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TeleWeb application –

Part 3:
Superteletext profile

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TELEWEB APPLICATION –

Part 3: Superteletext profile

FOREWORD

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International Standard IEC 62298-3 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

This standard cancels and replaces IEC/PAS 62298 published in 2002.

This first edition constitutes a technical revision.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/924/FDIS	100/962/RVD

Full information on the voting for the approval of this standard 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.

IEC 62298 consists of the following parts, under the general title *TeleWeb application*:

Part 1: General description

Part 2: Delivery methods

Part 3: Superteletext profile

Part 4: Hyperteletext profile (in preparation)

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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- withdrawn;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.

INTRODUCTION

The aim of TeleWeb is to deliver World Wide Web-style content to the living-room TV to give the viewer an enhanced television experience. A TeleWeb service broadcasts data files containing text and high-definition graphics to suitable decoders. The data transmitted can be closely linked to events within the accompanying TV programs or can be more general in nature to emulate a traditional, but higher definition, superteletext service. Different profiles are defined.

It is intended that TV-based decoders can be implemented in a cost-effective manner without recourse to the technology normally associated with personal computers. In part, this is achieved by limiting the number of different types of multimedia data that can be used within a service. By careful design of the user interface, decoder manufacturers will be able to offer easy-to-use equipment for accessing TeleWeb services without requiring the consumer to be computer-literate. In addition, they will be able to customize their products to differentiate them from those of their competitors.

This standard specifies the TeleWeb Superteletext profile and focuses on the presentation layer especially the implementation of TeleWeb HTML. It further defines graphical requirements like colours and fonts and the content formats used.

TELEWEB APPLICATION –

Part 3: Superteletext profile

1 Scope

This part of IEC 62298 specifies the TeleWeb Superteletext profile that allows Web-style text and graphics to be displayed on suitable decoders. A TeleWeb service comprises multimedia data files whose format and attributes are defined by this specification. This specification focuses on the presentation layer especially the implementation of TeleWeb HTML. It further defines graphical requirements like colours and fonts and the used content formats. For information regarding general information and the transport layer, refer to IEC 62298-1 and IEC 62298-2.

2 Normative references

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

IEC 62297-1, *Triggering messages for broadcast applications*

ISO 639-2, *Codes for the representation of names and languages – Part 2: Alpha-3 code*

ISO 8601, *Data elements and interchange formats – Information interchange – Representation of dates and times*

ISO 8859-1:1998, *Information technology – 8-bit single-byte coded graphic character sets – Part 1: Latin alphabet No. 1*

ETSI TR 101 231, *Television systems; Register of Country and Network Identification (CNI), Video Programming System (VPS) codes and Application codes for Teletext based systems*

ETSI EN 300 231, *Television systems; Specification of the domestic video Program Delivery Control (PDC) system*

ETSI EN 300 468, *Digital Video Broadcasting (DVB); Specification for Service Information (SI) in DVB systems*

ETSI EN 300 706, *Enhanced Teletext Specification*

ETSI EN 300 707, *Electronic Program Guide (EPG); Protocol for a TV Guide using electronic data transmission*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

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

3.1.1
button
part of the user interface that enables the viewer to select a page or trigger an event, etc. It may not necessarily exist as a physical button on a remote control handset

3.1.2
CDATA
character data in an HTML document. Character entities and HTML mark-up is not recognized

3.1.3
conditional access (CA)
mechanism by which user access to service components can be restricted

3.1.4
PCDATA
Parsed character data in an HTML document. Character entities (numeric and named entities) as well as HTML mark-up are recognized in the data

3.1.5
signed_integer
positive or negative integer value, in decimal notation. The first digit is preceded by a mandatory plus (+) or minus (–) symbol with no white space between the symbol and the first digit

3.1.6
text_string
sequence of displayable Latin-1 characters

3.1.7
unsigned_integer
integer value, in decimal notation, without a preceding plus (+) or minus (-) symbol

3.2 Abbreviations

ASCII	American Standard Code for Information Interchange
CA	Conditional Access
CDATA	Character Data
CRC	Cyclic Redundancy Check
DTD	Document Type Definition
DVB	Digital Video Broadcasting
ETS	European Telecommunication Standard
GIF	Graphics Interchange Format
HTML	Hyper Text Mark-up Language
JFIF	JPEG File Interchange Format
JPEG	Joint Picture Experts Group
LSB	Least Significant Bit

MJD Modified Julian Date
MSB Most Significant Bit
PCDATA Parsed Character Data between tags
RFC Request For Comments
URL Uniform Resource Locator
UTC Universal Time Coordinated
WWW World Wide Web

4 Display

This clause defines the minimum requirements of a TeleWeb display. They are applicable to both editing stations and decoders.

4.1 Colour representation

4.1.1 General requirements

A decoder shall be able to display each pixel on the text/graphics, background image and background colour planes in a different colour from a palette of at least 188 colours. Full transparency and one-level semi-transparency to video shall also be supported.

A decoder may be implemented with either a true-colour store or an indexed colour system. To accommodate the latter type of decoder and to define a palette for GIF images that do not specify a palette themselves, a single 188 colour palette is defined in 4.1.5. As a minimum, the text/graphics, background image and background colour planes shall be able to support colours subjectively equivalent to these colours. Content can be authored using other colours, but authors should be aware that some decoders may not be able to reproduce them exactly and may map such a colour to the closest match in the pre-defined colour palette.

For authoring purposes the text/graphics, background image and background colour planes shall support at least 188 colours on the screen at any one time. In practical terms, a decoder is likely to be able to display at least 256 colours, giving the equipment manufacturers at least 68 colours for their user interface.

To get an optimal display, the content should be authored using the TeleWeb default colour palette. The response of a decoder is not defined by this specification if the colours used are not all taken from the pre-defined colour palette. Under these circumstances, colour dithering or matching techniques may need to be applied and the response of decoders may differ.

4.1.2 Colour resolution

Each colour shall be defined by red, green and blue (RGB) components or by a colour constant (see 6.2.5.1).

The authored content shall define colours as 24-bit values, i.e. 8 bits for each component in the order R, G, B.

A decoder is required to have a colour resolution of at least 4 bits per component (12 bits minimum overall).

4.1.3 Gamma

Decoders shall assume that all RGB values defined and invoked by authored content have been gamma pre-corrected for the eye.

4.1.4 Transparency

Decoders are required to implement a minimum of three levels of transparency – opaque, semi-transparency and completely transparent.

The colour palette is optimized for 30 % semi-transparency. Where the decoder cannot implement the value of 30 % semi-transparency, it shall replace it with the nearest value of semi-transparency it can implement. If the encoded value of transparency is in the range between 10 % and 90 %, it shall not be approximated as either 0 % or 100 % transparency. So, 9 % may be approximated as 0 % but 10 % shall be represented with a value in the range 10 % to 90 % such as 30 %. Similarly, 91 % may be approximated as 100 %.

4.1.5 Colour palette

The predefined set of 188 colours is shown in Table 1 and in Annex B. The colours chosen have a perceptually uniform distribution over the colour space. A service provider may choose to author content using only this set of colours.

As a minimum, a decoder shall support these colours up to its resolution limit. It is then the responsibility of the decoder to map the colours defined within the authored content to their closest approximation within the predefined set.

Table 1 – Default colour palette

Transparency level	Total number of entries	Quantization levels for red	Quantization levels for green	Quantization levels for blue
0 % (fully opaque)	135	5 levels: 0, 63, 127, 191, 255	9 levels: 0, 31, 63, 95, 127, 159, 191, 223, 255	3 levels: 0, 127, 255
0 % (fully opaque)	4	4 additional grey-scale colours: R = G = B = 42, 85, 170, 212		
30 %	48	4 levels 0, 85, 170, 255	6 levels: 0, 51, 102, 153, 204, 255	2 levels: 0, 255
100 % (fully transparent)	1	-	-	-
Decoder definable	68			
NOTE Levels are quoted as decimal values in the range 0 to 255.				

To allow these colours to be used to render a GIF image from which the colour palette information has been omitted, it is necessary to assign a unique value to each colour, as defined in Annex B.

4.2 Text representation

Text is rendered using one proportionally spaced font and one monospaced font, each in five sizes and in two styles – plain and bold. Italics and bold italics styles are optional. The fonts are not defined by this specification. Instead, the metrics of each character cell are defined for all aforementioned sizes to ensure compatibility between equipment.

A service provider who wishes to ensure consistent displays shall author content using the same metrics as implemented in decoders. Content shall be authored with kerning disabled.

4.2.1 Required sizes

Table 2 shows the supported font sizes for the proportional and monospaced font and the assignment to the size attribute of the HTML font tag. The font and character metrics including the width (advance) of all character cells for the proportional and the monospaced font for the different font sizes are specified in Annex F.

Table 2 – Font sizes

Size pixels	**HTML Font tag**
22	SIZE = 1 or 2
24	SIZE = 3
27	SIZE = 4
31	SIZE = 5
36	SIZE = 6 or 7

4.2.2 Bold and italic styles

If the font does not support the bold style, a bold version can be emulated by writing a second instance of the required character with an offset by one pixel to the right of the normal position. The bold style should be restricted to small parts of the text, for example, headings. It should not be used for the whole text. The emulated bold style may not be acceptable for certain characters especially for the small font sizes (for example, the double-quote character or the characters with umlaut may be critical). In this case, the bold style should be avoided for these characters.

For the proportional font, the width (advance) of a character cell containing a bold character may be increased by a maximum of one pixel per character, as shown in Figure 1. Content shall be authored with this extra pixel space in mind. For the monospaced font, the width of all characters of a given font size is the same for all styles.

The implementation of the optional italic and bold italic style is left open. However, the corresponding character cell width shall always be the same as for the plain and bold styles respectively.

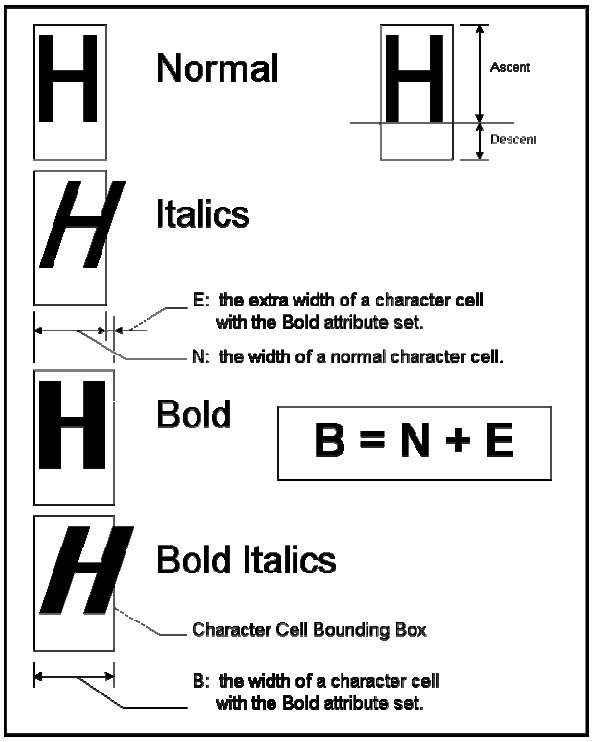

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Figure 1 – Character metrics

4.2.3 Character repertoire

Decoders shall support the full ISO Latin-1 character set given in ISO 8859-1 and the EURO sign character (Unicode 0×20AC). The EURO sign can be used by the name character entity (&euro) or the numerical representations (#&X20AC or #&8364). If the character encoding of the HTML file is different from ISO Latin-1 or the character is not defined in ISO Latin-1 and is not the EURO sign the decoder shall display a replacement character represented by an empty square with the size of a capital 'V'.

NOTE The characters 0×00 to 0×1F and 0×7F to 0×9F are not defined by ISO Latin-1; thus, a replacement character will be shown instead.

4.2.4 Default attributes

In the absence of any font, size, foreground colour or background information within the authored content, a decoder is free to set its own default conditions. It is recommended that the decoder follow the default style defined in Annex E.

4.3 Text placement

4.3.1 Text width

To ensure that text will flow identically on different decoders and authoring equipment, regardless of the quality of the character rendering, simple algorithms are defined to determine vertical placement and when to wrap lines of text. The flow is considered identical if lines and words break at the same character position. The calculations allow content creators to provide sufficient space for their strings at authoring time. They make no demands on the particular rendering system employed. The characters can be bit-map or vector fonts, aliased or anti-aliased, etc. The calculations shall be applied in both authoring equipment and decoders.

4.3.2 Text-width calculation

The width calculation is defined in terms of the bounding rectangle of each character as defined within the font metrics shown in Figure 1. Any extra width due to bolding shall be taken into account for the proportional font. The width of a text string is the sum of the character widths. This calculation is carried out at pixel-resolution.

4.3.3 Line breaks

Once the text-width calculation defined in 4.3.1 produces a result that exceeds the space available, the first word after a white space (but not a non-breaking space (0×A0)), a hyphen (0×2D) or a soft hyphen (0×AD) that will not fit completely on the line shall be rendered on the line below. This implies the equipment does not have to know or apply word-hyphenation rules.

4.3.4 Vertical line spacing

The baseline of a font is determined by its ascent and descent metrics (see Figure 1). All characters are vertically aligned to their baseline. The vertical space required for a line is the sum of the largest ascent and the largest descent in that line plus the gap (external leading). The gap (external leading) between lines is set to –1 for all fonts and all sizes.

4.4 Image representation

4.4.1 Format

A decoder is required to implement the full GIF specification [GIF], apart from the "plain-text" extension. A transmitted file may include "plain text". In addition, the sequential baseline JPEG image format is supported [HTML3.2][HTML4.0][XHTML1.0].

4.4.2 Animation

Animation and looping of GIF images are supported as described in [GIF] and [GIFabout] respectively.

NOTE There is no minimum time specified for the display of one frame when animating or looping. This will depend upon the processing power in the decoder and the complexity and size of the images. Different decoders may show different response speeds. The size of an animated GIF image may be restricted by a code of practice.

4.4.3 Use on the background image plane

An image that is smaller than the background image plane should be tiled to fill the available area.

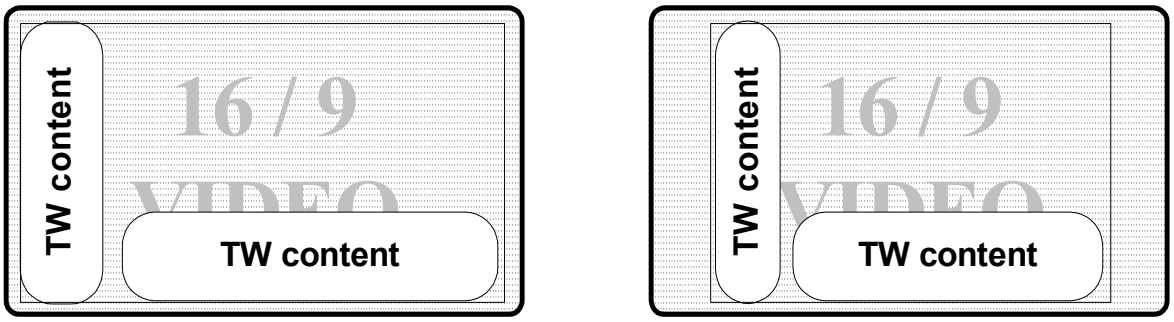
A decoder is not required to reproduce animation on the background image plane. If multiple frames are present in the designated file, the first frame should be displayed continuously.

4.5 4:3 and 16:9 aspect ratio displays

Content should be authored for a 4:3 display. Decoders with a screen aspect ratio of 16:9 can choose to render the TeleWeb content so that its 4:3 aspect ratio is maintained. Thus, a circle in an image should still appear as a circle.

The aspect ratio used to display the TeleWeb content is the responsibility of the decoder manufacturers. The TeleWeb specification recommends the display of the content square pixel in 4 by 3 but leaves other options open to the manufacturer. Displaying the content using a 16:9 aspect ratio seems to be acceptable (IFA 2001).

The above is valid as long as there is no transparency to the video. In the latter case, the content should be displayed in the aspect ratio of the displayed video to guarantee alignment with the video. Displaying 4 by 3 TeleWeb content on top of 16:9 video can give nasty side-effects (see Figure 2) . The broadcaster, aware of this set behaviour, can pre-compensate the drawings and pictures on such transparent content in line with the broadcast video (for example, broadcast an oval to have a circle displayed).



4:3 TeleWeb content correctly aligned on the underlying video

The same TeleWeb content incorrectly aligned on the underlying video

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Figure 2 – Alignment of transparent content over video

5 URLs

A uniform resource locator (URL) is a compact textual notation for accessing information within the TeleWeb system. The URLs within the TeleWeb system shall conform, except where otherwise noted, to the syntax for Internet URLs as specified in [URI]. Note that the URL character set is limited to the lower half of the ISO-Latin-1 character set as described in ISO 8859-1. To ensure compatibility with other browsers, URLs shall encode character codes in the upper half.

A URL consists of a scheme and a scheme specific part. All characters in a URL belong to the ISO Latin 1 character set as described in ISO 8859-1.

scheme **:** *scheme-specific-part*

In a complete URL, the scheme is followed by a colon ('**:**') and the string for the scheme specific part. Superteletext profile decoders shall ignore schemes not listed in this clause when such schemes appear in TeleWeb documents.

The scheme name is a string of characters. The only characters permitted in a scheme name are the lower-case characters '**a**' through '**z**', the digits '**0**' through '**9**', and the characters plus, hyphen, and full-stop, i.e. '+', '–', '**.**'. For robustness, software that interprets URLs (for example, the TeleWeb decoder) shall map upper-case alphabetic characters to their corresponding lower-case characters.

The scheme-specific-part is a string of safe characters. Safe characters have a printable graphic representation in ISO Latin-1 as described in ISO 8859-1. Furthermore, the set of safe characters is restricted to respect the reserved use of some punctuation characters.

The alphabetic characters are at positions 41 hex through 5A hex, 61 hex through 7A hex, C0 hex through D6 hex, D8 hex through F6 hex, and F8 through FF hex. Thus, only alphanumeric characters, characters in the string "**$-_.+!*'(),**" and scheme-specific key characters from the string "**;/?:@=&**" may be used un-encoded within a URL. Any data character, on the other hand, may be encoded. Encoded characters shall be recognized and decoded by software that interprets URLs. A data character is one not used as punctuation by a scheme.

Data character encoding is the mapping of an 8-bit value to a 3-character sequence. The per cent character, '**%**', indicates the start of the code. The next two characters are the hexadecimal value of the encoded character. For example, a space is encoded as **%20** since a space has the code 32 decimal, which is 20 hexadecimal. A per cent data character is encoded as **%25** since the per cent sign is at position 37 decimal (or 25 hex). An incomplete encoding sequence, for example, %F=, has no specified meaning.

5.1 File naming

A name attribute (12.1.2) shall be associated with each file. This attribute, a text string, shall include both name and type (extension) elements, for example, "file1.html", where "file1" is the name element and "html" is the type element. This name should be used to reference the corresponding file in any hypertext links. The file type element for HTML (text) files shall be either "htm" or "html". Table 3 specifies naming conventions for the file types processed by TeleWeb.

Table 3 – File naming

Content type	File-name extension	MIME type
HTML	.htm or .html	text/html
GIF	.gif	image/gif
JPEG	.jpg or .jpeg	image/jpeg
ZLIB Dictionary	.dic	application/x-zlib-dic

A type attribute (see 12.1.1) shall be included with the file and shall indicate the type of the file, for example, for HTML "text/html". If a type attribute is omitted or missing, a decoder should attempt to determine the file type by inspecting the name attribute. In the event of a conflict, the type attribute shall have priority. File names are not case-sensitive.

5.2 Access through page number

This subclause describes how pages can be accessed directly through page numbers.

The body of such file names is composed of digits only, for example, 123.htm, 4545.html, 911.htm and 4444.html.

