXPathTranslateFunction(xmlXPathParserContextPtr ctxt,
                                     int nargs);
extern void xmlXPathTrueFunction(xmlXPathParserContextPtr ctxt, int nargs);
extern void xmlXPathValueFlipSign(xmlXPathParserContextPtr ctxt);
extern xmlXPathObjectPtr xmlXPathVariableLookup(xmlXPathContextPtr ctxt,
                                               const xmlChar * name);
extern xmlXPathObjectPtr xmlXPathVariableLookupNS(xmlXPathContextPtr ctxt,
                                               const xmlChar * name,
                                               const xmlChar * ns_uri);

extern xmlXPathObjectPtr xmlXPathWrapCString(char *val);
extern xmlXPathObjectPtr xmlXPathWrapExternal(void *val);
extern xmlXPathObjectPtr xmlXPathWrapNodeSet(xmlNodeSetPtr val);
extern xmlXPathObjectPtr xmlXPathWrapString(xmlChar * val);
extern void xmlXPatherror(xmlXPathParserContextPtr ctxt, const char *file,
                        int line, int no);

```

19.2.39. libxml2/libxml/xpointer.h

```

typedef struct _xmlLocationSet {
    int locNr;
    int locMax;
    xmlXPathObjectPtr *locTab;
} xmlLocationSet;
typedef xmlLocationSet *xmlLocationSetPtr;
extern xmlNodePtr xmlXPathBuildNodeList(xmlXPathObjectPtr obj);
extern xmlXPathObjectPtr xmlXPathEval(const xmlChar * str,
                                     xmlXPathContextPtr ctx);
extern void xmlXPathEvalRangePredicate(xmlXPathParserContextPtr ctxt);
extern void xmlXPathFreeLocationSet(xmlLocationSetPtr obj);
extern void xmlXPathLocationSetAdd(xmlLocationSetPtr cur,
                                   xmlXPathObjectPtr val);
extern xmlLocationSetPtr xmlXPathLocationSetCreate(xmlXPathObjectPtr val);
extern void xmlXPathLocationSetDel(xmlLocationSetPtr cur,
                                   xmlXPathObjectPtr val);
extern xmlLocationSetPtr xmlXPathLocationSetMerge(xmlLocationSetPtr val1,
                                                  xmlLocationSetPtr val2);
extern void xmlXPathLocationSetRemove(xmlLocationSetPtr cur, int val);
extern xmlXPathObjectPtr xmlXPathNewCollapsedRange(xmlNodePtr start);
extern xmlXPathContextPtr xmlXPathNewContext(xmlDocPtr doc, xmlNodePtr here,
                                             xmlNodePtr origin);
extern xmlXPathObjectPtr xmlXPathNewLocationSetNodeSet(xmlNodeSetPtr set);
extern xmlXPathObjectPtr xmlXPathNewLocationSetNodes(xmlNodePtr start,
                                                      xmlNodePtr end);
extern xmlXPathObjectPtr xmlXPathNewRange(xmlNodePtr start, int startindex,
                                           xmlNodePtr end, int endindex);
extern xmlXPathObjectPtr xmlXPathNewRangeNodeObject(xmlNodePtr start,
                                                     xmlXPathObjectPtr end);
extern xmlXPathObjectPtr xmlXPathNewRangeNodePoint(xmlNodePtr start,
                                                    xmlXPathObjectPtr end);
extern xmlXPathObjectPtr xmlXPathNewRangeNodes(xmlNodePtr start,
                                                xmlNodePtr end);
extern xmlXPathObjectPtr xmlXPathNewRangePointNode(xmlXPathObjectPtr start,
                                                    xmlNodePtr end);
extern xmlXPathObjectPtr xmlXPathNewRangePoints(xmlXPathObjectPtr start,

```

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```
                                xmlXPathObjectPtr end);  
extern void xmlXPathRangeToFunction(xmlXPathParserContextPtr ctxt,  
                                int nargs);  
extern xmlXPathObjectPtr xmlXPathWrapLocationSet(xmlLocationSetPtr val);
```

XV. ALSA sound library

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Chapter 20. Libraries

20.1. Interfaces for libasound

Table 20-1 defines the library name and shared object name for the libasound library

Table 20-1. libasound Definition

Library:	libasound
SONAME:	libasound.so.2

The behavior of the interfaces in this library is specified by the following specifications:

[ALSA] [ALSA Library API Reference](#)

20.1.1. ALSA Configuration Interface

20.1.1.1. Interfaces for ALSA Configuration Interface

An LSB conforming implementation shall provide the generic functions for ALSA Configuration Interface specified in Table 20-2, with the full mandatory functionality as described in the referenced underlying specification.

Table 20-2. libasound - ALSA Configuration Interface Function Interfaces

snd_config_add(ALSA_0.9) [ALSA]	snd_config_copy(ALSA_0.9) [ALSA]	snd_config_delete(ALSA_0.9) [ALSA]
snd_config_get_ascii(ALSA_0.9) [ALSA]	snd_config_get_id(ALSA_0.9) [ALSA]	snd_config_get_integer(ALSA_0.9) [ALSA]
snd_config_get_integer64(ALSA_0.9) [ALSA]	snd_config_get_string(ALSA_0.9) [ALSA]	snd_config_get_type(ALSA_0.9) [ALSA]
snd_config_imake_integer(ALSA_0.9) [ALSA]	snd_config_imake_integer64(ALSA_0.9) [ALSA]	snd_config_imake_string(ALSA_0.9) [ALSA]
snd_config_iterator_end(ALSA_0.9) [ALSA]	snd_config_iterator_entry(ALSA_0.9) [ALSA]	snd_config_iterator_first(ALSA_0.9) [ALSA]
snd_config_iterator_next(ALSA_0.9) [ALSA]	snd_config_load(ALSA_0.9) [ALSA]	snd_config_make_compound(ALSA_0.9) [ALSA]
snd_config_make_integer(ALSA_0.9) [ALSA]	snd_config_make_integer64(ALSA_0.9) [ALSA]	snd_config_make_string(ALSA_0.9) [ALSA]
snd_config_save(ALSA_0.9) [ALSA]	snd_config_search(ALSA_0.9) [ALSA]	snd_config_searchv(ALSA_0.9) [ALSA]
snd_config_set_ascii(ALSA_0.9) [ALSA]	snd_config_set_integer(ALSA_0.9) [ALSA]	snd_config_set_integer64(ALSA_0.9) [ALSA]

snd_config_set_string(ALSA_0.9) [ALSA]	snd_config_top(ALSA_0.9) [ALSA]	snd_config_update(ALSA_0.9) [ALSA]
snd_config_update_free_global(ALSA_0.9) [ALSA]		

An LSB conforming implementation shall provide the generic data interfaces for ALSA Configuration Interface specified in [Table 20-3](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-3. libasound - ALSA Configuration Interface Data Interfaces

snd_config(ALSA_0.9) [ALSA]		

20.1.2. ALSA Control Interface

20.1.2.1. Interfaces for ALSA Control Interface

An LSB conforming implementation shall provide the generic functions for ALSA Control Interface specified in [Table 20-4](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-4. libasound - ALSA Control Interface Function Interfaces

snd_async_add_ctl_handler(ALSA_0.9) [ALSA]	snd_async_handler_get_ctl(ALSA_0.9) [ALSA]	snd_card_get_info(ALSA_0.9) [ALSA]
snd_card_get_longname(ALSA_0.9) [ALSA]	snd_card_get_name(ALSA_0.9) [ALSA]	snd_card_load(ALSA_0.9) [ALSA]
snd_card_next(ALSA_0.9) [ALSA]	snd_ctl_card_info(ALSA_0.9) [ALSA]	snd_ctl_card_info_get_driver(ALSA_0.9) [ALSA]
snd_ctl_card_info_copy(ALSA_0.9) [ALSA]	snd_ctl_card_info_free(ALSA_0.9) [ALSA]	snd_ctl_card_info_get_id(ALSA_0.9) [ALSA]
snd_ctl_card_info_get_driver(ALSA_0.9) [ALSA]	snd_ctl_card_info_get_name(ALSA_0.9) [ALSA]	snd_ctl_card_info_get_mixername(ALSA_0.9) [ALSA]
snd_ctl_card_info_get_mixername(ALSA_0.9) [ALSA]	snd_ctl_close(ALSA_0.9) [ALSA]	snd_ctl_elem_add_iec958(ALSA_0.9) [ALSA]
snd_ctl_card_info_sizeof(ALSA_0.9) [ALSA]	snd_ctl_elem_add_integer(ALSA_0.9) [ALSA]	snd_ctl_elem_id_copy(ALSA_0.9) [ALSA]
snd_ctl_elem_add_iec958(ALSA_0.9) [ALSA]	snd_ctl_elem_id_free(ALSA_0.9) [ALSA]	snd_ctl_elem_id_get_index(ALSA_0.9) [ALSA]
snd_ctl_elem_id_copy(ALSA_0.9) [ALSA]	snd_ctl_elem_id_get_interface(ALSA_0.9) [ALSA]	snd_ctl_elem_id_get_numid(ALSA_0.9) [ALSA]
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snd_ctl_elem_id_get_numid(ALSA_0.9) [ALSA]		
snd_ctl_elem_id_set_device(ALSA_0.9) [ALSA]		

	snd_ctl_elem_id_set_index(ALSA_0.9) [ALSA]	snd_ctl_elem_id_ [ALSA]
snd_ctl_elem_id_set_name(ALSA_0.9) [ALSA]	snd_ctl_elem_id_set_numid(ALSA_0.9) [ALSA]	snd_ctl_elem_id_ [ALSA]
snd_ctl_elem_id_sizeof(ALSA_0.9) [ALSA]	snd_ctl_elem_iface_name(ALSA_0.9) [ALSA]	snd_ctl_elem_inf
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snd_ctl_elem_info_get_items(ALSA_0.9) [ALSA]	snd_ctl_elem_info_get_max(ALSA_0.9) [ALSA]	snd_ctl_elem_inf [ALSA]
snd_ctl_elem_info_get_min(ALSA_0.9) [ALSA]	snd_ctl_elem_info_get_min64(ALSA_0.9) [ALSA]	snd_ctl_elem_inf [ALSA]
snd_ctl_elem_info_get_numid(ALSA_0.9) [ALSA]	snd_ctl_elem_info_get_step(ALSA_0.9) [ALSA]	snd_ctl_elem_inf [ALSA]
snd_ctl_elem_info_get_type(ALSA_0.9) [ALSA]	snd_ctl_elem_info_is_inactive(ALSA_0.9) [ALSA]	snd_ctl_elem_inf [ALSA]
snd_ctl_elem_info_is_readable(ALSA_0.9) [ALSA]	snd_ctl_elem_info_is_user(ALSA_0.9) [ALSA]	snd_ctl_elem_inf [ALSA]
snd_ctl_elem_info_is_writable(ALSA_0.9) [ALSA]	snd_ctl_elem_info_malloc(ALSA_0.9) [ALSA]	snd_ctl_elem_inf
snd_ctl_elem_info_set_item(ALSA_0.9) [ALSA]	snd_ctl_elem_info_sizeof(ALSA_0.9) [ALSA]	snd_ctl_elem_list
snd_ctl_elem_list_alloc_space(ALSA_0.9) [ALSA]	snd_ctl_elem_list_clear(ALSA_0.9) [ALSA]	snd_ctl_elem_list
snd_ctl_elem_list_free(ALSA_0.9) [ALSA]	snd_ctl_elem_list_free_space(ALSA_0.9) [ALSA]	snd_ctl_elem_list [ALSA]
snd_ctl_elem_list_get_id(ALSA_0.9) [ALSA]	snd_ctl_elem_list_get_name(ALSA_0.9) [ALSA]	snd_ctl_elem_list
snd_ctl_elem_list_malloc(ALSA_0.9) [ALSA]	snd_ctl_elem_list_set_offset(ALSA_0.9) [ALSA]	snd_ctl_elem_list
snd_ctl_elem_read(ALSA_0.9) [ALSA]	snd_ctl_elem_remove(ALSA_0.9) [ALSA]	snd_ctl_elem_typ
snd_ctl_elem_value_clear(ALSA_0.9) [ALSA]	snd_ctl_elem_value_copy(ALSA_0.9) [ALSA]	snd_ctl_elem_val
snd_ctl_elem_value_get_boolean(ALSA_0.9) [ALSA]	snd_ctl_elem_value_get_byte(ALSA_0.9) [ALSA]	snd_ctl_elem_val [ALSA]
snd_ctl_elem_value_get_enumerated(ALSA_0.9) [ALSA]	snd_ctl_elem_value_get_id(ALSA_0.9) [ALSA]	snd_ctl_elem_val [ALSA]
snd_ctl_elem_value_get_integer(ALSA_0.9) [ALSA]	snd_ctl_elem_value_get_integer64(ALSA_0.9) [ALSA]	snd_ctl_elem_val
snd_ctl_elem_value_set_boolean(ALSA_0.9) [ALSA]	snd_ctl_elem_value_set_byte(ALSA_0.9) [ALSA]	snd_ctl_elem_val [ALSA]

snd_ctl_elem_value_set_id(ALSA_0.9) [ALSA]	snd_ctl_elem_value_set_iec958(ALSA_0.9) [ALSA]	snd_ctl_elem_val [ALSA]
snd_ctl_elem_value_set_integer64(ALSA_0.9) [ALSA]	snd_ctl_elem_value_sizeof(ALSA_0.9) [ALSA]	snd_ctl_elem_wri
snd_ctl_event_clear(ALSA_0.9) [ALSA]	snd_ctl_event_copy(ALSA_0.9) [ALSA]	snd_ctl_event_ele
snd_ctl_event_elem_get_mask(ALSA_0.9) [ALSA]	snd_ctl_event_free(ALSA_0.9) [ALSA]	snd_ctl_event_ma
snd_ctl_event_sizeof(ALSA_0.9) [ALSA]	snd_ctl_hwdep_info(ALSA_0.9) [ALSA]	snd_ctl_hwdep_n [ALSA]
snd_ctl_name(ALSA_0.9) [ALSA]	snd_ctl_nonblock(ALSA_0.9) [ALSA]	snd_ctl_open(AL
snd_ctl_pcm_info(ALSA_0.9) [ALSA]	snd_ctl_pcm_next_device(ALSA_0.9) [ALSA]	snd_ctl_poll_desc
snd_ctl_poll_descriptors_count(ALSA_0.9) [ALSA]	snd_ctl_rawmidi_info(ALSA_0.9) [ALSA]	snd_ctl_rawmidi [ALSA]
snd_ctl_read(ALSA_0.9) [ALSA]	snd_ctl_subscribe_events(ALSA_0.9) [ALSA]	

20.1.3. ALSA Global defines and functions

20.1.3.1. Interfaces for ALSA Global defines and functions

An LSB conforming implementation shall provide the generic functions for ALSA Global defines and functions specified in [Table 20-5](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-5. libasound - ALSA Global defines and functions Function Interfaces

snd_asoundlib_version(ALSA_0.9) [ALSA]	snd_async_add_handler(ALSA_0.9) [ALSA]	snd_async_del_handler([ALSA])
snd_async_handler_get_callback_private(ALSA_0.9) [ALSA]		

20.1.4. ALSA Hardware Dependant Interface

20.1.4.1. Interfaces for ALSA Hardware Dependant Interface

An LSB conforming implementation shall provide the generic functions for ALSA Hardware Dependant Interface specified in [Table 20-6](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-6. libasound - ALSA Hardware Dependant Interface Function Interfaces

snd_hwdep_close(ALSA_0.9) [ALSA]		snd_hwdep_ds

	snd_hwdep_dsp_image_copy(ALSA_0.9) [ALSA]	
snd_hwdep_dsp_image_get_image(ALSA_0.9) [ALSA]	snd_hwdep_dsp_image_get_index(ALSA_0.9) [ALSA]	snd_hwdep_ds [ALSA]
snd_hwdep_dsp_image_get_name(ALSA_0.9) [ALSA]	snd_hwdep_dsp_image_malloc(ALSA_0.9) [ALSA]	snd_hwdep_ds [ALSA]
snd_hwdep_dsp_image_set_index(ALSA_0.9) [ALSA]	snd_hwdep_dsp_image_set_length(ALSA_0.9) [ALSA]	snd_hwdep_ds [ALSA]
snd_hwdep_dsp_image_sizeof(ALSA_0.9) [ALSA]	snd_hwdep_dsp_load(ALSA_0.9) [ALSA]	snd_hwdep_ds
snd_hwdep_dsp_status_copy(ALSA_0.9) [ALSA]	snd_hwdep_dsp_status_free(ALSA_0.9) [ALSA]	snd_hwdep_ds [ALSA]
snd_hwdep_dsp_status_get_dsp_loaded(ALSA_0.9) [ALSA]	snd_hwdep_dsp_status_get_id(ALSA_0.9) [ALSA]	snd_hwdep_ds [ALSA]
snd_hwdep_dsp_status_get_version(ALSA_0.9) [ALSA]	snd_hwdep_dsp_status_malloc(ALSA_0.9) [ALSA]	snd_hwdep_ds
snd_hwdep_info(ALSA_0.9) [ALSA]	snd_hwdep_info_copy(ALSA_0.9) [ALSA]	snd_hwdep_in
snd_hwdep_info_get_card(ALSA_0.9) [ALSA]	snd_hwdep_info_get_device(ALSA_0.9) [ALSA]	snd_hwdep_in
snd_hwdep_info_get_iface(ALSA_0.9) [ALSA]	snd_hwdep_info_get_name(ALSA_0.9) [ALSA]	snd_hwdep_in
snd_hwdep_info_set_device(ALSA_0.9) [ALSA]	snd_hwdep_info_sizeof(ALSA_0.9) [ALSA]	snd_hwdep_io
snd_hwdep_open(ALSA_0.9) [ALSA]	snd_hwdep_poll_descriptors(ALSA_0.9) [ALSA]	snd_hwdep_re
snd_hwdep_write(ALSA_0.9) [ALSA]		

20.1.5. ALSA High level Control Interface

20.1.5.1. Interfaces for ALSA High level Control Interface

An LSB conforming implementation shall provide the generic functions for ALSA High level Control Interface specified in [Table 20-7](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-7. libasound - ALSA High level Control Interface Function Interfaces

snd_hctl_close(ALSA_0.9) [ALSA]	snd_hctl_elem_get_callback_private(ALSA_0.9) [ALSA]	snd_hctl_elem_get_id(
snd_hctl_elem_info(ALSA_0.9) [ALSA]	snd_hctl_elem_next(ALSA_0.9) [ALSA]	snd_hctl_elem_prev(A
snd_hctl_elem_read(ALSA_0.9) [ALSA]	snd_hctl_elem_set_callback(ALSA_0.9) [ALSA]	snd_hctl_elem_set_cal [ALSA]

snd_hctl_elem_write(ALSA_0.9) [ALSA]	snd_hctl_find_elem(ALSA_0.9) [ALSA]	snd_hctl_first_elem(ALSA_0.9) [ALSA]
snd_hctl_free(ALSA_0.9) [ALSA]	snd_hctl_get_callback_private(ALSA_0.9) [ALSA]	snd_hctl_get_count(ALSA_0.9) [ALSA]
snd_hctl_handle_events(ALSA_0.9) [ALSA]	snd_hctl_last_elem(ALSA_0.9) [ALSA]	snd_hctl_load(ALSA_0.9) [ALSA]
snd_hctl_nonblock(ALSA_0.9) [ALSA]	snd_hctl_open(ALSA_0.9) [ALSA]	snd_hctl_set_callback(ALSA_0.9) [ALSA]
snd_hctl_set_callback_private(ALSA_0.9) [ALSA]	snd_hctl_wait(ALSA_0.9) [ALSA]	

20.1.6. ALSA Input Interface

20.1.6.1. Interfaces for ALSA Input Interface

An LSB conforming implementation shall provide the generic functions for ALSA Input Interface specified in [Table 20-8](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-8. libasound - ALSA Input Interface Function Interfaces

snd_input_buffer_open(ALSA_0.9) [ALSA]	snd_input_close(ALSA_0.9) [ALSA]	snd_input_stdio_attach(ALSA_0.9) [ALSA]
snd_input_stdio_open(ALSA_0.9) [ALSA]		

20.1.7. ALSA MIDI Sequencer

20.1.7.1. Interfaces for ALSA MIDI Sequencer

An LSB conforming implementation shall provide the generic functions for ALSA MIDI Sequencer specified in [Table 20-9](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-9. libasound - ALSA MIDI Sequencer Function Interfaces

snd_seq_client_id(ALSA_0.9) [ALSA]	snd_seq_close(ALSA_0.9) [ALSA]	snd_seq_get_input_buffer_size(ALSA_0.9) [ALSA]
snd_seq_get_output_buffer_size(ALSA_0.9) [ALSA]	snd_seq_nonblock(ALSA_0.9) [ALSA]	snd_seq_open(ALSA_0.9) [ALSA]
snd_seq_poll_descriptors(ALSA_0.9) [ALSA]	snd_seq_poll_descriptors_count(ALSA_0.9) [ALSA]	snd_seq_poll_descriptors_data(ALSA_0.9) [ALSA]
snd_seq_set_input_buffer_size(ALSA_0.9) [ALSA]	snd_seq_set_output_buffer_size(ALSA_0.9) [ALSA]	snd_seq_system_info(ALSA_0.9) [ALSA]

snd_seq_system_info_copy(ALSA_0.9) [ALSA]	snd_seq_system_info_free(ALSA_0.9) [ALSA]	snd_seq_system_info_... [ALSA]
snd_seq_system_info_get_ports(ALSA_0.9) [ALSA]	snd_seq_system_info_get_queues(ALSA_0.9) [ALSA]	snd_seq_system_info_... [ALSA]
snd_seq_system_info_sizeof(ALSA_0.9) [ALSA]		

20.1.8. ALSA Mixer Interface

20.1.8.1. Interfaces for ALSA Mixer Interface

An LSB conforming implementation shall provide the generic functions for ALSA Mixer Interface specified in [Table 20-10](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-10. libasound - ALSA Mixer Interface Function Interfaces

snd_mixer_attach(ALSA_0.9) [ALSA]	snd_mixer_close(ALSA_0.9) [ALSA]	snd_mixer_det...
snd_mixer_elem_get_callback_private(ALSA_0.9) [ALSA]	snd_mixer_elem_get_type(ALSA_0.9) [ALSA]	snd_mixer_ele...
snd_mixer_elem_prev(ALSA_0.9) [ALSA]	snd_mixer_elem_set_callback(ALSA_0.9) [ALSA]	snd_mixer_ele... [ALSA]
snd_mixer_first_elem(ALSA_0.9) [ALSA]	snd_mixer_free(ALSA_0.9) [ALSA]	snd_mixer_get... [ALSA]
snd_mixer_get_count(ALSA_0.9) [ALSA]	snd_mixer_handle_events(ALSA_0.9) [ALSA]	snd_mixer_las...
snd_mixer_load(ALSA_0.9) [ALSA]	snd_mixer_open(ALSA_0.9) [ALSA]	snd_mixer_po...
snd_mixer_poll_descriptors_count(ALSA_0.9) [ALSA]	snd_mixer_poll_descriptors_revents(ALSA_0.9) [ALSA]	snd_mixer_set...
snd_mixer_set_callback_private(ALSA_0.9) [ALSA]	snd_mixer_wait(ALSA_0.9) [ALSA]	snd_pcm_type...

