TECHNICAL
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Graphical symbols for use on equipement – Vocabulary

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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GRAPHICAL SYMBOLS FOR USE ON EQUIPEMENT – VOCABULARY

FOREWORD

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IEC 62687, which is a technical report, has been prepared by subcommittee 3C: Graphical symbols for use on equipment, of IEC technical committee 3: Information structures, documentation and graphical symbols.

This second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision and includes the following significant technical changes with respect to the previous edition:

a) The title has changed from "terminology" to "vocabulary";

b) Annex A has been added.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
3C/2091/DTR	3C/2116/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The publications cited in the Bibliography, published by IEC, ISO and ITU constitute the source for the glossary in this Technical report.

The terms are primarily collected from Clause 3, "Terms and definitions" of these publications but in some cases terms are also taken from other parts of these publications.

GRAPHICAL SYMBOLS FOR USE ON EQUIPEMENT – VOCABULARY

1   Scope

This Technical Report contains a collection of terms (glossary) used in IEC, ISO and ITU publications in the field of graphical symbols for use on equipment including some related fields.

Some terms are annotated and/or modified for the purpose of clarification.

2   Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

None.

3   Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
caution
signal word used to indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury

[SOURCE: ISO 17724:2003, 6]

3.2
danger
signal word used to indicate an imminently hazardous situation which, if not avoided, may result in death or serious injury

[SOURCE: ISO 17724:2003, 18]

3.3
dynamic graphical symbol
graphical symbol for use on a monitor screen and a console display whose colour and/or appearance change in accordance with the internal status of the piece of equipment

3.4
glyph
recognizable abstract graphic symbol which is independent of any specific design

[SOURCE: ISO/IEC 9541-1:1991, 3.12]

3.5
glyph image
image of a glyph, as obtained from a glyph representation displayed on a presentation surface

[SOURCE: ISO/IEC 9541-1:1991, 3.15]

3.6
graphic symbol
visual representation of a graphic character or of a composite sequence

[SOURCE: ISO/IEC 10646-1:1993, 4.19]

3.7
graphic character
character, other than a control function, that has a visual representation normally handwritten, printed, or displayed

[SOURCE: ISO/IEC 10646-1:1993, 4.18]

3.8
graphical symbol
visually perceptible figure with a particular meaning used to transmit information independently of language

Note 1 to entry: The unique nature of graphical symbols is their language independence. Therefore, the use of letters and punctuation marks as graphical symbol elements should be avoided.

Note 2 to entry: Graphical symbols are usually abstract representations that stand for something but that require learning on the part of users to take on their meaning.

[SOURCE: IEC 80416-1:2008, 3.4]

[SOURCE: ISO 17724:2003, 31]

3.9
graphical symbol for use on equipment
graphical symbol for use on associated assemblies intended to achieve a defined final objective

[SOURCE: Derived from IEC 80416-1:2008]

3.10
icon
graphical symbol presented on a screen or display

Note 1 to entry: Icons can be static, interactive and change as the result of user input or dynamic and change as the result of equipment status.

Note 2 to entry: Alternative definitions depending on domains are as follows:

– user interface [symbol / object] representing an object or a function of the computer system [ISO/IEC FCD 11581-10, 3.4 modified]

– symbol or combination of symbols in graphical user interfaces representing a function of the computer system

– object of manipulation of a function of the computer system through graphical user interfaces for computer applications

  • Icons should be graphical representations that convey information with a minimum reliance on language.

  • Icons have dynamic nature depending on the function of the computer system.

  • Icons may be entirely abstract, like graphical symbols, or pictorial, like pictograms, or fall at some point between those extremes.

[SOURCE: ISO 80416-4:2005, 3.3]

3.11
pictogram
simplified pictorial representations, used to guide people and tell them how to achieve a certain goal

Note 1 to entry: Pictograms should be graphical representations that convey information with a minimum of reliance on language.

Note 2 to entry: Pictograms are, as far as possible, self-explanatory, and require little or no learning on the part of users.

Note 3 to entry: Pictorial representation can be two- or three-dimensional.

[SOURCE: ITU-T E.121:2006, 3.1, modified]

3.12
safety related graphical symbol
graphical symbol for use on equipment that conveys a message with a relation to personal and/or equipment safety and that is not qualified as a safety sign, e.g. because the related risk is comparatively low

Note 1 to entry: A safety related graphical symbol may e.g. express a prohibition (Do not ... !) or a warning related to a specific hazard (Caution! ...), however it is not required to use the safety colours and shapes according to ISO 3864. It can be standardized in IEC 60417 or ISO 7000.