A set maker shall provide a mechanism to select these files directly through digit entries. For example, a file with the name ‘123.html’ can be reached directly by typing in the digits ‘1’, ‘2’ and ‘3’ on the remote control. The definition of the user interface is up to the set manufacturers. They can provide numerical access through a special button, a menu item or any other technique in line with their user interface.

The numerically named files shall be broadcast in the root directory of the TeleWeb content. Numeric file names in subdirectories will not be accessible through this digit entry user interfaces.

All numbers within one TeleWeb transmission shall fulfil the prefix condition, which defines that a number should never be the prefix of another number. For example, 1234.html may not exist in the same TeleWeb service as 1234567.html.

The length of the digit sequence is limited only by the maximum length of the file name.

5.3 TeleWeb file reference scheme

TeleWeb file reference URLs may be absolute or relative. An absolute URL specifies the service name of the content provider, while a relative URL cannot. An absolute URL shall specify a complete path to a resource, while a relative URL can specify a partial path.

5.3.1 Absolute URLs

An absolute TeleWeb URL has the form

tw : *// service-name / path-name [?query] [* **#** *fragment]*

where all upper-case characters are considered equivalent to their lower-case forms and where portions within brackets may be omitted.

The components are specified below:

tw is the scheme name, which identifies the scheme-specific part as a TeleWeb URL.

// service-name identifies the name of the service (see 11.1).

/ path-name The path to the information, i.e. loosely the name of the file. Slashes within the path-name identify hierarchical sections of the name, but do not require a specific data structure within TeleWeb components, though an analogy to a file system is possible. The slash ('*/*') is thus a reserved character, and a data slash shall be encoded as **%2F** if needed. Furthermore, the hierarchical section names **.** and **..** ("dot" and "dot-dot") are reserved, and data with these names may be specified with **%2E** and **%2E %2E** if needed. The dot-separator preceding the file type element is clearly data, since it is not itself a hierarchical element. Therefore, a dot-separator does not have to be encoded, though it may, since it is considered data when specifying a URL.

Once the hierarchical sections have been identified, all **.** sections are discarded, then all section-**..** section pairs are discarded. Finally, all remaining sections are recombined, separated by slashes to give the resource name (file name). See also 5.3.4.

*fragment* The fragment indicates the anchor within the accessed document to be focused when displaying the linked document. The anchor in the linked document is defined by the corresponding name (for <A> elements) or id attribute (for image maps). The indicated anchor shall be appropriately highlighted.

If the fragment is empty or invalid (not present in the target document, for example), the first available anchor in the upper left corner shall be highlighted.

?*query* The query defines additional parameters for the URL (see 5.3.3).

5.3.2 Relative URLs

A relative TeleWeb file reference URL has the form

[/] path-name [?query] [# fragment]

where the meaning of the components is as was specified in the subclause on absolute URLs (see 5.3.1).

If the relative URL begins with a slash, then the path name is taken as absolute within the service used in the context where the link is found. If the relative URL does not begin with a slash then the service and the path is inherited from the link's context. If it is not empty, the URL's path name then replaces the last hierarchical section in the inherited path name. The resulting path name is evaluated as in the subclause on absolute URLs.

Anchor names and query parts are never inherited.

5.3.3 URL query

The query part of a TeleWeb URL specifies additional parameters for the URL. Parameters are either keywords or keyword value pairs. Parameters are separated by semicolons. Keywords are separated from values by equality signs. Thus ';' and '=' are reserved in the query part. The order and presence of keyword value pairs is arbitrary. The keyword value pairs that shall be recognized are defined in the following subclauses. Any two parameters in a query shall have different types.

5.3.3.1 The EPG parameters

These parameters, shown in Table 4, can be used to realize a TeleWeb EPG.

Table 4 – EPG parameters

Parameter	Syntax	Format	Example
Network operator	`cni=`*CNI_code*	4-digit hexadecimal value. The country and network identification (CNI) code for the broadcaster of the enclosed program. If a three-character VPS code has to be used, it shall be preceded with 0	`cni=C380`
PIL	`pil=`*PIL_code*	5-digit hexadecimal value (20 bits). The PDC PIL for the program. If the network conforms to VPS, then this field contains the VPS label for the program. If neither VPS nor PDC is supported, this field shall contain timer control codes as specified in ETSI TR 300 231	`pil=FFFFE`
Start time	`sta=`*start_time*	Defines the start date/time of the enclosed program. The *time* format conforms to ISO 8601, except that it is assumed to be UTC. A recommended usage is the form yyyymmddThhmmss, where the capital letter T separates the date from the time. It is possible to shorten the time string by reducing the resolution. For example, yyyymmddThhmm (no seconds specified) is valid	`sta=20001103T2030`
Duration	`dur=`*time*	Defines the duration in number of minutes of the enclosed program	`dur=90`

If only the CNI parameter is defined, the decoder should go to the channel broadcasting, the CNI, and stay there even if the TeleWeb application is closed.

5.3.3.2 Profile parameter

This parameter, shown in Table 5, ensures the upgrade compatibility to future higher profile services.

Table 5 – Profile parameter

Parameter	Syntax	Format	Example
Profile	`Pro=`*profile*	The profile parameter indicates the profile of the referenced page. This parameter should not be defined if the link is referencing a Superteletext profile page. For a Superteletext profile decoder, the presence of the profile parameter indicates that the link is referencing a higher profile page. As a result the decoder displays the profile upgrade page 10.4 The format of the parameter value will be defined in the specification documents for future profiles. Be aware that this parameter is only needed when the profile domain border is crossed from a lower to a higher profile	`pro=...`
NOTE The parameter value of the example can be any text excluding ";".			

This subclause is merely informative and does not specify required service names, path names or query parts.

5.3.4 Examples

```
<BASE HREF="tw://base/today/news/local">
<A NAME=top></A>

a lot of text ...

<A NAME=ex-1 HREF="tw://sport/football.htm">Latest Football News</A>
<A NAME=ex-2 HREF="sport/football.htm"> Today's Football Program</A>
<A NAME=ex-3a HREF="/tomorrow/program.htm#football"> Tomorrow's Football Program
</A>
<A NAME=ex-3b HREF="../../tomorrow/program.htm#football"> Tomorrow's Soccer Program
</A>
<A NAME=ex-4 HREF="#top"> Return to the top of the document </A>
```

NOTE The document context is set by the BASE element to `tw://base/today/news/local`. Anchor EX-1 is an absolute reference to the service "sport", page "football.htm". Anchor EX-2 is a relative reference equivalent to `tw://base/today/news/sport/football.htm`. Anchors EX-3a and EX-3b are both equivalent to `tw://base/tomorrow/program.htm#football`, the football anchor on the program.htm page. Anchor EX-4 is a reference to the TOP anchor in the current document.

5.4 Teletext page reference scheme

A page in a Teletext service can be referenced by a hyperlink using the URL syntax

ttx : *// cni / page_number* [*/ page_subcode*]

where the sequence is not case-sensitive and

ttx identifies the scheme specific part as a Teletext page URL.

// cni The country and network identification (CNI) code for the broadcaster as defined in ETSI TR 101 231. If a 3-character VPS CNI code has to be used, it shall be preceded with 0. The value 0000 shall be interpreted as the TV channel of the TeleWeb service the URL is used in.

/ page_number A 3 hexadecimal character value in the range 0×100 to 0×8FF representing the magazine, page tens and page units values respectively of a Teletext page as defined in ETSI EN 300 706.

/ page_subcode A 4 hexadecimal character value in the range 0×0000 to 0×3F7F representing the S4, S3, S2 and S1 values respectively of a Teletext page subcode as defined in ETSI EN 300 706. The value 0×3F7F shall indicate that no particular subcode value is being defined. S2 has a valid range of 0 to 7, and S4 a valid range of 0 to 3. The inclusion of a page_subcode element is optional.

Processing Teletext links is mandatory if the set also has a Teletext decoder on board. This specification point is supplemented by the following paragraph adding extra requirements to the decoder.

A decoder manufacturer should provide the users with the means to return to the TeleWeb page where they originally left the TeleWeb application, through a Teletext link, to the Teletext application. In the meantime, the users can browse Teletext pages with the functionality provided to them through the Teletext application. Once they have finished browsing Teletext pages, the users shall be able to return to the TeleWeb page that they initially left.

It is up to the decoder manufacturer if this is achieved with an extra button, menu, or any other user interface aspect, as long as it is obvious to the user how to use it.

The handling of "not available" Teletext pages is also the responsibility of the decoder manufacturer. One possible solution could be to change the colour of the cursor to the colour used for unavailable TeleWeb pages.

On processing a link to a Teletext page, a decoder should display the most recent version of the page available. Handling of rolling sequences of pages is at the discretion of the decoder manufacturer.

5.5 NexTView reference scheme

A nexTView Listing can be invoked by a hyperlink using the URL syntax

nextview : // *cni* **?** *filter-criteria*

where the sequence is not case-sensitive and

nextview identifies the following sequence as a nexTView URL.

// *cni* The country and network identification (CNI) code for the broadcaster as defined in ETSI TS 101 231. If a 3-character VPS CNI code has to be used, it shall be preceded by 0. The value 0000 shall be interpreted as the TV channel of the TeleWeb service the URL is used in.

The CNI code uniquely identifies the nexTView service because there may be at most one nexTView service per channel.

? *filter-criteria* A list of keyword-value pairs. The pairs are separated by semicolons. A keyword is separated from a value by an equality sign. The order and presence of keyword-value pairs is arbitrary. The keyword-value pairs that shall be recognized are listed in Table 10. The interpretation of keyword value pairs is specified in ETSI EN 300 707.

The decoder shall generate a listing according to the defined filter criteria. If no filter criteria are defined, it is up to the decoder where to enter the nexTView application.

TeleWeb decoders are not required to support nexTView. If unsupported, nexTView links are ignored by the decoder.

5.6 Special function URLs

To accommodate embedded browser control, three special function URLs are defined.

Table 6 – Special function URLs

URL	Description
function:forward	Displays the next page in the history
function:back	Displays the previous page in the history
function:home	Displays the home page

If one of the pages is not available no display action is executed.

6 Text and hypertext

The text content of a TeleWeb service is based on HTML [HTML3.2][HTML4.0]. The HTML tags and attributes that are supported are described in this clause.

Other HTML tags and attributes that are not listed in this clause shall be ignored by decoders designed to this specification. These are summarized in Annex A, but the DTD in Annex D is definitive. A decoder should only ignore the unsupported tags and attributes and should still execute any valid text, tags or attributes enclosed by such tags. Unsupported tags and attributes may appear in the transmitted files.

To assist in achieving uniformity of display across all decoders, the tag definitions in this clause include mandatory display-related aspects that do not appear in the HTML specification [HTML3.2][HTML4.0]. Additional rendering information can be found in the TeleWeb default style sheet defined in Annex E.

6.1 TeleWeb HTML file format

The processing of a TeleWeb HTML file shall be limited to the constructs in the TeleWeb DTD, including character entity references (both named and numeric character specification strings). Excluded from interpretation are SGML (meta-) constructs such as mark-up declarations (for example, <! ... >), processing instructions (for example, <? ... >, including XML declarations and tags) and marked sections (for example, <[CDATA[...]]>). These excluded elements may be ignored or treated as data. Also excluded are function character references (for example, &#SPACE, &#RS, &#RE, etc.) and the encoding of functional characters as character entity references. All character entity references should be interpreted as denoting data characters.

6.1.1 Tags and attributes

A TeleWeb HTML tag has the general form: ***<tag_name attribute_1 attribute_2 ....>*** where *tag_name* identifies the tag, and ***attribute_1, attribute_2*** ... are any number of modifying attributes, including zero. The angled brackets, < >, are mandatory. In the HTML tag definitions, items that are optional, for example, text, attributes or closing tags, are shown in {braces}.

For some tags, there is a complementary closing tag of the form ***</tag_name>***. This type of tag is referred to as a container.

In general, any tags occurring within the container have no effect outside of it. Tags without complementary closing tags are called 'empty tags'.

Text strings entered as values for tag attributes, for example, NAME = *text_string*, shall be enclosed in quotation marks if the string contains white space or special characters, for example, NAME = "text string".

Tags not specified in the TeleWeb DTD should be ignored.

Tags not specified within a container should be ignored within the container. Tags allowed in a container's enclosing context may be assumed to close the container.

6.1.2 Text

Any text outside of a tag but within the body section (see 6.3.4) is to be regarded as text to be displayed in the content area. The appearance of this text will depend upon any preceding tags.

6.1.2.1 Spaces and tabs

Except within preformatted elements (PRE), decoders shall treat all sequences of spaces (0×20), tabs (0×09), newlines (0×0A) and carriage returns (0×0D) within CDATA and PCDATA as a single-space character.

Within attribute values, leading and trailing spaces shall be ignored.

Within preformatted elements, a tab shall be replaced by from 1 to 8 space characters such that the last space inserted shall be the nth character on the line, where n is an integral multiple of 8.

Within preformatted elements, all space characters shall be treated as data (i.e. each shall appear in the output, there shall be no merging). A new line, or a carriage-return, or a carriage-return and new-line pair (whichever is the longest match) shall signal a line-feed/ new-line position.

6.1.3 File structure

Each TeleWeb HTML file shall contain a maximum of one document. The minimum document is an empty file.

The generic contents of an HTML file for TeleWeb applications are shown in Figure 3.

```
<!DOCTYPE HTML-TW PUBLIC "Profile 1.0">
<HTML>
        <HEAD>
                :
                :               (Header section)
                :
        </HEAD>
        <BODY>
                :
                :               (Body section)
                :
        </BODY>
</HTML>
```

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Figure 3 – Generic contents of an HTML file for TeleWeb use

The <!DOCTYPE> tag identifies the version of TeleWeb HTML in use. The correct syntax for services designed to this specification is given in 6.3.1. The use of this tag is not mandatory for services designed to this specification.

The <HTML> and </HTML> tags enclose the header and the body sections. The use of these tags is not mandatory. A decoder should interpret the end of the file as equivalent to an </HTML> tag.

The <HEAD> and </HEAD> tags enclose the header section. The use of these tags is not mandatory. The header section contains data applicable to the entire document. This can include the title of the document. A decoder shall ignore any text immediately within the header section. To clarify: text immediately within the header section (i.e. PCDATA) occurs at the top level, i.e. it is not enclosed within a header element, for example, TITLE. Thus, title text is not ignored, but any text characters immediately preceding the title start tag, or immediately following the title end tag, shall be ignored.

The <BODY> and </BODY> tags enclose the body section. The use of these tags is not mandatory. The body section contains the text and hypertext links to be displayed in the content area. In the absence of a BODY tag, the first occurrence of a tag defined in the DTD as being within the body section shall be interpreted by a decoder as the start of the body section.

6.2 Syntax of TeleWeb HTML tags

TeleWeb HTML tags and attributes described in this subclause are mandatorily supported by every TeleWeb browser although the use of these tags and attributes may be optional in a TeleWeb HTML document.

6.2.1 Guidelines for content providers: XHTML conformance.

Where appropriate, the syntax restrictions in the XHTML specification [XHTML1.0] should be applied.

Documents should be well-formed. The nesting should be correct.

Element and attribute names should be in lower-case characters. However, conforming browsers shall accept upper- and lower-case element and attribute names equivalently.

For non-empty elements, end tags should be included. However, conforming browsers shall treat omissible end tags correctly.

Attribute values should always be quoted. However, conforming browsers shall treat unquoted numeric and alphanumeric values correctly.

Attribute names should always be present. However, conforming browsers shall correctly accept unnamed attribute values where the value is identical to the name and can have no other value, for example, compact.

Empty tags should end with />. However, conforming browsers should not require this behaviour nor should they be broken by it.

White space at the beginning or end of an attribute value should not be considered significant; furthermore, a sequence of white-space characters within an attribute value should be considered equivalent to a single-space character.

No CDATA sections should be put in documents, as they are not supported.

The ID attribute should be preferred to the deprecated NAME attribute for fragment identification; but, for backward compatibility, use NAME with an identical value in elements that declare a name attribute.

6.2.2 Characters

All tags shall only use characters from the ASCII character set.

Character entity references are always treated as data. This requirement is at variance with SGML usage but is enforced to simplify implementation and match the behaviour of existing Internet browsers.

Upper- or lower-case characters can be used and in any combination.

Keywords within tags (for example, style, align) shall be written in full and only using the specified spellings.

NOTE American spellings are used for certain keywords, for example, colour, centre.

6.2.3 White space

White space is any combination of blank (0×20), tab (0×09), carriage-return (0×0D) and new-line (0×0A) characters.

The tag (or element) name shall follow the tag open symbol ('<') immediately, without intervening white space. Attribute names shall be preceded by white space and may be followed by white space. Attribute values may be preceded by white space and may be followed by white space.

Thus, for example, <P ALIGN = LEFT > is equivalent to <P ALIGN=LEFT>, but < P> is not allowed.

6.2.4 Short tag

The SHORTTAG feature is not supported. The only form of attribute minimization supported is where the only legitimate attribute value is identical to the attribute name, for example, COMPACT = COMPACT may be written as just COMPACT. Examples of unsupported notation include <html<head><title/hello/<body></></html>.

6.2.5 Attributes

All attributes are optional unless otherwise stated. There shall be a maximum of one attribute of each permitted type per tag.

Attributes can be listed in any order within a tag.

Unsupported attributes may appear in the tags, but these attributes should be ignored. In the case of an unknown attribute value, the attribute should be ignored.

6.2.5.1 Colour attributes

Colours can be denoted in two ways.

1) "#RRGGBB" where RR, GG and BB are case-insensitive hexadecimal representations of values in the range 00 to FF that define the amplitude of the red, green and blue components respectively. Example: <BODY BGCOLOR = "#1E47DA">
2) *standard_colour* where *standard_colour* is one of the named colours defined below. The colour names are not case-sensitive. Example: <BODY BGCOLOR = "Yellow">

Named colours

BLACK = "#000000" GRAY = "#808080" SILVER = "#C0C0C0" WHITE = "#FFFFFF"
MAROON = "#800000" RED = "#FF0000" PURPLE = "#800080" FUCHSIA = "#FF00FF"
GREEN = "#008000" LIME = "#00FF00" OLIVE = "#808000" YELLOW = "#FFFF00"
NAVY = "#000080" BLUE = "#0000FF" TEAL = "#008080" AQUA = "#00FFFF"

NOTE 1 The standard HTML values are not supported by the TeleWeb default colour palette. Decoders that use only that palette should substitute the hexadecimal value 7F for the value 80 in the RR GG BB values given above.

NOTE 2 For robustness, the colour name GREY should be treated as equivalent to the standard colour GRAY.

NOTE 3 The predefined colour SILVER is not supported by the TeleWeb default colour palette. Decoders that use only that palette should use the colour #D4D4D4 (colour index 138, see Annex B) instead.

6.3 Document structure elements

6.3.1 <!DOCTYPE> document type definition tag

Function: Defines the version of HTML used to author the document.

Format: <!DOCTYPE {version number}>

Attributes: None

Use: For files compatible with this specification, the tag shall be entered as

<!DOCTYPE HTML-TW PUBLIC "Profile 1"> with white space between each string.

If present, it shall be the first line of a file. It shall occur no more than once in a file. If this tag is present the browser should discard every tag not supported by the TeleWeb Superteletext profile.

6.3.2 <HTML> hypertext mark-up language tag

Function: Encloses an HTML document.

Format: <HTML> ... </HTML> (start and end tags are optional).

Attributes: None

Use: The inclusion of this tag is optional. No particular response is expected of a decoder if it is present. It shall occur no more than once in a file. Text following the end tag shall be ignored.

6.3.3 <HEAD> document header tag

Function: Encloses the header section of the document.

Format: <HEAD> ... </HEAD> (start and end tags are optional).