20.1.9. ALSA Output Interface

20.1.9.1. Interfaces for ALSA Output Interface

An LSB conforming implementation shall provide the generic functions for ALSA Output Interface specified in [Table 20-11](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-11. libasound - ALSA Output Interface Function Interfaces

snd_output_buffer_open(ALSA_0.9) [ALSA]	snd_output_buffer_string(ALSA_0.9) [ALSA]	snd_output_close(ALSA_0.9) [ALSA]

snd_output_putc(ALSA_0.9) [ALSA]	snd_output_puts(ALSA_0.9) [ALSA]	snd_output_stdio_attach(ALSA_0.9) [ALSA]
snd_output_stdio_open(ALSA_0.9) [ALSA]		

20.1.10. ALSA PCM Interface - General Functions

20.1.10.1. Interfaces for ALSA PCM Interface - General Functions

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - General Functions specified in [Table 20-12](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-12. libasound - ALSA PCM Interface - General Functions Function Interfaces

snd_async_add_pcm_handler(ALSA_0.9) [ALSA]	snd_async_handler_get_pcm(ALSA_0.9) [ALSA]	snd_pcm_avail_update(ALSA_0.9) [ALSA]
snd_pcm_close(ALSA_0.9) [ALSA]	snd_pcm_delay(ALSA_0.9) [ALSA]	snd_pcm_drain(ALSA_0.9) [ALSA]
snd_pcm_drop(ALSA_0.9) [ALSA]	snd_pcm_forward(ALSA_0.9.0rc8) [ALSA]	snd_pcm_hw_free(ALSA_0.9) [ALSA]
snd_pcm_hw_params(ALSA_0.9) [ALSA]	snd_pcm_hw_params_current(ALSA_0.9) [ALSA]	snd_pcm_hwsync(ALSA_0.9) [ALSA]
snd_pcm_info(ALSA_0.9) [ALSA]	snd_pcm_link(ALSA_0.9) [ALSA]	snd_pcm_name(ALSA_0.9) [ALSA]
snd_pcm_nonblock(ALSA_0.9) [ALSA]	snd_pcm_open(ALSA_0.9) [ALSA]	snd_pcm_open_lconf(ALSA_0.9) [ALSA]
snd_pcm_pause(ALSA_0.9) [ALSA]	snd_pcm_poll_descriptors(ALSA_0.9) [ALSA]	snd_pcm_poll_descriptors_revents(ALSA_0.9) [ALSA]
snd_pcm_poll_descriptors_revents(ALSA_0.9) [ALSA]	snd_pcm_prepare(ALSA_0.9) [ALSA]	snd_pcm_readi(ALSA_0.9) [ALSA]
snd_pcm_readn(ALSA_0.9) [ALSA]	snd_pcm_recover(ALSA_0.9) [ALSA]	snd_pcm_reset(ALSA_0.9) [ALSA]
snd_pcm_resume(ALSA_0.9) [ALSA]	snd_pcm_rewind(ALSA_0.9) [ALSA]	snd_pcm_start(ALSA_0.9) [ALSA]
snd_pcm_state(ALSA_0.9) [ALSA]	snd_pcm_status(ALSA_0.9) [ALSA]	snd_pcm_stream(ALSA_0.9) [ALSA]
snd_pcm_sw_params(ALSA_0.9) [ALSA]	snd_pcm_sw_params_current(ALSA_0.9) [ALSA]	snd_pcm_type(ALSA_0.9) [ALSA]
snd_pcm_unlink(ALSA_0.9) [ALSA]	snd_pcm_wait(ALSA_0.9) [ALSA]	snd_pcm_writei(ALSA_0.9) [ALSA]
snd_pcm_writen(ALSA_0.9) [ALSA]		

An LSB conforming implementation shall provide the generic deprecated functions for ALSA PCM Interface - General Functions specified in [Table 20-13](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These

interfaces may be withdrawn in future releases of this specification.

Table 20-13. libasound - ALSA PCM Interface - General Functions Deprecated Function Interfaces

snd_pcm_hwsync(ALSA_0.9) [ALSA]		

20.1.11. ALSA PCM Interface - Access Mask Functions

20.1.11.1. Interfaces for ALSA PCM Interface - Access Mask Functions

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Access Mask Functions specified in [Table 20-14](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-14. libasound - ALSA PCM Interface - Access Mask Functions Function Interfaces

snd_pcm_access_mask_any(ALSA_0.9) [ALSA]	snd_pcm_access_mask_copy(ALSA_0.9) [ALSA]	snd_pcm_access_mask_free(ALSA_0.9) [ALSA]
snd_pcm_access_mask_malloc(ALSA_0.9) [ALSA]	snd_pcm_access_mask_none(ALSA_0.9) [ALSA]	snd_pcm_access_mask_set(ALSA_0.9) [ALSA]
snd_pcm_access_mask_sizeof(ALSA_0.9) [ALSA]	snd_pcm_access_mask_test(ALSA_0.9) [ALSA]	

20.1.12. ALSA PCM Interface - Debug Functions

20.1.12.1. Interfaces for ALSA PCM Interface - Debug Functions

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Debug Functions specified in [Table 20-15](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-15. libasound - ALSA PCM Interface - Debug Functions Function Interfaces

snd_pcm_dump(ALSA_0.9) [ALSA]	snd_pcm_hw_params_dump(ALSA_0.9) [ALSA]	snd_pcm_status_dump(ALSA_0.9) [ALSA]
snd_pcm_sw_params_dump(ALSA_0.9) [ALSA]		

20.1.13. ALSA PCM Interface - Description Functions

20.1.13.1. Interfaces for ALSA PCM Interface - Description Functions

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Description Functions specified in [Table 20-16](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-16. libasound - ALSA PCM Interface - Description Functions Function Interfaces

snd_pcm_access_name(ALSA_0.9) [ALSA]	snd_pcm_format_description(ALSA_0.9) [ALSA]	snd_pcm_format_name(ALSA_0.9) [ALSA]
snd_pcm_format_value(ALSA_0.9) [ALSA]	snd_pcm_state_name(ALSA_0.9) [ALSA]	snd_pcm_stream_name(ALSA_0.9) [ALSA]

20.1.14. ALSA PCM Interface - Direct Access (MMAP) Functions**20.1.14.1. Interfaces for ALSA PCM Interface - Direct Access (MMAP) Functions**

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Direct Access (MMAP) Functions specified in [Table 20-17](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-17. libasound - ALSA PCM Interface - Direct Access (MMAP) Functions Function Interfaces

snd_pcm_mmap_begin(ALSA_0.9) [ALSA]	snd_pcm_mmap_commit(ALSA_0.9) [ALSA]	snd_pcm_mmap_readi(ALSA_0.9) [ALSA]
snd_pcm_mmap_readn(ALSA_0.9) [ALSA]	snd_pcm_mmap_writei(ALSA_0.9) [ALSA]	snd_pcm_mmap_writen(ALSA_0.9) [ALSA]

20.1.15. ALSA PCM Interface - Format Mask Functions**20.1.15.1. Interfaces for ALSA PCM Interface - Format Mask Functions**

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Format Mask Functions specified in [Table 20-18](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-18. libasound - ALSA PCM Interface - Format Mask Functions Function Interfaces

snd_pcm_format_mask_any(ALSA_0.9) [ALSA]	snd_pcm_format_mask_copy(ALSA_0.9) [ALSA]	snd_pcm_format_mask_free [ALSA]
snd_pcm_format_mask_malloc(ALSA_0.9) [ALSA]	snd_pcm_format_mask_none(ALSA_0.9) [ALSA]	snd_pcm_format_mask_set([ALSA]

snd_pcm_format_mask_sizeof(ALSA_0.9) [ALSA]	snd_pcm_format_mask_test(ALSA_0.9) [ALSA]	

20.1.16. ALSA PCM Interface - Hardware Parameters

20.1.16.1. Interfaces for ALSA PCM Interface - Hardware Parameters

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Hardware Parameters specified in [Table 20-19](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-19. libasound - ALSA PCM Interface - Hardware Parameters Function Interfaces

snd_pcm_hw_params_any(ALSA_0.9) [ALSA]	snd_pcm_hw_params_can_mmap_sample_resolution [ALSA]
snd_pcm_hw_params_can_resume(ALSA_0.9) [ALSA]	snd_pcm_hw_params_can_sync_start(ALSA_0.9) [ALSA]
snd_pcm_hw_params_free(ALSA_0.9) [ALSA]	snd_pcm_hw_params_get_access(ALSA_0.9.0rc4) [ALSA]
snd_pcm_hw_params_get_buffer_size(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_get_buffer_size_max(ALSA_0.9.0rc4) [ALSA]
snd_pcm_hw_params_get_buffer_time(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_get_buffer_time_max(ALSA_0.9.0rc4) [ALSA]
snd_pcm_hw_params_get_channels(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_get_channels_max(ALSA_0.9.0rc4) [ALSA]
snd_pcm_hw_params_get_format(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_get_format_mask(ALSA_0.9) [ALSA]
snd_pcm_hw_params_get_period_size_max(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_get_period_size_min(ALSA_0.9.0rc4) [ALSA]
snd_pcm_hw_params_get_period_time_max(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_get_period_time_min(ALSA_0.9.0rc4) [ALSA]
snd_pcm_hw_params_get_periods_max(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_get_periods_min(ALSA_0.9.0rc4) [ALSA]
snd_pcm_hw_params_get_rate_max(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_get_rate_min(ALSA_0.9.0rc4) [ALSA]
snd_pcm_hw_params_get_rate_resample(ALSA_0.9) [ALSA]	snd_pcm_hw_params_get_sbits(ALSA_0.9) [ALSA]
snd_pcm_hw_params_is_half_duplex(ALSA_0.9) [ALSA]	snd_pcm_hw_params_is_joint_duplex(ALSA_0.9) [ALSA]
snd_pcm_hw_params_set_access(ALSA_0.9) [ALSA]	snd_pcm_hw_params_set_access_mask(ALSA_0.9) [ALSA]
snd_pcm_hw_params_set_buffer_size_near(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_set_buffer_time(ALSA_0.9) [ALSA]
snd_pcm_hw_params_set_channels(ALSA_0.9) [ALSA]	

	snd_pcm_hw_params_set_channels_near(ALSA_0.9) [ALSA]
snd_pcm_hw_params_set_format_mask(ALSA_0.9) [ALSA]	snd_pcm_hw_params_set_period_size(ALSA_0.9) [ALSA]
snd_pcm_hw_params_set_period_time(ALSA_0.9) [ALSA]	snd_pcm_hw_params_set_period_time_near(ALSA_0.9) [ALSA]
snd_pcm_hw_params_set_periods_integer(ALSA_0.9) [ALSA]	snd_pcm_hw_params_set_periods_near(ALSA_0.9.0) [ALSA]
snd_pcm_hw_params_set_rate_near(ALSA_0.9.0rc4) [ALSA]	snd_pcm_hw_params_set_rate_resample(ALSA_0.9) [ALSA]
snd_pcm_hw_params_test_access(ALSA_0.9) [ALSA]	snd_pcm_hw_params_test_buffer_size(ALSA_0.9) [ALSA]
snd_pcm_hw_params_test_channels(ALSA_0.9) [ALSA]	snd_pcm_hw_params_test_format(ALSA_0.9) [ALSA]
snd_pcm_hw_params_test_period_time(ALSA_0.9) [ALSA]	snd_pcm_hw_params_test_periods(ALSA_0.9) [ALSA]

20.1.17. ALSA PCM Interface - Helper Functions

20.1.17.1. Interfaces for ALSA PCM Interface - Helper Functions

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Helper Functions specified in [Table 20-20](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-20. libasound - ALSA PCM Interface - Helper Functions Function Interfaces

snd_pcm_area_copy(ALSA_0.9) [ALSA]	snd_pcm_area_silence(ALSA_0.9) [ALSA]	snd_pcm_areas_copy(ALSA_0.9) [ALSA]
snd_pcm_areas_silence(ALSA_0.9) [ALSA]	snd_pcm_build_linear_format(ALSA_0.9) [ALSA]	snd_pcm_bytes_to_frames(ALSA_0.9) [ALSA]
snd_pcm_bytes_to_samples(ALSA_0.9) [ALSA]	snd_pcm_format_big_endian(ALSA_0.9) [ALSA]	snd_pcm_format_cpu_endianness(ALSA_0.9) [ALSA]
snd_pcm_format_float(ALSA_0.9) [ALSA]	snd_pcm_format_linear(ALSA_0.9) [ALSA]	snd_pcm_format_little_endian(ALSA_0.9) [ALSA]
snd_pcm_format_physical_width(ALSA_0.9) [ALSA]	snd_pcm_format_set_silence(ALSA_0.9) [ALSA]	snd_pcm_format_signed(ALSA_0.9) [ALSA]
snd_pcm_format_size(ALSA_0.9) [ALSA]	snd_pcm_format_unsigned(ALSA_0.9) [ALSA]	snd_pcm_format_width(ALSA_0.9) [ALSA]
snd_pcm_frames_to_bytes(ALSA_0.9) [ALSA]	snd_pcm_samples_to_bytes(ALSA_0.9) [ALSA]	

20.1.18. ALSA PCM Interface - Software Parameters

20.1.18.1. Interfaces for ALSA PCM Interface - Software Parameters

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Software Parameters specified in [Table 20-21](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-21. libasound - ALSA PCM Interface - Software Parameters Function Interfaces

snd_pcm_sw_params_copy(ALSA_0.9) [ALSA]	snd_pcm_sw_params_free(ALSA_0.9) [ALSA]
snd_pcm_sw_params_get_boundary(ALSA_0.9) [ALSA]	snd_pcm_sw_params_get_silence_size(ALSA_0.9.0rc4) [ALSA]
snd_pcm_sw_params_get_start_threshold(ALSA_0.9.0rc4) [ALSA]	snd_pcm_sw_params_get_stop_threshold(ALSA_0.9.0rc4) [ALSA]
snd_pcm_sw_params_malloc(ALSA_0.9) [ALSA]	snd_pcm_sw_params_set_avail_min(ALSA_0.9) [ALSA]
snd_pcm_sw_params_set_silence_threshold(ALSA_0.9) [ALSA]	snd_pcm_sw_params_set_start_threshold(ALSA_0.9) [ALSA]
snd_pcm_sw_params_set_tstamp_mode(ALSA_0.9) [ALSA]	snd_pcm_sw_params_set_xfer_align(ALSA_0.9) [ALSA]

An LSB conforming implementation shall provide the generic deprecated functions for ALSA PCM Interface - Software Parameters specified in [Table 20-22](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 20-22. libasound - ALSA PCM Interface - Software Parameters Deprecated Function Interfaces

snd_pcm_sw_params_set_xfer_align(ALSA_0.9) [ALSA]		

20.1.19. ALSA PCM Interface - Status Functions

20.1.19.1. Interfaces for ALSA PCM Interface - Status Functions

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Status Functions specified in [Table 20-23](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-23. libasound - ALSA PCM Interface - Status Functions Function Interfaces

snd_pcm_status_copy(ALSA_0.9) [ALSA]	snd_pcm_status_free(ALSA_0.9) [ALSA]	snd_pcm_status_get_avail(ALSA_0.9) [ALSA]
snd_pcm_status_get_avail_max(ALSA_0.9) [ALSA]	snd_pcm_status_get_delay(ALSA_0.9) [ALSA]	snd_pcm_status_get_state(ALSA_0.9) [ALSA]
snd_pcm_status_get_trigger_tstamp(ALSA_0.9) [ALSA]	snd_pcm_status_get_tstamp(ALSA_0.9) [ALSA]	snd_pcm_status_malloc(ALSA_0.9) [ALSA]
snd_pcm_status_sizeof(ALSA_0.9) [ALSA]		

20.1.20. ALSA PCM Interface - Stream Information

20.1.20.1. Interfaces for ALSA PCM Interface - Stream Information

An LSB conforming implementation shall provide the generic functions for ALSA PCM Interface - Stream Information specified in [Table 20-24](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-24. libasound - ALSA PCM Interface - Stream Information Function Interfaces

snd_pcm_info_copy(ALSA_0.9) [ALSA]	snd_pcm_info_free(ALSA_0.9) [ALSA]	snd_pcm_info_get_name(ALSA_0.9) [ALSA]
snd_pcm_info_get_class(ALSA_0.9) [ALSA]	snd_pcm_info_get_device(ALSA_0.9) [ALSA]	snd_pcm_info_get_subdevice_name(ALSA_0.9) [ALSA]
snd_pcm_info_get_name(ALSA_0.9) [ALSA]	snd_pcm_info_get_stream(ALSA_0.9) [ALSA]	snd_pcm_info_get_subdevices_avail(ALSA_0.9) [ALSA]
snd_pcm_info_get_subdevice_name(ALSA_0.9) [ALSA]	snd_pcm_info_get_subdevices_avail(ALSA_0.9) [ALSA]	snd_pcm_info_get_subdevice(ALSA_0.9) [ALSA]
snd_pcm_info_malloc(ALSA_0.9) [ALSA]	snd_pcm_info_set_device(ALSA_0.9) [ALSA]	snd_pcm_info_sizeof(ALSA_0.9) [ALSA]
snd_pcm_info_set_subdevice(ALSA_0.9) [ALSA]	snd_pcm_info_sizeof(ALSA_0.9) [ALSA]	

20.1.21. ALSA Sequencer Event Type Checks

20.1.21.1. Interfaces for ALSA Sequencer Event Type Checks

No external functions are defined for libasound - ALSA Sequencer Event Type Checks in this part of the specification. See also the relevant architecture specific part of this specification.

An LSB conforming implementation shall provide the generic data interfaces for ALSA Sequencer Event Type Checks specified in [Table 20-25](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-25. libasound - ALSA Sequencer Event Type Checks Data Interfaces

snd_seq_event_types(ALSA_0.9) [ALSA]	

20.1.22. ALSA Error Handling

20.1.22.1. Interfaces for ALSA Error Handling

An LSB conforming implementation shall provide the generic functions for ALSA Error Handling specified in [Table 20-26](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-26. libasound - ALSA Error Handling Function Interfaces

snd_lib_error_set_handler(ALSA_0.9) [ALSA]	snd_strerror(ALSA_0.9) [ALSA]	

20.1.23. ALSA RawMidi Interface

20.1.23.1. Interfaces for ALSA RawMidi Interface

An LSB conforming implementation shall provide the generic functions for ALSA RawMidi Interface specified in [Table 20-27](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-27. libasound - ALSA RawMidi Interface Function Interfaces

snd_rawmidi_close(ALSA_0.9) [ALSA]	snd_rawmidi_drain(ALSA_0.9) [ALSA]	snd_rawmidi...
snd_rawmidi_info(ALSA_0.9) [ALSA]	snd_rawmidi_info_copy(ALSA_0.9) [ALSA]	snd_rawmidi...
snd_rawmidi_info_get_card(ALSA_0.9) [ALSA]	snd_rawmidi_info_get_device(ALSA_0.9) [ALSA]	snd_rawmidi...
snd_rawmidi_info_get_id(ALSA_0.9) [ALSA]	snd_rawmidi_info_get_name(ALSA_0.9) [ALSA]	snd_rawmidi...
snd_rawmidi_info_get_subdevice(ALSA_0.9) [ALSA]	snd_rawmidi_info_get_subdevice_name(ALSA_0.9) [ALSA]	snd_rawmidi... [ALSA]
snd_rawmidi_info_get_subdevices_count(ALSA_0.9) [ALSA]	snd_rawmidi_info_malloc(ALSA_0.9) [ALSA]	snd_rawmidi...
snd_rawmidi_info_set_stream(ALSA_0.9) [ALSA]	snd_rawmidi_info_set_subdevice(ALSA_0.9) [ALSA]	snd_rawmidi...
snd_rawmidi_nonblock(ALSA_0.9) [ALSA]	snd_rawmidi_open(ALSA_0.9) [ALSA]	snd_rawmidi...
snd_rawmidi_poll_descriptors_count(ALSA_0.9) [ALSA]	snd_rawmidi_poll_descriptors_revents(ALSA_0.9) [ALSA]	snd_rawmidi...
snd_rawmidi_write(ALSA_0.9) [ALSA]		

20.1.24. ALSA Sequencer Client Interface

20.1.24.1. Interfaces for ALSA Sequencer Client Interface

An LSB conforming implementation shall provide the generic functions for ALSA Sequencer Client Interface specified in [Table 20-28](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-28. libasound - ALSA Sequencer Client Interface Function Interfaces

snd_seq_client_info_copy(ALSA_0.9) [ALSA]	snd_seq_client_info_free(ALSA_0.9) [ALSA]	snd_seq_client_info_g [ALSA]
snd_seq_client_info_get_name(ALSA_0.9) [ALSA]	snd_seq_client_info_get_num_ports(ALSA_0.9) [ALSA]	snd_seq_client_info_g [ALSA]
snd_seq_client_info_malloc(ALSA_0.9) [ALSA]	snd_seq_client_info_set_client(ALSA_0.9) [ALSA]	snd_seq_client_info_s [ALSA]
snd_seq_client_info_sizeof(ALSA_0.9) [ALSA]	snd_seq_get_any_client_info(ALSA_0.9) [ALSA]	snd_seq_get_client_in [ALSA]
snd_seq_query_next_client(ALSA_0.9) [ALSA]	snd_seq_set_client_info(ALSA_0.9) [ALSA]	

20.1.25. ALSA Sequencer Event API

20.1.25.1. Interfaces for ALSA Sequencer Event API

An LSB conforming implementation shall provide the generic functions for ALSA Sequencer Event API specified in [Table 20-29](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-29. libasound - ALSA Sequencer Event API Function Interfaces

snd_seq_drain_output(ALSA_0.9) [ALSA]	snd_seq_drop_output(ALSA_0.9) [ALSA]	snd_seq_drop_output_buffer(ALSA_0.9) [ALSA]
snd_seq_event_input(ALSA_0.9) [ALSA]	snd_seq_event_input_pending(ALSA_0.9) [ALSA]	snd_seq_event_length(ALSA_0.9) [ALSA]
snd_seq_event_output(ALSA_0.9) [ALSA]	snd_seq_event_output_direct(ALSA_0.9) [ALSA]	snd_seq_free_event(ALSA_0.9) [ALSA]

An LSB conforming implementation shall provide the generic deprecated functions for ALSA Sequencer Event API specified in [Table 20-30](#), with the full mandatory functionality as described in the referenced underlying specification.

Note: These interfaces are deprecated, and applications should avoid using them. These interfaces may be withdrawn in future releases of this specification.