3.13
safety sign
sign which gives a general safety message, obtained by a combination of colour and geometric shape and which, by the addition of a graphical symbol, gives a particular safety message

[SOURCE: ISO 17724:2003, 68]

3.14
sign
configuration of visual elements including symbols, text and shapes intended to communicate a given meaning

[SOURCE: ISO 17724:2003, 71]

3.15
signal word
word that calls attention to a potentially or imminently hazardous situation

[SOURCE: ISO 17724:2003, 73]

3.16
symbol
visual (audible or tactile) sign, single letter, numeral, punctuation mark each of which has a fixed meaning

Note 1 to entry: Symbols are usually graphical representations that convey information with little reliance on language.

Note 2 to entry: Symbols are usually abstract representations that stand for something but that require learning on the part of users to take on their meaning.

Note 3 to entry: Examples of symbols are graphical symbols, graphic symbols, character symbols, chemical symbols, mathematical symbols, musical symbols, sex symbols, status symbols, tactile symbols, audible symbols.
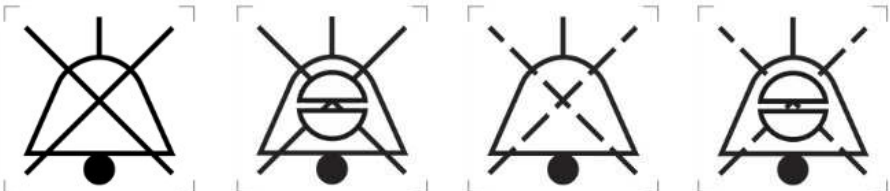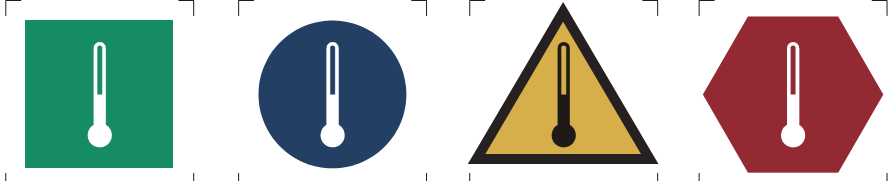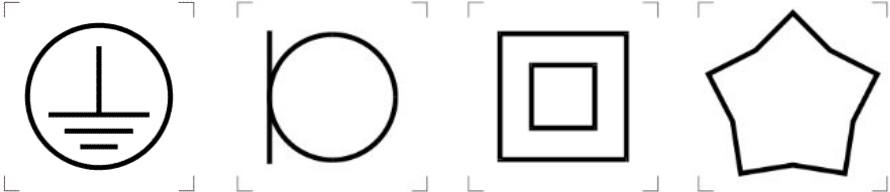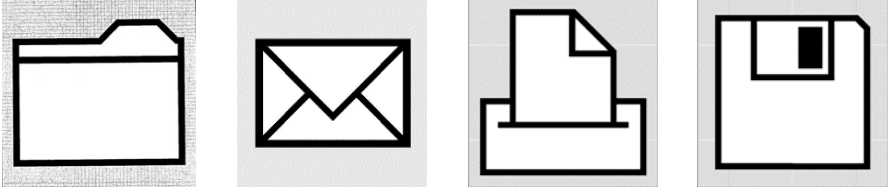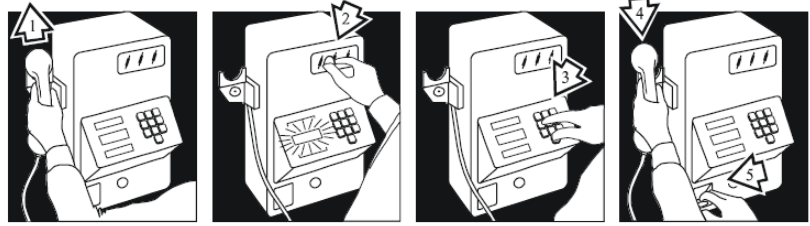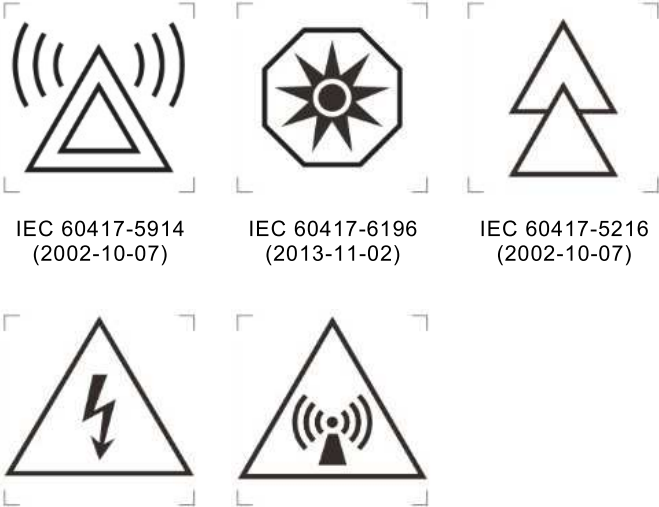
3.17
warning
signal word used to indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury

[SOURCE: ISO 17724:2003, 84]

Annex A
(informative)

Some terms explained by examples

Terms	Examples			
3.3 **dynamic graphical symbol** graphical symbol for use on a monitor screen and a console display whose colour and/or appearance change in accordance with the internal status of the piece of equipment	IEC 60417-5576 (2002-11-03)	IEC 60417-5576-1 (2012-09-01)	IEC 60417-5576-2 (2012-09-15)	IEC 60417-5576-3 (2012-09-01)
	IEC 62774:2014, Annex A	IEC 62774:2014, Annex A	IEC 62774:2014, Annex A	IEC 62774:2014, Annex A
	IEC 60417-5546 (2003-04-04)	IEC 60417-6330A-1 (2015-05-02)	IEC 60417-6330A-2 (2015-05-02)	
3.4 **glyph** recognizable abstract graphic symbol which is independent of any specific design NOTE This example is taken from ISO/IEC 10646, U+0041.	A			
3.5 **glyph image** image of a glyph, as obtained from a glyph representation displayed on a presentation surface	A			
3.6 **graphic symbol** visual representation of a graphic character or of a composite sequence	A			
3.7 **graphic character** character, other than a control function, that has a visual representation normally handwritten, printed, or displayed	A			

Terms	Examples
3.8 **graphical symbol** visually perceptible figure with a particular meaning used to transmit information independently of language NOTE 1 Unique nature of graphical symbols is language independence. Therefore, the use of letters and punctuation marks as graphical symbol elements should be avoided. NOTE 2 Graphical symbols are usually abstract representations that stand for something but that require learning on the part of users to take on their meaning.	IEC 60417-5019 (2006-08-25) IEC 60417-5082 (2002-10-07) IEC 60417-5172 (2003-02-18) IEC 60417-5179 (2002-10-07)
3.10 **icon** graphical symbol presented on a screen or display (Examples were taken from ISO/IEC 11581-2:2011)	ISO/IEC 11581-2 (2011-12-17), 7.1.2 ISO/IEC 11581-2 (2011-12-17), 7.1.4 ISO/IEC 11581-2 (2011-12-17), 7.1.5 ISO/IEC 11581-2 (2011-12-17), 7.1.8
3.11 **pictogram** simplified pictorial representations, used to guide people and tell them how to achieve a certain goal (Example was taken from ITU-T Rec. E.121 (06/2004))	Lift handset / Listen for dial tone Insert money / until flashing stops Key code and number Replace handset / Collect coins E.121_F9
3.12 **safety related graphical symbol** graphical symbol for use on equipment that conveys a message with a relation to personal and/or equipment safety and that is not qualified as a safety sign, e.g. because the related risk is comparatively low	IEC 60417-5914 (2002-10-07) IEC 60417-6196 (2013-11-02) IEC 60417-5216 (2002-10-07) IEC 60417-6042 (2010-11-26) IEC 60417-6166 (2012-07-14)

Terms	Examples
3.13 **safety sign** sign which gives a general safety message, obtained by a combination of colour and geometric shape and which, by the addition of a graphical symbol, gives a particular safety message	 ISO 7010-W012 ISO 7010-W005 (2011-05-27) (2011-05-27)
3.14 **sign** configuration of visual elements including symbols, text and shapes intended to communicate a given meaning	
3.16 **symbol** visual (audible or tactile) sign, single letter, numeral, punctuation mark each of which has a fixed meaning NOTE 1 Symbols are usually graphical representations that convey information with little reliance on language. NOTE 2 Symbols are usually abstract representations that stand for something but that require learning on the part of users to take on their meaning. NOTE 3 Examples of symbols are graphical symbols, graphic symbols, character symbols, chemical symbols, mathematical symbols, musical symbols, sex symbols, status symbols, tactile symbols, audible symbols.	

Bibliography

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IEC 80416-1:2008, *Basic principles for graphical symbols for use on equipment – Part 1: Creation of graphical symbols for registration*

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ISO/IEC TR 15285:1998, *Information technology – An operational model for characters and glyphs*

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ISO 3864 (all parts), *Graphical symbols – Safety colours and safety signs*

ISO 7000, *Graphical symbols for use on equipment – Index and synopsis*

ISO 17724:2003, *Graphical symbols – Vocabulary*

ISO 80416-4: 2005*, Basic principles for graphical symbols for use on equipment – Part 4: Guidelines for the adaptation of graphical symbols for use on screens and displays (icons)*

ITU-T Recommendation E.121:2004, *Pictograms, symbols and icons to assist users of the telephone and telefax services*

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