Attributes: None

Use: The inclusion of this tag is optional. No particular response is expected of a decoder if it is present. It shall occur no more than once in a file. A decoder shall ignore any text immediately within the header section. Text contained within the title tag is not ignored, since the element is expected and contains the text itself.

6.3.4 <BODY> document body tag

Function: Encloses the body section of the document. Text within the body section shall be displayed in the content area.

Format: <BODY {attribute_1} {attribute_2} ... > ... </BODY> (start and end tags are optional).

Attributes: ALINK, BACKGROUND, BGCOLOR, BOTTOMMARGIN, LEFTMARGIN, LINK, RIGHTMARGIN, TEXT, TOPMARGIN, VLINK, TRANSPARENCY

Use: The inclusion of this tag is optional. No particular response is expected of a decoder if it is present. It shall occur no more than once in a file. The contents of the body section can consist of an unordered collection of any tag defined starting with 6.5 until the end of Clause 6.

ALINK attribute

Function: Defines the foreground colour for a hypertext link at the moment it is activated while waiting for the new page to be displayed.

Format: ALINK = *colour* The format of *colour* is defined in 6.2.5.1.

Use: A decoder is allowed to treat the ALINK colour as a recommendation and can indicate that a link has been activated in any way it chooses.

BACKGROUND attribute

Function: Defines the URL of an image file to be displayed on the background image plane.

Format: BACKGROUND = TeleWeb *url* The format of *url* is defined in 5.3.

Use: In the absence of this attribute, the background colour will be displayed (see BGCOLOR) in coordination with the transparency value. Animation of background images is not supported.

BGCOLOR attribute

Function: Defines the colour to be displayed on the background colour plane.

Format: BGCOLOR = *colour* The format of *colour* is defined in 6.2.5.1.

Use: The stated colour shall be used to fill completely that part of the background colour plane visible within the content area. If this attribute is not defined, then it is up to the decoder to choose the background colour.

BOTTOMMARGIN attribute

Function: This attribute specifies the bottom margin for the entire body of the page in pixels and overrides the default margin. When set to zero (0), the bottom margin is the bottom edge of the window in which the content is displayed.

Format: BOTTOMMARGIN = *unsigned_integer*

LEFTMARGIN attribute

Function: This attribute specifies the left margin for the page in pixels, overriding the default margin. When set to zero (0), the left margin is the left edge of the window in which the content is displayed.

Format: LEFTMARGIN = *unsigned_integer*

LINK attribute

Function: Defines the foreground colour for a hypertext link that has not been visited and is not activated.

Format: LINK = *colour* The format of *colour* is defined in 6.2.5.1.

Use: If this attribute is not defined, then it is up to the decoder to choose the colour.

RIGHTMARGIN attribute

Function: This attribute specifies the right margin for the page in pixels, overriding the default margin. When set to zero (0), the right margin is the right edge of the window in which the content is displayed.

Format: RIGHTMARGIN = *unsigned_integer*

TEXT attribute

Function: Defines the default foreground colour for the text of the document.

Format: TEXT = *colour* The format of *colour* is defined in 6.2.5.1.

Use: If this attribute is not defined, then it is up to the decoder to choose the colour.

TOPMARGIN attribute

Function: This attribute specifies the top margin for the page in pixels, overriding the default margin. When set to zero (0), the top margin is the top edge of the window in which the content is displayed.

Format: TOPMARGIN = *unsigned_integer*

TRANSPARENCY attribute

Function: Defines the opacity of the background colour to underlying video.

Format: TRANSPARENCY = *unsigned_integer*

Use: If this attribute is not defined, then total opacity is assumed.

VLINK attribute

Function: Defines the preferred foreground colour for a hypertext link that has been visited.

Format: VLINK = *colour* The format of *colour* is defined in 6.2.5.1.

Use: If this attribute is not defined, it is up to the decoder to choose the colour. To increase the manufacturers' control over look-and-feel, this value is only a recommendation.

6.3.5 <!-- --> Comment tag

Function: Allows editorial comments to be embedded within an HTML file.

Format: <!-- {comment text} -->

Attributes: None

Use: The use of this tag is optional. It can be used anywhere within a file apart from the first line if a <!DOCTYPE> tag is included. All text within comment tags shall be ignored by decoders designed to this specification to ensure future backwards compatibility.

Comments may not be nested.

6.4 Header section tags

Only the tags defined in this subclause should be used between <HEAD> and </HEAD> tags. In the absence of a <HEAD> tag, the first occurrence of one of these elements shall signify the start of the header section.

6.4.1 <LINK> link structure tag

Function: Identifies the relationship of the current document to other documents.

Format: <LINK {attribute_1} {attribute_2} … >

Attributes: REL, HREF, REV, TITLE

Use: This tag may only be used within the header section. There can be multiple instances. A decoder may choose to ignore this tag.

Example: <LINK REL = NEXT HREF = page_2.htm> , implying file *page_2.htm* is the next in the sequence.

HREF attribute

Function: Defines the address of the linked resource.

Formats: HREF = *TeleWeb URL*, see 5.3
HREF = *Teletext page URL*, see 5.4
HREF = *nexTView URL*, see 5.5

REL attribute

Function: Defines the relationship of the linked resource to the current document. Relationship can be any string.

Formats: REL = *relationship*

Examples for relationship: NEXT, PARENT, PREVIOUS, SAME, TOP, CONTENTS, INDEX, GLOSSARY, COPYRIGHT, HELP, SEARCH,...

REV attribute

Function: Defines a reverse relationship. A link from document A to document B with REV = *relationship* expresses the same relationship as a link from B to A with REL = *relationship*. Relationship can be any string.

Formats: REV = *relationship*

Examples for relationship: NEXT, PARENT, PREVIOUS, SAME, TOP, CONTENTS, INDEX, GLOSSARY, COPYRIGHT, HELP, SEARCH,...

TITLE attribute

Function: Provides an advisory title for the linked resource.

Formats: TITLE = text_*string*

The TITLE attribute may be ignored by a decoder.

6.4.2 <TITLE> title tag

Function: Encloses the title of the document.

Format: <TITLE> *title text* </TITLE>

Attributes: None

Use: The inclusion of this tag is required. No particular response is expected of a decoder if it is present. It shall occur no more than once in a file. The content of the TITLE element is PCDATA. This means that no further mark-up is allowed.

However, character entities (= named characters) are supported. If a decoder chooses to present the title, it shall be displayed outside of the content area.

6.4.3 <BASE> tag

Function: Defines a base URL for resolving relative URLs. When present, it shall appear before any HEAD section.

The start tag is **required** and the End tag is **forbidden**.

Format: <BASE HREF = *url* >

Attributes: Mandatory HREF element

Use: The inclusion of this tag is optional. It provides the base URL for de-referencing relative URLs.

HREF attribute

Function: Defines the address of the base.

Formats: HREF = *url*, see Clause 5.

6.5 Paragraph formatting

6.5.1 <P> paragraph tag

Function: The enclosed text is classified as a paragraph. Extra space is inserted at the end and at the start of a paragraph (see Clause 7).

Format: <P {attribute} > ... </P> (The end tag is optional.)

Attribute: ALIGN

ALIGN attribute

Function: Defines the horizontal alignment of the paragraph relative to the current margins of the document. Alignment is only valid within the paragraph in which it has been defined.

Format: ALIGN = *position*

***position*:**	LEFT :	The paragraph shall be rendered flush left.
	RIGHT :	The paragraph shall be rendered flush right.
	JUSTIFY :	The paragraph shall be rendered flush left and flush right by adjusting the width of the white space between the words.
	CENTER :	The paragraph shall be centred.

Use: In the absence of an ALIGN attribute, the default alignment is LEFT.

6.5.2 <BR> line break tag

Function: Forces a line break. The CLEAR attribute allows text to be positioned relative to images.

Format: <BR {attribute}>

Attribute: CLEAR

Use: The text immediately after the tag shall start on the following line. Existing alignment conditions are preserved. In the absence of a CLEAR attribute, CLEAR = NONE shall be assumed.

CLEAR attribute

Function: Defines how the text should be positioned relative to images.

Format: CLEAR = *position*

***position*:**	LEFT :	Clears text that flows around left-aligned images to the next full left margin.
	RIGHT :	Clears text that flows around right-aligned images to the next full right margin.
	ALL :	Clears text until it can reach both full margins.
	NONE :	Introduces a "carriage return" and nothing more.

6.5.3 <H*n*> heading tags, <H1> through <H6>

Function: These tags implement six levels of document headings; <H1> is the most prominent one and <H6> is the least prominent.

Format: <H*n* {attribute} > ... </H*n*> where n is an integer in the range 1 to 6 inclusive. The </H*n*> closing tag is mandatory.

Attributes: ALIGN

Use: In the absence of the ALIGN attribute, the text shall be positioned LEFT. This can be overridden by an enclosed <DIV> or <CENTER> tag. Nesting of heading tags is not permitted.

ALIGN attribute

Function: Defines the horizontal alignment of the enclosed text relative to the current margins. Alignment is only valid for the heading in which it has been defined.

Format: ALIGN = *position*

***position*:**	LEFT :	The heading shall be rendered flush left.
	RIGHT :	The heading shall be rendered flush right.
	CENTER :	The heading shall be centred.
	JUSTIFY :	The heading shall be rendered flush left and flush right by adjusting the width of the white space between the words.

6.5.4 <DIV> division tag

Function: Allows a document to be structured as a hierarchy of divisions.

Format: <DIV {attribute_1}> ... </DIV>

Attributes: ALIGN

ALIGN attribute

Function: Defines the horizontal alignment of the enclosed text relative to the current margins. Alignment is only valid for the division in which it has been defined.

Format: ALIGN = *position*

***position*:**	LEFT :	The heading shall be rendered flush left.
	RIGHT :	The heading shall be rendered flush right.
	CENTER :	The heading shall be centred.
	JUSTIFY :	The division shall be rendered flush left and flush right by adjusting the width of the white space between the words.

6.5.5 <CENTER> centre text tag

Function: The enclosed text is displayed centred (equivalent to the <DIV ALIGN = CENTER> tag).

Format: <CENTER> ... </CENTER>

Attributes: None

Use: The enclosed text is positioned centred relative to the current left and right margins.

6.5.6 <ADDRESS> address tag

Function: The enclosed text is (usually) a name, address and other contact information.

Format: <ADDRESS> ... </ADDRESS>

Attributes: None

Use: The enclosed text shall be treated as a paragraph.

6.5.7 <BLOCKQUOTE> Quoted passage tag

Function: The enclosed text is (usually) a quoted passage. It is presented as a paragraph, indented from both margins, and aligned flush left with a ragged right margin.

Format: <BLOCKQUOTE> ... </BLOCKQUOTE>

Attributes: None

Use: The enclosed text shall be treated as a paragraph.

6.5.8 <HR> horizontal rule tag

Function: Inserts a horizontal rule (line).

Format: <HR {attribute_1} {attribute_2} ... >

Attributes: ALIGN, COLOR, NOSHADE, SIZE, WIDTH

ALIGN attribute

Function: Defines the horizontal alignment of the enclosed rule relative to the current margins. Alignment is only valid for the <HR> tag in which it has been defined.

Format: ALIGN = *position*

***position*:**

LEFT	:	The rule shall be rendered flush left.
RIGHT	:	The rule shall be rendered flush right.
CENTER	:	The rule shall be centred.

COLOR attribute

Function: Defines the foreground colour of the enclosed rule.

Format: COLOR = *colour*

***Colour*:** The format of *colour* is defined in 6.2.5.1.

NOSHADE attribute

Function: Forces the rule to be displayed as a solid bar without shading.

Format: NOSHADE

SIZE attribute

Function: Defines the thickness (height) of the rule in pixels.

Format: SIZE = *unsigned_integer*

WIDTH attribute

Function: Defines the length of the rule, either as a number of pixels or as a percentage of the width between the current margins.

Formats:	WIDTH = *unsigned_integer*	:	number of pixels
	WIDTH = *unsigned_integer* %	:	percentage of the width of the content area

Use: The default length is the width between the current left and right margins.

6.5.9 <PRE> preformatted text tag

Function: Renders the enclosed text in a mono-spaced font and preserves layout defined by white space and line-break characters.

Format: <PRE> ... </PRE>

Attribute: none

Use: The end tag is mandatory. Any "auto word wrap" function should be disabled. A horizontal tab character (0×09) should be interpreted as the smallest non-zero number of spaces that will move the insert position along the line to the next column position that is a multiple of eight.

6.6 Character formatting

6.6.1 <FONT> font tag

Function: Defines the size and/or foreground colour of the enclosed text.

Format: <FONT {attribute_1} {attribute_2}> ... </FONT>

Attributes: COLOR, SIZE

Note: For robustness, it is desirable that decoders treat FONT as a block level element (see the DTD). Doing so will reflect common usage and allow font changes to be applied to a document globally.

COLOR attribute

Function: Defines the foreground colour of the enclosed text.

Format: COLOR = *colour*

***colour*:** The format of *colour* is defined in 6.2.5.1.

SIZE attribute

Function: Sets the size of the enclosed text, either absolutely or relative to the size of the base font.

Formats:	SIZE = *unsigned_integer* :	Absolute font size. Valid range is 1 to 7, where 1 is the smallest size.
	SIZE = *signed_integer* :	A font size relative to the base font. The resulting size will be limited by the range of 1 to 7.

Examples: To select font size 4: <FONT SIZE = 4>
To select a font two sizes smaller than the base font: <FONT SIZE = "-2">

6.6.2 <BIG> increment font size tag

Function: The enclosed text is to be displayed one size bigger than the current font.

Format: <BIG> ... </BIG>

Attributes: None

Use: The font size is increased by one from that in effect at the position at which the <BIG> tag is encountered. If the current font size is already the maximum available then there shall be no change of size. Following the </BIG> tag the font size reverts to the previous value.

6.6.3 <SMALL> decrement font size tag

Function: The enclosed text is to be displayed one size smaller than the current font.

Format: <SMALL> ... </SMALL>

Attributes: None

Use: The font size is decreased by one from that in effect at the position at which the <SMALL> tag is encountered. If the current font size is already the minimum available then there shall be no change of size. Following the </SMALL> tag the font size reverts to the previous value.

6.6.4 <SUB> subscript tag

Function: The enclosed text is to be displayed as subscript text.

Format: _{...}

Use: The font size of the subscript text shall be one size smaller than the current font, if possible. The text shall be positioned below the normal character baseline. Following the </SUB> tag the font size reverts to the original value. Nested <SUB> and <SUP> elements should be avoided.

6.6.5 <SUP> superscript tag

Function: The enclosed text is to be displayed as superscript text.

Format: ^{...}

Use: The font size of the subscript text shall be one size smaller than the current font, if possible. The text shall be positioned above the normal character baseline. Following the </SUP> tag the font size reverts to the original value. Nested <SUP> and <SUB> elements should be avoided.

6.6.6 <BLINK> flashing text tag

Function: This tag defines flashing text.

Format: <BLINK> ... </BLINK>

Use: Only one phase of flashing text is supported. In the on state, the text shall be displayed in the current foreground colour. In the off state, the colour of the foreground text shall be forced to be transparent so that the underlying background plane is made visible. The on-off mark-space ratio is at the discretion of the decoder manufacturer. The total area of flashing text in one page may be restricted by a code of practice.

6.6.7 <STRIKE> strike through tag

Function: The enclosed text is to be displayed as if struck out, for example, ~~strike out~~.

Format: <STRIKE> ... </STRIKE>

6.6.8 <U> underline tag

Function: The enclosed text is to be displayed underlined, for example, underline. The underline shall be the same colour as the text, and all characters, including white space, shall be underlined.

Format: <U> ... </U>

6.6.9 <B> bold tag

Function: The enclosed text is to be displayed in bold face. See Clause 7.

Format: <B> ... </B>

6.6.10 <STRONG> strong tag

Function: The enclosed text is to be displayed with strong emphasis. See Clause 7.

Format: <STRONG> ... </STRONG>

6.6.11 <I> italics tag

Function: The enclosed text is to be displayed in italics. See Clause 7.

Format: <I> ... </I>

6.6.12 <CITE> citation tag

Function: The enclosed text is to be displayed as is appropriate for a citation. See Clause 7.

Format: <CITE> ... </CITE>

6.6.13 <DFN> definition tag

Function: The enclosed text is to be displayed as is appropriate for a definition. See Clause 7.

Format: <DFN> ... </DFN>

6.6.14 <EM> emphasis tag

Function: The enclosed text is to be displayed with emphasis. See Clause 7.

Format: <EM> ... </EM>

6.6.15 <TT> Teletype, or mono-spaced, font tag

Function: The enclosed text is to be displayed in a fixed-width font. See Clause 7.

Format: <TT> ... </TT>

6.6.16 <CODE> program code tag

Function: The enclosed text is to be displayed as is appropriate for a sample of computer program code. See Clause 7.

Format: <CODE> ... </CODE>

6.6.17 <KBD> keyboard input tag

Function: The enclosed text is to be displayed as is appropriate for a sample of keyboard input. See Clause 7.

Format: <KBD> ... </KBD>

6.6.18 <SAMP> sample tag

Function: The enclosed text is to be displayed as is appropriate for a sample of computer output. See Clause 7.

Format: <SAMP> ... </SAMP>

6.6.19 <VAR> variable tag

Function: The enclosed text is to be displayed as is appropriate for a variable. See Clause 7.

Format: <VAR> ... </VAR>

6.6.20 <BASEFONT> tag

Function: Used to set the base font size and colour.

Format: <BASEFONT>

Attributes: COLOR, SIZE

Use: There is no end tag. The base font size is determined by the SIZE attribute. It applies to normal and preformatted text but not to headings, except where these are modified using the FONT element with a relative font size.

COLOR attribute

Function: This attribute sets the text colour.

Format: COLOR = *colour* The format of *colour* is defined in 6.2.5.1.

SIZE attribute

Function: This attribute specifies the font size as either a numeric or relative value. Numeric values range from 1 to 7 with 1 being the smallest and 3 the default.

Formats: SIZE = *unsigned_integer*: Absolute font size. Valid range is 1 to 7, where 1 is the smallest size.

SIZE = *signed_integer:* A font size relative to the current base font. The resulting size will be limited by the range of 1 to 7.

6.7 Hypertext links

See also the <LINK> tag described in 6.4.1.

6.7.1 <A> anchor tag

Function: Defines hypertext links to text or image files. The link can be external or internal to the document. Also used to define named locations within documents for use as targets for hypertext links.

Format: <A {attribute_1} {attribute_2} … > {text} </A>

Attributes: HREF, NAME, REL, ACCESSKEY, TITLE, REV, ID

Use: Anchor tags cannot be nested. The foreground colour used to display the text enclosed by the tag is defined by the ALINK, LINK and VLINK attributes of a <BODY> tag, depending on whether the link has been selected, not visited, or visited respectively. In the absence of an appropriate attribute in the <BODY> tag, the decoder manufacturer can decide the appearance of the link information but the use of the default style presented in Annex E is encouraged.

Examples: <A HREF = page_2.htm > Page 2 </A> The text *Page 2* is a hyperlink to the file *page_2.htm*.

<A NAME = "Section 3"> Section 3 </A> The text *Section 3* is a defined location (anchor) within the document and can be referenced by both internal and external hyperlinks.

HREF attribute

Function: Defines the address of the link.

Formats: HREF = *url*, see Clause 5.

Use: When the hyperlink is selected, the anchor position is made visible within the Content Area.

NAME attribute

Function: Defines a unique name for an anchor.

Formats: NAME = *text_string*

Use: When a link is selected whose URL defines a fragment, the anchor of the referenced file with a matching name attribute shall be visible. If the specified anchor also defines an HREF attribute, the anchor shall be selected by the browser after the page is displayed. This feature enables full control over the link that should be selected first when coming from another page.