Table 20-30. libasound - ALSA Sequencer Event API Deprecated Function Interfaces

snd_seq_free_event(ALSA_0.9) [ALSA]		

20.1.26. ALSA Sequencer Middle Level Interface

20.1.26.1. Interfaces for ALSA Sequencer Middle Level Interface

An LSB conforming implementation shall provide the generic functions for ALSA Sequencer Middle Level Interface specified in [Table 20-31](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-31. libasound - ALSA Sequencer Middle Level Interface Function Interfaces

snd_seq_connect_from(ALSA_0.9) [ALSA]	snd_seq_connect_to(ALSA_0.9) [ALSA]	snd_seq_control_queue(ALSA_0.9) [ALSA]
snd_seq_create_simple_port(ALSA_0.9) [ALSA]	snd_seq_delete_simple_port(ALSA_0.9) [ALSA]	snd_seq_disconnect_from(ALSA_0.9) [ALSA]
snd_seq_disconnect_to(ALSA_0.9) [ALSA]	snd_seq_parse_address(ALSA_0.9) [ALSA]	snd_seq_set_client_name(ALSA_0.9) [ALSA]
snd_seq_sync_output_queue(ALSA_0.9) [ALSA]		

20.1.27. ALSA Sequencer Port Interface

20.1.27.1. Interfaces for ALSA Sequencer Port Interface

An LSB conforming implementation shall provide the generic functions for ALSA Sequencer Port Interface specified in [Table 20-32](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-32. libasound - ALSA Sequencer Port Interface Function Interfaces

snd_seq_create_port(ALSA_0.9) [ALSA]	snd_seq_delete_port(ALSA_0.9) [ALSA]	snd_seq_get_port_info(ALSA_0.9) [ALSA]
snd_seq_get_port_info(ALSA_0.9) [ALSA]	snd_seq_port_info_copy(ALSA_0.9) [ALSA]	snd_seq_port_info_get_addr(ALSA_0.9) [ALSA]
snd_seq_port_info_get_addr(ALSA_0.9) [ALSA]	snd_seq_port_info_get_capability(ALSA_0.9) [ALSA]	snd_seq_port_info_get_name(ALSA_0.9) [ALSA]
snd_seq_port_info_get_name(ALSA_0.9) [ALSA]	snd_seq_port_info_get_port(ALSA_0.9) [ALSA]	snd_seq_port_info_malloc(ALSA_0.9) [ALSA]
snd_seq_port_info_malloc(ALSA_0.9) [ALSA]	snd_seq_port_info_set_capability(ALSA_0.9) [ALSA]	snd_seq_port_info_set_midi_channels(ALSA_0.9) [ALSA]
snd_seq_port_info_set_midi_channels(ALSA_0.9) [ALSA]	snd_seq_port_info_set_name(ALSA_0.9) [ALSA]	snd_seq_port_info_set_port(ALSA_0.9) [ALSA]

snd_seq_port_info_set_port_specified(ALSA_0.9) [ALSA]	snd_seq_port_info_set_timestamp_queue(ALSA_0.9) [ALSA]	snd_seq_... [ALSA]
snd_seq_port_info_set_timestamping(ALSA_0.9) [ALSA]	snd_seq_port_info_set_type(ALSA_0.9) [ALSA]	snd_seq_...
snd_seq_query_next_port(ALSA_0.9) [ALSA]	snd_seq_set_port_info(ALSA_0.9) [ALSA]	

20.1.28. ALSA Sequencer Port Subscription

20.1.28.1. Interfaces for ALSA Sequencer Port Subscription

An LSB conforming implementation shall provide the generic functions for ALSA Sequencer Port Subscription specified in [Table 20-33](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-33. libasound - ALSA Sequencer Port Subscription Function Interfaces

snd_seq_get_port_subscription(ALSA_0.9) [ALSA]	snd_seq_port_subscribe_copy(ALSA_0.9) [ALSA]	snd_seq_...
snd_seq_port_subscribe_get_dest(ALSA_0.9) [ALSA]	snd_seq_port_subscribe_get_exclusive(ALSA_0.9) [ALSA]	snd_seq_... [ALSA]
snd_seq_port_subscribe_get_sender(ALSA_0.9) [ALSA]	snd_seq_port_subscribe_get_time_real(ALSA_0.9) [ALSA]	snd_seq_... [ALSA]
snd_seq_port_subscribe_malloc(ALSA_0.9) [ALSA]	snd_seq_port_subscribe_set_dest(ALSA_0.9) [ALSA]	snd_seq_... [ALSA]
snd_seq_port_subscribe_set_queue(ALSA_0.9) [ALSA]	snd_seq_port_subscribe_set_sender(ALSA_0.9) [ALSA]	snd_seq_... [ALSA]
snd_seq_port_subscribe_set_time_update(ALSA_0.9) [ALSA]	snd_seq_port_subscribe_sizeof(ALSA_0.9) [ALSA]	snd_seq_...
snd_seq_query_subscribe_copy(ALSA_0.9) [ALSA]	snd_seq_query_subscribe_free(ALSA_0.9) [ALSA]	snd_seq_... [ALSA]
snd_seq_query_subscribe_get_exclusive(ALSA_0.9) [ALSA]	snd_seq_query_subscribe_get_index(ALSA_0.9) [ALSA]	snd_seq_... [ALSA]
snd_seq_query_subscribe_get_root(ALSA_0.9) [ALSA]	snd_seq_query_subscribe_get_time_real(ALSA_0.9) [ALSA]	snd_seq_... [ALSA]
snd_seq_query_subscribe_malloc(ALSA_0.9) [ALSA]	snd_seq_query_subscribe_set_index(ALSA_0.9) [ALSA]	snd_seq_... [ALSA]
snd_seq_query_subscribe_set_type(ALSA_0.9) [ALSA]	snd_seq_query_subscribe_sizeof(ALSA_0.9) [ALSA]	snd_seq_...
snd_seq_unsubscribe_port(ALSA_0.9) [ALSA]		

20.1.29. ALSA Sequencer Queue Interface

20.1.29.1. Interfaces for ALSA Sequencer Queue Interface

An LSB conforming implementation shall provide the generic functions for ALSA Sequencer Queue Interface specified in [Table 20-34](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-34. libasound - ALSA Sequencer Queue Interface Function Interfaces

snd_seq_alloc_named_queue(ALSA_0.9) [ALSA]	snd_seq_alloc_queue(ALSA_0.9) [ALSA]	snd_seq_free_queue(ALSA_0.9) [ALSA]
snd_seq_get_queue_status(ALSA_0.9) [ALSA]	snd_seq_get_queue_tempo(ALSA_0.9) [ALSA]	snd_seq_queue_status(ALSA_0.9) [ALSA]
snd_seq_queue_status_free(ALSA_0.9) [ALSA]	snd_seq_queue_status_get_real_time(ALSA_0.9) [ALSA]	snd_seq_queue_status_get_real_time(ALSA_0.9) [ALSA]
snd_seq_queue_status_malloc(ALSA_0.9) [ALSA]	snd_seq_queue_status_sizeof(ALSA_0.9) [ALSA]	snd_seq_queue_tempo_malloc(ALSA_0.9) [ALSA]
snd_seq_queue_tempo_free(ALSA_0.9) [ALSA]	snd_seq_queue_tempo_get_ppq(ALSA_0.9) [ALSA]	snd_seq_queue_tempo_get_ppq(ALSA_0.9) [ALSA]
snd_seq_queue_tempo_malloc(ALSA_0.9) [ALSA]	snd_seq_queue_tempo_set_ppq(ALSA_0.9) [ALSA]	snd_seq_queue_tempo_set_ppq(ALSA_0.9) [ALSA]
snd_seq_queue_tempo_sizeof(ALSA_0.9) [ALSA]	snd_seq_set_queue_tempo(ALSA_0.9) [ALSA]	

20.1.30. ALSA Sequencer event - MIDI byte stream coder

20.1.30.1. Interfaces for ALSA Sequencer event - MIDI byte stream coder

An LSB conforming implementation shall provide the generic functions for ALSA Sequencer event - MIDI byte stream coder specified in [Table 20-35](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-35. libasound - ALSA Sequencer event - MIDI byte stream coder Function Interfaces

snd_midi_event_decode(ALSA_0.9) [ALSA]	snd_midi_event_encode(ALSA_0.9) [ALSA]	snd_midi_event_encode_byte(ALSA_0.9) [ALSA]
snd_midi_event_free(ALSA_0.9) [ALSA]	snd_midi_event_init(ALSA_0.9) [ALSA]	snd_midi_event_new(ALSA_0.9) [ALSA]
snd_midi_event_reset_decode(ALSA_0.9) [ALSA]	snd_midi_event_reset_encode(ALSA_0.9) [ALSA]	

20.1.31. ALSA Simple Mixer Interface

20.1.31.1. Interfaces for ALSA Simple Mixer Interface

An LSB conforming implementation shall provide the generic functions for ALSA Simple Mixer Interface specified in [Table 20-36](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-36. libasound - ALSA Simple Mixer Interface Function Interfaces

<code>snd_mixer_find_selem(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_channel_name(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_get_capture_switch(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_get_capture_volume(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_get_enum_item(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_get_enum_item_name(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_get_id(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_get_index(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_get_playback_switch(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_get_playback_volume(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_has_capture_channel(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_has_capture_switch(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_has_capture_switch_joined(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_has_capture_volume(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_has_common_switch(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_has_common_volume(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_has_playback_switch(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_has_playback_switch_joined(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_has_playback_volume_joined(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_id_copy(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_id_get_index(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_id_get_name(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_id_set_index(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_id_set_name(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_is_active(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_is_capture_mono(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_is_enum_playback(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_is_enumerated(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_register(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_set_capture_switch(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_set_capture_volume(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_set_capture_volume_all(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_set_enum_item(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_set_playback_switch(ALSA_0.9)</code> [ALSA]
<code>snd_mixer_selem_set_playback_volume(ALSA_0.9)</code> [ALSA]	<code>snd_mixer_selem_set_playback_volume_all(ALSA_0.9)</code> [ALSA]

20.1.32. ALSA Timer Interface

20.1.32.1. Interfaces for ALSA Timer Interface

An LSB conforming implementation shall provide the generic functions for ALSA Timer Interface specified in [Table 20-37](#), with the full mandatory functionality as described in the referenced underlying specification.

Table 20-37. libasound - ALSA Timer Interface Function Interfaces

snd_timer_close(ALSA_0.9) [ALSA]	snd_timer_continue(ALSA_0.9) [ALSA]	snd_timer_id_copy(ALSA_0.9) [ALSA]
snd_timer_id_free(ALSA_0.9) [ALSA]	snd_timer_id_get_card(ALSA_0.9) [ALSA]	snd_timer_id_get_class(ALSA_0.9) [ALSA]
snd_timer_id_get_device(ALSA_0.9) [ALSA]	snd_timer_id_get_sclass(ALSA_0.9) [ALSA]	snd_timer_id_get_subdevice(ALSA_0.9) [ALSA]
snd_timer_id_malloc(ALSA_0.9) [ALSA]	snd_timer_id_set_card(ALSA_0.9) [ALSA]	snd_timer_id_set_class(ALSA_0.9) [ALSA]
snd_timer_id_set_device(ALSA_0.9) [ALSA]	snd_timer_id_set_sclass(ALSA_0.9) [ALSA]	snd_timer_id_set_subdevice(ALSA_0.9) [ALSA]
snd_timer_id_sizeof(ALSA_0.9) [ALSA]	snd_timer_info(ALSA_0.9) [ALSA]	snd_timer_info_copy(ALSA_0.9) [ALSA]
snd_timer_info_free(ALSA_0.9) [ALSA]	snd_timer_info_get_card(ALSA_0.9) [ALSA]	snd_timer_info_get_id(ALSA_0.9) [ALSA]
snd_timer_info_get_name(ALSA_0.9) [ALSA]	snd_timer_info_get_resolution(ALSA_0.9) [ALSA]	snd_timer_info_malloc(ALSA_0.9) [ALSA]
snd_timer_info_sizeof(ALSA_0.9) [ALSA]	snd_timer_open(ALSA_0.9) [ALSA]	snd_timer_params(ALSA_0.9) [ALSA]
snd_timer_params_get_ticks(ALSA_0.9) [ALSA]	snd_timer_params_malloc(ALSA_0.9) [ALSA]	snd_timer_params_set_auto(ALSA_0.9) [ALSA]
snd_timer_params_set_ticks(ALSA_0.9) [ALSA]	snd_timer_poll_descriptors(ALSA_0.9) [ALSA]	snd_timer_poll_descriptors_t(ALSA_0.9) [ALSA]
snd_timer_read(ALSA_0.9) [ALSA]	snd_timer_start(ALSA_0.9) [ALSA]	snd_timer_status(ALSA_0.9) [ALSA]
snd_timer_status_free(ALSA_0.9) [ALSA]	snd_timer_status_get_lost(ALSA_0.9) [ALSA]	snd_timer_status_get_overrun(ALSA_0.9) [ALSA]
snd_timer_status_get_queue(ALSA_0.9) [ALSA]	snd_timer_status_get_resolution(ALSA_0.9) [ALSA]	snd_timer_status_malloc(ALSA_0.9) [ALSA]
snd_timer_stop(ALSA_0.9) [ALSA]		

20.2. Data Definitions for libasound

This section defines global identifiers and their values that are associated with interfaces contained in libasound. These definitions are organized into groups that correspond to system headers. This convention is used as a convenience for the reader, and does not imply the existence of these headers, or their content.

Where an interface is defined as requiring a particular system header file all of the data definitions for that system header file presented here shall be in effect.

This section gives data definitions to promote binary application portability, not to repeat source interface definitions available elsewhere. System providers and application developers should use this ABI to supplement - not to replace - source interface definition specifications.

This specification uses the [ISO C \(1999\)](#) C Language as the reference programming language, and data definitions are specified in ISO C format. The C language is used here as a convenient notation. Using a C language description of these data objects does not preclude their use by other programming languages.

20.2.1. alsa/conf.h

```
typedef struct _snd_config_iterator *snd_config_iterator_t;
typedef struct _snd_config snd_config_t;
typedef enum _snd_config_type {
    SND_CONFIG_TYPE_INTEGER,
    SND_CONFIG_TYPE_INTEGER64 = 1,
    SND_CONFIG_TYPE_REAL = 2,
    SND_CONFIG_TYPE_STRING = 3,
    SND_CONFIG_TYPE_POINTER = 4,
    SND_CONFIG_TYPE_COMPOUND = 1024
} snd_config_type_t;
typedef struct _snd_config_update snd_config_update_t;
typedef struct snd_devname {
    char *name;
    char *comment;
    snd_devname_t *next;
} snd_devname_t;
extern snd_config_t *snd_config;
extern int snd_config_add(snd_config_t * config, snd_config_t * leaf);
extern int snd_config_copy(snd_config_t * *dst, snd_config_t * src);
extern int snd_config_delete(snd_config_t * config);
extern int snd_config_get_ascii(const snd_config_t * config, char **value);
extern int snd_config_get_id(const snd_config_t * config,
                           const char **value);
extern int snd_config_get_integer(const snd_config_t * config,
                                long int *value);
extern int snd_config_get_integer64(const snd_config_t * config,
                                   long long int *value);
extern int snd_config_get_string(const snd_config_t * config,
                                const char **value);
extern snd_config_type_t snd_config_get_type(const snd_config_t * config);
extern int snd_config_imake_integer(snd_config_t * *config,
                                   const char *key, const long int value);
extern int snd_config_imake_integer64(snd_config_t * *config,
                                      const char *key,
                                      const long long int value);
extern int snd_config_imake_string(snd_config_t * *config, const char *key,
                                  const char *ascii);
extern snd_config_iterator_t snd_config_iterator_end(const snd_config_t *
                                                    node);
```

```

extern snd_config_t *snd_config_iterator_entry(const snd_config_iterator_t
                                              iterator);
extern snd_config_iterator_t snd_config_iterator_first(const snd_config_t *
                                                       node);
extern snd_config_iterator_t snd_config_iterator_next(const
                                                       snd_config_iterator_t
                                                       iterator);
extern int snd_config_load(snd_config_t * config, snd_input_t * in);
extern int snd_config_make_compound(snd_config_t * *config,
                                    const char *key, int join);
extern int snd_config_make_integer(snd_config_t * *config,
                                   const char *key);
extern int snd_config_make_integer64(snd_config_t * *config,
                                     const char *key);
extern int snd_config_make_string(snd_config_t * *config, const char *key);
extern int snd_config_save(snd_config_t * config, snd_output_t * out);
extern int snd_config_search(snd_config_t * config, const char *key,
                             snd_config_t * *result);
extern int snd_config_searchv(snd_config_t * config,
                              snd_config_t * *result, ...);
extern int snd_config_set_ascii(snd_config_t * config, const char *ascii);
extern int snd_config_set_integer(snd_config_t * config, long int value);
extern int snd_config_set_integer64(snd_config_t * config,
                                    long long int value);
extern int snd_config_set_string(snd_config_t * config, const char *value);
extern int snd_config_top(snd_config_t * *config);
extern int snd_config_update(void);
extern int snd_config_update_free_global(void);

```

20.2.2. alsa/control.h

```

#define SND_CTL_EVENT_MASK_VALUE      (1<<0)
#define SND_CTL_EVENT_MASK_INFO      (1<<1)
#define SND_CTL_EVENT_MASK_ADD       (1<<2)
#define SND_CTL_EVENT_MASK_TLV       (1<<3)
#define SND_CTL_POWER_D3hot          (SND_CTL_POWER_D3|0x0000)
#define SND_CTL_POWER_D3cold         (SND_CTL_POWER_D3|0x0001)
#define SND_CTL_EVENT_MASK_REMOVE     (~0U)
#define SND_CTL_TLV_DB_GAIN_MUTE      -9999999
#define SND_CTL_POWER_D0              0x0000
#define SND_CTL_TLVT_CONTAINER        0x0000
#define SND_CTL_NONBLOCK              0x0001
#define SND_CTL_TLVT_DB_SCALE         0x0001
#define SND_SCTL_NOFREE               0x0001
#define SND_CTL_ASYNC                 0x0002
#define SND_CTL_TLVT_DB_LINEAR        0x0002
#define SND_CTL_TLVT_DB_RANGE        0x0003
#define SND_CTL_READONLY              0x0004
#define SND_CTL_POWER_D1              0x0100
#define SND_CTL_POWER_D2              0x0200
#define SND_CTL_POWER_D3              0x0300
#define SND_CTL_POWER_MASK           0xff00

typedef struct snd_aes_iec958 {
    unsigned char status[24];
    unsigned char subcode[147];
    unsigned char pad;
    unsigned char dig_subframe[4];
} snd_aes_iec958_t;
typedef struct _snd_ctl_card_info snd_ctl_card_info_t;
typedef struct sndrv_ctl_elem_id snd_ctl_elem_id_t;

```

```

typedef enum _snd_ctl_elem_iface {
    SND_CTL_ELEM_IFACE_CARD,
    SND_CTL_ELEM_IFACE_HWDEP = 1,
    SND_CTL_ELEM_IFACE_MIXER = 2,
    SND_CTL_ELEM_IFACE_PCM = 3,
    SND_CTL_ELEM_IFACE_RAWMIDI = 4,
    SND_CTL_ELEM_IFACE_TIMER = 5,
    SND_CTL_ELEM_IFACE_SEQUENCER = 6,
    SND_CTL_ELEM_IFACE_LAST = 6
} snd_ctl_elem_iface_t;
typedef struct _snd_ctl_elem_info snd_ctl_elem_info_t;
typedef struct sndrv_ctl_elem_list snd_ctl_elem_list_t;
typedef enum _snd_ctl_elem_type {
    SND_CTL_ELEM_TYPE_NONE,
    SND_CTL_ELEM_TYPE_BOOLEAN = 1,
    SND_CTL_ELEM_TYPE_INTEGER = 2,
    SND_CTL_ELEM_TYPE_ENUMERATED = 3,
    SND_CTL_ELEM_TYPE_BYTES = 4,
    SND_CTL_ELEM_TYPE_IEC958 = 5,
    SND_CTL_ELEM_TYPE_INTEGER64 = 6,
    SND_CTL_ELEM_TYPE_LAST = 6
} snd_ctl_elem_type_t;
typedef struct _snd_ctl_elem_value snd_ctl_elem_value_t;
typedef struct sndrv_ctl_event snd_ctl_event_t;
typedef enum _snd_ctl_event_type {
    SND_CTL_EVENT_ELEM,
    SND_CTL_EVENT_LAST
} snd_ctl_event_type_t;
typedef struct _snd_ctl snd_ctl_t;
typedef enum _snd_ctl_type {
    SND_CTL_TYPE_HW,
    SND_CTL_TYPE_SHM = 1,
    SND_CTL_TYPE_INET = 2,
    SND_CTL_TYPE_EXT = 3
} snd_ctl_type_t;
typedef struct _snd_hctl snd_hctl_t;
typedef struct _snd_sctl snd_sctl_t;
typedef struct _snd_hctl_elem snd_hctl_elem_t;
typedef int (*snd_hctl_compare_t) (const snd_hctl_elem_t *,
                                   const snd_hctl_elem_t *);
typedef int (*snd_hctl_callback_t) (snd_hctl_t *, unsigned int,
                                    snd_hctl_elem_t *);
typedef int (*snd_hctl_elem_callback_t) (snd_hctl_elem_t *, unsigned int);
extern int snd_async_add_ctl_handler(snd_async_handler_t * handler,
                                    snd_ctl_t * ctl,
                                    snd_async_callback_t callback,
                                    void *private_data);
extern snd_ctl_t *snd_async_handler_get_ctl(snd_async_handler_t * handler);
extern int snd_card_get_index(const char *name);
extern int snd_card_get_longname(int card, char **name);
extern int snd_card_get_name(int card, char **name);
extern int snd_card_load(int card);
extern int snd_card_next(int *card);
extern int snd_ctl_card_info(snd_ctl_t * ctl, snd_ctl_card_info_t * info);
extern void snd_ctl_card_info_clear(snd_ctl_card_info_t * obj);
extern void snd_ctl_card_info_copy(snd_ctl_card_info_t * dst,
                                   const snd_ctl_card_info_t * src);
extern void snd_ctl_card_info_free(snd_ctl_card_info_t * obj);
extern const char *snd_ctl_card_info_get_components(const
                                                    snd_ctl_card_info_t *
                                                    obj);
extern const char *snd_ctl_card_info_get_driver(const snd_ctl_card_info_t *

```

```

                                obj);
extern const char *snd_ctl_card_info_get_id(const snd_ctl_card_info_t *
                                obj);
extern const char *snd_ctl_card_info_get_longname(const snd_ctl_card_info_t
                                * obj);
extern const char *snd_ctl_card_info_get_mixername(const
                                snd_ctl_card_info_t *
                                obj);
extern const char *snd_ctl_card_info_get_name(const snd_ctl_card_info_t *
                                obj);
extern int snd_ctl_card_info_malloc(snd_ctl_card_info_t * *ptr);
extern size_t snd_ctl_card_info_sizeof(void);
extern int snd_ctl_close(snd_ctl_t * ctl);
extern int snd_ctl_elem_add_boolean(snd_ctl_t * ctl,
                                const snd_ctl_elem_id_t * id,
                                unsigned int count);
extern int snd_ctl_elem_add_iec958(snd_ctl_t * ctl,
                                const snd_ctl_elem_id_t * id);
extern int snd_ctl_elem_add_integer(snd_ctl_t * ctl,
                                const snd_ctl_elem_id_t * id,
                                unsigned int count, long int imin,
                                long int imax, long int istep);
extern void snd_ctl_elem_id_clear(snd_ctl_elem_id_t * obj);
extern void snd_ctl_elem_id_copy(snd_ctl_elem_id_t * dst,
                                const snd_ctl_elem_id_t * src);
extern void snd_ctl_elem_id_free(snd_ctl_elem_id_t * obj);
extern unsigned int snd_ctl_elem_id_get_device(const snd_ctl_elem_id_t *
                                obj);
extern unsigned int snd_ctl_elem_id_get_index(const snd_ctl_elem_id_t *
                                obj);
extern snd_ctl_elem_iface_t snd_ctl_elem_id_get_interface(const
                                snd_ctl_elem_id_t
                                * obj);
extern const char *snd_ctl_elem_id_get_name(const snd_ctl_elem_id_t * obj);
extern unsigned int snd_ctl_elem_id_get_numid(const snd_ctl_elem_id_t *
                                obj);
extern unsigned int snd_ctl_elem_id_get_subdevice(const snd_ctl_elem_id_t *
                                obj);
extern int snd_ctl_elem_id_malloc(snd_ctl_elem_id_t * *ptr);
extern void snd_ctl_elem_id_set_device(snd_ctl_elem_id_t * obj,
                                unsigned int val);
extern void snd_ctl_elem_id_set_index(snd_ctl_elem_id_t * obj,
                                unsigned int val);
extern void snd_ctl_elem_id_set_interface(snd_ctl_elem_id_t * obj,
                                snd_ctl_elem_iface_t val);
extern void snd_ctl_elem_id_set_name(snd_ctl_elem_id_t * obj,
                                const char *val);
extern void snd_ctl_elem_id_set_numid(snd_ctl_elem_id_t * obj,
                                unsigned int val);
extern void snd_ctl_elem_id_set_subdevice(snd_ctl_elem_id_t * obj,
                                unsigned int val);
extern size_t snd_ctl_elem_id_sizeof(void);
extern const char *snd_ctl_elem_iface_name(snd_ctl_elem_iface_t iface);
extern int snd_ctl_elem_info(snd_ctl_t * ctl, snd_ctl_elem_info_t * info);
extern void snd_ctl_elem_info_clear(snd_ctl_elem_info_t * obj);
extern void snd_ctl_elem_info_copy(snd_ctl_elem_info_t * dst,
                                const snd_ctl_elem_info_t * src);
extern void snd_ctl_elem_info_free(snd_ctl_elem_info_t * obj);
extern unsigned int snd_ctl_elem_info_get_count(const snd_ctl_elem_info_t *
                                obj);
extern void snd_ctl_elem_info_get_id(const snd_ctl_elem_info_t * obj,
                                snd_ctl_elem_id_t * ptr);