REL attribute

Function: Defines the relationship of an anchor or hyperlink to the current or target document. See 6.4.1.

Formats: REL = *link type*

Use: No usage behaviour is currently specified.

ACCESSKEY attribute

Function: Allows a link to be mapped to a particular button (or equivalent) on the user's control device.

Format:	ACCESSKEY = R	Link is mapped to the red key
	ACCESSKEY = G	Link is mapped to the green key
	ACCESSKEY = Y	Link is mapped to the yellow key
	ACCESSKEY = B	Link is mapped to the blue key
	ACCESSKEY = 0..9	Link is mapped to a numeric key (0 – 9)

Use: Specifies the hot-key that when pressed has the effect of selecting the containing anchor tag and following its hypertext link.

TITLE attribute

Function: Provides an advisory title for the linked resource.

Format: TITLE= *text_string*

Use: Can be used to supply descriptive text for the function of the anchor. This value may be ignored.

REV attribute

Function: Specifies an inverted REL link relationship. See REL.

Format: REV = *link type*

ID attribute

Function: Specifies a unique identifier for the anchor, similar to the NAME attribute.

Format: ID = name

Use: Used to specify cursor-positioning information. The default value of the ID attribute is the value of the NAME attribute.

6.7.2 <MAP> map tag

Function: Provides a mechanism for client-side image maps.

Format: <MAP NAME = *text_string* > ... </MAP>

Attribute: NAME

Use: The inclusion of a NAME attribute is mandatory. The enclosed elements shall include at least one <AREA> tag. The map should be in the same document as the image tag which references it.

6.7.3 NAME attribute

Function: Defines the name of the client-side image.

Format: NAME = *text_string*

Use: The name maps to a USEMAP attribute in an <IMG> tag. A *text_*string is used to reference a location and is case-insensitive in this context.

6.7.4 <AREA> area tag

Function: Specifies a hot spot within an image and binds it to a URL. The End tag is forbidden.

Format: <AREA {attribute_1} {attribute_2} ... >

Attribute: ALT, SHAPE, COORDS, NOHREF, HREF, ACCESSKEY, ID

Use: The NOHREF attribute takes precedence over the HREF attribute. RECT is the default SHAPE value. If the COORDS value is missing, incomplete or invalid, then the AREA element is ignored.

ALT attribute

Function: Defines alternative text for the image map.

Format: ALT = *text_string*

Use: Can be displayed within the user interface area of the screen when the cursor is over the hotspot. The alt text may also be displayed when the image is not available.

SHAPE attribute

Function: Used in conjunction with the COORDS attribute to define a hotspot region on the image.

Format: SHAPE = DEFAULT | RECT | CIRCLE | POLY

Use: In Superteletext profile decoders, only rectangular shapes shall be supported. Decoders may convert other shapes to the smallest enclosing rectangle ("bounding box"). For robustness the values RECTANGLE (for RECT) CIRC (for CIRCLE) and POLYGON (for POLY) should also be supported.

COORDS attribute

Function: This attribute contains a set of values specifying the coordinates of the hot-spot region. The number and meaning of the values depend upon the value specified for the SHAPE attribute.

Format: COORDS = "*left, top, right, bottom*" Used when SHAPE = RECT

***left*:** horizontal measurement from the top left corner of the image to the top left corner of the hotspot:

unsigned_integer : measurement in pixels;

unsigned_integer % : measurement as a percentage of the width of the image.

***top*:** vertical measurement from the top left corner of the image to the top left corner of the hotspot:

unsigned_integer : measurement in pixels;

unsigned_integer % : measurement as a percentage of the height of the image.

***right*:** horizontal measurement from the top left corner of the image to the top right corner of the hotspot:

unsigned_integer : measurement in pixels;

unsigned_integer % : measurement as a percentage of the width of the image.

***bottom*:** vertical measurement from the top left corner of the image to the bottom right corner of the hotspot:

unsigned_integer : measurement in pixels;

unsigned_integer % : measurement as a percentage of the height of the image.

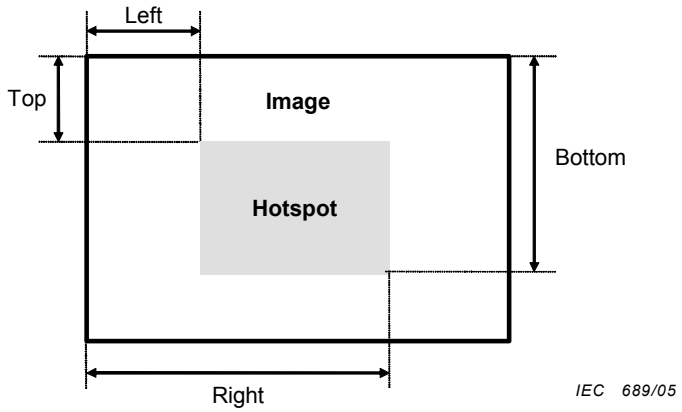

Figure 4 – COORDS attribute (SHAPE=RECT)

Format: COORDS = "centre-x, centre-y, radius". Used when SHAPE = CIRCLE

***centre-x*:** horizontal measurement from the top left corner of the image to the horizontal centre coordinate of the circle-hotspot:

unsigned_integer : measurement in pixels;

unsigned_integer % : measurement as a percentage of the width of the image.

***centre-y*:** vertical measurement from the top left corner of the image to the vertical centre coordinate of the circle-hotspot:

unsigned_integer : measurement in pixels;

unsigned_integer % : measurement as a percentage of the height of the image.

***radius*:** radius of the circle-hotspot.

NOTE When the radius value is a percentage value, browsers should calculate the final radius value based on the width and height of the associated object. The radius should be the smaller value of the two.

unsigned_integer : measurement in pixels;

unsigned_integer % : measurement as a percentage of the width or height of the image.

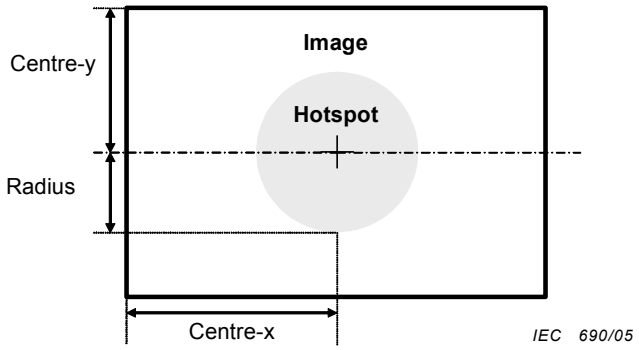

Figure 5 – COORDS attribute (SHAPE=CIRCLE)

Format: COORDS = "x_1, y_1, x_2, y_2,..., x_n, y_n"

Used when SHAPE = POLY. The coordinate pairs specify the vertices of the polygon.

***x*$_i$:** horizontal measurement from the top left corner of the image to the vertex, i, of the polygon:

unsigned_integer : measurement in pixels;

unsigned_integer % : measurement as a percentage of the width of the image.

***y*$_i$:** vertical measurement from the top left corner of the image to the vertex, i, of the polygon:

unsigned_integer : measurement in pixels;

unsigned_integer % : measurement as a percentage of the height of the image.

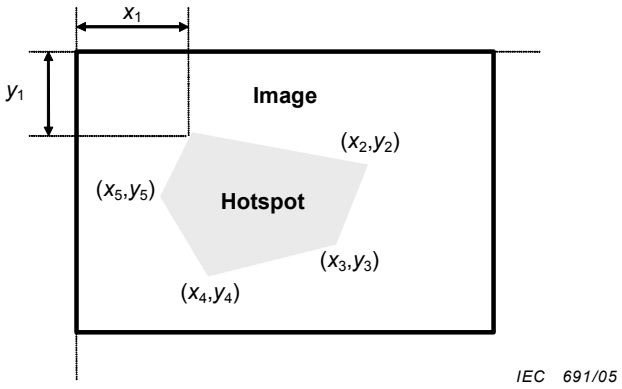

Figure 6 – COORDS attribute (SHAPE=POLY)

HREF attribute

Function: Defines the destination URL for the hotspot.

Formats: See Clause 5.

NOHREF attribute

Function: Allows a region to be defined within the image but without a URL so that it does not act as a hotspot.

Format: NOHREF

ACCESSKEY attribute

Function: Allows a link to be mapped to a particular button (or equivalent) on the user's control device.

Format:		
	ACCESSKEY = R	Link is mapped to the red key
	ACCESSKEY = G	Link is mapped to the green key
	ACCESSKEY = Y	Link is mapped to the yellow key
	ACCESSKEY = B	Link is mapped to the blue key
	ACCESSKEY = 0..9	Link is mapped to a numeric key (0 – 9)

ID attribute

Function: Specifies a unique identifier for the AREA element.

Format: ID = *text_string*

Use: Used to specify cursor-positioning information.

6.8 Lists

Three kinds of lists are supported: ordered, unordered and definition. The nesting of lists is permitted. Nested lists may be of the same type or of a mix of types.

6.8.1 <UL> unordered list tag

Function: Displays text as a bulleted list. Each list item is preceded by a bullet. The bullets are either discs, squares or circles depending on the level. See Clause 7.

Format: <UL {attribute} > {list elements} </UL>

Attributes: TYPE

Use: Items to appear in the list are preceded by <LI> tags (see 6.9.5). All list items shall be indented relative to the current left margin. A bullet shall be displayed within the indent region before each list item. In the absence of a TYPE attribute, the bullet style depends on the nesting level of this unordered list. See Clause 7. A </UL> tag closes an open <LI> tag.

Example:

HTML	**DISPLAY**
<UL>	
<LI> Item 1	● Item 1
<LI> Item 2	● Item 2
<LI> Item 3	● Item 3
</UL>	

TYPE attribute

Function: Defines the type of bullet to be used in an unordered list.

Formats: TYPE = *style_information*

style_information:			
	DISC	Example:	●
	SQUARE	Example:	■
	CIRCLE	Example:	○

Use: The actual appearance of a bullet is not defined by this specification, but the bullet shall fit within the space occupied by a capital 'V' in the current font, style and size.

6.8.2 <DIR> directory list tag

To be interpreted in the same way as the unordered list tag <UL> in 6.9.1.

6.8.3 <MENU> menu list tag

To be interpreted in the same way as the unordered list tag <UL> in 6.9.1.

6.8.4 <OL> ordered list tag

Function: Displays text as an ordered list. Each list item is preceded by a sequence number or character. Various sequencing styles are possible. See Clause 7.

Format: <OL {attribute_1} {attribute_2} ... > {list elements} </OL>

Attributes: START, TYPE

Use: Items to appear in the list are preceded by <LI> tags. All list items shall be indented relative to the current left margin. The sequence symbol shall be displayed right aligned just in front of the list item. In the absence of a TYPE attribute, TYPE = 1 shall be assumed (i.e. arabic numbering). In the absence of a START attribute, START = 1 shall be assumed. The sequence symbol is increased by one for successive list items unless an <LI> tag contains a VALUE attribute. See Clause 7. A </OL> tag closes an open <LI> tag.

Example:

HTML		**DISPLAY**	
<OL	TYPE	=	A>
<LI> Item 1	A.	Item	1
<LI> Item 2	B.	Item	2
<LI> Item 3	C.	Item	3
</OL>			

TYPE attribute

Function: Defines the sequencing scheme.

Formats: TYPE = *style_information*

***style_information*:**	1	:	Arabic numbers	1,	2	,3,	...
	a	:	Lower alpha	a,	b,	c,	...
	A	:	Upper alpha	A,	B,	C,	...
	i	:	Lower roman	i,	ii,	iii,	...
	I	:	Upper roman	I, II, III, ...			

Use: The initial value is specified by a START attribute. If absent, the first value shown above should be used as default.

START attribute

Function: Defines the initial value for the sequencing scheme.

Formats: START = *unsigned_integer*

Use: The integer value defines a positive offset from the start of the sequence, where START = 1 implies the first symbol in the sequence.

Example: <OL TYPE = A START = 3> indicates the first symbol in the list shall be preceded with the symbol *C*.

6.8.5 <LI> list item tag

Function: Used to indicate individual items or entries within a list.

Format: <LI {attribute} > {text} </LI> (the closing tag is optional).

Attribute: VALUE, TYPE

Use: A bullet point or sequence symbol (depending on the type of list) shall be inserted before the text. The text is indented. See Clause 7. An open tag is closed by another <LI> tag or a closing tag of the current list type (</OL>, </UL>, etc.).

VALUE attribute

Function: Overrides the automatic sequencing of an ordered list.

Formats: VALUE = *unsigned_integer*

Use: Only valid when the <LI> tag is used within an ordered list. The current list item adopts the new value and subsequent items are preceded with a symbol incremented from this value.

TYPE attribute

Function: Defines the sequencing scheme. See 6.9.4

Formats: TYPE = *style_information*

***style_information*:**						
	1	Arabic numbers	1,	2	,3,	...
	a	Lower alpha	a,	b,	c,	...
	A	Upper alpha	A,	B,	C,	...
	i	Lower roman	i,	ii,	iii,	...
	I	Upper roman	I,	II,	III,	...
	DISC	Example:	●			
	SQUARE	Example:	■			
	CIRCLE	Example:	○			

6.8.6 <DL> definition list tag

Function: Defines a definition or glossary list in which the description terms (DTs) are displayed beginning in the first column and the description definitions (DDs) are displayed in a second column farther to the right.

Format: <DL> ... </DL>

Attribute: none

Use: Used in conjunction with the <DT> and <DD> tags. Formatting indicates the two roles. See Clause 7.

Example:

HTML	**DISPLAY**
<DL>	
<DT>*Point 1*<DD>*Approve agenda*	Point 1 Approve agenda
<DT>*Point 2*<DD>*Previous minutes*	Point 2 Previous minutes
:	
</DL>	

6.8.7 <DT> term name tag

Function: This tag denotes the term portion of an item within a definition list (<DL>).

Format: <DT> ... </DT> (The end tag is optional.)

Attributes: None

Use: The text is not displayed indented. It is displayed on a separate line from any following <DD> tags. See Clause 7. This tag shall only be used within a definition list. An open <DT> tag is also closed by another <DT>, <DD> tag or a </DL> tag. The closing </DT> tag is optional.

6.8.8 <DD> term definition tag

Function: This tag denotes the definition portion of an item within a definition list (<DL>).

Format: <DD> ... </DD> (The end tag is optional.)

Attributes: None

Use: The text is displayed indented and on a separate line from the text of the <DT> element. See Clause 7. This tag shall only be used within a definition list. An open <DD> tag is also closed by another <DD> tag, a <DT> or </DT> tag, or a </DL> tag. The closing </DD> tag is optional.

6.9 Tables

The display parameters of a table, for example, width, cell spacing, etc., are specified by the <TABLE> tag. The <CAPTION> tag defines text to appear above or below the actual table. Each table row is contained within a <TR> tag. Normal table cells are defined within <TD> tags, and header cells within <TH> tags. Functionally, the <TD> and <TH> tags are similar but not identical. They allow the two types of cell to be rendered in different styles.

Example HTML code for a table:

```
<TABLE>
      <CAPTION> Caption Text</CAPTION>
      <TR><TH> Heading for column 1<TH>  Heading for column 2
      <TR><TD> Cell 1, column 1<TD> Cell 1, column 2
            ⋮
            ⋮
</TABLE>
```

6.9.1 <TABLE> table tag

Function: Defines a table.

Format: <TABLE> {attribute_1} {attribute_2} ... > ... </TABLE>

Attributes: ALIGN, BACKGROUND, BGCOLOR, BORDER, CELLPADDING, CELLSPACING, HEIGHT, TRANSPARENCY, WIDTH

Use: The following defaults shall be applied in the absence of the attribute:

ALIGN = LEFT
BORDER = 0
CELLPADDING = 1
CELLSPACING = 2
BGCOLOR = WHITE
TRANSPARENCY = 100 if no BGCOLOR defined, otherwise 0

In the absence of a WIDTH attribute, the width of the table shall be determined by the contents of the table. The </TABLE> tag closes open <CAPTION>, <TD>, <TH> and <TR> tags.

ALIGN attribute

Function: Defines the horizontal alignment of the enclosed table relative to the left and right boundaries of the content area. Alignment is only valid for the table in which it has been defined.

Format: ALIGN = *position*

***position*:**	LEFT :	The table shall be positioned flush left, and text flows to the right around the table.
	RIGHT :	The table shall be positioned flush right, and text flows to the left around the table.
	CENTER :	The table shall be centred.

BACKGROUND attribute

Function: This attribute specifies the URL of a background image for the table. This image is tiled if it is smaller than the table dimensions and clipped on the right and bottom side if it is larger than the table.

Format: BACKGROUND = *TeleWeb URL* (see 5.3).

BORDER attribute

Function: Defines the width (in pixels) of an outer border to be drawn around the table.

Format: BORDER = *unsigned_integer*
BORDER

Use: If BORDER appears alone (without a value or equals sign), then BORDER = 1 shall be assumed. A value of zero (0) shall indicate that the border is to be suppressed.

CELLPADDING attribute

Function: Defines the padding (in pixels) between the border around each cell and the contents of the cell.

Format: CELLPADDING = *unsigned_integer*

CELLSPACING attribute

Function: Defines the spacing (in pixels) between adjacent cells and between the outer cells and the boundary of the table.

Format: CELLSPACING = *unsigned_integer*

WIDTH attribute

Function: Defines the width of the table, either as a number of pixels or as a percentage of the width between the current margins.

Formats:	WIDTH = *unsigned_integer*	:	number of pixels
	WIDTH = *unsigned_integer* %	:	percentage of the width of the content area

HEIGHT attribute

Function: Defines the height of the table as a number of pixels.

Formats:	HEIGHT = *unsigned_integer*	:	number of pixels

TRANSPARENCY attribute

Function: Defines the transparency level of the background colour of the table.

Format:	TRANSPARENCY = *unsigned_integer*:	Valid range = 0 (fully opaque) to 100 (fully transparent)

Use: Depending on the transparency level, the defined background colour of the table is alpha-blended with an underlying video.

BGCOLOR attribute

Function: Defines the background colour of the table.

Format: BGCOLOR = *colour* The format of *colour* is defined in 6.2.5.1.

Use: The stated colour shall be used to fill completely that part of the text/graphics plane within the current table for which no overriding colour is specified. The background colour is not used for the caption.

6.9.2 <CAPTION> table caption tag

Function: The enclosed text is a caption for the current table.

Format: <CAPTION {attribute} > ... </CAPTION>

Attribute: ALIGN, VALIGN

Use: This tag shall only be used within a table definition. In the absence of an ALIGN attribute, ALIGN = TOP shall be assumed. Only text level elements shall be used within the caption. Block level elements are not permitted.

ALIGN attribute

Function: Defines the position of the caption within the current table. Alignment is only valid for the caption in which it has been defined.

Format: ALIGN = *position*

***position*:**	TOP :	The caption shall be positioned above the top of the table.
	BOTTOM :	The caption shall be positioned below the bottom of the table.
	LEFT :	The caption shall be positioned on the left side of the table.
	RIGHT :	The caption shall be positioned on the right side of the table.
	CENTER :	The caption shall be positioned centred above the top of the table.

VALIGN attribute

Function: This attribute specifies whether the table caption appears at the top or bottom. This attribute takes priority if the ALIGN attribute also specifies TOP or BOTTOM alignment for the caption.

Format: ALIGN = *position*

***position*:** TOP : The caption shall be positioned centred above the top of the table.
BOTTOM : The caption shall be positioned below the bottom of the table.

6.9.3 <TR> table row tag

Function: Encloses the elements of one row of a table.

Format: <TR {attribute_1} {attribute_2}> ... </TR> (the end tag is optional).