```

```

extern const char *snd_ctl_elem_info_get_item_name(const
                                                    snd_ctl_elem_info_t *
                                                    obj);
extern unsigned int snd_ctl_elem_info_get_items(const snd_ctl_elem_info_t *
                                                    obj);
extern long int snd_ctl_elem_info_get_max(const snd_ctl_elem_info_t * obj);
extern long long int snd_ctl_elem_info_get_max64(const snd_ctl_elem_info_t
                                                    * obj);
extern long int snd_ctl_elem_info_get_min(const snd_ctl_elem_info_t * obj);
extern long long int snd_ctl_elem_info_get_min64(const snd_ctl_elem_info_t
                                                    * obj);
extern const char *snd_ctl_elem_info_get_name(const snd_ctl_elem_info_t *
                                                    obj);
extern unsigned int snd_ctl_elem_info_get_numid(const snd_ctl_elem_info_t *
                                                    obj);
extern long int snd_ctl_elem_info_get_step(const snd_ctl_elem_info_t *
                                                    obj);
extern long long int snd_ctl_elem_info_get_step64(const snd_ctl_elem_info_t
                                                    * obj);
extern snd_ctl_elem_type_t snd_ctl_elem_info_get_type(const
                                                    snd_ctl_elem_info_t *
                                                    obj);
extern int snd_ctl_elem_info_is_inactive(const snd_ctl_elem_info_t * obj);
extern int snd_ctl_elem_info_is_locked(const snd_ctl_elem_info_t * obj);
extern int snd_ctl_elem_info_is_readable(const snd_ctl_elem_info_t * obj);
extern int snd_ctl_elem_info_is_user(const snd_ctl_elem_info_t * obj);
extern int snd_ctl_elem_info_is_volatile(const snd_ctl_elem_info_t * obj);
extern int snd_ctl_elem_info_is_writable(const snd_ctl_elem_info_t * obj);
extern int snd_ctl_elem_info_malloc(snd_ctl_elem_info_t * *ptr);
extern void snd_ctl_elem_info_set_id(snd_ctl_elem_info_t * obj,
                                     const snd_ctl_elem_id_t * ptr);
extern void snd_ctl_elem_info_set_item(snd_ctl_elem_info_t * obj,
                                       unsigned int val);
extern size_t snd_ctl_elem_info_sizeof(void);
extern int snd_ctl_elem_list(snd_ctl_t * ctl, snd_ctl_elem_list_t * list);
extern int snd_ctl_elem_list_alloc_space(snd_ctl_elem_list_t * obj,
                                         unsigned int entries);
extern void snd_ctl_elem_list_clear(snd_ctl_elem_list_t * obj);
extern void snd_ctl_elem_list_copy(snd_ctl_elem_list_t * dst,
                                   const snd_ctl_elem_list_t * src);
extern void snd_ctl_elem_list_free(snd_ctl_elem_list_t * obj);
extern void snd_ctl_elem_list_free_space(snd_ctl_elem_list_t * obj);
extern unsigned int snd_ctl_elem_list_get_count(const snd_ctl_elem_list_t *
                                                obj);
extern void snd_ctl_elem_list_get_id(const snd_ctl_elem_list_t * obj,
                                     unsigned int idx,
                                     snd_ctl_elem_id_t * ptr);
extern const char *snd_ctl_elem_list_get_name(const snd_ctl_elem_list_t *
                                              obj, unsigned int idx);
extern unsigned int snd_ctl_elem_list_get_used(const snd_ctl_elem_list_t *
                                              obj);
extern int snd_ctl_elem_list_malloc(snd_ctl_elem_list_t * *ptr);
extern void snd_ctl_elem_list_set_offset(snd_ctl_elem_list_t * obj,
                                         unsigned int val);
extern size_t snd_ctl_elem_list_sizeof(void);
extern int snd_ctl_elem_read(snd_ctl_t * ctl,
                             snd_ctl_elem_value_t * value);
extern int snd_ctl_elem_remove(snd_ctl_t * ctl, snd_ctl_elem_id_t * id);
extern const char *snd_ctl_elem_type_name(snd_ctl_elem_type_t type);
extern void snd_ctl_elem_value_clear(snd_ctl_elem_value_t * obj);
extern void snd_ctl_elem_value_copy(snd_ctl_elem_value_t * dst,
                                    const snd_ctl_elem_value_t * src);

```

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```
extern void snd_ctl_elem_value_free(snd_ctl_elem_value_t * obj);
extern int snd_ctl_elem_value_get_boolean(const snd_ctl_elem_value_t * obj,
                                         unsigned int idx);
extern unsigned char snd_ctl_elem_value_get_byte(const snd_ctl_elem_value_t
                                                * obj, unsigned int idx);
extern const void *snd_ctl_elem_value_get_bytes(const snd_ctl_elem_value_t
                                                * obj);
extern unsigned int snd_ctl_elem_value_get_enumerated(const
                                                    snd_ctl_elem_value_t
                                                    * obj,
                                                    unsigned int idx);
extern void snd_ctl_elem_value_get_id(const snd_ctl_elem_value_t * obj,
                                     snd_ctl_elem_id_t * ptr);
extern void snd_ctl_elem_value_get_iec958(const snd_ctl_elem_value_t * obj,
                                     snd_aes_iec958_t * ptr);
extern long int snd_ctl_elem_value_get_integer(const snd_ctl_elem_value_t *
                                              obj, unsigned int idx);
extern long long int snd_ctl_elem_value_get_integer64(const
                                                    snd_ctl_elem_value_t
                                                    * obj,
                                                    unsigned int idx);
extern int snd_ctl_elem_value_malloc(snd_ctl_elem_value_t * *ptr);
extern void snd_ctl_elem_value_set_boolean(snd_ctl_elem_value_t * obj,
                                         unsigned int idx, long int val);
extern void snd_ctl_elem_value_set_byte(snd_ctl_elem_value_t * obj,
                                       unsigned int idx,
                                       unsigned char val);
extern void snd_ctl_elem_value_set_enumerated(snd_ctl_elem_value_t * obj,
                                              unsigned int idx,
                                              unsigned int val);
extern void snd_ctl_elem_value_set_id(snd_ctl_elem_value_t * obj,
                                     const snd_ctl_elem_id_t * ptr);
extern void snd_ctl_elem_value_set_iec958(snd_ctl_elem_value_t * obj,
                                     const snd_aes_iec958_t * ptr);
extern void snd_ctl_elem_value_set_integer(snd_ctl_elem_value_t * obj,
                                         unsigned int idx, long int val);
extern void snd_ctl_elem_value_set_integer64(snd_ctl_elem_value_t * obj,
                                             unsigned int idx,
                                             long long int val);
extern size_t snd_ctl_elem_value_sizeof(void);
extern int snd_ctl_elem_write(snd_ctl_t * ctl,
                             snd_ctl_elem_value_t * value);
extern void snd_ctl_event_clear(snd_ctl_event_t * obj);
extern void snd_ctl_event_copy(snd_ctl_event_t * dst,
                              const snd_ctl_event_t * src);
extern void snd_ctl_event_elem_get_id(const snd_ctl_event_t * obj,
                                     snd_ctl_elem_id_t * ptr);
extern unsigned int snd_ctl_event_elem_get_mask(const snd_ctl_event_t *
                                              obj);
extern void snd_ctl_event_free(snd_ctl_event_t * obj);
extern int snd_ctl_event_malloc(snd_ctl_event_t * *ptr);
extern size_t snd_ctl_event_sizeof(void);
extern int snd_ctl_hwdep_info(snd_ctl_t * ctl, snd_hwdep_info_t * info);
extern int snd_ctl_hwdep_next_device(snd_ctl_t * ctl, int *device);
extern const char *snd_ctl_name(snd_ctl_t * ctl);
extern int snd_ctl_nonblock(snd_ctl_t * ctl, int nonblock);
extern int snd_ctl_open(snd_ctl_t * *ctl, const char *name, int mode);
extern int snd_ctl_pcm_info(snd_ctl_t * *ctl, snd_pcm_info_t * info);
extern int snd_ctl_pcm_next_device(snd_ctl_t * *ctl, int *device);
extern int snd_ctl_poll_descriptors(snd_ctl_t * *ctl, struct pollfd *pfd,
                                   unsigned int space);
extern int snd_ctl_poll_descriptors_count(snd_ctl_t * *ctl);
```



```

extern int snd_ctl_rawmidi_info(snd_ctl_t * ctl,
                                snd_rawmidi_info_t * info);
extern int snd_ctl_rawmidi_next_device(snd_ctl_t * ctl, int *device);
extern int snd_ctl_read(snd_ctl_t * ctl, snd_ctl_event_t * event);
extern int snd_ctl_subscribe_events(snd_ctl_t * ctl, int subscribe);
extern int snd_hctl_close(snd_hctl_t * hctl);
extern void *snd_hctl_elem_get_callback_private(const snd_hctl_elem_t *
                                                obj);
extern void snd_hctl_elem_get_id(const snd_hctl_elem_t * obj,
                                 snd_ctl_elem_id_t * ptr);
extern int snd_hctl_elem_info(snd_hctl_elem_t * elem,
                              snd_ctl_elem_info_t * info);
extern snd_hctl_elem_t *snd_hctl_elem_next(snd_hctl_elem_t * elem);
extern snd_hctl_elem_t *snd_hctl_elem_prev(snd_hctl_elem_t * elem);
extern int snd_hctl_elem_read(snd_hctl_elem_t * elem,
                              snd_ctl_elem_value_t * value);
extern void snd_hctl_elem_set_callback(snd_hctl_elem_t * obj,
                                       snd_hctl_elem_callback_t val);
extern void snd_hctl_elem_set_callback_private(snd_hctl_elem_t * obj,
                                               void *val);
extern int snd_hctl_elem_write(snd_hctl_elem_t * elem,
                              snd_ctl_elem_value_t * value);
extern snd_hctl_elem_t *snd_hctl_find_elem(snd_hctl_t * hctl,
                                           const snd_ctl_elem_id_t * id);
extern snd_hctl_elem_t *snd_hctl_first_elem(snd_hctl_t * hctl);
extern int snd_hctl_free(snd_hctl_t * hctl);
extern void *snd_hctl_get_callback_private(snd_hctl_t * hctl);
extern unsigned int snd_hctl_get_count(snd_hctl_t * hctl);
extern int snd_hctl_handle_events(snd_hctl_t * hctl);
extern snd_hctl_elem_t *snd_hctl_last_elem(snd_hctl_t * hctl);
extern int snd_hctl_load(snd_hctl_t * hctl);
extern int snd_hctl_nonblock(snd_hctl_t * hctl, int nonblock);
extern int snd_hctl_open(snd_hctl_t * hctl, const char *name, int mode);
extern void snd_hctl_set_callback(snd_hctl_t * hctl,
                                 snd_hctl_callback_t callback);
extern void snd_hctl_set_callback_private(snd_hctl_t * hctl, void *data);
extern int snd_hctl_wait(snd_hctl_t * hctl, int timeout);

```

20.2.3. alsa/control_external.h

```

#define SND_CTL_EXT_VERSION      ((SND_CTL_EXT_VERSION_MAJOR<<16) | (SND_CTL_EXT_VERSION_MINOR<<8))
#define SND_CTL_EXT_KEY_NOT_FOUND (snd_ctl_ext_key_t) (-1)
#define SND_CTL_EXT_VERSION_MINOR 0
#define SND_CTL_EXT_VERSION_TINY 0
#define SND_CTL_EXT_VERSION_MAJOR 1

typedef struct snd_ctl_ext_callback {
    void (*close) (void);
    int (*elem_count) (void);
    int (*elem_list) (void);
    snd_ctl_ext_key_t (*find_elem) (void);
    void (*free_key) (void);
    int (*get_attribute) (void);
    int (*get_integer_info) (void);
    int (*get_integer64_info) (void);
    int (*get_enumerated_info) (void);
    int (*get_enumerated_name) (void);
    int (*read_integer) (void);
    int (*read_integer64) (void);
    int (*read_enumerated) (void);
    int (*read_bytes) (void);
}

```

```

int (*read_iec958) (void);
int (*write_integer) (void);
int (*write_integer64) (void);
int (*write_enumerated) (void);
int (*write_bytes) (void);
int (*write_iec958) (void);
void (*subscribe_events) (void);
int (*read_event) (void);
int (*poll_descriptors_count) (void);
int (*poll_descriptors) (void);
int (*poll_revents) (void);
} snd_ctl_ext_callback_t;
typedef long unsigned int snd_ctl_ext_key_t;
typedef struct snd_ctl_ext {
    unsigned int version;
    int card_idx;
    char id[16];
    char driver[16];
    char name[32];
    char longname[80];
    char mixername[80];
    int poll_fd;
    const snd_ctl_ext_callback_t *callback;
    void *private_data;
    snd_ctl_t *handle;
    int nonblock;
    int subscribed;
} snd_ctl_ext_t;

```

20.2.4. alsa/error.h

```

#define SND_ERROR_INCOMPATIBLE_VERSION (SND_ERROR_BEGIN+0)
#define SND_ERROR_ALISP_NIL (SND_ERROR_BEGIN+1)
#define SND_ERROR_BEGIN 500000

typedef void (*snd_lib_error_handler_t) (const char *, int, const char *,
                                         int, const char *, ...);
extern int snd_lib_error_set_handler(snd_lib_error_handler_t handler);
extern const char *snd_strerror(int errnum);

```

20.2.5. alsa/global.h

```

typedef struct _snd_async_handler snd_async_handler_t;
typedef void (*snd_async_callback_t) (snd_async_handler_t *);
typedef struct timespec snd_timestamp_t;
typedef struct timeval snd_timestamp_t;
extern const char *snd_asoundlib_version(void);
extern int snd_async_add_handler(snd_async_handler_t * handler, int fd,
                                snd_async_callback_t callback,
                                void *private_data);
extern int snd_async_del_handler(snd_async_handler_t * handler);
extern void *snd_async_handler_get_callback_private(snd_async_handler_t *
                                                    handler);

```

20.2.6. alsa/hwdep.h

```

#define SND_HWDEP_OPEN_NONBLOCK (O_NONBLOCK)
#define SND_HWDEP_OPEN_READ      (O_RDONLY)
#define SND_HWDEP_OPEN_DUPLEX    (O_RDWR)
#define SND_HWDEP_OPEN_WRITE     (O_WRONLY)

typedef struct sndrv_hwdep_dsp_image snd_hwdep_dsp_image_t;
typedef struct sndrv_hwdep_dsp_status snd_hwdep_dsp_status_t;
typedef enum _snd_hwdep_iface {
    SND_HWDEP_IFACE_OPL2,
    SND_HWDEP_IFACE_OPL3 = 1,
    SND_HWDEP_IFACE_OPL4 = 2,
    SND_HWDEP_IFACE_SB16CSP = 3,
    SND_HWDEP_IFACE_EMU10K1 = 4,
    SND_HWDEP_IFACE_YSS225 = 5,
    SND_HWDEP_IFACE_ICS2115 = 6,
    SND_HWDEP_IFACE_SSCAPE = 7,
    SND_HWDEP_IFACE_VX = 8,
    SND_HWDEP_IFACE_MIXART = 9,
    SND_HWDEP_IFACE_USX2Y = 10,
    SND_HWDEP_IFACE_EMUX_WAVETABLE = 11,
    SND_HWDEP_IFACE_BLUETOOTH = 12,
    SND_HWDEP_IFACE_USX2Y_PCM = 13,
    SND_HWDEP_IFACE_PCXHR = 14,
    SND_HWDEP_IFACE_SB_RC = 15,
    SND_HWDEP_IFACE_LAST = 15
} snd_hwdep_iface_t;
typedef struct sndrv_hwdep_info snd_hwdep_info_t;
typedef struct _snd_hwdep snd_hwdep_t;
typedef enum _snd_hwdep_type {
    SND_HWDEP_TYPE_HW,
    SND_HWDEP_TYPE_SHM = 1,
    SND_HWDEP_TYPE_INET = 2
} snd_hwdep_type_t;
extern int snd_hwdep_close(snd_hwdep_t * hwdep);
extern void snd_hwdep_dsp_image_copy(snd_hwdep_dsp_image_t * dst,
                                     const snd_hwdep_dsp_image_t * src);
extern void snd_hwdep_dsp_image_free(snd_hwdep_dsp_image_t * obj);
extern const void *snd_hwdep_dsp_image_get_image(const
                                                  snd_hwdep_dsp_image_t *
                                                  obj);
extern unsigned int snd_hwdep_dsp_image_get_index(const
                                                  snd_hwdep_dsp_image_t *
                                                  obj);
extern size_t snd_hwdep_dsp_image_get_length(const snd_hwdep_dsp_image_t *
                                              obj);
extern const char *snd_hwdep_dsp_image_get_name(const snd_hwdep_dsp_image_t
                                                * obj);
extern int snd_hwdep_dsp_image_malloc(snd_hwdep_dsp_image_t * *ptr);
extern void snd_hwdep_dsp_image_set_image(snd_hwdep_dsp_image_t * obj,
                                           void *buffer);
extern void snd_hwdep_dsp_image_set_index(snd_hwdep_dsp_image_t * obj,
                                           unsigned int _index);
extern void snd_hwdep_dsp_image_set_length(snd_hwdep_dsp_image_t * obj,
                                           size_t length);
extern void snd_hwdep_dsp_image_set_name(snd_hwdep_dsp_image_t * obj,
                                          const char *name);
extern size_t snd_hwdep_dsp_image_sizeof(void);
extern int snd_hwdep_dsp_load(snd_hwdep_t * hwdep,
                              snd_hwdep_dsp_image_t * block);

```

```

extern int snd_hwdep_dsp_status(snd_hwdep_t * hwdep,
                                snd_hwdep_dsp_status_t * status);
extern void snd_hwdep_dsp_status_copy(snd_hwdep_dsp_status_t * dst,
                                       const snd_hwdep_dsp_status_t * src);
extern void snd_hwdep_dsp_status_free(snd_hwdep_dsp_status_t * obj);
extern unsigned int snd_hwdep_dsp_status_get_chip_ready(const
                                                         snd_hwdep_dsp_status_t
                                                         * obj);
extern unsigned int snd_hwdep_dsp_status_get_dsp_loaded(const
                                                         snd_hwdep_dsp_status_t
                                                         * obj);
extern const char *snd_hwdep_dsp_status_get_id(const snd_hwdep_dsp_status_t
                                                * obj);
extern unsigned int snd_hwdep_dsp_status_get_num_dsps(const
                                                       snd_hwdep_dsp_status_t
                                                       * obj);
extern unsigned int snd_hwdep_dsp_status_get_version(const
                                                      snd_hwdep_dsp_status_t
                                                      * obj);
extern int snd_hwdep_dsp_status_malloc(snd_hwdep_dsp_status_t * *ptr);
extern size_t snd_hwdep_dsp_status_sizeof(void);
extern int snd_hwdep_info(snd_hwdep_t * hwdep, snd_hwdep_info_t * info);
extern void snd_hwdep_info_copy(snd_hwdep_info_t * dst,
                                const snd_hwdep_info_t * src);
extern void snd_hwdep_info_free(snd_hwdep_info_t * obj);
extern int snd_hwdep_info_get_card(const snd_hwdep_info_t * obj);
extern unsigned int snd_hwdep_info_get_device(const snd_hwdep_info_t *
                                              obj);
extern const char *snd_hwdep_info_get_id(const snd_hwdep_info_t * obj);
extern snd_hwdep_iface_t snd_hwdep_info_get_iface(const snd_hwdep_info_t *
                                                  obj);
extern const char *snd_hwdep_info_get_name(const snd_hwdep_info_t * obj);
extern int snd_hwdep_info_malloc(snd_hwdep_info_t * *ptr);
extern void snd_hwdep_info_set_device(snd_hwdep_info_t * obj,
                                      unsigned int val);
extern size_t snd_hwdep_info_sizeof(void);
extern int snd_hwdep_ioctl(snd_hwdep_t * hwdep, unsigned int request,
                           void *arg);
extern int snd_hwdep_open(snd_hwdep_t * *hwdep, const char *name,
                          int mode);
extern int snd_hwdep_poll_descriptors(snd_hwdep_t * hwdep,
                                       struct pollfd *pfd,
                                       unsigned int space);
extern ssize_t snd_hwdep_read(snd_hwdep_t * hwdep, void *buffer,
                              size_t size);
extern ssize_t snd_hwdep_write(snd_hwdep_t * hwdep, const void *buffer,
                               size_t size);

```

20.2.7. alsa/atomic.h

```

#define atomic_set(v,i) ((v->counter) = (i))
#define atomic_read(v)  ((v->counter)
#define ATOMIC_INIT(i)  { (i) }

typedef struct {
    unsigned int begin;
    unsigned int end;
} snd_atomic_write_t;
typedef struct {
    const volatile snd_atomic_write_t *write;
    unsigned int end;

```

```
} snd_atomic_read_t;
```

20.2.8. alsa/input.h

```
typedef struct _snd_input snd_input_t;
extern int snd_input_buffer_open(snd_input_t * *inputp, const char *buffer,
                                ssize_t size);
extern int snd_input_close(snd_input_t * input);
extern int snd_input_stdio_attach(snd_input_t * *inputp, FILE * fp,
                                  int _close);
extern int snd_input_stdio_open(snd_input_t * *inputp, const char *file,
                                const char *mode);
```

20.2.9. alsa/mixer.h

```
typedef struct _snd_mixer snd_mixer_t;
typedef struct _snd_mixer_elem snd_mixer_elem_t;
typedef enum _snd_mixer_elem_type {
    SND_MIXER_ELEM_SIMPLE,
    SND_MIXER_ELEM_LAST
} snd_mixer_elem_type_t;
typedef struct _snd_mixer_class snd_mixer_class_t;
typedef int (*snd_mixer_compare_t) (const snd_mixer_elem_t *,
                                    const snd_mixer_elem_t *);
typedef int (*snd_mixer_elem_callback_t) (snd_mixer_elem_t *,
                                           unsigned int);
typedef int (*snd_mixer_callback_t) (snd_mixer_t *, unsigned int,
                                     snd_mixer_elem_t *);
typedef int (*snd_mixer_event_t) (snd_mixer_class_t *, unsigned int,
                                  snd_htl_elem_t *, snd_mixer_elem_t *);
typedef enum _snd_mixer_selem_channel_id {
    SND_MIXER_SCHN_UNKNOWN = -1,
    SND_MIXER_SCHN_FRONT_LEFT,
    SND_MIXER_SCHN_FRONT_RIGHT = 1,
    SND_MIXER_SCHN_REAR_LEFT = 2,
    SND_MIXER_SCHN_REAR_RIGHT = 3,
    SND_MIXER_SCHN_FRONT_CENTER = 4,
    SND_MIXER_SCHN_WOOFER = 5,
    SND_MIXER_SCHN_SIDE_LEFT = 6,
    SND_MIXER_SCHN_SIDE_RIGHT = 7,
    SND_MIXER_SCHN_REAR_CENTER = 8,
    SND_MIXER_SCHN_LAST = 31,
    SND_MIXER_SCHN_MONO
} snd_mixer_selem_channel_id_t;
typedef struct _snd_mixer_selem_id snd_mixer_selem_id_t;
enum snd_mixer_selem_regopt_abstract {
    SND_MIXER_SABSTRACT_NONE,
    SND_MIXER_SABSTRACT_BASIC = 1
};
struct snd_mixer_selem_regopt {
    int ver;
    enum snd_mixer_selem_regopt_abstract abstract;
    const char *device;
    snd_pcm_t *playback_pcm;
    snd_pcm_t *capture_pcm;
};
extern int snd_mixer_attach(snd_mixer_t * mixer, const char *name);
extern int snd_mixer_close(snd_mixer_t * mixer);
extern int snd_mixer_detach(snd_mixer_t * mixer, const char *name);
```

```

extern void *snd_mixer_elem_get_callback_private(const snd_mixer_elem_t *
                                                obj);
extern snd_mixer_elem_type_t snd_mixer_elem_get_type(const snd_mixer_elem_t
                                                    * obj);
extern snd_mixer_elem_t *snd_mixer_elem_next(snd_mixer_elem_t * elem);
extern snd_mixer_elem_t *snd_mixer_elem_prev(snd_mixer_elem_t * elem);
extern void snd_mixer_elem_set_callback(snd_mixer_elem_t * obj,
                                       snd_mixer_elem_callback_t val);
extern void snd_mixer_elem_set_callback_private(snd_mixer_elem_t * obj,
                                              void *val);
extern snd_mixer_elem_t *snd_mixer_find_selem(snd_mixer_t * mixer,
                                             const snd_mixer_selem_id_t *
                                             id);
extern snd_mixer_elem_t *snd_mixer_first_elem(snd_mixer_t * mixer);
extern void snd_mixer_free(snd_mixer_t * mixer);
extern void *snd_mixer_get_callback_private(const snd_mixer_t * obj);
extern unsigned int snd_mixer_get_count(const snd_mixer_t * obj);
extern int snd_mixer_handle_events(snd_mixer_t * mixer);
extern snd_mixer_elem_t *snd_mixer_last_elem(snd_mixer_t * mixer);
extern int snd_mixer_load(snd_mixer_t * mixer);
extern int snd_mixer_open(snd_mixer_t * *mixer, int mode);
extern int snd_mixer_poll_descriptors(snd_mixer_t * mixer,
                                     struct pollfd *pfd,
                                     unsigned int space);
extern int snd_mixer_poll_descriptors_count(snd_mixer_t * mixer);
extern int snd_mixer_poll_descriptors_revents(snd_mixer_t * mixer,
                                              struct pollfd *pfd,
                                              unsigned int nfds,
                                              short unsigned int *revents);

extern const char
    *snd_mixer_selem_channel_name(snd_mixer_selem_channel_id_t channel);
extern int snd_mixer_selem_get_capture_group(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_get_capture_switch(snd_mixer_elem_t * elem,
                                             snd_mixer_selem_channel_id_t
                                             channel, int *value);
extern int snd_mixer_selem_get_capture_volume(snd_mixer_elem_t * elem,
                                             snd_mixer_selem_channel_id_t
                                             channel, long int *value);
extern int snd_mixer_selem_get_capture_volume_range(snd_mixer_elem_t *
                                                    elem, long int *min,
                                                    long int *max);
extern int snd_mixer_selem_get_enum_item(snd_mixer_elem_t * elem,
                                         snd_mixer_selem_channel_id_t
                                         channel, unsigned int *idx);
extern int snd_mixer_selem_get_enum_item_name(snd_mixer_elem_t * elem,
                                              unsigned int idx,
                                              size_t maxlen, char *str);
extern int snd_mixer_selem_get_enum_items(snd_mixer_elem_t * elem);
extern void snd_mixer_selem_get_id(snd_mixer_elem_t * element,
                                  snd_mixer_selem_id_t * id);
extern unsigned int snd_mixer_selem_get_index(snd_mixer_elem_t * elem);
extern const char *snd_mixer_selem_get_name(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_get_playback_switch(snd_mixer_elem_t * elem,
                                             snd_mixer_selem_channel_id_t
                                             channel, int *value);
extern int snd_mixer_selem_get_playback_volume(snd_mixer_elem_t * elem,
                                             snd_mixer_selem_channel_id_t
                                             channel, long int *value);
extern int snd_mixer_selem_get_playback_volume_range(snd_mixer_elem_t *
                                                    elem, long int *min,
                                                    long int *max);
extern int snd_mixer_selem_has_capture_channel(snd_mixer_elem_t * obj,

```

```

snd_mixer_selem_channel_id_t
channel);
extern int snd_mixer_selem_has_capture_switch(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_has_capture_switch_exclusive(snd_mixer_elem_t *
elem);
extern int snd_mixer_selem_has_capture_switch_joined(snd_mixer_elem_t *
elem);
extern int snd_mixer_selem_has_capture_volume(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_has_capture_volume_joined(snd_mixer_elem_t *
elem);
extern int snd_mixer_selem_has_common_switch(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_has_common_volume(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_has_playback_channel(snd_mixer_elem_t * obj,
snd_mixer_selem_channel_id_t
channel);
extern int snd_mixer_selem_has_playback_switch(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_has_playback_switch_joined(snd_mixer_elem_t *
elem);
extern int snd_mixer_selem_has_playback_volume(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_has_playback_volume_joined(snd_mixer_elem_t *
elem);
extern void snd_mixer_selem_id_copy(snd_mixer_selem_id_t * dst,
const snd_mixer_selem_id_t * src);
extern void snd_mixer_selem_id_free(snd_mixer_selem_id_t * obj);
extern unsigned int snd_mixer_selem_id_get_index(const snd_mixer_selem_id_t
* obj);
extern const char *snd_mixer_selem_id_get_name(const snd_mixer_selem_id_t *
obj);
extern int snd_mixer_selem_id_malloc(snd_mixer_selem_id_t * *ptr);
extern void snd_mixer_selem_id_set_index(snd_mixer_selem_id_t * obj,
unsigned int val);
extern void snd_mixer_selem_id_set_name(snd_mixer_selem_id_t * obj,
const char *val);
extern size_t snd_mixer_selem_id_sizeof(void);
extern int snd_mixer_selem_is_active(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_is_capture_mono(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_is_enum_capture(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_is_enum_playback(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_is_enumerated(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_is_playback_mono(snd_mixer_elem_t * elem);
extern int snd_mixer_selem_register(snd_mixer_t * mixer,
struct snd_mixer_selem_regopt *options,
snd_mixer_class_t * *classp);
extern int snd_mixer_selem_set_capture_switch(snd_mixer_elem_t * elem,
snd_mixer_selem_channel_id_t
channel, int value);
extern int snd_mixer_selem_set_capture_switch_all(snd_mixer_elem_t * elem,
int value);
extern int snd_mixer_selem_set_capture_volume(snd_mixer_elem_t * elem,
snd_mixer_selem_channel_id_t
channel, long int value);
extern int snd_mixer_selem_set_capture_volume_all(snd_mixer_elem_t * elem,
long int value);
extern int snd_mixer_selem_set_capture_volume_range(snd_mixer_elem_t *
elem, long int min,
long int max);
extern int snd_mixer_selem_set_enum_item(snd_mixer_elem_t * elem,
snd_mixer_selem_channel_id_t
channel, unsigned int idx);
extern int snd_mixer_selem_set_playback_switch(snd_mixer_elem_t * elem,
snd_mixer_selem_channel_id_t
channel, int value);

```

```

extern int snd_mixer_selem_set_playback_switch_all(snd_mixer_elem_t * elem,
                                                    int value);
extern int snd_mixer_selem_set_playback_volume(snd_mixer_elem_t * elem,
                                                snd_mixer_selem_channel_id_t
                                                channel, long int value);
extern int snd_mixer_selem_set_playback_volume_all(snd_mixer_elem_t * elem,
                                                    long int value);
extern int snd_mixer_selem_set_playback_volume_range(snd_mixer_elem_t *
                                                    elem, long int min,
                                                    long int max);

extern void snd_mixer_set_callback(snd_mixer_t * obj,
                                   snd_mixer_callback_t val);
extern void snd_mixer_set_callback_private(snd_mixer_t * obj, void *val);
extern int snd_mixer_wait(snd_mixer_t * mixer, int timeout);

```

20.2.10. alsa/mixer_abst.h

```

#define sm_selem(x) ((sm_selem_t *) ((x)->private_data))
#define sm_selem_ops(x) ((sm_selem_t *) ((x)->private_data))->ops
#define SM_CAP_GVOLUME (1<<1)
#define SM_CAP_CSWITCH_JOIN (1<<10)
#define SM_CAP_CSWITCH_EXCL (1<<11)
#define SM_CAP_PENUM (1<<12)
#define SM_CAP_CENUM (1<<13)
#define SM_CAP_GSWITCH (1<<2)
#define SM_CAP_PVOLUME (1<<3)
#define SM_CAP_PVOLUME_JOIN (1<<4)
#define SM_CAP_PSWITCH (1<<5)
#define SM_CAP_PSWITCH_JOIN (1<<6)
#define SM_CAP_CVOLUME (1<<7)
#define SM_CAP_CVOLUME_JOIN (1<<8)
#define SM_CAP_CSWITCH (1<<9)
#define SM_OPS_IS_ACTIVE 0
#define SM_OPS_IS_MONO 1
#define SM_OPS_IS_CHANNEL 2
#define SM_OPS_IS_ENUMERATED 3
#define SM_OPS_IS_ENUMCNT 4

typedef struct _sm_class_basic {
    char *device;
    snd_ctl_t *ctl;
    snd_hctl_t *hctl;
    snd_ctl_card_info_t *info;
} sm_class_basic_t;

```

20.2.11. alsa/output.h

```

typedef struct _snd_output snd_output_t;
extern int snd_output_buffer_open(snd_output_t * *outputp);
extern size_t snd_output_buffer_string(snd_output_t * output, char **buf);
extern int snd_output_close(snd_output_t * output);
extern int snd_output_putc(snd_output_t * output, int c);
extern int snd_output_puts(snd_output_t * output, const char *str);
extern int snd_output_stdio_attach(snd_output_t * *outputp, FILE * fp,
                                   int _close);
extern int snd_output_stdio_open(snd_output_t * *outputp, const char *file,
                                 const char *mode);

```


20.2.12. alsa/pcm.h

```

#define SND_PCM_NONBLOCK          0x0001
#define SND_PCM_ASYNC            0x0002

typedef struct sndrv_mask snd_pcm_access_mask_t;
typedef enum _snd_pcm_access {
    SND_PCM_ACCESS_MMAP_INTERLEAVED,
    SND_PCM_ACCESS_MMAP_NONINTERLEAVED = 1,
    SND_PCM_ACCESS_MMAP_COMPLEX = 2,
    SND_PCM_ACCESS_RW_INTERLEAVED = 3,
    SND_PCM_ACCESS_RW_NONINTERLEAVED = 4,
    SND_PCM_ACCESS_LAST = 4
} snd_pcm_access_t;
typedef struct _snd_pcm_channel_area {
    void *addr;
    unsigned int first;
    unsigned int step;
} snd_pcm_channel_area_t;
typedef enum _snd_pcm_class {
    SND_PCM_CLASS_GENERIC,
    SND_PCM_CLASS_MULTIMEDIA = 1,
    SND_PCM_CLASS_MODEM = 2,
    SND_PCM_CLASS_DIGITIZER = 3,
    SND_PCM_CLASS_LAST = 3
} snd_pcm_class_t;
typedef struct sndrv_mask snd_pcm_format_mask_t;
typedef enum _snd_pcm_format {
    SND_PCM_FORMAT_UNKNOWN = -1,
    SND_PCM_FORMAT_S8,
    SND_PCM_FORMAT_U8 = 1,
    SND_PCM_FORMAT_S16_LE = 2,
    SND_PCM_FORMAT_S16_BE = 3,
    SND_PCM_FORMAT_U16_LE = 4,
    SND_PCM_FORMAT_U16_BE = 5,
    SND_PCM_FORMAT_S24_LE = 6,
    SND_PCM_FORMAT_S24_BE = 7,
    SND_PCM_FORMAT_U24_LE = 8,
    SND_PCM_FORMAT_U24_BE = 9,
    SND_PCM_FORMAT_S32_LE = 10,
    SND_PCM_FORMAT_S32_BE = 11,
    SND_PCM_FORMAT_U32_LE = 12,
    SND_PCM_FORMAT_U32_BE = 13,
    SND_PCM_FORMAT_FLOAT_LE = 14,
    SND_PCM_FORMAT_FLOAT_BE = 15,
    SND_PCM_FORMAT_FLOAT64_LE = 16,
    SND_PCM_FORMAT_FLOAT64_BE = 17,
    SND_PCM_FORMAT_IEC958_SUBFRAME_LE = 18,
    SND_PCM_FORMAT_IEC958_SUBFRAME_BE = 19,
    SND_PCM_FORMAT_MU_LAW = 20,
    SND_PCM_FORMAT_A_LAW = 21,
    SND_PCM_FORMAT_IMA_ADPCM = 22,
    SND_PCM_FORMAT_MPEG = 23,
    SND_PCM_FORMAT_GSM = 24,
    SND_PCM_FORMAT_SPECIAL = 31,
    SND_PCM_FORMAT_S24_3LE = 32,
    SND_PCM_FORMAT_S24_3BE = 33,
    SND_PCM_FORMAT_U24_3LE = 34,
    SND_PCM_FORMAT_U24_3BE = 35,
    SND_PCM_FORMAT_S20_3LE = 36,
    SND_PCM_FORMAT_S20_3BE = 37,

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SND_PCM_FORMAT_U20_3LE = 38,
SND_PCM_FORMAT_U20_3BE = 39,
SND_PCM_FORMAT_S18_3LE = 40,
SND_PCM_FORMAT_S18_3BE = 41,
SND_PCM_FORMAT_U18_3LE = 42,
SND_PCM_FORMAT_U18_3BE = 43,
SND_PCM_FORMAT_LAST = 43,
SND_PCM_FORMAT_S16 = 2,
SND_PCM_FORMAT_U16 = 4,
SND_PCM_FORMAT_S24 = 6,
SND_PCM_FORMAT_U24 = 8,
SND_PCM_FORMAT_S32 = 10,
SND_PCM_FORMAT_U32 = 12,
SND_PCM_FORMAT_FLOAT = 14,
SND_PCM_FORMAT_FLOAT64 = 16,
SND_PCM_FORMAT_IEC958_SUBFRAME = 18
} snd_pcm_format_t;
typedef struct _snd_pcm_hook snd_pcm_hook_t;
typedef int (*snd_pcm_hook_func_t) (snd_pcm_hook_t *);
typedef enum _snd_pcm_hook_type {
    SND_PCM_HOOK_TYPE_HW_PARAMS,
    SND_PCM_HOOK_TYPE_HW_FREE = 1,
    SND_PCM_HOOK_TYPE_CLOSE = 2,
    SND_PCM_HOOK_TYPE_LAST = 2
} snd_pcm_hook_type_t;
typedef struct sndrv_pcm_hw_params snd_pcm_hw_params_t;
typedef struct sndrv_pcm_info snd_pcm_info_t;
typedef struct _snd_pcm_scope_ops {
    int (*enable) (void);
    void (*disable) (void);
    void (*start) (void);
    void (*stop) (void);
    void (*update) (void);
    void (*reset) (void);
    void (*close) (void);
} snd_pcm_scope_ops_t;
typedef struct _snd_pcm_scope snd_pcm_scope_t;
typedef long int snd_pcm_sframes_t;
typedef enum _snd_pcm_start {
    SND_PCM_START_DATA,
    SND_PCM_START_EXPLICIT = 1,
    SND_PCM_START_LAST = 1
} snd_pcm_start_t;
typedef enum _snd_pcm_state {
    SND_PCM_STATE_OPEN,
    SND_PCM_STATE_SETUP = 1,
    SND_PCM_STATE_PREPARED = 2,
    SND_PCM_STATE_RUNNING = 3,
    SND_PCM_STATE_XRUN = 4,
    SND_PCM_STATE_DRAINING = 5,
    SND_PCM_STATE_PAUSED = 6,
    SND_PCM_STATE_SUSPENDED = 7,
    SND_PCM_STATE_DISCONNECTED = 8,
    SND_PCM_STATE_LAST = 8
} snd_pcm_state_t;
typedef struct sndrv_pcm_status snd_pcm_status_t;
typedef enum _snd_pcm_stream {
    SND_PCM_STREAM_PLAYBACK,
    SND_PCM_STREAM_CAPTURE = 1,
    SND_PCM_STREAM_LAST = 1
} snd_pcm_stream_t;
typedef enum _snd_pcm_subclass {

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    SND_PCM_SUBCLASS_GENERIC_MIX,
    SND_PCM_SUBCLASS_MULTI_MIX = 1,
    SND_PCM_SUBCLASS_LAST = 1
} snd_pcm_subclass_t;
typedef struct sndrv_mask snd_pcm_subformat_mask_t;
typedef enum _snd_pcm_subformat {
    SND_PCM_SUBFORMAT_STD,
    SND_PCM_SUBFORMAT_LAST
} snd_pcm_subformat_t;
typedef struct sndrv_pcm_sw_params snd_pcm_sw_params_t;
typedef union _snd_pcm_sync_id {
    unsigned char id[16];
    short unsigned int id16[8];
    unsigned int id32[4];
} snd_pcm_sync_id_t;
typedef struct _snd_pcm snd_pcm_t;
typedef enum _snd_pcm_tstamp {
    SND_PCM_TSTAMP_NONE,
    SND_PCM_TSTAMP_MMAP = 1,
    SND_PCM_TSTAMP_LAST = 1
} snd_pcm_tstamp_t;
typedef enum _snd_pcm_type {
    SND_PCM_TYPE_HW,
    SND_PCM_TYPE_HOOKS = 1,
    SND_PCM_TYPE_MULTI = 2,
    SND_PCM_TYPE_FILE = 3,
    SND_PCM_TYPE_NULL = 4,
    SND_PCM_TYPE_SHM = 5,
    SND_PCM_TYPE_INET = 6,
    SND_PCM_TYPE_COPY = 7,
    SND_PCM_TYPE_LINEAR = 8,
    SND_PCM_TYPE_ALAW = 9,
    SND_PCM_TYPE_MULAW = 10,
    SND_PCM_TYPE_ADPCM = 11,
    SND_PCM_TYPE_RATE = 12,
    SND_PCM_TYPE_ROUTE = 13,
    SND_PCM_TYPE_PLUG = 14,
    SND_PCM_TYPE_SHARE = 15,
    SND_PCM_TYPE_METER = 16,
    SND_PCM_TYPE_MIX = 17,
    SND_PCM_TYPE_DROUTE = 18,
    SND_PCM_TYPE_LBSERVER = 19,
    SND_PCM_TYPE_LINEAR_FLOAT = 20,
    SND_PCM_TYPE_LADSPA = 21,
    SND_PCM_TYPE_DMIX = 22,
    SND_PCM_TYPE_JACK = 23,
    SND_PCM_TYPE_DSNOOP = 24,
    SND_PCM_TYPE_DSHARE = 25,
    SND_PCM_TYPE_IEC958 = 26,
    SND_PCM_TYPE_SOFTVOL = 27,
    SND_PCM_TYPE_IOPLUG = 28,
    SND_PCM_TYPE_EXTPLUG = 29,
    SND_PCM_TYPE_LAST = 29
} snd_pcm_type_t;
typedef long unsigned int snd_pcm_uframes_t;
typedef enum _snd_pcm_xrun {
    SND_PCM_XRUN_NONE,
    SND_PCM_XRUN_STOP = 1,
    SND_PCM_XRUN_LAST = 1
} snd_pcm_xrun_t;
typedef enum _snd_spcm_duplex_type {
    SND_SPCM_DUPLEX_LIBERAL,

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    SND_SPCM_DUPLEX_PEDANTIC = 1
} snd_spcm_duplex_type_t;
typedef enum _snd_spcm_latency {
    SND_SPCM_LATENCY_STANDARD,
    SND_SPCM_LATENCY_MEDIUM = 1,
    SND_SPCM_LATENCY_REALTIME = 2
} snd_spcm_latency_t;
typedef enum _snd_spcm_xrun_type {
    SND_SPCM_XRUN_IGNORE,
    SND_SPCM_XRUN_STOP = 1
} snd_spcm_xrun_type_t;
extern int snd_async_add_pcm_handler(snd_async_handler_t * handler,
                                     snd_pcm_t * pcm,
                                     snd_async_callback_t callback,
                                     void *private_data);
extern snd_pcm_t *snd_async_handler_get_pcm(snd_async_handler_t * handler);
extern void snd_pcm_access_mask_any(snd_pcm_access_mask_t * mask);
extern void snd_pcm_access_mask_copy(snd_pcm_access_mask_t * dst,
                                     const snd_pcm_access_mask_t * src);
extern void snd_pcm_access_mask_free(snd_pcm_access_mask_t * obj);
extern int snd_pcm_access_mask_malloc(snd_pcm_access_mask_t * *ptr);
extern void snd_pcm_access_mask_none(snd_pcm_access_mask_t * mask);
extern void snd_pcm_access_mask_set(snd_pcm_access_mask_t * mask,
                                    snd_pcm_access_t val);
extern size_t snd_pcm_access_mask_sizeof(void);
extern int snd_pcm_access_mask_test(const snd_pcm_access_mask_t * mask,
                                    snd_pcm_access_t val);
extern const char *snd_pcm_access_name(snd_pcm_access_t _access);
extern int snd_pcm_area_copy(const snd_pcm_channel_area_t * dst_channel,
                             snd_pcm_uframes_t dst_offset,
                             const snd_pcm_channel_area_t * src_channel,
                             snd_pcm_uframes_t src_offset,
                             unsigned int samples,
                             snd_pcm_format_t format);
extern int snd_pcm_area_silence(const snd_pcm_channel_area_t * dst_channel,
                                snd_pcm_uframes_t dst_offset,
                                unsigned int samples,
                                snd_pcm_format_t format);
extern int snd_pcm_areas_copy(const snd_pcm_channel_area_t * dst_channels,
                              snd_pcm_uframes_t dst_offset,
                              const snd_pcm_channel_area_t * src_channels,
                              snd_pcm_uframes_t src_offset,
                              unsigned int channels,
                              snd_pcm_uframes_t frames,
                              snd_pcm_format_t format);
extern int snd_pcm_areas_silence(const snd_pcm_channel_area_t *
                                dst_channels,
                                snd_pcm_uframes_t dst_offset,
                                unsigned int channels,
                                snd_pcm_uframes_t frames,
                                snd_pcm_format_t format);
extern snd_pcm_sframes_t snd_pcm_avail_update(snd_pcm_t * pcm);
extern snd_pcm_format_t snd_pcm_build_linear_format(int width, int pwidth,
                                                    int unsignd,
                                                    int big_endian);
extern snd_pcm_sframes_t snd_pcm_bytes_to_frames(snd_pcm_t * pcm,
                                                  ssize_t bytes);
extern long int snd_pcm_bytes_to_samples(snd_pcm_t * pcm, ssize_t bytes);
extern int snd_pcm_close(snd_pcm_t * pcm);
extern int snd_pcm_delay(snd_pcm_t * pcm, snd_pcm_sframes_t * delayp);
extern int snd_pcm_drain(snd_pcm_t * pcm);
extern int snd_pcm_drop(snd_pcm_t * pcm);