Attributes: ALIGN, VALIGN, TRANSPARENCY, BGCOLOR

Use: This tag shall only be used within a table definition. An open <TR> tag is closed by another <TR> tag, a </TABLE> tag or a </TR> tag. The following defaults shall be applied in the absence of an attribute:

ALIGN = CENTER
VALIGN = MIDDLE
TRANSPARENCY = 100 if no BGCOLOR defined, otherwise 0
BGCOLOR inherited from enclosing TABLE
ALIGN attribute

Function: Defines the horizontal alignment of the contents of every cell within the enclosed row relative to the left and right boundaries of the cell. Alignment is only valid for the row in which it has been defined.

Format: ALIGN = *position*

***position*:** LEFT : The content of all cells in the row shall be rendered flush left.
RIGHT : The content of all cells in the row shall be rendered flush right.
JUSTIFY: The content of all cells in the row shall be rendered flush left and flush right by adjusting the width of the white space between the words.
CENTER : The content of all cells in the row shall be centred.

VALIGN attribute

Function: Defines the vertical alignment of the contents of every cell within the enclosed row relative to the top and bottom boundaries of the current row. Alignment is only valid for the row in which it has been defined.

Format: VALIGN = *v_position*

***v_position*:** TOP : A cell's contents shall be positioned at the top of the cell.
MIDDLE : A cell's contents shall be positioned in the middle of the cell.
BOTTOM : A cell's contents shall be positioned at the bottom of the cell.

Use: For robustness an attribute value of CENTER should be interpreted as MIDDLE.

TRANSPARENCY attribute

Function: Defines the transparency level for all table cells in the row unless overwritten by a TH or TD TRANSPARENCY attribute.

Format: TRANSPARENCY = *unsigned_integer*: Valid range = 0 (fully opaque) to 100 (fully transparent)

Use: Depending on the transparency level, the cells in the row are alpha blended with an underlying video.

BGCOLOR attribute

Function: Defines the background colour of all cells in the row, unless overridden by a TH or TD BGCOLOR attribute.

Format: BGCOLOR = *colour* The format of *colour* is defined in 6.2.5.1.

Use: The stated colour shall be used to fill completely that part of the cells within the current row for which no text or images are defined.

6.9.4 <TD> table data tag

Function: Encloses the content for one normal data cell within the current row of the current table.

Format: <TD {attribute_1} {attribute_2} ... > ... </TD> (the end tag is optional).

Attributes: ALIGN, BACKGROUND, BGCOLOR, COLSPAN, ROWSPAN, HEIGHT, NOWRAP, VALIGN, WIDTH, TRANSPARENCY

Use: This tag shall only be used within a <TR> element. An open tag is also closed by another <TD> tag, a <TH>, <TR>, </TR>, <CAPTION> or </TABLE> tag. The following defaults shall be applied in the absence of the attribute:

ALIGN = LEFT

BGCOLOR inherited from enclosing TR

COLSPAN = 1

ROWSPAN = 1

TRANSPARENCY defaults to zero (0) if a background colour is specified, and defaults to 100 otherwise.

VALIGN = MIDDLE

The ALIGN = LEFT default is overridden by an ALIGN attribute in the <TR> tag.

ALIGN attribute

Function: Defines the horizontal alignment of the contents of the cell within the boundaries of the cell.

Format: ALIGN = *h_position*

***h_position*:**

- LEFT : The cell's contents shall be positioned flush left.
- RIGHT : The cell's contents shall be positioned flush right.
- JUSTIFY : The cell's contents shall be positioned flush left and flush right by adjusting the width of the white space between the words.
- CENTER : The cell's contents shall be centred.

Use: Overrides any ALIGN attribute within the current <TR> tag. Alignment is only valid for the cell in which it has been defined.

BACKGROUND attribute

Function: This attribute specifies the URL of a background image for the table cell. This image is tiled if it is smaller than the cell dimensions and clipped on the right and bottom side if it is larger than the cell.

Formats: BACKGROUND = *TeleWeb URL* (see 5.3).

BGCOLOR attribute

Function: Defines the background colour of the cell.

Format: BGCOLOR = *colour* The format of *colour* is defined in 6.2.5.1.

Use: The stated colour shall be used to fill completely that part of the text/graphics plane within the current cell for which no text or images are defined. The value of the TRANSPARENCY attribute shall determine the opacity of the background colour to the video signal. The effect is only valid for the cell in which it has been defined.

COLSPAN attribute

Function: Defines the number of columns spanned by the cell.

Format: COLSPAN = *unsigned_integer*

Use: This attribute is only valid for the cell in which it has been defined.

ROWSPAN attribute

Function: Defines the number of rows spanned by the cell.

Format: ROWSPAN = *unsigned_integer*

Use: This attribute is only valid for the cell in which it has been defined.

HEIGHT attribute

Function: Defines the height of the table cell in pixels.

Formats: HEIGHT = *unsigned_integer* : number of pixels

NOWRAP attribute

Function: No automatic line-breaks are inserted. The table cell is automatically extended to fit the text-content. If this attribute is present, the WIDTH attribute is disregarded if it is smaller than the content width.

Format: NOWRAP

VALIGN attribute

Function: This attribute specifies the vertical position of data within a cell.

Format: VALIGN = TOP | MIDDLE | BOTTOM

TOP : Cell data is flush with the top of the cell.

MIDDLE : Cell data is centred vertically within the cell. This is the default value.

BOTTOM : Cell data is flush with the bottom of the cell.

Use: For robustness an attribute value of CENTER should be interpreted as MIDDLE.

WIDTH attribute

Function: Specifies the intended width of the table cell as an absolute number of pixels.

Formats: WIDTH = *unsigned_integer* : number of pixels.

TRANSPARENCY attribute

Function: Defines the transparency level of the cell's background colour.

Format: TRANSPARENCY = *unsigned_integer* : Valid range = 0 (fully opaque) to 100 (fully transparent)

Use: Depending on the transparency level, the data cell is alpha-blended with an underlying video. If there is no video available, this attribute has no effect.

6.9.5 <TH> table heading tag

Function: Enclose the text for one header cell within the current row of the current table.

Format: <TH {attribute_1} {attribute_2} ... > ... </TH> (the end tag is optional).

Attributes: ALIGN, BACKGROUND, BGCOLOR, COLSPAN, ROWSPAN, HEIGHT, NOWRAP, VALIGN, WIDTH and TRANSPARENCY as defined in 6.10.4.

Use: This tag shall only be used within a <TR> tag. An open tag is also closed by another <TH> tag, a <TD>, <CAPTION>, <TR>, </TR> or </TABLE> tag. The following defaults shall be applied in the absence of the attribute:

ALIGN = CENTER but only if there is no ALIGN attribute specified in the <TR> tag
BGCOLOR inherited from enclosing TR
COLSPAN = 1
ROWSPAN = 1
TRANSPARENCY defaults to zero (0) if a background colour is specified and defaults to 100 otherwise.
VALIGN = MIDDLE

6.10 Images

6.10.1 <IMG> image tag

Function: Used to insert a graphics file.

Format: <IMG {attribute_1} {attribute_2} ... >

Attributes: ALIGN, ALT, BORDER, HEIGHT, HSPACE, LOWSRC, SRC, USEMAP, VSPACE, WIDTH, TRANSPARENCY

Use: Together, the HEIGHT and WIDTH attributes allow an area of the content area to be reserved for the image if the image file is not immediately available. The following defaults shall be applied in the absence of the attribute:

ALIGN = BOTTOM
BORDER = 0
HEIGHT = height defined within the image file
WIDTH = width defined within the image file
HSPACE = 0
VSPACE = 0
TRANSPARENCY = 0

NOTE A decoder is not required to scale an image to fit within the area defined by the HEIGHT and WIDTH attributes. If the HEIGHT and WIDTH attributes do not match the actual parameters carried within the file, a decoder should reserve an area for the image of the size specified by the HEIGHT and WIDTH attributes. If the image size is not identical to the specified area, the behaviour is not specified.

ALIGN attribute

Function: Specifies how the image is positioned relative to the current text line.

Format: ALIGN = *position*

***position*:**

ABSBOTTOM	:	Aligns the bottom of the image with the bottom of the current line.
ABSMIDDLE	:	Aligns the middle of the image with the middle of the current line.
BASELINE	:	Aligns the bottom of the image with the baseline of the current line (same as BOTTOM).
BOTTOM	:	Aligns the bottom of the image with the baseline.
CENTER	:	Aligns the text baseline with the middle of the image (same as MIDDLE).
LEFT	:	Floats the image to the current left margin, temporarily changing this margin so that subsequent text flows along the image's right-hand side.
MIDDLE	:	Aligns the middle of the image with the baseline for the current text line.
RIGHT	:	Floats the image to the current right margin, temporarily changing this margin, so that subsequent text flows along the image's left-hand side.
TEXTTOP	:	Aligns the top of the image with the top of the text on that line.
TOP	:	Aligns the top of the image with the top of the tallest object on that line.

NOTE For ALIGN = LEFT (or ALIGN = RIGHT), the rendering will depend on whether there is any left (right) aligned text or images that appear earlier than the current image in the document. Such text, but not images, generally forces left (right) aligned images to wrap to a new line, with the subsequent text continuing on the former line.

ALT attribute

Function: Provides a text description of the image.

Format: ALT = *text_string*

Use: A decoder may choose to display this text while waiting for the image file to arrive.

BORDER attribute

Function: Defines the width (in pixels) of a border to be drawn around the image

Format: BORDER = *unsigned_integer*
BORDER

Use: If BORDER appears alone (without a value or equals sign), then BORDER = 1 shall be assumed. A value of zero (0) shall indicate that the border is to be suppressed.

HEIGHT attribute

Function: Specifies the intended height of the image in pixels.

Formats: HEIGHT = *unsigned_integer* : number of pixels

Use: When the actual image height is not equal to the HEIGHT attribute, decoder behaviour is unspecified.

HSPACE attribute

Function: Specifies the width in pixels of space to be inserted immediately to the left and to the right of the image.

Format: HSPACE = *unsigned_integer*

Use: The background signal shall be visible in this space.

LOWSRC attribute

Function: Specifies an URL for a placeholder image.

Format: LOWSRC = *url*

url: As defined in 5.3

Use: Use this URL when the image defined by the SRC attribute is still not available. As soon as the image defined by the SRC attribute is available, the image defined by this attribute should be replaced by the image defined by the SRC attribute. When the image defined by the SRC attribute is already available, this attribute should be ignored.

This attribute can be used to define a placeholder to be used until the image is available (received). This placeholder can be an image of lower resolution and therefore transmitted more often. The same placeholder can be used for different images (for example, a news icon for all images used in news pages). The images defined by the LOWSRC attribute and the SRC attribute shall have the same size.

Decoder support for this attribute is optional.

SRC attribute

Function: Specifies the URL of the image.

Format: SRC = *url*

url: As defined in 5.3.

Use: The use of this attribute is mandatory.

USEMAP attribute

Function: Identifies a <MAP> tag that defines a number of hotspots within the image.

Format: USEMAP = *url*

url: As defined in 5.3. This *url* should only refer to a map defined in the same document.

Example: <IMG SRC = "navibar.gif" USEMAP = "#map_1"> <MAP NAME = "map_1"> ...

VSPACE attribute

Function: Specifies the height (in pixels) of space to be inserted immediately above and below the image.

Format: VSPACE = *unsigned_integer*

Use: The background signal shall be visible in this space.

WIDTH attribute

Function: Specifies the intended width of the image.

Formats: WIDTH = *unsigned_integer* : number of pixels

Use: When the actual image width is not equal to the WIDTH attribute, decoder behaviour is unspecified.

TRANSPARENCY attribute

Function: Defines the transparency level of the image.

Format: TRANSPARENCY = *unsigned_integer* : Valid range = 0 (fully opaque) to 100 (fully transparent)

Use: Depending on the transparency level, the image is alpha-blended with an underlying video. If there is no video available, this attribute has no effect.

6.11 Ticker text

Ticker text is supported by the MARQUEE tag.

6.11.1 <MARQUEE> tag

Function: This element defines a scrolling, sliding or bouncing text marquee.

Format: <MARQUEE {attribute_1} {attribute_2} ... > ... </MARQUEE>

Attributes: BEHAVIOR, BGCOLOR, DIRECTION, HEIGHT, HSPACE, LOOP, SCROLLAMOUNT, SCROLLDELAY, TRANSPARENCY, VSPACE, WIDTH

Use: The following defaults shall be applied in the absence of the attribute:

BEHAVIOR = SCROLL
BGCOLOR = WHITE
DIRECTION = LEFT
HEIGHT = *content height*, if DIRECTION is LEFT or RIGHT, 200 if direction is UP or DOWN
HSPACE = 0
LOOP = INFINITE if BEHAVIOR is SCROLL or ALTERNATE, 1 if BEHAVIOR = SLIDE
SCROLLAMOUNT = 10
SCROLLDELAY = 100
TRANSPARENCY = 100 if no BGCOLOR specified, otherwise zero (0)
VSPACE = 0
WIDTH = 100 %

A decoder is only required to scroll the text contained within the tag. Scrolling of images is at the discretion of the manufacturer.

BEHAVIOR attribute

Function: Defines the motion of the text.

Format: BEHAVIOR = *behaviour*

***behaviour*:**	ALTERNATE	:	The text bounces back and forth between the left and right margins of the message window.
	SCROLL	:	The text scrolls in the direction defined by the DIRECTION attribute and disappears completely before starting again.
	SLIDE	:	The text scrolls in the direction defined by the DIRECTION attribute and stops as soon as the other margin is reached.

BGCOLOR attribute

Function: Defines the background colour of the message window.

Format: BGCOLOR = *colour* The format of *colour* is defined in 6.2.5.1.

Use: The stated colour shall be used to fill completely that part of the text/graphics plane enclosed by the current MARQUEE tag for which no content is defined.

DIRECTION attribute

Function: Defines the direction of scrolling, sliding or alternation.

Format: DIRECTION = *direction*

***direction*:**	LEFT	:	Starts from the right margin and moves towards the left
	RIGHT	:	Starts from the left margin and moves towards the right
	UP	:	Starts from the bottom margin and moves towards the top
	DOWN	:	Starts from the top margin and moves towards the bottom

HEIGHT attribute

Function: Specifies the height of the message window in pixels, either as an absolute number of pixels or as a percentage of the height of the content area.

default: up/down 200 pixels.

Formats:	HEIGHT = *unsigned_integer* :	number of pixels
	HEIGHT = *unsigned_integer* %:	percentage of height of content area

HSPACE attribute

Function: Specifies the width (in pixels) of background to be visible immediately left and right of the message window.

Format: HSPACE = *unsigned_integer*

LOOP attribute

Function: Defines the number of times the marquee shall be repeated.

Format: LOOP = un*signed_integer*
LOOP = INFINITE or -1

SCROLLAMOUNT attribute

Function: Defines the amount in pixels between two successive displays of the scrolling text in the marquee.

Format: SCROLLAMOUNT = *unsigned_integer*

SCROLLDELAY attribute

Function: Defines the delay in ms between two successive draws.

Format: SCROLLDELAY = *unsigned_integer*

TRANSPARENCY attribute

Function: Defines the transparency of the background.

Format: TRANSPARENCY = *unsigned_integer* : Valid range = 0 (fully opaque) to 100 (fully transparent)

Use: Depending on the transparency level, the marquee is alpha-blended with an underlying video.

VSPACE attribute

Function: Specifies the height (in pixels) of background to be visible immediately above and below the message window.

Format: VSPACE = *unsigned_integer*

WIDTH attribute

Function: Specifies the width of the message window in pixels, either as an absolute number of pixels or as a percentage of the width of the content area.

Formats:
WIDTH = *unsigned_integer* : number of pixels
WIDTH = *unsigned_integer* % : percentage of width of content area

6.12 Exceptional ignored tags

All contents within FORM, APPLET, SCRIPT and STYLE elements are ignored.

7 TeleWeb default style

The TeleWeb default style is defined in Annex E. Although the TeleWeb Superteletext profile decoder does not support cascading style sheets, the CSS2 format, defined in [CSSL2], is used as syntax to describe the behaviour of the browser.

8 Image files

8.1 GIF

A decoder is required to implement the full GIF specification [GIF], apart from the "plain text" extension. Therefore, a transmitted file shall not include "plain text".

Animation and looping of GIF images is described in [GIF] and [GIFabout] respectively.

NOTE There is no minimum time specified for the display of one frame when animating or looping. This will depend upon the processing power in the decoder and the complexity and size of the images. Different decoders may show different response speeds.

A decoder is not required to reproduce animation on the background image plane. If multiple frames are present in the designated file, the first frame should be displayed continuously.

The total size of animated GIFs inside the page or content area may be restricted by a code of practice.

8.2 JPEG

The sequential baseline JPEG image format [JPEG1] [JPEG2] is supported. The progressive, hierarchical and lossless JPEG formats are not supported. The overall size of the JPEG images within the content area may be restricted by a code of practice.

For the transmission of JPEG streams the JFIF format defined in [JFIF] is used.

9 Content labelling

To enable a decoder to offer additional facilities for content selection or filtering, it is necessary to have a method of assigning labels to individual files. For example, if the editorial theme of each page is indicated, and the local memory in the decoder is insufficient to store the complete database, the equipment could be programmed by the viewer to accept only those pages that match the viewer's interests. Alternatively, it might be required to rate the content in some way so that a parent can prevent a child from seeing particular content that the parent considers to be unsuitable.

9.1 Predefined themes and identifier coding

A common coding scheme is used for predefined themes. Their 16-bit identifier values are shown in Annex C. The 5 MSBs are used to divide the table into 32 sections. In general, each section covers a certain top-level topic or subject area, with up to 2048 entries. In each section, the identifier value with the 11 LSBs set to 0×001 is allocated to identify the main index page for the implicit topic.

A theme is assigned to a file via a theme attribute (see 12.2.2). The identifier value for the required theme is specified.

9.2 Parental ratings

Ratings can be used to quantify content so that a parent can prevent a child from seeing particular content that the parent considers to be unsuitable. The rating is defined as a recommended minimum viewing age.

A rating is assigned to a file via a parental rating attribute (see 12.2.3).

10 Special data

10.1 Service identification graphic

In an environment where multiple TeleWeb services are available, the decoder may wish to present the viewer with a top-level menu of the different services available. The format of the menu and selection methods used shall be determined by the decoder manufacturer. However, each TeleWeb service needs to provide suitable data in a standardized form to allow an entry to be included in the menu. An image file can be used for this purpose. This file is optional.

In order to ensure that a reasonable number of choices can be placed on the screen the graphic shall not exceed 160 pixels horizontal × 80 pixels vertical. The graphic should only contain the logo for the service. The actual selection list should be based on the mandatory information attribute of the service. The transmission and display of the identification logo is optional.

NOTE To reduce the transmission overhead, the broadcasters should try to reduce the size of the identification graphic. They can do this by reducing the physical dimension of the graphic, reducing the detail level used in the graphic and by using JPEG or GIF compression whichever gives the better compression.

Identification of the file containing the service identification graphic is by the setting of the Service Ident attribute (see 12.5.1). This attribute shall be set on only one file per service.

10.2 Home page

Typically, the home page of a TeleWeb service will be presented to the viewer when a TeleWeb viewing session is started. The service provider may choose to design this page as an entry point into the service.

It is mandatory to have a home page in every TeleWeb service.

There shall be only one instance of a home page within a TeleWeb service. It is identified through the setting of the home page attribute for the appropriate file (see 12.5.2). The file shall be an HTML file only. If the home page references a number of image files, the home page attribute shall not be set for the image files.

10.3 Default page

The decoder will display a default page whenever an unresolved link is selected. The mandatory filename for this default page is "default.htm" or "default.html". If the page is not provided by the broadcaster or not received yet, the decoder shall generate the page. In the latter case, the decoder manufacturer is in full control of the content of the page; however, the content should indicate to the user that the requested page is, for the moment, not available.