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extern int snd_pcm_dump(snd_pcm_t * pcm, snd_output_t * out);
extern int snd_pcm_format_big_endian(snd_pcm_format_t format);
extern int snd_pcm_format_cpu_endian(snd_pcm_format_t format);
extern const char *snd_pcm_format_description(snd_pcm_format_t format);
extern int snd_pcm_format_float(snd_pcm_format_t format);
extern int snd_pcm_format_linear(snd_pcm_format_t format);
extern int snd_pcm_format_little_endian(snd_pcm_format_t format);
extern void snd_pcm_format_mask_any(snd_pcm_format_mask_t * mask);
extern void snd_pcm_format_mask_copy(snd_pcm_format_mask_t * dst,
                                     const snd_pcm_format_mask_t * src);
extern void snd_pcm_format_mask_free(snd_pcm_format_mask_t * obj);
extern int snd_pcm_format_mask_malloc(snd_pcm_format_mask_t * *ptr);
extern void snd_pcm_format_mask_none(snd_pcm_format_mask_t * mask);
extern void snd_pcm_format_mask_set(snd_pcm_format_mask_t * mask,
                                    snd_pcm_format_t val);
extern size_t snd_pcm_format_mask_sizeof(void);
extern int snd_pcm_format_mask_test(const snd_pcm_format_mask_t * mask,
                                    snd_pcm_format_t val);
extern const char *snd_pcm_format_name(snd_pcm_format_t format);
extern int snd_pcm_format_physical_width(snd_pcm_format_t format);
extern int snd_pcm_format_set_silence(snd_pcm_format_t format, void *buf,
                                     unsigned int samples);
extern int snd_pcm_format_signed(snd_pcm_format_t format);
extern ssize_t snd_pcm_format_size(snd_pcm_format_t format,
                                   size_t samples);
extern int snd_pcm_format_unsigned(snd_pcm_format_t format);
extern snd_pcm_format_t snd_pcm_format_value(const char *name);
extern int snd_pcm_format_width(snd_pcm_format_t format);
extern snd_pcm_sframes_t snd_pcm_forward(snd_pcm_t * pcm,
                                         snd_pcm_uframes_t frames);
extern ssize_t snd_pcm_frames_to_bytes(snd_pcm_t * pcm,
                                       snd_pcm_sframes_t frames);
extern int snd_pcm_hw_free(snd_pcm_t * pcm);
extern int snd_pcm_hw_params(snd_pcm_t * pcm,
                             snd_pcm_hw_params_t * params);
extern int snd_pcm_hw_params_any(snd_pcm_t * pcm,
                                 snd_pcm_hw_params_t * params);
extern int snd_pcm_hw_params_can_mmap_sample_resolution(const
                                                         snd_pcm_hw_params_t
                                                         * params);
extern int snd_pcm_hw_params_can_pause(const snd_pcm_hw_params_t * params);
extern int snd_pcm_hw_params_can_resume(const snd_pcm_hw_params_t *
                                         params);
extern int snd_pcm_hw_params_can_sync_start(const snd_pcm_hw_params_t *
                                             params);
extern void snd_pcm_hw_params_copy(snd_pcm_hw_params_t * dst,
                                   const snd_pcm_hw_params_t * src);
extern int snd_pcm_hw_params_current(snd_pcm_t * pcm,
                                     snd_pcm_hw_params_t * params);
extern int snd_pcm_hw_params_dump(snd_pcm_hw_params_t * params,
                                  snd_output_t * out);
extern void snd_pcm_hw_params_free(snd_pcm_hw_params_t * obj);
extern int snd_pcm_hw_params_get_access(const snd_pcm_hw_params_t * params,
                                        snd_pcm_access_t * _access);
extern int snd_pcm_hw_params_get_access_mask(snd_pcm_hw_params_t * params,
                                              snd_pcm_access_mask_t * mask);
extern int snd_pcm_hw_params_get_buffer_size(const snd_pcm_hw_params_t *
                                             params,
                                             snd_pcm_uframes_t * val);
extern int snd_pcm_hw_params_get_buffer_size_max(const snd_pcm_hw_params_t
                                                  * params,
                                                  snd_pcm_uframes_t * val);

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extern int snd_pcm_hw_params_get_buffer_size_min(const snd_pcm_hw_params_t
                                                * params,
                                                snd_pcm_uframes_t * val);
extern int snd_pcm_hw_params_get_buffer_time(const snd_pcm_hw_params_t *
                                              params, unsigned int *val,
                                              int *dir);
extern int snd_pcm_hw_params_get_buffer_time_max(const snd_pcm_hw_params_t
                                                  * params,
                                                  unsigned int *val,
                                                  int *dir);
extern int snd_pcm_hw_params_get_buffer_time_min(const snd_pcm_hw_params_t
                                                  * params,
                                                  unsigned int *val,
                                                  int *dir);
extern int snd_pcm_hw_params_get_channels(const snd_pcm_hw_params_t *
                                          params, unsigned int *val);
extern int snd_pcm_hw_params_get_channels_max(const snd_pcm_hw_params_t *
                                              params, unsigned int *val);
extern int snd_pcm_hw_params_get_channels_min(const snd_pcm_hw_params_t *
                                              params, unsigned int *val);
extern int snd_pcm_hw_params_get_format(const snd_pcm_hw_params_t * params,
                                        snd_pcm_format_t * val);
extern void snd_pcm_hw_params_get_format_mask(snd_pcm_hw_params_t * params,
                                              snd_pcm_format_mask_t *
                                              mask);
extern int snd_pcm_hw_params_get_period_size(const snd_pcm_hw_params_t *
                                              params,
                                              snd_pcm_uframes_t * frames,
                                              int *dir);
extern int snd_pcm_hw_params_get_period_size_max(const snd_pcm_hw_params_t
                                                  * params,
                                                  snd_pcm_uframes_t *
                                                  frames, int *dir);
extern int snd_pcm_hw_params_get_period_size_min(const snd_pcm_hw_params_t
                                                  * params,
                                                  snd_pcm_uframes_t *
                                                  frames, int *dir);
extern int snd_pcm_hw_params_get_period_time(const snd_pcm_hw_params_t *
                                              params, unsigned int *val,
                                              int *dir);
extern int snd_pcm_hw_params_get_period_time_max(const snd_pcm_hw_params_t
                                                  * params,
                                                  unsigned int *val,
                                                  int *dir);
extern int snd_pcm_hw_params_get_period_time_min(const snd_pcm_hw_params_t
                                                  * params,
                                                  unsigned int *val,
                                                  int *dir);
extern int snd_pcm_hw_params_get_periods(const snd_pcm_hw_params_t *
                                          params, unsigned int *val,
                                          int *dir);
extern int snd_pcm_hw_params_get_periods_max(const snd_pcm_hw_params_t *
                                              params, unsigned int *val,
                                              int *dir);
extern int snd_pcm_hw_params_get_periods_min(const snd_pcm_hw_params_t *
                                              params, unsigned int *val,
                                              int *dir);
extern int snd_pcm_hw_params_get_rate(const snd_pcm_hw_params_t * params,
                                      unsigned int *val, int *dir);
extern int snd_pcm_hw_params_get_rate_max(const snd_pcm_hw_params_t *
                                           params, unsigned int *val,
                                           int *dir);

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extern int snd_pcm_hw_params_get_rate_min(const snd_pcm_hw_params_t *
                                           params, unsigned int *val,
                                           int *dir);
extern int snd_pcm_hw_params_get_rate_numden(const snd_pcm_hw_params_t *
                                              params,
                                              unsigned int *rate_num,
                                              unsigned int *rate_den);
extern int snd_pcm_hw_params_get_rate_resample(snd_pcm_t * pcm,
                                                snd_pcm_hw_params_t *
                                                params, unsigned int *val);
extern int snd_pcm_hw_params_get_sbits(const snd_pcm_hw_params_t * params);
extern int snd_pcm_hw_params_is_double(const snd_pcm_hw_params_t * params);
extern int snd_pcm_hw_params_is_half_duplex(const snd_pcm_hw_params_t *
                                             params);
extern int snd_pcm_hw_params_is_joint_duplex(const snd_pcm_hw_params_t *
                                              params);
extern int snd_pcm_hw_params_malloc(snd_pcm_hw_params_t * *ptr);
extern int snd_pcm_hw_params_set_access(snd_pcm_t * pcm,
                                        snd_pcm_hw_params_t * params,
                                        snd_pcm_access_t _access);
extern int snd_pcm_hw_params_set_access_mask(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              snd_pcm_access_mask_t * mask);
extern int snd_pcm_hw_params_set_buffer_size(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              snd_pcm_uframes_t val);
extern int snd_pcm_hw_params_set_buffer_size_near(snd_pcm_t * pcm,
                                                  snd_pcm_hw_params_t *
                                                  params,
                                                  snd_pcm_uframes_t * val);
extern int snd_pcm_hw_params_set_buffer_time(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              unsigned int val, int dir);
extern int snd_pcm_hw_params_set_buffer_time_near(snd_pcm_t * pcm,
                                                  snd_pcm_hw_params_t *
                                                  params,
                                                  unsigned int *val,
                                                  int *dir);
extern int snd_pcm_hw_params_set_channels(snd_pcm_t * pcm,
                                          snd_pcm_hw_params_t * params,
                                          unsigned int val);
extern int snd_pcm_hw_params_set_channels_near(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t *
                                              params, unsigned int *val);
extern int snd_pcm_hw_params_set_format(snd_pcm_t * pcm,
                                        snd_pcm_hw_params_t * params,
                                        snd_pcm_format_t val);
extern int snd_pcm_hw_params_set_format_mask(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              snd_pcm_format_mask_t * mask);
extern int snd_pcm_hw_params_set_period_size(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              snd_pcm_uframes_t val,
                                              int dir);
extern int snd_pcm_hw_params_set_period_size_near(snd_pcm_t * pcm,
                                                  snd_pcm_hw_params_t *
                                                  params,
                                                  snd_pcm_uframes_t * val,
                                                  int *dir);
extern int snd_pcm_hw_params_set_period_time(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              unsigned int val, int dir);

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extern int snd_pcm_hw_params_set_period_time_near(snd_pcm_t * pcm,
                                                  snd_pcm_hw_params_t *
                                                  params,
                                                  unsigned int *val,
                                                  int *dir);
extern int snd_pcm_hw_params_set_periods(snd_pcm_t * pcm,
                                         snd_pcm_hw_params_t * params,
                                         unsigned int val, int dir);
extern int snd_pcm_hw_params_set_periods_integer(snd_pcm_t * pcm,
                                                 snd_pcm_hw_params_t *
                                                 params);
extern int snd_pcm_hw_params_set_periods_near(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              unsigned int *val, int *dir);
extern int snd_pcm_hw_params_set_rate(snd_pcm_t * pcm,
                                      snd_pcm_hw_params_t * params,
                                      unsigned int val, int dir);
extern int snd_pcm_hw_params_set_rate_near(snd_pcm_t * pcm,
                                           snd_pcm_hw_params_t * params,
                                           unsigned int *val, int *dir);
extern int snd_pcm_hw_params_set_rate_resample(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t *
                                              params, unsigned int val);
extern size_t snd_pcm_hw_params_sizeof(void);
extern int snd_pcm_hw_params_test_access(snd_pcm_t * pcm,
                                         snd_pcm_hw_params_t * params,
                                         snd_pcm_access_t _access);
extern int snd_pcm_hw_params_test_buffer_size(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              snd_pcm_uframes_t val);
extern int snd_pcm_hw_params_test_buffer_time(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              unsigned int val, int dir);
extern int snd_pcm_hw_params_test_channels(snd_pcm_t * pcm,
                                           snd_pcm_hw_params_t * params,
                                           unsigned int val);
extern int snd_pcm_hw_params_test_format(snd_pcm_t * pcm,
                                         snd_pcm_hw_params_t * params,
                                         snd_pcm_format_t val);
extern int snd_pcm_hw_params_test_period_size(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              snd_pcm_uframes_t val,
                                              int dir);
extern int snd_pcm_hw_params_test_period_time(snd_pcm_t * pcm,
                                              snd_pcm_hw_params_t * params,
                                              unsigned int val, int dir);
extern int snd_pcm_hw_params_test_periods(snd_pcm_t * pcm,
                                         snd_pcm_hw_params_t * params,
                                         unsigned int val, int dir);
extern int snd_pcm_hw_params_test_rate(snd_pcm_t * pcm,
                                       snd_pcm_hw_params_t * params,
                                       unsigned int val, int dir);
extern int snd_pcm_hwsync(snd_pcm_t * pcm);
extern int snd_pcm_info(snd_pcm_t * pcm, snd_pcm_info_t * info);
extern void snd_pcm_info_copy(snd_pcm_info_t * dst,
                             const snd_pcm_info_t * src);
extern void snd_pcm_info_free(snd_pcm_info_t * obj);
extern int snd_pcm_info_get_card(const snd_pcm_info_t * obj);
extern snd_pcm_class_t snd_pcm_info_get_class(const snd_pcm_info_t * obj);
extern unsigned int snd_pcm_info_get_device(const snd_pcm_info_t * obj);
extern const char *snd_pcm_info_get_id(const snd_pcm_info_t * obj);
extern const char *snd_pcm_info_get_name(const snd_pcm_info_t * obj);

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extern snd_pcm_stream_t snd_pcm_info_get_stream(const snd_pcm_info_t *
                                                obj);
extern unsigned int snd_pcm_info_get_subdevice(const snd_pcm_info_t * obj);
extern const char *snd_pcm_info_get_subdevice_name(const snd_pcm_info_t *
                                                    obj);
extern unsigned int snd_pcm_info_get_subdevices_avail(const snd_pcm_info_t
                                                       * obj);
extern unsigned int snd_pcm_info_get_subdevices_count(const snd_pcm_info_t
                                                       * obj);
extern int snd_pcm_info_malloc(snd_pcm_info_t * *ptr);
extern void snd_pcm_info_set_device(snd_pcm_info_t * obj,
                                    unsigned int val);
extern void snd_pcm_info_set_stream(snd_pcm_info_t * obj,
                                    snd_pcm_stream_t val);
extern void snd_pcm_info_set_subdevice(snd_pcm_info_t * obj,
                                       unsigned int val);
extern size_t snd_pcm_info_sizeof(void);
extern int snd_pcm_link(snd_pcm_t * pcm1, snd_pcm_t * pcm2);
extern int snd_pcm_mmap_begin(snd_pcm_t * pcm,
                              const snd_pcm_channel_area_t * *areas,
                              snd_pcm_uframes_t * offset,
                              snd_pcm_uframes_t * frames);
extern snd_pcm_sframes_t snd_pcm_mmap_commit(snd_pcm_t * pcm,
                                              snd_pcm_uframes_t offset,
                                              snd_pcm_uframes_t frames);
extern snd_pcm_sframes_t snd_pcm_mmap_readi(snd_pcm_t * pcm, void *buffer,
                                              snd_pcm_uframes_t size);
extern snd_pcm_sframes_t snd_pcm_mmap_readn(snd_pcm_t * pcm, void **bufs,
                                              snd_pcm_uframes_t size);
extern snd_pcm_sframes_t snd_pcm_mmap_writei(snd_pcm_t * pcm,
                                              const void *buffer,
                                              snd_pcm_uframes_t size);
extern snd_pcm_sframes_t snd_pcm_mmap_writen(snd_pcm_t * pcm, void **bufs,
                                              snd_pcm_uframes_t size);
extern const char *snd_pcm_name(snd_pcm_t * pcm);
extern int snd_pcm_nonblock(snd_pcm_t * pcm, int nonblock);
extern int snd_pcm_open(snd_pcm_t * *pcm, const char *name,
                        snd_pcm_stream_t stream, int mode);
extern int snd_pcm_open_lconf(snd_pcm_t * *pcm, const char *name,
                              snd_pcm_stream_t stream, int mode,
                              snd_config_t * lconf);
extern int snd_pcm_pause(snd_pcm_t * pcm, int enable);
extern int snd_pcm_poll_descriptors(snd_pcm_t * pcm, struct pollfd *pfds,
                                    unsigned int space);
extern int snd_pcm_poll_descriptors_count(snd_pcm_t * pcm);
extern int snd_pcm_poll_descriptors_revents(snd_pcm_t * pcm,
                                              struct pollfd *pfds,
                                              unsigned int nfds,
                                              short unsigned int *revents);
extern int snd_pcm_prepare(snd_pcm_t * pcm);
extern snd_pcm_sframes_t snd_pcm_readi(snd_pcm_t * pcm, void *buffer,
                                        snd_pcm_uframes_t size);
extern snd_pcm_sframes_t snd_pcm_readn(snd_pcm_t * pcm, void **bufs,
                                        snd_pcm_uframes_t size);
extern int snd_pcm_recover(snd_pcm_t * pcm, int err, int silent);
extern int snd_pcm_reset(snd_pcm_t * pcm);
extern int snd_pcm_resume(snd_pcm_t * pcm);
extern snd_pcm_sframes_t snd_pcm_rewind(snd_pcm_t * pcm,
                                        snd_pcm_uframes_t frames);
extern ssize_t snd_pcm_samples_to_bytes(snd_pcm_t * pcm, long int samples);
extern int snd_pcm_start(snd_pcm_t * pcm);
extern snd_pcm_state_t snd_pcm_state(snd_pcm_t * pcm);

```

```

extern const char *snd_pcm_state_name(snd_pcm_state_t state);
extern int snd_pcm_status(snd_pcm_t * pcm, snd_pcm_status_t * status);
extern void snd_pcm_status_copy(snd_pcm_status_t * dst,
                                const snd_pcm_status_t * src);
extern int snd_pcm_status_dump(snd_pcm_status_t * status,
                               snd_output_t * out);
extern void snd_pcm_status_free(snd_pcm_status_t * obj);
extern snd_pcm_uframes_t snd_pcm_status_get_avail(const snd_pcm_status_t *
                                                    obj);
extern snd_pcm_uframes_t snd_pcm_status_get_avail_max(const
                                                       snd_pcm_status_t *
                                                       obj);
extern snd_pcm_sframes_t snd_pcm_status_get_delay(const snd_pcm_status_t *
                                                    obj);
extern snd_pcm_state_t snd_pcm_status_get_state(const snd_pcm_status_t *
                                                  obj);
extern void snd_pcm_status_get_trigger_tstamp(const snd_pcm_status_t * obj,
                                                snd_timestamp_t * ptr);
extern void snd_pcm_status_get_tstamp(const snd_pcm_status_t * obj,
                                       snd_timestamp_t * ptr);
extern int snd_pcm_status_malloc(snd_pcm_status_t * *ptr);
extern size_t snd_pcm_status_sizeof(void);
extern snd_pcm_stream_t snd_pcm_stream(snd_pcm_t * pcm);
extern const char *snd_pcm_stream_name(snd_pcm_stream_t stream);
extern int snd_pcm_sw_params(snd_pcm_t * pcm,
                              snd_pcm_sw_params_t * params);
extern void snd_pcm_sw_params_copy(snd_pcm_sw_params_t * dst,
                                    const snd_pcm_sw_params_t * src);
extern int snd_pcm_sw_params_current(snd_pcm_t * pcm,
                                      snd_pcm_sw_params_t * params);
extern int snd_pcm_sw_params_dump(snd_pcm_sw_params_t * params,
                                   snd_output_t * out);
extern void snd_pcm_sw_params_free(snd_pcm_sw_params_t * obj);
extern int snd_pcm_sw_params_get_avail_min(const snd_pcm_sw_params_t *
                                             params,
                                             snd_pcm_uframes_t * val);
extern int snd_pcm_sw_params_get_boundary(const snd_pcm_sw_params_t *
                                           params, snd_pcm_uframes_t * val);
extern int snd_pcm_sw_params_get_silence_size(const snd_pcm_sw_params_t *
                                                params,
                                                snd_pcm_uframes_t * val);
extern int snd_pcm_sw_params_get_silence_threshold(const
                                                    snd_pcm_sw_params_t *
                                                    params,
                                                    snd_pcm_uframes_t *
                                                    val);
extern int snd_pcm_sw_params_get_start_threshold(const snd_pcm_sw_params_t
                                                  * paramsm,
                                                  snd_pcm_uframes_t * val);
extern int snd_pcm_sw_params_get_stop_threshold(const snd_pcm_sw_params_t *
                                                  params,
                                                  snd_pcm_uframes_t * val);
extern int snd_pcm_sw_params_get_tstamp_mode(const snd_pcm_sw_params_t *
                                               params,
                                               snd_pcm_tstamp_t * val);
extern int snd_pcm_sw_params_malloc(snd_pcm_sw_params_t * *ptr);
extern int snd_pcm_sw_params_set_avail_min(snd_pcm_t * pcm,
                                             snd_pcm_sw_params_t * params,
                                             snd_pcm_uframes_t val);
extern int snd_pcm_sw_params_set_silence_size(snd_pcm_t * pcm,
                                                snd_pcm_sw_params_t * params,
                                                snd_pcm_uframes_t val);

```

```

extern int snd_pcm_sw_params_set_silence_threshold(snd_pcm_t * pcm,
                                                    snd_pcm_sw_params_t *
                                                    params,
                                                    snd_pcm_uframes_t val);
extern int snd_pcm_sw_params_set_start_threshold(snd_pcm_t * pcm,
                                                  snd_pcm_sw_params_t *
                                                  params,
                                                  snd_pcm_uframes_t val);
extern int snd_pcm_sw_params_set_stop_threshold(snd_pcm_t * pcm,
                                                 snd_pcm_sw_params_t *
                                                 params,
                                                 snd_pcm_uframes_t val);
extern int snd_pcm_sw_params_set_tstamp_mode(snd_pcm_t * pcm,
                                              snd_pcm_sw_params_t * params,
                                              snd_pcm_tstamp_t val);
extern int snd_pcm_sw_params_set_xfer_align(snd_pcm_t * pcm,
                                             snd_pcm_sw_params_t * params,
                                             snd_pcm_uframes_t val);

extern size_t snd_pcm_sw_params_sizeof(void);
extern snd_pcm_type_t snd_pcm_type(snd_pcm_t * pcm);
extern const char *snd_pcm_type_name(snd_pcm_type_t type);
extern int snd_pcm_unlink(snd_pcm_t * pcm);
extern int snd_pcm_wait(snd_pcm_t * pcm, int timeout);
extern snd_pcm_sframes_t snd_pcm_writei(snd_pcm_t * pcm,
                                         const void *buffer,
                                         snd_pcm_uframes_t size);
extern snd_pcm_sframes_t snd_pcm_writen(snd_pcm_t * pcm, void **bufs,
                                         snd_pcm_uframes_t size);

```

20.2.13. alsa/pcm_extplug.h

```

#define SND_PCM_EXTPLUG_VERSION ((SND_PCM_EXTPLUG_VERSION_MAJOR<<16) | (SND_PCM_EXTPLUG_VERSION_MINOR<<16) | (SND_PCM_EXTPLUG_VERSION_TINY<<16))
#define SND_PCM_EXTPLUG_VERSION_MAJOR 0
#define SND_PCM_EXTPLUG_VERSION_MINOR 1
#define SND_PCM_EXTPLUG_VERSION_TINY 1

typedef struct snd_pcm_extplug_callback {
    snd_pcm_sframes_t(*transfer) (void);
    int (*close) (void);
    int (*hw_params) (void);
    int (*hw_free) (void);
    void (*dump) (void);
    int (*init) (void);
} snd_pcm_extplug_callback_t;
typedef struct snd_pcm_extplug {
    unsigned int version;
    const char *name;
    const snd_pcm_extplug_callback_t *callback;
    void *private_data;
    snd_pcm_t *pcm;
    snd_pcm_stream_t stream;
    snd_pcm_format_t format;
    snd_pcm_subformat_t subformat;
    unsigned int channels;
    unsigned int rate;
    snd_pcm_format_t slave_format;
    snd_pcm_subformat_t slave_subformat;
    unsigned int slave_channels;
} snd_pcm_extplug_t;

```

20.2.14. alsa/pcm_plugin.h