With the special function URL function:back (see 5.6), a link should be defined in the page to enable the user to go back to the previously displayed page.

10.4 Profile upgrade page

A Superteletext profile decoder will display a default page whenever an unresolved higher profile link is selected. The mandatory filename for this default page is "upgrade.htm" or "upgrade.html". If the page is not provided by the broadcaster or not received yet, the decoder shall generate the page. In the latter case, the decoder manufacturer is in full control of the content of the page; however, the content should indicate to the user that his decoder is not capable of processing the page referenced by this link.

With the special function URL function:back (see 5.6), a link should be defined in the page to enable the user to go back to the previously displayed page.

10.5 ZLIB dictionary files

For better compression of files the zlib decompression supports the use of dictionaries. ZLIB dictionaries are transmitted as files within the TeleWeb service. The name of a file containing a dictionary shall be zlibHHHHHHHH.dic where HHHHHHHH is the hexadecimal representation of the Adler32 checksum of the dictionary.

Dictionary files shall be transmitted uncompressed.

11 Service-related attributes

The service attributes define attributes for the whole service. To assure fast detection and identification of a TeleWeb service, these attributes should be transmitted at least every minute.

The service-related attributes are summarized in the table below. The mandatory column indicates which attributes are mandatory and which attributes are optional.

Table 7 – List of service-related attributes

Attribute	Function	Mandatory
Name	The name of the service. Used in absolute URLs	Yes
Information	A textual description of the service. Used for the service selection	Yes
Language	The principle language used for this service	Yes
Transmission schedule	List of maximum cycle times	No
NOTE A decoder will process service-related attributes defined within this clause. A decoder shall ignore service-related attributes not listed in the table .		

11.1 Name

The name of a TeleWeb service is transmitted via the name attribute. The name is used as identification of the service in the TeleWeb URL (see 5.3.1). The service name is not intended for presentation to the user. For a service selection menu, the data in the information attribute should be used (see 11.2).

11.2 Information

The service information attribute contains the textual identification for the service. This information should be used when a service selection menu is presented to the user. Such a service selection list can also show the (optional) service identification graphics. The maximum length for the information text is restricted to 32 characters.

11.3 Language

The language attribute defines the default language for the TeleWeb service. The definition of this service attribute is mandatory.

11.4 Transmission schedule

With this optional service attribute, the cycle times of the whole service can be defined. The cycle times may vary during the day. For example, at night there may be a higher transmission rate of the data. The following data is transmitted.

Time 1 Cycle Time 1

Time 2 Cycle Time 2

…

Time n Cycle Time x

The following list gives an example for the transmission schedule attribute.

00:00 20 min

03:00 10 min

06:00 20 min

12:00 30 min

20:00 40 min

With this data, a TeleWeb decoder can choose the time with the highest transmission rate to receive the data. If only one entry is given, the maximum transmission rate should be constant for the whole day.

12 File-related attributes

Clauses 6 and 8 define the contents of the text and graphics files forming the TeleWeb service. Attributes for each file, such as name, file type, creation date, etc., also need to be provided to enable a decoder to process the files correctly and manage the local database.

The attributes are assumed to exist outside of the files to which they apply. The method of linking attributes to files is a function of the transport protocol. Under some circumstances, it may be possible to apply an attribute to multiple files in the interests of transmission efficiency.

The TeleWeb specific file-related attributes applicable to data and graphics files are summarized in Table 8. The No. per file column indicates which attributes are mandatory and which attributes can be included more than once per file.

Table 8 – List of file-related attributes

Attribute	Function	No. per file
Type	The type of data in the file	0 or 1
Name	The name of the file	1
CRC	Cyclic redundancy code (CRC) checksum	0 or 1
Copyright	Indicates that the contents are copyright protected and shall not be used outside of their host TeleWeb service	0 or 1 Note 1
Encryption/ Conditional access	Indicates that the contents of the file have been encrypted	0 or 1 Note 1
Compression	Indicates that the contents of the file have been compressed	0 or 1 Note 1
Information	A textual description of the file's contents	0 or 1
Parental rating	Age rating of the content according to ETSI EN 300 468	0 or 1
Theme	An indication of the contents of the file in a computer-readable format to allow intelligent and personalized search engines to be implemented	Several (including 0)
Language	The principle language used to author the text	0 or 1
Character set (encoding)	The character encoding used to author the content	0 or 1
Suppress user interface	Indicates that the author intends that the page is displayed with video in the background and without the display components of the user interface	0 or 1 Note 1
Creation time	The authoring time and date of the file	0 or 1
Start validity	The time from which the file may be used (displayed) by the decoder	0 or 1
Expire time	The time after which the file is no longer valid and can be deleted by the decoder	0 or 1
Repetition distance	The maximum time between transmissions of the file	0 or 1
Priority	Indicates the files considered to be more important to help the decoder with its "housekeeping" functions.	1
Service indent	Indicates if the file contains data relating to the identity of the TeleWeb service	0 or 1 Note 1

Attribute	Function	No. per file
Home page	Indicates if the file contains data relating to the mandatory home page of the TeleWeb service	0 or 1 Note 1
User group ID	Allows files to be distributed to particular decoders in order to support closed user group or conditional access services	0 or 1
Profile	Defines the TeleWeb profiles for which the page is intended	0 or 1
Version	Defines the version of the file	1
NOTE 1 These attributes are mandatory for the files supporting or requiring these particular functions. NOTE 2 A decoder will process file-related attributes defined within this section. A decoder should ignore file-related attributes not listed in the table .		

12.1 General file attributes

12.1.1 Type

The type attribute indicates the nature of the data in the file, for example, HTML, GIF, etc. This attribute should conform to the file extension. The type is specified using the media type descriptions [MIME1] and [MIME2].

The inclusion of this attribute is optional. If it is omitted or missing, a decoder should attempt to determine the file type by inspecting the name attribute. In the event of a conflict, the type attribute shall have priority.

12.1.2 Name

The name attribute defines the name of the file as a text string. This name is used as the reference (URL) to the file. For text and image files, it is recommended to included a file type extension, for example, "file1.htm".

The string shall be coded using the ISO Latin-1 character set as described in ISO 8859-1. A maximum length limit is not placed on the string but it may be limited in practice by the transport protocol. A decoder is not expected to display this string on the screen.

The inclusion of this attribute is mandatory for every file.

It is not the intention to display the name of a file to the user.

12.1.3 CRC

The CRC attribute carries a 32-bit checksum for the file. This is calculated according to Annex B of ETSI EN 300 468.

The inclusion of this attribute is optional.

12.1.4 Copyright

The copyright attribute is a single-bit Boolean entity indicating if the file is copyright protected. If set, the entire contents of the file are subject to copyright, and no part may be used in combination with any other application, nor by any other application, nor shall it be copied to a composite database. It shall be used exclusively within the TeleWeb service to which it belongs.

The presence of this attribute is mandatory if the data is to be protected in this way. In the absence of this attribute, a decoder may assume that the contents of the file are not copyright protected.

12.1.5 Encryption/Conditional access

The presence of an encryption attribute informs the decoder that the contents of the file have been encrypted and an appropriate key will be needed to unscramble the data prior to use. Superteletext profile decoders will not support encryption. Thus, files containing an encryption attribute shall be ignored by a Superteletext profile decoder.

12.1.6 Version

A version number is transmitted with each file. Whenever the content of a file is changed, this version number is changed also.

When a new version of a TeleWeb HTML file is received and this file is currently displayed, then the display should be automatically updated with the new content. When a new version of an image that is displayed is received and this image is referenced by an <img> tag then the new version of the image should replace the old one on the screen.

12.1.7 Compression

The compression attribute identifies the compression method in use, and, if relevant, the original size of the uncompressed file in bytes. For systems designed to this edition, the compression algorithm shall be "zlib" [ZLIB].

The zlib decompression shall support dictionaries as defined in [ZLIB]. The dictionary to be used to decompress a file shall be transmitted as a file within the TeleWeb service. A zlib compressed file that needs a dictionary to be decompressed defines the Adler32 checksum of that dictionary. Let HHHHHHHH be the hexadecimal representation of that Adler32 checksum, then the content of the file zlibHHHHHHHH.dic shall be used as the dictionary. The dictionary file shall be transmitted uncompressed and the size shall not exceed 32Kbytes. For different zlib compressed files, different dictionaries may be used as long as their Adler32 checksums are different.

NOTE When a file is to be subject to both compression and encryption, the encoding process should perform compression first and then encryption.

12.2 File content attributes

12.2.1 Information

The information attribute contains a text string describing the contents of the file. Text information is coded using the ISO Latin-1 character set as described in ISO 8859-1. A maximum length for the string is not specified but may be limited by the transmission method.

The inclusion of this attribute is optional.

12.2.2 Theme

The theme attribute is describing the contents of the file. A theme is selected by a unique 16-bit value, which is defined in a list of predefined themes (see Annex C).

The inclusion of this attribute is optional. A maximum of 8 themes shall be applied to one file.

NOTE Themes might be used within the decoder to implement customizable search engines and to filter the incoming data to restrict the local database to information that is of particular interest to the viewer, especially when the local storage capacity is insufficient to hold the entire database.

12.2.3 Parental rating

This 8-bit field is coded according to Table 9, giving the recommended minimum age in years of the end user.

Table 9 – Rating scheme

Rating	Description
0×00	Undefined
0×01 – 0×0F	Minimum age = rating + 3 years
0×10 – 0×FF	Reserved
NOTE For example, 0×04 implies that end-users should be at least 7 years old.	

12.2.4 Character set (encoding)

This attribute specifies the character set used to author the content of the file. It is defined by a string of 7-bit ASCII coded characters. For Superteletext profile decoders, only ISO-8859-1 (Latin-1) as described in ISO 8859-1 is supported, which is also the default character set when this attribute is not defined.

12.2.5 Language

The language attribute defines the principle language used to author the text in HTML files and image files.

The language is identified by a three-byte code as specified in ISO 639-2.

The inclusion of this attribute is optional. In its absence, the language specified for the service shall be adopted as the default (see 11.3).

12.2.6 Suppress user interface

The suppress user interface attribute is a Boolean entity indicating that screen areas under control of the decoder manufacturer should be set to display video.

12.2.7 Profile

The profile attribute indicates the profiles of the decoder the page is intended for. For each profile an information flag is reserved. If this attribute is available, the decoder shall ignore pages, which do not contain a flag for its profile. Pages without this attribute are applicable for all profiles.

12.3 Time- and date-related attributes

Unless otherwise stated, all times are absolute and are specified using universal coordinated time (UTC) to a resolution of 1 s. Individual components shall be used to represent hours, minutes and seconds and shall each be coded as 8-bit values. Dates are also absolute and are defined using the modified julian date (MJD) form as a 17-bit value. (The latest date that can be specified is 17 November 2172.) The MJD value increments daily at 00:00 UTC.

12.3.1 Creation time

The creation time attribute defines the authoring time and date of the file or the time/date at which it was last updated. The time and date shall be absolute.

The inclusion of this attribute is optional.

12.3.2 Start validity

The start validity attribute indicates the earliest time at which the file may be used or displayed. The time shall be specified as an absolute time and date.

The inclusion of this attribute is optional. In its absence, a decoder may use the file as soon as it is acquired.

12.3.3 Expire time

The expire time attribute indicates the latest time at which the file may be used or displayed. Once the expire time has been exceeded, a decoder may delete the file from its memory. The time shall be specified as an absolute time and date.

If this optional attribute is omitted, the file is valid for an undefined period of time at the discretion of the decoder.

12.3.4 Repetition distance

To support advanced caching of files in the decoder, the repetition distance attribute indicates a guaranteed maximum time until the next transmission of the file. The decoder may use this information to indicate the worst-case waiting time if the requested data has not been pre-captured.

The time is specified as a 16-bit value in units of 1 s . A value of 0×FFFF shall indicate that the time is greater than 18 h, 12 min and 14 s.

The inclusion of this attribute is optional.

12.4 Storage-related attributes

12.4.1 Priority

The priority attribute indicates the relevance of the contents of the associated file with regard to the overall service. It recommends a storage priority, i.e. in case of a memory-full state, only files having a high priority should be stored.

Priorities are rated on a scale of 0 to 255, where 0 implies highest priority and 255 lowest priority.

The inclusion of this attribute is mandatory.

12.5 Special function attributes

12.5.1 Service ident

The service ident attribute is a single-bit Boolean entity that enables the file containing data relating to the identity of the TeleWeb service to be detected. This allows a decoder to construct a top-level menu of TeleWeb services that are available from different service providers.

The inclusion of this attribute is mandatory for the file that contains this information. There shall be only one instance of this attribute per service.

12.5.2 Home page

The home page attribute is a single-bit Boolean entity that enables the file containing data relating to the mandatory home page of the TeleWeb service. This allows the decoder to display the service provider's introductory page when the user selects this TeleWeb service.

The inclusion of this attribute is mandatory for the file containing the home page data. There shall be only one file with this attribute per TeleWeb service.

12.5.3 User group ID

The user group ID attribute allows files to be distributed to particular decoders in order to support closed user group or conditional access services. Each ID comprises a string of 7-bit ASCII coded characters with a maximum length of 32 characters.

The inclusion of this attribute is optional.

13 Short and full TeleWeb service

There are two types of TeleWeb services defined by this specification, a short TeleWeb service and a full TeleWeb service.

A short service is a small TeleWeb service. The broadcast size for a short service shall not exceed 100 Kbytes, and all data in the short service shall normally be transmitted within 1 min. The decoder may clear the stored database for the short service on each channel change releasing resources to acquire the short service from the new channel. The short service contains program-related information that is often updated. A trigger application, defined in IEC 62297-1, shall only reference pages from the short service.

The second type of service is a full TeleWeb service. The broadcast size for a full service shall not exceed 4,9 Mbytes. The cycle time for a full service may be much larger than the cycle time of a short service. Therefore, a “preferred” full service may be selected by the user through an installation menu. In this case, the data for the full service will be available independent of the selected TV channel. Future TeleWeb decoders may, if storage becomes cheaper, store the full service of all service providers.

The short and full TeleWeb services are completely separated. Therefore, it is possible to receive a short and a full service from different service providers. It is, however, possible to define cross-links from one service to the other by using absolute TeleWeb URLs. This is not recommended, as it will only work if the stored full and current short TeleWeb services are from the same service provider. Due to the minimum requirements of Superteletext profile decoders, a low-end decoder will not support cross-links.

A TeleWeb Superteletext profile decoder shall support at least one short TeleWeb service and one full TeleWeb service providing storage for the specified broadcast sizes (4,9 + 0,1 Mbytes). The shortand Full TeleWeb service define their own entry points via their mandatory home pages. The user shall be able to select the desired service. It is the responsibility of the decoder manufacturer to provide a proper user interface.

14 Individual addressing – Group addressing

Individual addressing and group addressing is realized by means of the user group ID. This is a simple string, which is assigned to files as a file attribute. It can be the name of a group or simply an e-mail address. However, there is no security provided with this mechanism. The user group ID is not decoder specific and can be changed by the user.

If a file carries a user group ID, and the decoder is not a member of that group and therefore does not hold the same ID, it shall ignore the data.

Table 10 – Filter attributes for nexTView references

Item	Syntax	Format	Example
Relative date	`rd=`*date_offset*	Decimal value from 0 to 255 0 = today 1 = tomorrow :	`rd=0`
First program	`fp=`*prog_offset*	Decimal value from 0 to 255 0 = this program 1 = next program :	`fp=0`
Last program	`lp=`*prog_offset*	Decimal value from 0 to 255 0 = this program 1 = next program :	`lp=1`
Network operator	`nw=`*netwop_no*	Decimal value from 0 to 79	`nw=0`
Theme	`th=`*theme*	Hexadecimal value from 0 to FF conforming ETSI EN 300 707	`th=1F`
Sorting criterion	`sc=`*sortcrit*	Hexadecimal value between 0 and FF	`sc=2A`
Editorial rating	`er=`*editorial_rating*	Decimal value from 0 to 15 conforming ETSI EN 300 707	`er=1`
Parental rating	`pr=`*parental_rating*	Decimal value from 0 to 15 conforming ETSI EN 300 707	`pr=4`
Start time	`sta=`*time_code*	4-digit hexadecimal value	`sta=1230`
Stop time	`sto=`*time_code*	4-digit hexadecimal value	`sto=1300`
Features	`ff=`*feature_flags*	6-digit hexadecimal value with bits specified by ETSI EN 300 707	`ff=001001`
Language	`la=`*language*	3-character language code defined in ISO 639-2	`la=eng`
Subtitle language	`sl=`*subtitle_language*	3-character language code defined in ISO 639-2	`sl=ger`

NOTE Each single type of filter shall not be defined more than once in a query. If more than one different filter types are defined, an AND operation is applied to the filters. An OR operation on filters is not supported (for more information see ETSI EN 300 707).

Annex A
(informative)

HTML compatibility

A.0 Introduction

In general, the HTML tags presented in Clause 6 have been chosen for TeleWeb use as they are widely supported by existing browsers and they are likely to be present in future versions of HTML. This annex lists

a) the tags present in HTML version 3.2 [HTML3.2] that are not supported by the TeleWeb application;

b) attributes that are not supported by this specification but are part of version 3.2 [HTML3.2];

c) browser specific tags that are supported by TeleWeb;

d) extensions to HTML 3.2 attributes and attribute values.

A.1 HTML V3.2 tags not supported by TeleWeb

Table A.1 lists the HTML V3.2 tags that are not supported by TeleWeb.

Table A.1 – HTML V3.2 tags not supported

Tag	Function
<APPLET>	Java applet
<FORM>	Fill-in form
<INPUT>	Input text field, radio buttons, etc., in <FORM> elements
<ISINDEX>	Request for a single-line text input field
<OPTION>	Defines menu item within a <SELECT> element
<PARAM>	Used within <APPLET> elements
<SCRIPT>	Reserved for further use with scripting languages
<SELECT>	Menu within <FORM> elements
<STYLE>	Reserved for future use with style sheets
<TEXTAREA>	Defines multi-line text fields in <FORM> elements

A.2 HTML V3.2 attributes not supported by TeleWeb

Table A.2 lists the attributes that are not supported by TeleWeb although the HTML V3.2 tag itself, and possibly other attributes, are supported. The unsupported tags may be in use on the Internet or supported by existing browsers.

Table A.2 – HTML V3.2 attributes not supported

Tag	Tag name	Attributes not supported
<DL>	Definition list	COMPACT
<OL>	Ordered list	COMPACT
<UL>	Unordered list	COMPACT
<MENU>	Menu list	COMPACT
<DIR>	Directory list	COMPACT
<PRE>	Preformatted text	WIDTH

A.3 Browser specific tags supported by TeleWeb

Table A.3 lists the browser specific tags supported by TeleWeb.

Table A.3 – Browser specific tags supported

Tag	Function
<BLINK>	Enables flashing text
<MARQUEE>	Scrolling text

A.4 Extensions to HTML 3.2 attributes and attribute values

Table A.4 lists the attributes and attribute values supported by the TeleWeb browser that are not defined in HTML 3.2. Most of the extensions are defined in HTML 4.0.

Table A.4 – TeleWeb specific tags supported

Tag	New attribute	Function
<A> anchor	ACCESSKEY	Maps hyperlink to a particular button or key on the user's control device
<AREA>	ACCESSKEY	Maps hyperlink to a particular button or key on the user's control device
<BASEFONT>	COLOR	Text colour of the base font
<BODY>	TRANSPARENCY	Alpha component (opacity) of background colour
	BOTTOMMARGIN	Bottom margin of the page in pixels
	LEFTMARGIN	Left margin of the page in pixels
	RIGHTMARGIN	Right margin of the page in pixels
	TOPMARGIN	Top margin of the page in pixels
<CAPTION>	ALIGN = LEFT, RIGHT, CENTER	Vertical or horizontal position of the caption
	VALIGN	Vertical position of the caption
<HR>	COLOR	Specifies rendering colour
<P>	ALIGN=JUSTIFY	Layout option
<TABLE>	BACKGROUND	URL of the table background image

Tag	New attribute	Function
<TD>, <TH>	ALIGN=JUSTIFY	Horizontal layout information
	BGCOLOR	Specifies background colour
	TRANSPARENCY	Alpha component (opacity) of background to video
	BACKGROUND	URL of the table cell background image
<TR>	BGCOLOR	Specifies background colour
	TRANSPARENCY	Alpha component (opacity) of background to video
	ALIGN=JUSTIFY	Layout option
<IMG>	TRANSPARENCY	Alpha component (opacity) of background colour
	ALIGN= ABSBOTTOM ABSMIDDLE BASELINE CENTER TEXTTOP	Image alignment option
	LOWSRC	Definition of alternative image

Annex B
(normative)

Default colour palette specification

Table B.1 – Default colour palette specification

Transparency level	Default colour palette entry definition Format : clut[n] = [R, G, B], where n denotes the clut entry, and R,G and B denote the values of the red, green and blue components associated to clut entry		
0 % (fully opaque)	clut[0] = [0, 0, 0]	clut[45] = [63,191, 0]	clut[90] = [191, 95, 0]
	clut[1] = [0, 0,127]	clut[46] = [63,191,127]	clut[91] = [191, 95,127]
	clut[2] = [0, 0,255]	clut[47] = [63,191,255]	clut[92] = [191, 95,255]
	clut[3] = [0, 31, 0]	clut[48] = [63,223, 0]	clut[93] = [191,127, 0]
	clut[4] = [0, 31,127]	clut[49] = [63,223,127]	clut[94] = [191,127,127]
	clut[5] = [0, 31,255]	clut[50] = [63,223,255]	clut[95] = [191,127,255]
	clut[6] = [0, 63, 0]	clut[51] = [63,255, 0]	clut[96] = [191,159, 0]
	clut[7] = [0, 63,127]	clut[52] = [63,255,127]	clut[97] = [191,159,127]
	clut[8] = [0, 63,255]	clut[53] = [63,255,255]	clut[98] = [191,159,255]
	clut[9] = [0, 95, 0]	clut[54] = [127, 0, 0]	clut[99] = [191,191, 0]
	clut[10] = [0, 95,127]	clut[55] = [127, 0,127]	clut[100] = [191,191,127]
	clut[11] = [0, 95,255]	clut[56] = [127, 0,255]	clut[101] = [191,191,255]
	clut[12] = [0,127, 0]	clut[57] = [127, 31, 0]	clut[102] = [191,223, 0]
	clut[13] = [0,127,127]	clut[58] = [127, 31,127]	clut[103] = [191,223,127]
	clut[14] = [0,127,255]	clut[59] = [127, 31,255]	clut[104] = [191,223,255]
	clut[15] = [0,159, 0]	clut[60] = [127, 63, 0]	clut[105] = [191,255, 0]
	clut[16] = [0,159,127]	clut[61] = [127, 63,127]	clut[106] = [191,255,127]
	clut[17] = [0,159,255]	clut[62] = [127, 63,255]	clut[107] = [191,255,255]
	clut[18] = [0,191, 0]	clut[63] = [127, 95, 0]	clut[108] = [255, 0, 0]
	clut[19] = [0,191,127]	clut[64] = [127, 95,127]	clut[109] = [255, 0,127]
	clut[20] = [0,191,255]	clut[65] = [127, 95,255]	clut[110] = [255, 0,255]
	clut[21] = [0,223, 0]	clut[66] = [127,127, 0]	clut[111] = [255, 31, 0]
	clut[22] = [0,223,127]	clut[67] = [127,127,127]	clut[112] = [255, 31,127]
	clut[23] = [0,223,255]	clut[68] = [127,127,255]	clut[113] = [255, 31,255]
	clut[24] = [0,255, 0]	clut[69] = [127,159, 0]	clut[114] = [255, 63, 0]
	clut[25] = [0,255,127]	clut[70] = [127,159,127]	clut[115] = [255, 63,127]
	clut[26] = [0,255,255]	clut[71] = [127,159,255]	clut[116] = [255, 63,255]
	clut[27] = [63, 0, 0]	clut[72] = [127,191, 0]	clut[117] = [255, 95, 0]
	clut[28] = [63, 0,127]	clut[73] = [127,191,127]	clut[118] = [255, 95,127]
	clut[29] = [63, 0,255]	clut[74] = [127,191,255]	clut[119] = [255, 95,255]
	clut[30] = [63, 31, 0]	clut[75] = [127,223, 0]	clut[120] = [255,127, 0]
	clut[31] = [63, 31,127]	clut[76] = [127,223,127]	clut[121] = [255,127,127]
	clut[32] = [63, 31,255]	clut[77] = [127,223,255]	clut[122] = [255,127,255]
	clut[33] = [63, 63, 0]	clut[78] = [127,255, 0]	clut[123] = [255,159, 0]
	clut[34] = [63, 63,127]	clut[79] = [127,255,127]	clut[124] = [255,159,127]
	clut[35] = [63, 63,255]	clut[80] = [127,255,255]	clut[125] = [255,159,255]
	clut[36] = [63, 95, 0]	clut[81] = [191, 0, 0]	clut[126] = [255,191, 0]
	clut[37] = [63, 95,127]	clut[82] = [191, 0,127]	clut[127] = [255,191,127]
	clut[38] = [63, 95,255]	clut[83] = [191, 0,255]	clut[128] = [255,191,255]
	clut[39] = [63,127, 0]	clut[84] = [191, 31, 0]	clut[129] = [255,223, 0]
	clut[40] = [63,127,127]	clut[85] = [191, 31,127]	clut[130] = [255,223,127]
	clut[41] = [63,127,255]	clut[86] = [191, 31,255]	clut[131] = [255,223,255]
	clut[42] = [63,159, 0]	clut[87] = [191, 63, 0]	clut[132] = [255,255, 0]
	clut[43] = [63,159,127]	clut[88] = [191, 63,127]	clut[133] = [255,255,127]
	clut[44] = [63,159,255]	clut[89] = [191, 63,255]	clut[134] = [255,255,255]

Transparency level	**Default colour palette entry definition Format : clut[n] = [R, G, B], where n denotes the clut entry, and R, G and B denote the values of the red, green and blue components associated to clut entry**		
0 % (fully opaque)	clut[135] = [42, 42, 42] clut[136] = [85, 85, 85]	clut[137] = [170,170,170]	clut[138] = [212,212,212]
30 %	clut[139] = [0, 0, 0] clut[140] = [0, 0,255] clut[141] = [0, 51, 0] clut[142] = [0, 51,255] clut[143] = [0,102, 0] clut[144] = [0,102,255] clut[145] = [0,153, 0] clut[146] = [0,153,255] clut[147] = [0,204, 0] clut[148] = [0,204,255] clut[149] = [0,255, 0] clut[150] = [0,255,255] clut[151] = [85, 0, 0] clut[152] = [85, 0,255] clut[153] = [85, 51, 0] clut[154] = [85, 51,255]	clut[155] = [85,102, 0] clut[156] = [85,102,255] clut[157] = [85,153, 0] clut[158] = [85,153,255] clut[159] = [85,204, 0] clut[160] = [85,204,255] clut[161] = [85,255, 0] clut[162] = [85,255,255] clut[163] = [170, 0, 0] clut[164] = [170, 0,255] clut[165] = [170, 51, 0] clut[166] = [170, 51,255] clut[167] = [170,102, 0] clut[168] = [170,102,255] clut[169] = [170,153, 0] clut[170] = [170,153,255]	clut[171] = [170,204, 0] clut[172] = [170,204,255] clut[173] = [170,255, 0] clut[174] = [170,255,255] clut[175] = [255, 0, 0] clut[176] = [255, 0,255] clut[177] = [255, 51, 0] clut[178] = [255, 51,255] clut[179] = [255,102, 0] clut[180] = [255,102,255] clut[181] = [255,153, 0] clut[182] = [255,153,255] clut[183] = [255,204, 0] clut[184] = [255,204,255] clut[185] = [255,255, 0] clut[186] = [255,255,255]
100 % (fully transparent)	clut[187] = [x, x, x], where x indicates "don't care".		
Privately definable	clut[188] : reserved for private use : clut[255] : reserved for private use		

Annex C
(normative)

Table of predefined themes

Table C.1 – Predefined themes

Implicit subject area	Theme	Identifier value
None	Reserved	0×0000
	Index	0×0001
(5 MSBs = 0×00)		
	Reserved for future use	0×0002 – 0×7FF
News	News (top level)	0×0800
	Index	0×0801
(5 MSBs = 0×01)	General	0×0802
	National	0×0803
	International	0×0804
	Short stories	0×0805
	Public affairs	0×0806
	Domestic affairs	0×0807
	Legal and social affairs	0×0808
	Cultural affairs	0×0809
	Educational affairs	0×080A
	Communication affairs	0×080B
	International relations	0×080C
	Defence	0×080D
	Housing	0×080E
	Environment	0×080F
	Health	0×0810
	Science	0×0811
	Technology	0×0812
	Reserved for future use	00813 – 0x0FFF
Politics	Politics (top level)	0×1000
	Index	0×1001
(5 MSBs = 0×02)	News general	0×1002
	Special	0×1003
	National	0×1004
	International	0×1005
	Short stories	0×1006
	Reserved for future use	0×1007 – 0×17FF

Implicit subject area	Theme	Identifier value
Finance	Finance (top level)	0×1800
	Index	0×1801
(5 MSBs = 0×03)	News general	0×1802
	Special	0×1803
	National	0×1804
	International	0×1805
	Short stories	0×1806
	Stocks and shares	0×1807
	Exchange rates	0×1808
	Reserved for future use	0×1809 – 0×1FFF
Weather	Weather (top level)	0×2000
	Index	0×2001
(5 MSBs = 0×04)	Conditions	0×2002
	Forecast	0×2003
	Warnings	0×2004
	Reserved for future use	0×2005 – 0×27FF
Sport	Sport (top level)	0×2800
	Index	0×2801
(5 MSBs = 0x05)	News general	0×2802
	Special	0×2803
	National	0×2804
	International	0×2805
	Short stories	0×2806
	Results	0×2807
	Tables	0×2808
	Football	0×2809
	Handball	0×280A
	Basketball	0×280B
	Hockey	0x280C
	Ice hockey	0×280D
	Golf	0×280E
	Horse racing	0×280F
	Volleyball	0×2810
	Tennis	0×2811
	NBA	0×2812
	NFL	0×2813
	NHL	0×2814

Implicit subject area	Theme	Identifier value
	Formula 1	0×2815
	Motor sports	0x2816
	Winter sports	0x2817
	Water sports	0x2818
	Cycling	0x2819
	Boxing	0x281A
	Athletics	0x281B
	Equestrian	0x281C
	Martial arts	0x281D
	Local	0x281E
	Reserved for future use	0x281F – 0x2FFF
TV and radio	TV and radio (top level)	0x3000
	Index	0x3001
(5 MSBs = 0x06)	Current program	0x3002
	"Now and next"	0x3003
	TV listings	0x3006
	Radio listings	0x3007
TV and radio/movie	Movie (general)	0x3010
	Detective/thriller	0x3011
	Adventure/western/war	0x3012
	Science fiction/fantasy/horror	0x3013
	Comedy	0x3014
	Soap/melodrama/folklore	0x3015
	Romance	0x3016
	Serious/classical/religious/historical drama	0x3017
	Adult movie	0x3018
	Reserved for future use	0x3019 – 0x301F
TV and radio/news	News/current affairs (general)	0x3020
	News/weather report	0x3021
	News magazine	0x3022
	Documentary	0x3023
	Discussion/interview/debate	0x3024
	Social/political issues/economics (general)	0x3025
	Magazines/reports/documentary	0x3026
	Economics/social advisory	0x3027
	Remarkable people	0x3028
	Reserved for future use	0x3029- 0x302F

Implicit subject area	Theme	Identifier value
TV and radio/show	Show/game show (general)	0x3030
	Game show/quiz/contest	0x3031
	Variety show	0x3032
	Talk show	0x3033
	Leisure hobbies (general)	0x3034
	Tourism/travel	0x3035
	Handicraft	0x3036
	Motoring	0x3037
	Fitness and health	0x3038
	Cooking	0x3039
	Advertisement/shopping	0x303A
	Reserved for future use	0x303B- 0x303E
	Alarm/emergency identification	0x303F
TV and radio/sports	Sports (general)	0x3040
	Special events (Olympic Games, World Cup, etc.)	0x3041
	Sports magazines	0x3042
	Football/soccer	0x3043
	Tennis/squash	0x3044
	Team sports (excluding football)	0x3045
	Athletics	0x3046
	Motor sport	0x3047
	Water sport	0x3048
	Winter sports	0x3049
	Equestrian	0x304A
	Martial sports	0x304B
	Local sports	0x304C
	Reserved for future use	0x304D- 0x304F
TV and radio/children	Children's/youth programs (general)	0x3050
	Pre-school children's programs	0x3051
	Entertainment programs for 6 to 14	0x3052
	Entertainment programs for 10 to 16	0x3053
	Informational/educational/school programs	0x3054
	Cartoons/puppets	0x3055
	Education/science/factual topics (general)	0x3056
	Nature/animals/environment	0x3057

Implicit subject area	Theme	Identifier value
	Technology/natural sciences	0x3058
	Medicine/physiology/psychology	0x3059
	Foreign countries/expeditions	0x305A
	Social/spiritual sciences	0x305B
	Further education	0x305C
	Languages	0x305D
	Reserved for future use	0x305E- 0x305F
TV and radio/music	Music/ballet/dance (general)	0x3060
	Rock/pop	0x3061
	Serious music/classical music	0x3062
	Folk/traditional music	0x3063
	Jazz	0x3064
	Musical/opera	0x3065
	Ballet	0x3066
	Reserved for future use	0x3067– 0x306F
TV and radio/arts	Arts/culture (without music, general)	0x3070
	Performing arts	0x3071
	Fine arts	0x3072
	Religion	0x3073
	Popular culture/traditional arts	0x3074
	Literature	0x3075
	Film/cinema	0x3076
	Experimental film/video	0x3077
	Broadcasting/press	0x3078
	New media	0x3079
	Arts/culture magazines	0x307A
	Fashion	0x307B
	Reserved for future use	0x307C – 0x37FF
Lifestyle	Lifestyle (top level)	0x3800
	Index	0x3801
(5 MSBs = 0x07)	Tips/trends	0x3802
	Finance/law	0x3803
	Computer – software	0x3804
	Computer – hardware	0x3805
	Computer – PC Games	0x3806
	Pets	0x3807
	Cars	0x3808

Implicit subject area	Theme	Identifier value
	Children	0x3809
	Health	0x380A
	Recipes	0x380B
	Communications	0x380C
	Satellite	0x380D
	Multimedia	0x380E
	Internet	0x380F
	Games	0x3810
	Dating	0x3811
	Horoscope	0x3812
	Betting	0x3813
	Contacts	0x3814
	Lottery	0x3815
	Reserved for future use	0x3816 – 0x3FFF
Entertainment	Entertainment (top level)	0x4000
	Index	0x4001
(5 MSBs = 0x08)	General	0x4002
	Music – news general	0x4003
	Music – charts	0x4004
	Music – tips	0x4005
	Music – tours	0x4006
	Music – latest release	0x4007
	Cinema – news general	0x4008
	Cinema – charts	0x4009
	Cinema – tips	0x400A
	Cinema – tours	0x400B
	Cinema – latest release	0x400C
	Video – news general	0x400D
	Video – charts	0x400E
	Video – tips	0x400F
	Video – tours	0x4010
	Video – latest release	0x4011
	Reserved for future use	0x4012 – 0x47FF
Travel	Travel (top level)	0x4800
	Index	0x4801
(5 MSBs = 0x09)	Special	0x4802
	National	0x4803
	International	0x4804

Implicit subject area	Theme	Identifier value
	Short stories	0x4805
	Roads	0x4806
	Railways	0x4807
	Airlines	0x4808
	Airports	0x4809
	Ferries	0x480A
	Holidays	0x480B
	Reserved for future use	0x480C – 0x4FFF
Children	Children (top level)	0x5000
	Index	0x5001
(5 MSBs = 0x0A)		
	Reserved for future use	0x5002 – 0x57FF
"Topic 11"	"Topic 11" (top level)	0x5800
(Service provider defined)	Index	0x5801
(5 MSBs = 0x0B)	Reserved for future use	0x5802 – 0x5FFF
"Topic 12"	"Topic 12" (top level)	0x6000
(Service provider defined)	Index	0x6001
(5 MSBs = 0x0C)	Reserved for future use	0x6002 – 0x67FF
"Topic 31"	"Topic 31" (top level)	0xF700
(Service provider defined)	Index	0xF701
(5 MSBs = 0x1F)	Reserved for future use	0xF702 – 0xFFFF

Annex D
(informative)