```
#define SND_PCM_PLUGIN_ROUTE_HALF      0.5
#define SND_PCM_PLUGIN_ROUTE_FLOAT    1
#define SND_PCM_PLUGIN_ROUTE_FULL     1.0
#define SND_PCM_PLUGIN_ROUTE_RESOLUTION 16
#define SND_PCM_PLUGIN_RATE_MAX 192000
#define SND_PCM_PLUGIN_RATE_MIN 4000

typedef float snd_pcm_route_ttable_entry_t;
```

20.2.15. alsa/rawmidi.h

```
#define SND_RAWMIDI_APPEND      0x0001
#define SND_RAWMIDI_NONBLOCK   0x0002
#define SND_RAWMIDI_SYNC       0x0004

typedef struct sndrv_rawmidi_info snd_rawmidi_info_t;
typedef struct sndrv_rawmidi_params snd_rawmidi_params_t;
typedef struct sndrv_rawmidi_status snd_rawmidi_status_t;
typedef enum _snd_rawmidi_stream {
    SND_RAWMIDI_STREAM_OUTPUT,
    SND_RAWMIDI_STREAM_INPUT = 1,
    SND_RAWMIDI_STREAM_LAST = 1
} snd_rawmidi_stream_t;
typedef struct _snd_rawmidi snd_rawmidi_t;
typedef enum _snd_rawmidi_type {
    SND_RAWMIDI_TYPE_HW,
    SND_RAWMIDI_TYPE_SHM = 1,
    SND_RAWMIDI_TYPE_INET = 2,
    SND_RAWMIDI_TYPE_VIRTUAL = 3
} snd_rawmidi_type_t;

extern int snd_rawmidi_close(snd_rawmidi_t * rmidi);
extern int snd_rawmidi_drain(snd_rawmidi_t * rmidi);
extern int snd_rawmidi_drop(snd_rawmidi_t * rmidi);
extern int snd_rawmidi_info(snd_rawmidi_t * rmidi,
                           snd_rawmidi_info_t * info);
extern void snd_rawmidi_info_copy(snd_rawmidi_info_t * dst,
                                 const snd_rawmidi_info_t * src);
extern void snd_rawmidi_info_free(snd_rawmidi_info_t * obj);
extern int snd_rawmidi_info_get_card(const snd_rawmidi_info_t * obj);
extern unsigned int snd_rawmidi_info_get_device(const snd_rawmidi_info_t *
                                                obj);
extern unsigned int snd_rawmidi_info_get_flags(const snd_rawmidi_info_t *
                                                obj);
extern const char *snd_rawmidi_info_get_id(const snd_rawmidi_info_t * obj);
extern const char *snd_rawmidi_info_get_name(const snd_rawmidi_info_t *
                                              obj);
extern snd_rawmidi_stream_t snd_rawmidi_info_get_stream(const
                                                         snd_rawmidi_info_t
                                                         * obj);
extern unsigned int snd_rawmidi_info_get_subdevice(const snd_rawmidi_info_t
                                                    * obj);
extern const char *snd_rawmidi_info_get_subdevice_name(const
                                                         snd_rawmidi_info_t *
                                                         obj);
extern unsigned int snd_rawmidi_info_get_subdevices_avail(const
                                                           snd_rawmidi_info_t
                                                           * obj);
extern unsigned int snd_rawmidi_info_get_subdevices_count(const
```

```

snd_rawmidi_info_t
* obj);
extern int snd_rawmidi_info_malloc(snd_rawmidi_info_t * *ptr);
extern void snd_rawmidi_info_set_device(snd_rawmidi_info_t * obj,
                                         unsigned int val);
extern void snd_rawmidi_info_set_stream(snd_rawmidi_info_t * obj,
                                         snd_rawmidi_stream_t val);
extern void snd_rawmidi_info_set_subdevice(snd_rawmidi_info_t * obj,
                                         unsigned int val);
extern size_t snd_rawmidi_info_sizeof(void);
extern int snd_rawmidi_nonblock(snd_rawmidi_t * rmidi, int nonblock);
extern int snd_rawmidi_open(snd_rawmidi_t * *in_rmidi,
                             snd_rawmidi_t * *out_rmidi, const char *name,
                             int mode);
extern int snd_rawmidi_poll_descriptors(snd_rawmidi_t * rmidi,
                                         struct pollfd *pfd,
                                         unsigned int space);
extern int snd_rawmidi_poll_descriptors_count(snd_rawmidi_t * rmidi);
extern int snd_rawmidi_poll_descriptors_revents(snd_rawmidi_t * rawmidi,
                                                  struct pollfd *pfd,
                                                  unsigned int nfds,
                                                  short unsigned int
                                                  *revent);
extern ssize_t snd_rawmidi_read(snd_rawmidi_t * rmidi, void *buffer,
                                size_t size);
extern ssize_t snd_rawmidi_write(snd_rawmidi_t * rmidi, const void *buffer,
                                size_t size);

```

20.2.16. alsa/seq.h

```

#define snd_seq_ev_is_prior(ev) \
    (((ev)->flags & SND_SEQ_PRIORITY_MASK) == SND_SEQ_PRIORITY_HIGH)
#define snd_seq_ev_length_type(ev) \
    ((ev)->flags & SND_SEQ_EVENT_LENGTH_MASK)
#define snd_seq_ev_timemode_type(ev) \
    ((ev)->flags & SND_SEQ_TIME_MODE_MASK)
#define snd_seq_ev_timestamp_type(ev) \
    ((ev)->flags & SND_SEQ_TIME_STAMP_MASK)
#define snd_seq_ev_is_channel_type(ev) \
    (snd_seq_event_types[(ev)->type] & (_SND_SEQ_TYPE(SND_SEQ_EVFLG_NOTE) \
    | _SND_SEQ_TYPE(SND_SEQ_EVFLG_CONTROL)))
#define snd_seq_type_check(ev, x) \
    (snd_seq_event_types[(ev)->type] & _SND_SEQ_TYPE(x))
#define snd_seq_ev_is_fixed(ev) \
    (snd_seq_ev_length_type(ev) == SND_SEQ_EVENT_LENGTH_FIXED)
#define snd_seq_ev_is_variable(ev) \
    (snd_seq_ev_length_type(ev) == SND_SEQ_EVENT_LENGTH_VARIABLE)
#define snd_seq_ev_is_varusr(ev) \
    (snd_seq_ev_length_type(ev) == SND_SEQ_EVENT_LENGTH_VARUSR)
#define snd_seq_ev_is_abstime(ev) \
    (snd_seq_ev_timemode_type(ev) == SND_SEQ_TIME_MODE_ABS)
#define snd_seq_ev_is_reftime(ev) \
    (snd_seq_ev_timemode_type(ev) == SND_SEQ_TIME_MODE_REL)
#define snd_seq_ev_is_real(ev) \
    (snd_seq_ev_timestamp_type(ev) == SND_SEQ_TIME_STAMP_REAL)
#define snd_seq_ev_is_tick(ev) \
    (snd_seq_ev_timestamp_type(ev) == SND_SEQ_TIME_STAMP_TICK)
#define snd_seq_ev_is_subscribe_type(ev) \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_CONNECTION)
#define snd_seq_ev_is_control_type(ev) \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_CONTROL)

```

```

#define snd_seq_ev_is_fixed_type(ev)      \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_FIXED)
#define snd_seq_ev_is_instr_type(ev)      \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_INSTR)
#define snd_seq_ev_is_message_type(ev)    \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_MESSAGE)
#define snd_seq_ev_is_note_type(ev)       \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_NOTE)
#define snd_seq_ev_is_queue_type(ev)      \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_QUEUE)
#define snd_seq_ev_is_result_type(ev)     \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_RESULT)
#define snd_seq_ev_is_sample_type(ev)     \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_SAMPLE)
#define snd_seq_ev_is_user_type(ev)       \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_USERS)
#define snd_seq_ev_is_variable_type(ev)   \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_VARIABLE)
#define snd_seq_ev_is_varusr_type(ev)     \
    snd_seq_type_check(ev, SND_SEQ_EVFLG_VARUSR)
#define snd_seq_ev_is_reserved(ev)        (! snd_seq_event_types[(ev)->type])
#define snd_seq_ev_is_direct(ev)          ((ev)->queue == SND_SEQ_QUEUE_DIRECT)
#define _SND_SEQ_TYPE_OPT(x)              ((x)<<24)
#define _SND_SEQ_TYPE(x)                  (1<<(x))
#define SND_SEQ_PORT_CAP_READ              (1<<0)
#define SND_SEQ_PORT_TYPE_SPECIFIC         (1<<0)
#define SND_SEQ_REMOVE_INPUT              (1<<0)
#define SND_SEQ_PORT_CAP_WRITE            (1<<1)
#define SND_SEQ_PORT_TYPE_MIDI_GENERIC    (1<<1)
#define SND_SEQ_REMOVE_OUTPUT             (1<<1)
#define SND_SEQ_PORT_TYPE_SYNTH           (1<<10)
#define SND_SEQ_PORT_TYPE_DIRECT_SAMPLE   (1<<11)
#define SND_SEQ_PORT_TYPE_SAMPLE          (1<<12)
#define SND_SEQ_PORT_TYPE_HARDWARE        (1<<16)
#define SND_SEQ_PORT_TYPE_SOFTWARE        (1<<17)
#define SND_SEQ_PORT_TYPE_SYNTHESIZER     (1<<18)
#define SND_SEQ_PORT_TYPE_PORT            (1<<19)
#define SND_SEQ_PORT_CAP_SYNC_READ        (1<<2)
#define SND_SEQ_PORT_TYPE_MIDI_GM         (1<<2)
#define SND_SEQ_REMOVE_DEST               (1<<2)
#define SND_SEQ_PORT_TYPE_APPLICATION     (1<<20)
#define SND_SEQ_PORT_CAP_SYNC_WRITE       (1<<3)
#define SND_SEQ_PORT_TYPE_MIDI_GS         (1<<3)
#define SND_SEQ_REMOVE_DEST_CHANNEL       (1<<3)
#define SND_SEQ_PORT_CAP_DUPLEX           (1<<4)
#define SND_SEQ_PORT_TYPE_MIDI_XG         (1<<4)
#define SND_SEQ_REMOVE_TIME_BEFORE        (1<<4)
#define SND_SEQ_PORT_CAP_SUBS_READ        (1<<5)
#define SND_SEQ_PORT_TYPE_MIDI_MT32       (1<<5)
#define SND_SEQ_REMOVE_TIME_AFTER         (1<<5)
#define SND_SEQ_PORT_CAP_SUBS_WRITE       (1<<6)
#define SND_SEQ_PORT_TYPE_MIDI_GM2        (1<<6)
#define SND_SEQ_REMOVE_TIME_TICK          (1<<6)
#define SND_SEQ_PORT_CAP_NO_EXPORT        (1<<7)
#define SND_SEQ_REMOVE_EVENT_TYPE         (1<<7)
#define SND_SEQ_REMOVE_IGNORE_OFF         (1<<8)
#define SND_SEQ_REMOVE_TAG_MATCH          (1<<9)
#define SND_SEQ_OPEN_DUPLEX               (SND_SEQ_OPEN_OUTPUT|SND_SEQ_OPEN_INPUT)
#define SND_SEQ_CLIENT_SYSTEM             0
#define SND_SEQ_PORT_SYSTEM_TIMER         0
#define SND_SEQ_NONBLOCK                   0x0001
#define SND_SEQ_OPEN_OUTPUT               1

```

```

#define SND_SEQ_PORT_SYSTEM_ANNOUNCE    1
#define SND_SEQ_OPEN_INPUT              2
#define SND_SEQ_ADDRESS_UNKNOWN        253
#define SND_SEQ_QUEUE_DIRECT           253
#define SND_SEQ_ADDRESS_SUBSCRIBERS    254
#define SND_SEQ_ADDRESS_BROADCAST      255

typedef struct sndrv_seq_client_info snd_seq_client_info_t;
typedef struct sndrv_seq_client_pool snd_seq_client_pool_t;
typedef enum snd_seq_client_type {
    SND_SEQ_USER_CLIENT = 1,
    SND_SEQ_KERNEL_CLIENT = 2
} snd_seq_client_type_t;
typedef struct sndrv_seq_port_info snd_seq_port_info_t;
typedef struct sndrv_seq_port_subscribe snd_seq_port_subscribe_t;
typedef enum {
    SND_SEQ_QUERY_SUBS_READ,
    SND_SEQ_QUERY_SUBS_WRITE = 1
} snd_seq_query_subs_type_t;
typedef struct sndrv_seq_query_subs snd_seq_query_subscribe_t;
typedef struct sndrv_seq_queue_info snd_seq_queue_info_t;
typedef struct sndrv_seq_queue_status snd_seq_queue_status_t;
typedef struct sndrv_seq_queue_tempo snd_seq_queue_tempo_t;
typedef struct sndrv_seq_queue_timer snd_seq_queue_timer_t;
typedef enum {
    SND_SEQ_TIMER_ALSA,
    SND_SEQ_TIMER_MIDI_CLOCK = 1,
    SND_SEQ_TIMER_MIDI_TICK = 2
} snd_seq_queue_timer_type_t;
typedef struct sndrv_seq_remove_events snd_seq_remove_events_t;
typedef struct sndrv_seq_system_info snd_seq_system_info_t;
typedef struct _snd_seq snd_seq_t;
typedef enum _snd_seq_type {
    SND_SEQ_TYPE_HW,
    SND_SEQ_TYPE_SHM = 1,
    SND_SEQ_TYPE_INET = 2
} snd_seq_type_t;
extern int snd_seq_alloc_named_queue(snd_seq_t * seq, const char *name);
extern int snd_seq_alloc_queue(snd_seq_t * handle);
extern int snd_seq_client_id(snd_seq_t * handle);
extern void snd_seq_client_info_copy(snd_seq_client_info_t * dst,
                                     const snd_seq_client_info_t * src);
extern void snd_seq_client_info_free(snd_seq_client_info_t * ptr);
extern int snd_seq_client_info_get_client(const snd_seq_client_info_t *
                                         info);
extern const char *snd_seq_client_info_get_name(snd_seq_client_info_t *
                                                info);
extern int snd_seq_client_info_get_num_ports(const snd_seq_client_info_t *
                                             info);
extern snd_seq_client_type_t snd_seq_client_info_get_type(const
                                                         snd_seq_client_info_t
                                                         * info);
extern int snd_seq_client_info_malloc(snd_seq_client_info_t * *ptr);
extern void snd_seq_client_info_set_client(snd_seq_client_info_t * info,
                                           int client);
extern void snd_seq_client_info_set_name(snd_seq_client_info_t * info,
                                         const char *name);
extern size_t snd_seq_client_info_sizeof(void);
extern int snd_seq_close(snd_seq_t * handle);
extern int snd_seq_create_port(snd_seq_t * handle,
                              snd_seq_port_info_t * info);
extern int snd_seq_delete_port(snd_seq_t * handle, int port);

```

```

extern int snd_seq_drain_output(snd_seq_t * handle);
extern int snd_seq_drop_output(snd_seq_t * handle);
extern int snd_seq_drop_output_buffer(snd_seq_t * handle);
extern int snd_seq_event_input(snd_seq_t * handle, snd_seq_event_t * *ev);
extern int snd_seq_event_input_pending(snd_seq_t * seq,
                                      int fetch_sequencer);
extern ssize_t snd_seq_event_length(snd_seq_event_t * ev);
extern int snd_seq_event_output(snd_seq_t * handle, snd_seq_event_t * ev);
extern int snd_seq_event_output_direct(snd_seq_t * handle,
                                      snd_seq_event_t * ev);
extern const unsigned int snd_seq_event_types[];
extern int snd_seq_free_event(snd_seq_event_t * ev);
extern int snd_seq_free_queue(snd_seq_t * handle, int q);
extern int snd_seq_get_any_client_info(snd_seq_t * handle, int client,
                                      snd_seq_client_info_t * info);
extern int snd_seq_get_any_port_info(snd_seq_t * handle, int client,
                                     int port, snd_seq_port_info_t * info);
extern int snd_seq_get_client_info(snd_seq_t * handle,
                                   snd_seq_client_info_t * info);
extern size_t snd_seq_get_input_buffer_size(snd_seq_t * handle);
extern size_t snd_seq_get_output_buffer_size(snd_seq_t * handle);
extern int snd_seq_get_port_info(snd_seq_t * handle, int port,
                                snd_seq_port_info_t * info);
extern int snd_seq_get_port_subscription(snd_seq_t * handle,
                                         snd_seq_port_subscribe_t * sub);
extern int snd_seq_get_queue_status(snd_seq_t * handle, int q,
                                   snd_seq_queue_status_t * status);
extern int snd_seq_get_queue_tempo(snd_seq_t * handle, int q,
                                   snd_seq_queue_tempo_t * tempo);
extern int snd_seq_nonblock(snd_seq_t * handle, int nonblock);
extern int snd_seq_open(snd_seq_t * *handle, const char *name, int streams,
                       int mode);
extern int snd_seq_poll_descriptors(snd_seq_t * handle,
                                   struct pollfd *pfds,
                                   unsigned int space, short int events);
extern int snd_seq_poll_descriptors_count(snd_seq_t * handle,
                                         short int events);
extern int snd_seq_poll_descriptors_revents(snd_seq_t * seq,
                                             struct pollfd *pfds,
                                             unsigned int nfds,
                                             short unsigned int *revents);
extern void snd_seq_port_info_copy(snd_seq_port_info_t * dst,
                                   const snd_seq_port_info_t * src);
extern void snd_seq_port_info_free(snd_seq_port_info_t * ptr);
extern const snd_seq_addr_t *snd_seq_port_info_get_addr(const
                                                         snd_seq_port_info_t
                                                         * info);
extern unsigned int snd_seq_port_info_get_capability(const
                                                      snd_seq_port_info_t *
                                                      info);
extern int snd_seq_port_info_get_client(const snd_seq_port_info_t * info);
extern const char *snd_seq_port_info_get_name(const snd_seq_port_info_t *
                                              info);
extern int snd_seq_port_info_get_port(const snd_seq_port_info_t * info);
extern unsigned int snd_seq_port_info_get_type(const snd_seq_port_info_t *
                                              info);
extern int snd_seq_port_info_malloc(snd_seq_port_info_t * *ptr);
extern void snd_seq_port_info_set_capability(snd_seq_port_info_t * info,
                                             unsigned int capability);
extern void snd_seq_port_info_set_client(snd_seq_port_info_t * info,
                                         int client);
extern void snd_seq_port_info_set_midi_channels(snd_seq_port_info_t * info,

```



```

                                int channels);
extern void snd_seq_port_info_set_name(snd_seq_port_info_t * info,
                                const char *name);
extern void snd_seq_port_info_set_port(snd_seq_port_info_t * info,
                                int port);
extern void snd_seq_port_info_set_port_specified(snd_seq_port_info_t *
                                info, int val);
extern void snd_seq_port_info_set_timestamp_queue(snd_seq_port_info_t *
                                info, int queue);
extern void snd_seq_port_info_set_timestamp_real(snd_seq_port_info_t *
                                info, int realtime);
extern void snd_seq_port_info_set_timestamping(snd_seq_port_info_t * info,
                                int enable);
extern void snd_seq_port_info_set_type(snd_seq_port_info_t * info,
                                unsigned int type);
extern size_t snd_seq_port_info_sizeof(void);
extern void snd_seq_port_subscribe_copy(snd_seq_port_subscribe_t * dst,
                                const snd_seq_port_subscribe_t *
                                src);
extern void snd_seq_port_subscribe_free(snd_seq_port_subscribe_t * ptr);
extern const snd_seq_addr_t *snd_seq_port_subscribe_get_dest(const
                                snd_seq_port_subscribe_t
                                * info);
extern int snd_seq_port_subscribe_get_exclusive(const
                                snd_seq_port_subscribe_t *
                                info);
extern int snd_seq_port_subscribe_get_queue(const snd_seq_port_subscribe_t
                                * info);
extern const snd_seq_addr_t *snd_seq_port_subscribe_get_sender(const
                                snd_seq_port_subscribe_t
                                * info);
extern int snd_seq_port_subscribe_get_time_real(const
                                snd_seq_port_subscribe_t *
                                info);
extern int snd_seq_port_subscribe_get_time_update(const
                                snd_seq_port_subscribe_t
                                * info);
extern int snd_seq_port_subscribe_malloc(snd_seq_port_subscribe_t * *ptr);
extern void snd_seq_port_subscribe_set_dest(snd_seq_port_subscribe_t *
                                info,
                                const snd_seq_addr_t * addr);
extern void snd_seq_port_subscribe_set_exclusive(snd_seq_port_subscribe_t *
                                info, int val);
extern void snd_seq_port_subscribe_set_queue(snd_seq_port_subscribe_t *
                                info, int q);
extern void snd_seq_port_subscribe_set_sender(snd_seq_port_subscribe_t *
                                info,
                                const snd_seq_addr_t * addr);
extern void snd_seq_port_subscribe_set_time_real(snd_seq_port_subscribe_t *
                                info, int val);
extern void snd_seq_port_subscribe_set_time_update(snd_seq_port_subscribe_t
                                * info, int val);
extern size_t snd_seq_port_subscribe_sizeof(void);
extern int snd_seq_query_next_client(snd_seq_t * handle,
                                snd_seq_client_info_t * info);
extern int snd_seq_query_next_port(snd_seq_t * handle,
                                snd_seq_port_info_t * info);
extern int snd_seq_query_port_subscribers(snd_seq_t * seq,
                                snd_seq_query_subscribe_t *
                                subs);
extern void snd_seq_query_subscribe_copy(snd_seq_query_subscribe_t * dst,
                                const snd_seq_query_subscribe_t *

```

```

src);
extern void snd_seq_query_subscribe_free(snd_seq_query_subscribe_t * ptr);
extern const snd_seq_addr_t *snd_seq_query_subscribe_get_addr(const
                                                                    snd_seq_query_subscribe_t
                                                                    * info);
extern int snd_seq_query_subscribe_get_exclusive(const
                                                                    snd_seq_query_subscribe_t
                                                                    * info);
extern int snd_seq_query_subscribe_get_index(const
                                                                    snd_seq_query_subscribe_t *
                                                                    info);
extern int snd_seq_query_subscribe_get_queue(const
                                                                    snd_seq_query_subscribe_t *
                                                                    info);
extern const snd_seq_addr_t *snd_seq_query_subscribe_get_root(const
                                                                    snd_seq_query_subscribe_t
                                                                    * info);
extern int snd_seq_query_subscribe_get_time_real(const
                                                                    snd_seq_query_subscribe_t
                                                                    * info);
extern int snd_seq_query_subscribe_get_time_update(const
                                                                    snd_seq_query_subscribe_t
                                                                    * info);
extern int snd_seq_query_subscribe_malloc(snd_seq_query_subscribe_t *
                                                                    *ptr);
extern void snd_seq_query_subscribe_set_index(snd_seq_query_subscribe_t *
                                                                    info, int _index);
extern void snd_seq_query_subscribe_set_root(snd_seq_query_subscribe_t *
                                                                    info,
                                                                    const snd_seq_addr_t * addr);
extern void snd_seq_query_subscribe_set_type(snd_seq_query_subscribe_t *
                                                                    info,
                                                                    snd_seq_query_subs_type_t
                                                                    type);
extern size_t snd_seq_query_subscribe_sizeof(void);
extern void snd_seq_queue_status_copy(snd_seq_queue_status_t * dst,
                                                                    const snd_seq_queue_status_t * src);
extern void snd_seq_queue_status_free(snd_seq_queue_status_t * ptr);
extern const snd_seq_real_time_t *snd_seq_queue_status_get_real_time(const
                                                                    snd_seq_queue_status_t
                                                                    *
                                                                    info);
extern snd_seq_tick_time_t snd_seq_queue_status_get_tick_time(const
                                                                    snd_seq_queue_status_t
                                                                    * info);
extern int snd_seq_queue_status_malloc(snd_seq_queue_status_t * *ptr);
extern size_t snd_seq_queue_status_sizeof(void);
extern void snd_seq_queue_tempo_copy(snd_seq_queue_tempo_t * dst,
                                                                    const snd_seq_queue_tempo_t * src);
extern void snd_seq_queue_tempo_free(snd_seq_queue_tempo_t * ptr);
extern int snd_seq_queue_tempo_get_ppq(const snd_seq_queue_tempo_t * info);
extern unsigned int snd_seq_queue_tempo_get_tempo(const
                                                                    snd_seq_queue_tempo_t *
                                                                    info);
extern int snd_seq_queue_tempo_malloc(snd_seq_queue_tempo_t * *ptr);
extern void snd_seq_queue_tempo_set_ppq(snd_seq_queue_tempo_t * info,
                                                                    int ppq);
extern void snd_seq_queue_tempo_set_tempo(snd_seq_queue_tempo_t * info,
                                                                    unsigned int tempo);
extern size_t snd_seq_queue_tempo_sizeof(void);
extern int snd_seq_set_client_info(snd_seq_t * handle,
                                                                    snd_seq_client_info_t * info);

```

```

extern int snd_seq_set_input_buffer_size(snd_seq_t * handle, size_t size);
extern int snd_seq_set_output_buffer_size(snd_seq_t * handle, size_t size);
extern int snd_seq_set_port_info(snd_seq_t * handle, int port,
                                snd_seq_port_info_t * info);
extern int snd_seq_set_queue_tempo(snd_seq_t * handle, int q,
                                   snd_seq_queue_tempo_t * tempo);
extern int snd_seq_subscribe_port(snd_seq_t * handle,
                                  snd_seq_port_subscribe_t * sub);
extern int snd_seq_system_info(snd_seq_t * handle,
                               snd_seq_system_info_t * info);
extern void snd_seq_system_info_copy(snd_seq_system_info_t * dst,
                                     const snd_seq_system_info_t * src);
extern void snd_seq_system_info_free(snd_seq_system_info_t * ptr);
extern int snd_seq_system_info_get_clients(const snd_seq_system_info_t *
                                           info);
extern int snd_seq_system_info_get_ports(const snd_seq_system_info_t *
                                         info);
extern int snd_seq_system_info_get_queues(const snd_seq_system_info_t *
                                          info);
extern int snd_seq_system_info_malloc(snd_seq_system_info_t * *ptr);
extern size_t snd_seq_system_info_sizeof(void);
extern int snd_seq_unsubscribe_port(snd_seq_t * handle,
                                    snd_seq_port_subscribe_t * sub);

```

20.2.17. alsa/seq_event.h

```

#define SND_SEQ_TIME_STAMP_TICK (0<<0)
#define SND_SEQ_TIME_MODE_ABS (0<<1)
#define SND_SEQ_EVENT_LENGTH_FIXED (0<<2)
#define SND_SEQ_PRIORITY_NORMAL (0<<4)
#define SND_SEQ_TIME_STAMP_MASK (1<<0)
#define SND_SEQ_TIME_STAMP_REAL (1<<0)
#define SND_SEQ_TIME_MODE_MASK (1<<1)
#define SND_SEQ_TIME_MODE_REL (1<<1)
#define SND_SEQ_EVENT_LENGTH_VARIABLE (1<<2)
#define SND_SEQ_PRIORITY_HIGH (1<<4)
#define SND_SEQ_PRIORITY_MASK (1<<4)
#define SND_SEQ_EVENT_LENGTH_VARUSR (2<<2)
#define SND_SEQ_EVENT_LENGTH_MASK (3<<2)

typedef struct snd_seq_addr {
    unsigned char client;
    unsigned char port;
} snd_seq_addr_t;
typedef struct snd_seq_connect {
    snd_seq_addr_t sender;
    snd_seq_addr_t dest;
} snd_seq_connect_t;
typedef struct snd_seq_ev_ctrl {
    unsigned char channel;
    unsigned char unused[3];
    unsigned int param;
    int value;
} snd_seq_ev_ctrl_t;
typedef struct snd_seq_ev_ext {
    unsigned int len;
    void *ptr;
} __attribute__((packed)) snd_seq_ev_ext_t;
typedef struct snd_seq_ev_note {
    unsigned char channel;
    unsigned char note;
}

```

```

    unsigned char velocity;
    unsigned char off_velocity;
    unsigned int duration;
} snd_seq_ev_note_t;
typedef struct snd_seq_ev_queue_control {
    unsigned char queue;
    unsigned char unused[3];
    union {
        int value; /* affected value (e.g. tempo) */
        snd_seq_timestamp_t time; /* time */
        unsigned int position; /* sync position */
        snd_seq_queue_skew_t skew; /* queue skew */
        unsigned int d32[2]; /* any data */
        unsigned char d8[8]; /* any data */
    } param;
} snd_seq_ev_queue_control_t;
typedef struct snd_seq_ev_raw32 {
    unsigned int d[3];
} snd_seq_ev_raw32_t;
typedef struct snd_seq_ev_raw8 {
    unsigned char d[12];
} snd_seq_ev_raw8_t;
typedef struct snd_seq_event {
    snd_seq_event_type_t type;
    unsigned char flags;
    unsigned char tag;
    unsigned char queue;
    snd_seq_timestamp_t time;
    snd_seq_addr_t source;
    snd_seq_addr_t dest;
    union {
        snd_seq_ev_note_t note; /* note information */
        snd_seq_ev_ctrl_t control; /* MIDI control information */
        snd_seq_ev_raw8_t raw8; /* raw8 data */
        snd_seq_ev_raw32_t raw32; /* raw32 data */
        snd_seq_ev_ext_t ext; /* external data */
        snd_seq_ev_queue_control_t queue; /* queue control */
        snd_seq_timestamp_t time; /* timestamp */
        snd_seq_addr_t addr; /* address */
        snd_seq_connect_t connect; /* connect information */
        snd_seq_result_t result; /* operation result code */
    } data;
} snd_seq_event_t;
typedef unsigned char snd_seq_event_type_t;
typedef struct snd_seq_queue_skew {
    unsigned int value;
    unsigned int base;
} snd_seq_queue_skew_t;
union snd_seq_timestamp {
    snd_seq_tick_time_t tick;
    struct snd_seq_real_time time;
};
typedef struct snd_seq_real_time {
    unsigned int tv_sec;
    unsigned int tv_nsec;
} snd_seq_real_time_t;
typedef struct snd_seq_result {
    int event;
    int result;
} snd_seq_result_t;
typedef unsigned int snd_seq_tick_time_t;
typedef union snd_seq_timestamp {

```

```

snd_seq_tick_time_t tick;
struct snd_seq_real_time time;
} snd_seq_timestamp_t;
enum snd_seq_event_type {
    SND_SEQ_EVENT_SYSTEM = 0, /* system status; event data type = #snd_seq_result_t */
    SND_SEQ_EVENT_RESULT, /* returned result status; event data type = #snd_seq_result_t */
    SND_SEQ_EVENT_NOTE = 5, /* note on and off with duration; event data type = #snd_seq_ev_note_t */
    SND_SEQ_EVENT_NOTEON, /* note on; event data type = #snd_seq_ev_note_t */
    SND_SEQ_EVENT_NOTEOFF, /* note off; event data type = #snd_seq_ev_note_t */
    SND_SEQ_EVENT_KEYPRESS, /* key pressure change (aftertouch); event data type = #snd_seq_ev_key_t */
    SND_SEQ_EVENT_CONTROLLER = 10, /* controller; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_PGMCHANGE, /* program change; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_CHANPRESS, /* channel pressure; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_PITCHBEND, /* pitchwheel; event data type = #snd_seq_ev_ctrl_t; data is from 0 to 127 */
    SND_SEQ_EVENT_CONTROL14, /* 14 bit controller value; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_NONREGPARAM, /* 14 bit NRPN; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_REGPARAM, /* 14 bit RPN; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_SONGPOS = 20, /* SPP with LSB and MSB values; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_SONGSEL, /* Song Select with song ID number; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_QFRAME, /* midi time code quarter frame; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_TIMESIGN, /* SMF Time Signature event; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_KEYSIGN, /* SMF Key Signature event; event data type = #snd_seq_ev_ctrl_t */
    SND_SEQ_EVENT_START = 30, /* MIDI Real Time Start message; event data type = #snd_seq_ev_queue_t */
    SND_SEQ_EVENT_CONTINUE, /* MIDI Real Time Continue message; event data type = #snd_seq_ev_queue_t */
    SND_SEQ_EVENT_STOP, /* MIDI Real Time Stop message; event data type = #snd_seq_ev_queue_t */
    SND_SEQ_EVENT_SETPOS_TICK, /* Set tick queue position; event data type = #snd_seq_ev_queue_control_t */
    SND_SEQ_EVENT_SETPOS_TIME, /* Set real-time queue position; event data type = #snd_seq_ev_queue_control_t */
    SND_SEQ_EVENT_TEMPO, /* (SMF) Tempo event; event data type = #snd_seq_ev_queue_control_t */
    SND_SEQ_EVENT_CLOCK, /* MIDI Real Time Clock message; event data type = #snd_seq_ev_queue_t */
    SND_SEQ_EVENT_TICK, /* MIDI Real Time Tick message; event data type = #snd_seq_ev_queue_t */
    SND_SEQ_EVENT_QUEUE_SKEW, /* Queue timer skew; event data type = #snd_seq_ev_queue_control_t */
    SND_SEQ_EVENT_SYNC_POS, /* Sync position changed; event data type = #snd_seq_ev_queue_control_t */
    SND_SEQ_EVENT_TUNE_REQUEST = 40, /* Tune request; event data type = none */
    SND_SEQ_EVENT_RESET, /* Reset to power-on state; event data type = none */
    SND_SEQ_EVENT_SENSING, /* Active sensing event; event data type = none */
    SND_SEQ_EVENT_ECHO = 50, /* Echo-back event; event data type = any type */
    SND_SEQ_EVENT_OSS, /* OSS emulation raw event; event data type = any type */
    SND_SEQ_EVENT_CLIENT_START = 60, /* New client has connected; event data type = #snd_seq_addr_t */
    SND_SEQ_EVENT_CLIENT_EXIT, /* Client has left the system; event data type = #snd_seq_addr_t */
    SND_SEQ_EVENT_CLIENT_CHANGE, /* Client status/info has changed; event data type = #snd_seq_addr_t */
    SND_SEQ_EVENT_PORT_START, /* New port was created; event data type = #snd_seq_addr_t */
    SND_SEQ_EVENT_PORT_EXIT, /* Port was deleted from system; event data type = #snd_seq_addr_t */
    SND_SEQ_EVENT_PORT_CHANGE, /* Port status/info has changed; event data type = #snd_seq_addr_t */
    SND_SEQ_EVENT_PORT_SUBSCRIBED, /* Ports connected; event data type = #snd_seq_connect_t */
    SND_SEQ_EVENT_PORT_UNSUBSCRIBED, /* Ports disconnected; event data type = #snd_seq_connect_t */
    SND_SEQ_EVENT_USR0 = 90, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_USR1, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_USR2, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_USR3, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_USR4, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_USR5, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_USR6, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_USR7, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_USR8, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_USR9, /* user-defined event; event data type = any (fixed size) */
    SND_SEQ_EVENT_SYSEX = 130, /* system exclusive data (variable length); event data type = #snd_seq_ev_ext_t */
    SND_SEQ_EVENT_BOUNCE, /* error event; event data type = #snd_seq_ev_ext_t */
    SND_SEQ_EVENT_USR_VAR0 = 135, /* reserved for user apps; event data type = #snd_seq_ev_ext_t */
    SND_SEQ_EVENT_USR_VAR1, /* reserved for user apps; event data type = #snd_seq_ev_ext_t */
    SND_SEQ_EVENT_USR_VAR2, /* reserved for user apps; event data type = #snd_seq_ev_ext_t */
    SND_SEQ_EVENT_USR_VAR3, /* reserved for user apps; event data type = #snd_seq_ev_ext_t */
    SND_SEQ_EVENT_USR_VAR4, /* reserved for user apps; event data type = #snd_seq_ev_ext_t */

```

```

SND_SEQ_EVENT_NONE = 255    /* NOP; ignored in any case */
};

```

20.2.18. alsa/seq_midi_event.h

```

typedef struct snd_midi_event snd_midi_event_t;
extern long int snd_midi_event_decode(snd_midi_event_t * dev,
                                     unsigned char *buf, long int count,
                                     const snd_seq_event_t * ev);
extern long int snd_midi_event_encode(snd_midi_event_t * dev,
                                     const unsigned char *buf,
                                     long int count,
                                     snd_seq_event_t * ev);
extern int snd_midi_event_encode_byte(snd_midi_event_t * dev, int c,
                                     snd_seq_event_t * ev);
extern void snd_midi_event_free(snd_midi_event_t * dev);
extern void snd_midi_event_init(snd_midi_event_t * dev);
extern int snd_midi_event_new(size_t bufsize, snd_midi_event_t * *rdev);
extern void snd_midi_event_reset_decode(snd_midi_event_t * dev);
extern void snd_midi_event_reset_encode(snd_midi_event_t * dev);

```

20.2.19. alsa/seqmid.h

```

#define snd_seq_ev_set_dest(ev,c,p)      \
    ((ev)->dest.client = (c), (ev)->dest.port = (p))
#define snd_seq_ev_set_broadcast(ev)     \
    ((ev)->dest.client = SND_SEQ_ADDRESS_BROADCAST, (ev)->dest.port = \
    SND_SEQ_ADDRESS_BROADCAST)
#define snd_seq_ev_set_subs(ev)         \
    ((ev)->dest.client = SND_SEQ_ADDRESS_SUBSCRIBERS, (ev)->dest.port = \
    SND_SEQ_ADDRESS_UNKNOWN)
#define snd_seq_ev_set_fixed(ev)         \
    ((ev)->flags &= ~SND_SEQ_EVENT_LENGTH_MASK, (ev)->flags |= \
    SND_SEQ_EVENT_LENGTH_FIXED)
#define snd_seq_ev_set_chanpress(ev,ch,val) \
    ((ev)->type = SND_SEQ_EVENT_CHANPRESS, snd_seq_ev_set_fixed(ev), \
    (ev)->data.control.channel = (ch), (ev)->data.control.value = (val))
#define snd_seq_ev_set_controller(ev,ch,cc,val) \
    ((ev)->type = SND_SEQ_EVENT_CONTROLLER, snd_seq_ev_set_fixed(ev), \
    (ev)->data.control.channel = (ch), (ev)->data.control.param = (cc), \
    (ev)->data.control.value = (val))
#define snd_seq_ev_set_keypress(ev,ch,key,vel) \
    ((ev)->type = SND_SEQ_EVENT_KEYPRESS, snd_seq_ev_set_fixed(ev), \
    (ev)->data.note.channel = (ch), (ev)->data.note.note = (key), \
    (ev)->data.note.velocity = (vel))
#define snd_seq_ev_set_pgmchange(ev,ch,val) \
    ((ev)->type = SND_SEQ_EVENT_PGMCHANGE, snd_seq_ev_set_fixed(ev), \
    (ev)->data.control.channel = (ch), (ev)->data.control.value = (val))
#define snd_seq_ev_set_pitchbend(ev,ch,val) \
    ((ev)->type = SND_SEQ_EVENT_PITCHBEND, snd_seq_ev_set_fixed(ev), \
    (ev)->data.control.channel = (ch), (ev)->data.control.value = (val))
#define snd_seq_ev_set_direct(ev)        ((ev)->queue = SND_SEQ_QUEUE_DIRECT)
#define snd_seq_ev_set_source(ev,p)      ((ev)->source.port = (p))
#define snd_seq_ev_set_tag(ev,t)         ((ev)->tag = (t))
#define snd_seq_ev_clear(ev)              memset(ev, 0, sizeof(snd_seq_event_t))

extern int snd_seq_connect_from(snd_seq_t * seq, int my_port,
                               int src_client, int src_port);
extern int snd_seq_connect_to(snd_seq_t * seq, int my_port,

```

```

        int dest_client, int dest_port);
extern int snd_seq_control_queue(snd_seq_t * seq, int q, int type,
                                int value, snd_seq_event_t * ev);
extern int snd_seq_create_simple_port(snd_seq_t * seq, const char *name,
                                      unsigned int caps,
                                      unsigned int type);
extern int snd_seq_delete_simple_port(snd_seq_t * seq, int port);
extern int snd_seq_disconnect_from(snd_seq_t * seq, int my_port,
                                   int src_client, int src_port);
extern int snd_seq_disconnect_to(snd_seq_t * seq, int my_port,
                                 int dest_client, int dest_port);
extern int snd_seq_parse_address(snd_seq_t * seq, snd_seq_addr_t * addr,
                                 const char *str);
extern int snd_seq_set_client_name(snd_seq_t * seq, const char *name);
extern int snd_seq_sync_output_queue(snd_seq_t * seq);

```

20.2.20. alsa/timer.h

```

#define SND_TIMER_OPEN_NONBLOCK (1<<0)
#define SND_TIMER_OPEN_TREAD   (1<<1)
#define SND_TIMER_GLOBAL_SYSTEM 0
#define SND_TIMER_GLOBAL_RTC    1
#define SND_TIMER_GLOBAL_HPET   2

typedef struct sndrv_timer_ginfo snd_timer_ginfo_t;
typedef struct sndrv_timer_gparams snd_timer_gparams_t;
typedef struct sndrv_timer_gstatus snd_timer_gstatus_t;
typedef struct sndrv_timer_id snd_timer_id_t;
typedef struct sndrv_timer_info snd_timer_info_t;
typedef struct sndrv_timer_params snd_timer_params_t;
typedef struct _snd_timer_query snd_timer_query_t;
typedef struct sndrv_timer_status snd_timer_status_t;
typedef struct _snd_timer snd_timer_t;
typedef enum _snd_timer_type {
    SND_TIMER_TYPE_HW,
    SND_TIMER_TYPE_SHM = 1,
    SND_TIMER_TYPE_INET = 2
} snd_timer_type_t;
typedef enum _snd_timer_class {
    SND_TIMER_CLASS_NONE = -1, /* invalid */
    SND_TIMER_CLASS_SLAVE = 0, /* slave timer */
    SND_TIMER_CLASS_GLOBAL, /* global timer */
    SND_TIMER_CLASS_CARD, /* card timer */
    SND_TIMER_CLASS_PCM, /* PCM timer */
    SND_TIMER_CLASS_LAST /* last timer */
} snd_timer_class_t;
extern int snd_timer_close(snd_timer_t * handle);
extern int snd_timer_continue(snd_timer_t * handle);
extern void snd_timer_id_copy(snd_timer_id_t * dst,
                              const snd_timer_id_t * src);
extern void snd_timer_id_free(snd_timer_id_t * obj);
extern int snd_timer_id_get_card(snd_timer_id_t * id);
extern int snd_timer_id_get_class(snd_timer_id_t * id);
extern int snd_timer_id_get_device(snd_timer_id_t * id);
extern int snd_timer_id_get_sclass(snd_timer_id_t * id);
extern int snd_timer_id_get_subdevice(snd_timer_id_t * id);
extern int snd_timer_id_malloc(snd_timer_id_t * *ptr);
extern void snd_timer_id_set_card(snd_timer_id_t * id, int card);
extern void snd_timer_id_set_class(snd_timer_id_t * id, int dev_class);
extern void snd_timer_id_set_device(snd_timer_id_t * id, int device);
extern void snd_timer_id_set_sclass(snd_timer_id_t * id, int dev_sclass);

```

```

extern void snd_timer_id_set_subdevice(snd_timer_id_t * id, int subdevice);
extern size_t snd_timer_id_sizeof(void);
extern int snd_timer_info(snd_timer_t * handle, snd_timer_info_t * timer);
extern void snd_timer_info_copy(snd_timer_info_t * dst,
                                const snd_timer_info_t * src);
extern void snd_timer_info_free(snd_timer_info_t * obj);
extern int snd_timer_info_get_card(snd_timer_info_t * info);
extern const char *snd_timer_info_get_id(snd_timer_info_t * info);
extern const char *snd_timer_info_get_name(snd_timer_info_t * info);
extern long int snd_timer_info_get_resolution(snd_timer_info_t * info);
extern int snd_timer_info_malloc(snd_timer_info_t * *ptr);
extern size_t snd_timer_info_sizeof(void);
extern int snd_timer_open(snd_timer_t * *handle, const char *name,
                          int mode);
extern int snd_timer_params(snd_timer_t * handle,
                             snd_timer_params_t * params);
extern long int snd_timer_params_get_ticks(snd_timer_params_t * params);
extern int snd_timer_params_malloc(snd_timer_params_t * *ptr);
extern int snd_timer_params_set_auto_start(snd_timer_params_t * params,
                                           int auto_start);
extern void snd_timer_params_set_ticks(snd_timer_params_t * params,
                                       long int ticks);
extern int snd_timer_poll_descriptors(snd_timer_t * handle,
                                       struct pollfd *pfd,
                                       unsigned int space);
extern int snd_timer_poll_descriptors_count(snd_timer_t * handle);
extern ssize_t snd_timer_read(snd_timer_t * handle, void *buffer,
                              size_t size);
extern int snd_timer_start(snd_timer_t * handle);
extern int snd_timer_status(snd_timer_t * handle,
                             snd_timer_status_t * status);
extern void snd_timer_status_free(snd_timer_status_t * obj);
extern long int snd_timer_status_get_lost(snd_timer_status_t * status);
extern long int snd_timer_status_get_overrun(snd_timer_status_t * status);
extern long int snd_timer_status_get_queue(snd_timer_status_t * status);
extern long int snd_timer_status_get_resolution(snd_timer_status_t *
                                                status);
extern int snd_timer_status_malloc(snd_timer_status_t * *ptr);
extern int snd_timer_stop(snd_timer_t * handle);

```


XVI. Desktop Environment

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 - 22.1.1. Xdg-utils Commands
-

Chapter 21. Desktop Environment

21.1. Desktop Base Directory

Various specifications specify files and file formats. The Base Directory Spec defines where these files should be looked for by defining one or more base directories relative to which files should be located.

21.2. Desktop Entries

The Desktop Entry Spec describes desktop entries: files describing information about an application such as the name, icon, and description. These files are used for application launchers and for creating menus of applications that can be launched.

21.3. Desktop Menu Specification

The Desktop Menu Spec defines how to construct a user-visible hierarchy of applications, typically displayed as a menu. It allows third-party software to add menu items that work for all desktops, and allows system administrators to edit menus in a way that affects all desktops.

21.4. Icon Theme Specification

The Icon Theme Spec defines Icon Themes - a set of icons that share a common look and feel. It defines the required directory layout, the format of the icon theme description file and the icon data files, and the icon lookup mechanism.

Chapter 22. Desktop Commands

22.1. Xdg-utils

Xdg-utils is a set of command line utilities that assist applications with a variety of desktop integration tasks. Some of the utilities focus on tasks commonly required during the installation of a desktop application. The remainder focus on integration with the desktop environment while the application is running.

These utilities operate as described at [xdg-utils reference](#)

22.1.1. Xdg-utils Commands

An LSB conforming implementation shall provide the commands and utilities as described in [Table 22-1](#), with at least the behavior described as mandatory in the referenced underlying specification, with the following exceptions:

1. If any operand (except one which follows `--`) starts with a hyphen, the behavior is unspecified.

Rationale (Informative): Applications should place options before operands, or use `--`, as needed. This text is needed because, by default, GNU option parsing differs from POSIX, unless the environment variable `POSIXLY_CORRECT` is set. For example, `ls . -a` in GNU `ls` means to list the current directory, showing all files (that is, `"."` is an operand and `-a` is an option). In POSIX, `"."` and `-a` are both operands, and the command means to list the current directory, and also the file named `-a`. Suggesting that applications rely on the setting of the `POSIXLY_CORRECT` environment variable, or try to set it, seems worse than just asking the applications to invoke commands in ways which work with either the POSIX or GNU behaviors.

Table 22-1. Commands And Utilities

<code>xdg-desktop-icon [1]</code>	<code>xdg-email [1]</code>	<code>xdg-mime [1]</code>	<code>xdg-screensaver [1]</code>	
<code>xdg-desktop-menu [1]</code>	<code>xdg-icon-resource [1]</code>	<code>xdg-open [1]</code>		

Referenced Specification(s)

[1]. [xdg-utils reference](#)

XVII. Package Information

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23. Package Dependencies

23.1. Package Dependencies

Chapter 23. Package Dependencies

23.1. Package Dependencies

The LSB runtime environment shall provide the following dependencies.

lsb This dependency is used to indicate that the application is dependent on features contained in the LSB 4.0 specification.

This dependency shall have a version of 4.0.

lsb-graphics-*arch* (legacy)

This dependency is used to indicate that the application is dependent on features contained in the LSB-Graphics module. This architecture specific dependency is described in the relevant architecture specific LSB-Desktop specification.

lsb-graphics-noarch (legacy)

This dependency is used to indicate that the application is dependent on features contained in the LSB-Graphics module and that the package does not contain any architecture specific files.

These dependencies shall have a version of 3.0.

The lsb-graphics dependencies are deprecated and will be removed in a future version of this specification. Applications should no longer indicate a dependency on them.

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