TeleWeb document type definition (DTD)

```
<!SGML  "ISO 8879:1986"

    --  SGML Declaration for TeleWeb Superteletext Profile Documents            --
    --  For downloading this DTD, see Annex G                                   --

    CHARSET
        BASESET "ISO 646:1983//CHARSET
                 International Reference Version
                 (IRV)//ESC 2/5 4/0"
        DESCSET 0       9       UNUSED
                9       2       9
                11      2       UNUSED
                13      1       13
                14      18      UNUSED
                32      95      32
                127     1       UNUSED
        BASESET "ISO Registration Number 100//CHARSET
                 ECMA-94 Right Part of
                 Latin Alphabet Nr. 1//ESC 2/13 4/1"
        DESCSET 128     32      UNUSED
                160     96      32
                55296   2048    UNUSED  -- Unicode Surrogate Area    --
                57344   7936    UNUSED  -- Unicode Private Use Area  --
                65280   240     32
                65520   14      UNUSED  -- Unicode Special           --
                65534   1       UNUSED  -- Unicode Byte-Order Marker --
                65535   1       UNUSED  -- Unicode Not-A-Character   --

    CAPACITY    SGMLREF
                TOTALCAP        150000
                GRPCAP          150000
                ENTCAP          150000

    SCOPE   DOCUMENT
    SYNTAX
        SHUNCHAR CONTROLS
             0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15
            16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 127
        BASESET "ISO 646:1983//CHARSET
                 International Reference Version
                (IRV)//ESC 2/5 4/0"
        DESCSET 0       128     0

        FUNCTION
                RE          13
                RS          10
                SPACE       32
                TAB SEPCHAR  9

        NAMING  LCNMSTRT    ""
                UCNMSTRT    ""
                LCNMCHAR    ".-:_"
                UCNMCHAR    ".-:_"
                NAMECASE    GENERAL YES
                            ENTITY  NO
        DELIM   GENERAL     SGMLREF
                HCRO        "&#38;#x"   -- 4.0 extension --
                SHORTREF    SGMLREF
        NAMES   SGMLREF
        QUANTITY SGMLREF
                ATTCNT      60
                ATTSPLEN    65535
                LITLEN      65535
                NAMELEN     65535
                PILEN       65535
                TAGLVL      100
                TAGLEN      65535
                GRPGTCNT    150
                GRPCNT      64
```

```
    FEATURES
        MINIMIZE
            DATATAG  NO
            OMITTAG  YES
            RANK     NO
            SHORTTAG NO
        LINK
            SIMPLE   NO
            IMPLICIT NO
            EXPLICIT NO
        OTHER
            CONCUR   NO
            SUBDOC   NO
            FORMAL   YES
        APPINFO      NONE
>

<!ENTITY  % TeleWeb.version "Profile 1">

<!--====================== Parameter Entities ======================-->

<!ENTITY  % head.misc "SCRIPT | STYLE | LINK" >
<!ENTITY  % heading  "H1 | H2 | H3 | H4 | H5 | H6" >
<!ENTITY  % list     "UL | OL | DIR | MENU" >
<!ENTITY  % preformatted "PRE" >

<!--============================ Types ============================-->

<!ENTITY  % Border   "NUMBER"    -- pixels, but BORDER means BORDER=1 -->
<!ENTITY  % Color    "CDATA"     -- color specification: #RRGGBB      -->
<!ENTITY  % FontSize "CDATA"     -- [+]nn, e.g. size="+1", size=4     -->
<!ENTITY  % Length   "CDATA"     -- n for pixels or n % for percent    -->
<!ENTITY  % LiStyle  "CDATA"     -- constraint: "( %ULStyle| %OLStyle)" -->
<!ENTITY  % LinkType "CDATA"     -- see LINK element comment          -->
<!ENTITY  % OlStyle  "CDATA"     -- constrained to [laAiI]            -->
<!ENTITY  % Pixels   "NUMBER"    -- integer, length in pixels         -->
<!ENTITY  % URL      "CDATA"     -- uniform resource locator          -->
<!ENTITY  % UlStyle  "(disc | square | circle)"    -- bullet styles   -->
<!ENTITY  % AccessKey "CDATA"    -- [0123456789RGBY]i                 -->
<!ENTITY  % Transparency "NUMBER"    -- 0 .. 100 %                    -->


<!--================ Character Mnemonic Entities ====================-->

<!-- Portions (C) International Organization for Standardization 1986-->
<!-- Permission to copy in any form is granted for use with          -->
<!-- conforming SGML systems and applications as defined in          -->
<!-- ISO 8879, provided this notice is included in all copies.       -->

<!ENTITY nbsp   CDATA " " -- no-break space                     -->
<!ENTITY iexcl  CDATA "&#161;" -- inverted exclamation mark          -->
<!ENTITY cent   CDATA "&#162;" -- cent sign                          -->
<!ENTITY pound  CDATA "&#163;" -- pound sterling sign                -->
<!ENTITY curren CDATA "&#164;" -- general currency sign              -->
<!ENTITY yen    CDATA "&#165;" -- yen sign = yuan sign               -->
<!ENTITY brvbar CDATA "&#166;" -- broken (vertical) bar              -->
<!ENTITY sect   CDATA "&#167;" -- section sign                       -->
<!ENTITY uml    CDATA "&#168;" -- umlaut (dieresis)                  -->
<!ENTITY copy   CDATA "&#169;" -- copyright sign                     -->
<!ENTITY ordf   CDATA "&#170;" -- ordinal indicator, feminine        -->
<!ENTITY laquo  CDATA "&#171;" -- angle quotation mark, left         -->
<!ENTITY not    CDATA "&#172;" -- not sign                           -->
<!ENTITY shy    CDATA "&#173;" -- soft hyphen                        -->
<!ENTITY reg    CDATA "&#174;" -- registered sign                    -->
<!ENTITY macr   CDATA "&#175;" -- macron                             -->
<!ENTITY deg    CDATA "&#176;" -- degree sign                        -->
<!ENTITY plusmn CDATA "&#177;" -- plus-or-minus sign                 -->
<!ENTITY sup2   CDATA "&#178;" -- superscript two                    -->
<!ENTITY sup3   CDATA "&#179;" -- superscript three                  -->
<!ENTITY acute  CDATA "&#180;" -- acute accent                       -->
<!ENTITY micro  CDATA "&#181;" -- micro sign                         -->
<!ENTITY para   CDATA "&#182;" -- pilcrow (paragraph sign)           -->
<!ENTITY middot CDATA "&#183;" -- middle dot                         -->
<!ENTITY cedil  CDATA "&#184;" -- cedilla                            -->
<!ENTITY sup1   CDATA "&#185;" -- superscript one                    -->
<!ENTITY ordm   CDATA "&#186;" -- ordinal indicator, masculine       -->
<!ENTITY raquo  CDATA "&#187;" -- angle quotation mark, right        -->
<!ENTITY frac14 CDATA "&#188;" -- fraction one-quarter               -->
```

```
<!ENTITY frac12 CDATA "&#189;" -- fraction one-half                -->
<!ENTITY frac34 CDATA "&#190;" -- fraction three-quarters          -->
<!ENTITY iquest CDATA "&#191;" -- inverted question mark           -->
<!ENTITY Agrave CDATA "&#192;" -- capital A, grave accent          -->
<!ENTITY Aacute CDATA "&#193;" -- capital A, acute accent          -->
<!ENTITY Acirc  CDATA "&#194;" -- capital A, circumflex accent     -->
<!ENTITY Atilde CDATA "&#195;" -- capital A, tilde                 -->
<!ENTITY Auml   CDATA "&#196;" -- capital A, dieresis or umlaut mark -->
<!ENTITY Aring  CDATA "&#197;" -- capital A, ring                  -->
<!ENTITY AElig  CDATA "&#198;" -- capital AE diphthong (ligature)  -->
<!ENTITY Ccedil CDATA "&#199;" -- capital C, cedilla               -->
<!ENTITY Egrave CDATA "&#200;" -- capital E, grave accent          -->
<!ENTITY Eacute CDATA "&#201;" -- capital E, acute accent          -->
<!ENTITY Ecirc  CDATA "&#202;" -- capital E, circumflex accent     -->
<!ENTITY Euml   CDATA "&#203;" -- capital E, dieresis or umlaut mark -->
<!ENTITY Igrave CDATA "&#204;" -- capital I, grave accent          -->
<!ENTITY Iacute CDATA "&#205;" -- capital I, acute accent          -->
<!ENTITY Icirc  CDATA "&#206;" -- capital I, circumflex accent     -->
<!ENTITY Iuml   CDATA "&#207;" -- capital I, dieresis or umlaut mark -->
<!ENTITY ETH    CDATA "&#208;" -- capital Eth, Icelandic           -->
<!ENTITY Ntilde CDATA "&#209;" -- capital N, tilde                 -->
<!ENTITY Ograve CDATA "&#210;" -- capital O, grave accent          -->
<!ENTITY Oacute CDATA "&#211;" -- capital O, acute accent          -->
<!ENTITY Ocirc  CDATA "&#212;" -- capital O, circumflex accent     -->
<!ENTITY Otilde CDATA "&#213;" -- capital O, tilde                 -->
<!ENTITY Ouml   CDATA "&#214;" -- capital O, dieresis or umlaut mark -->
<!ENTITY times  CDATA "&#215;" -- multiply sign                    -->
<!ENTITY Oslash CDATA "&#216;" -- capital O, slash                 -->
<!ENTITY Ugrave CDATA "&#217;" -- capital U, grave accent          -->
<!ENTITY Uacute CDATA "&#218;" -- capital U, acute accent          -->
<!ENTITY Ucirc  CDATA "&#219;" -- capital U, circumflex accent     -->
<!ENTITY Uuml   CDATA "&#220;" -- capital U, dieresis or umlaut mark -->
<!ENTITY Yacute CDATA "&#221;" -- capital Y, acute accent          -->
<!ENTITY THORN  CDATA "&#222;" -- capital THORN, Icelandic         -->
<!ENTITY szlig  CDATA "&#223;" -- small sharp s, German sz ligature  -->
<!ENTITY agrave CDATA "&#224;" -- small a, grave accent            -->
<!ENTITY aacute CDATA "&#225;" -- small a, acute accent            -->
<!ENTITY acirc  CDATA "&#226;" -- small a, circumflex accent       -->
<!ENTITY atilde CDATA "&#227;" -- small a, tilde                   -->
<!ENTITY auml   CDATA "&#228;" -- small a, dieresis or umlaut mark   -->
<!ENTITY aring  CDATA "&#229;" -- small a, ring                    -->
<!ENTITY aelig  CDATA "&#230;" -- small ae diphthong (ligature)    -->
<!ENTITY ccedil CDATA "&#231;" -- small c, cedilla                 -->
<!ENTITY egrave CDATA "&#232;" -- small e, grave accent            -->
<!ENTITY eacute CDATA "&#233;" -- small e, acute accent            -->
<!ENTITY ecirc  CDATA "&#234;" -- small e, circumflex accent       -->
<!ENTITY euml   CDATA "&#235;" -- small e, dieresis or umlaut mark   -->
<!ENTITY igrave CDATA "&#236;" -- small i, grave accent            -->
<!ENTITY iacute CDATA "&#237;" -- small i, acute accent            -->
<!ENTITY icirc  CDATA "&#238;" -- small i, circumflex accent       -->
<!ENTITY iuml   CDATA "&#239;" -- small i, dieresis or umlaut mark   -->
<!ENTITY eth    CDATA "&#240;" -- small eth, Icelandic            -->
<!ENTITY ntilde CDATA "&#241;" -- small n, tilde                  -->
<!ENTITY ograve CDATA "&#242;" -- small o, grave accent           -->
<!ENTITY oacute CDATA "&#243;" -- small o, acute accent           -->
<!ENTITY ocirc  CDATA "&#244;" -- small o, circumflex accent      -->
<!ENTITY otilde CDATA "&#245;" -- small o, tilde                  -->
<!ENTITY ouml   CDATA "&#246;" -- small o, dieresis or umlaut mark   -->
<!ENTITY divide CDATA "&#247;" -- divide sign                     -->
<!ENTITY oslash CDATA "&#248;" -- small o, slash                  -->
<!ENTITY ugrave CDATA "&#249;" -- small u, grave accent           -->
<!ENTITY uacute CDATA "&#250;" -- small u, acute accent           -->
<!ENTITY ucirc  CDATA "&#251;" -- small u, circumflex accent      -->
<!ENTITY uuml   CDATA "&#252;" -- small u, dieresis or umlaut mark   -->
<!ENTITY yacute CDATA "&#253;" -- small y, acute accent           -->
<!ENTITY thorn  CDATA "&#254;" -- small thorn, Icelandic          -->
<!ENTITY yuml   CDATA "&#255;" -- small y, dieresis or umlaut mark   -->

<!--====================== Currency Symbols ==========================-->

<!ENTITY euro   CDATA "&#8364;"  -- euro sign                     -->

<!--================ Entities for Special Symbols ====================-->

<!ENTITY quot   CDATA "&#34;"  -- quotation mark                  -->
<!ENTITY QUOT   CDATA "&#34;"  -- quotation mark                  -->
<!ENTITY amp    CDATA "&#38;"  -- ampersand                       -->
<!ENTITY AMP    CDATA "&#38;"  -- ampersand                       -->
```

```
<!ENTITY lt     CDATA "&#60;"  -- less than                          -->
<!ENTITY LT     CDATA "&#60;"  -- less than                          -->
<!ENTITY gt     CDATA "&#62;"  -- greater than                       -->
<!ENTITY GT     CDATA "&#62;"  -- greater than                       -->


<!--======================== Text Markup ==========================-->

<!ENTITY  % font
    "TT | I | B  | U | STRIKE | BIG | SMALL | SUB | SUP | BLINK"
  >
<!ENTITY  % phrase
    "EM | STRONG | DFN | CODE | SAMP | KBD | VAR | CITE"
    >
<!ENTITY  % special
    "A | IMG | APPLET | FONT | BASEFONT | BR | SCRIPT | MAP"
    >
<!ENTITY  % text
    "#PCDATA |  %font |  %phrase |  %special"
    >

<!--============== Entities for Widely-Known Color Names ============-->

<!--  There are also 16 widely known color names:                    -->
<!--                                                                 -->
<!--      aqua, black, blue, fuchsia, gray, green, lime, maroon,     -->
<!--      navy, olive, purple, red, silver, teal, white, and yellow  -->
<!--                                                                 -->
<!--   These colors were originally picked as being the standard     -->
<!--   16 colors supported with the Windows VGA palette.             -->

<!ENTITY  % vgacolor
    "aqua | black | blue | fuchsia | gray | green | lime |
     maroon | navy | olive | purple | red | silver | teal |
     white | yellow"
     >

<!ENTITY  % stdcolor "( %vgacolor | grey)" >

<!ENTITY  % color " %stdcolor" >


<!ELEMENT ( %font| %phrase) – - ( %text)* >

<!-- NB: FONT contents promoted -->
<!ELEMENT FONT – - ( %body.content)* -- local change to font          -->
<!ATTLIST FONT
    size            %fontsize       #IMPLIED
    color           %Color          #IMPLIED
>

<!ELEMENT BASEFONT – O EMPTY    -- base font size (1 to 7)           -->
<!ATTLIST BASEFONT
    size     %fontsize   #IMPLIED    -- base font size               --
    color    %color      #IMPLIED    -- base font color               --
    >

<!ELEMENT BR    – O EMPTY       -- forced line break                 -->
<!ATTLIST BR
    clear   (left|all|right|none)   none -- control of text flow     --
    >

<!--===================== HTML content models ======================-->

<!-- HTML has three basic content models:                           -->
<!--                                                                -->
<!--   %text           character level elements and text strings     -->
<!--   %flow           block-like elements, e.g. paragraphs and lists -->
<!--   %body.content   as  %flow plus headers H1-H6 and ADDRESS       -->

<!ENTITY  % block
    "P |  %list |  %preformatted | DL | DIV | CENTER |
     BLOCKQUOTE | FORM | ISINDEX | HR | TABLE | MARQUEE"
    >

<!ENTITY  % flow "( %text |  %block)*" -- used for DD and LI           -->

<!--======================== Document Body ========================-->
```

```
<!ENTITY  % body.content "( %heading |  %text |  %block | ADDRESS)*" >

<!ELEMENT BODY O O   %body.content>
<!ATTLIST BODY
    background    %URL    #IMPLIED    -- tile for document background  --
    bgcolor       %Color  #IMPLIED    -- background color              --
    text          %Color  #IMPLIED    -- text color                    --
    link          %Color  #IMPLIED    -- link color                    --
    vlink         %Color  #IMPLIED    -- visited link color            --
    alink         %Color  #IMPLIED    -- active link color             --
    transparency  %Transparency  #IMPLIED
    leftmargin    %pixels #IMPLIED    -- left margin for whole page    --
    rightmargin   %pixels #IMPLIED    -- right margin for whole page   --
    topmargin     %pixels #IMPLIED    -- top margin for whole page     --
    bottommargin  %pixels #IMPLIED    -- bottom margin for whole page  --
    >

<!ENTITY  % address.content "(( %text;) | P)*" >

<!ELEMENT ADDRESS – -  %address.content >

<!ENTITY  % txtset   "(left | center | right | justify)" >

<!ELEMENT DIV – -  %body.content >
<!ATTLIST DIV
    align    %txtset #IMPLIED        -- alignment of following text   --
    >

<!ELEMENT CENTER – -  %body.content  -- short for DIV ALIGN=CENTER    -->

<!--====================== The Anchor Element ======================-->

<!ELEMENT A – - ( %text)* -(A) >
<!ATTLIST A
    name    CDATA       #IMPLIED    -- named link end               --
....id..    CDATA       #IMPLIED    -- named link end               --
    href     %URL        #IMPLIED    -- URL for linked resource      --
    rel      %linktype   #IMPLIED    -- forward link type            --
    rev      %linktype   #IMPLIED    -- reverse link type            --
    title   CDATA       #IMPLIED    -- advisory title string        --
....target (_SELF|_TOP) _SELF
    accesskey  %AccessKey #IMPLIED   -- function key navigation      --
    >

<!--=================== Client-Side Image Maps ====================-->
<!-- These must be placed in the same document.                    -->

<!ENTITY  % Shape    "(rect | circle | poly)" >
<!ENTITY  % Coords   "CDATA"       -- comma separated list of numbers -->

<!ELEMENT MAP – - (AREA)* >
<!ATTLIST MAP
    name        CDATA   #IMPLIED
    >

<!ELEMENT AREA – O EMPTY >
<!ATTLIST AREA
    shape        %shape   rect
....id..        CDATA    #IMPLIED    -- named link end               --
    coords       %coords  #IMPLIED    -- defines coordinates for shape --
    href         %URL     #IMPLIED    -- this region acts as link     --
    nohref     (nohref)  #IMPLIED    -- this region has no action    --
    alt          CDATA    #REQUIRED   -- for non-graphical user agents --
    accesskey  %AccessKey #IMPLIED    -- function key navigation      --
    >

<!--====================== The Link Element ======================-->

<!ELEMENT LINK – O EMPTY >
<!ATTLIST LINK
    href     %URL        #IMPLIED    -- URL for linked resource      --
    rel      %linktype   #IMPLIED    -- forward link type            --
    rev      %linktype   #IMPLIED    -- reverse link type            --
    title   CDATA       #IMPLIED    -- advisory title string        --
>

<!--========================== Images ==========================-->
```

```
<!--  Suggested widths are used for negotiating image size          -->
<!--  with the module responsible for painting the image.           -->
<!--  ALIGN=LEFT or RIGHT cause image to float to margin            -->
<!--  and for subsequent text to wrap around image.                 -->

<!ENTITY  % IAlign
    "( absbottom | absmiddle | baseline | bottom |
       center | middle | right | top)" >


<!ELEMENT IMG    – O EMPTY          -- Embedded image               -->
<!ATTLIST IMG
    src          %URL    #REQUIRED   -- URL of image to embed        --
    lowsrc       %URL    #IMPLIED    -- URL of image placeholder     --
    alt         CDATA   #IMPLIED    -- for display in place of image --
    align        %IAlign #IMPLIED    -- vertical or horiz. alignment  --
    height       %Pixels #IMPLIED    -- suggested height in pixels    --
    width        %Pixels #IMPLIED    -- suggested width in pixels     --
    border       %Border #IMPLIED    -- suggested link border width   --
    hspace       %Pixels #IMPLIED    -- suggested horizontal gutter   --
    vspace       %Pixels #IMPLIED    -- suggested vertical gutter     --
    usemap       %URL    #IMPLIED    -- use client-side image map     --
    ismap       (ismap) #IMPLIED    -- use server image map          --
    transparency     %Transparency   #IMPLIED
    >
<!--  USEMAP points to a MAP element which may be in this document   -->
<!--  or, though not widely supported, in an external document.      -->

<!--======================== Java APPLET tag ==========================-->
<!--  This tag is not supported by TeleWeb browsers, but proper      -->
<!--  parsing can only be achieved by recognising the expected       -->
<!--  syntax.                                                        -->

<!ELEMENT APPLET – - (PARAM |  %text)* >

<!ELEMENT PARAM – O EMPTY >

<!--======================== Horizontal Rule ==========================-->

<!ELEMENT HR    – O EMPTY >
<!ATTLIST HR
    align       (left|right|center) #IMPLIED
    noshade     (noshade)   #IMPLIED
    size         %Pixels     #IMPLIED
    width        %Length     #IMPLIED
    color        %Color      #IMPLIED
    >

<!--========================== Paragraph ============================-->

<!ELEMENT P     – O ( %text)* >
<!ATTLIST P
    align        %txtset     #IMPLIED
    >

<!--========================== Headings ============================-->
<!--  There are six levels of headers from H1 (the most important)   -->
<!--  to H6 (the least important).                                   -->

<!ELEMENT (  %heading )  – -  ( %text;)* >
<!ATTLIST (  %heading )
    align        %txtset     #IMPLIED
    >

<!--======================== Preformatted Text ========================-->

<!-- excludes images and changes in font size                        -->
<!ENTITY  % pre.exclusion "IMG | BIG | SMALL | SUB | SUP | FONT" >

<!ELEMENT PRE – - ( %text)* -( %pre.exclusion) >
<!ATTLIST PRE
    width       NUMBER      #IMPLIED
    >

<!--======================== Block-like Quotes ========================-->

<!ELEMENT BLOCKQUOTE – -  %body.content >
```

```
<!--============================  Lists ================================-->
<!--  HTML 3.2 lets you control the sequence number for ordered      -->
<!--  lists.  You can set the sequence number with the START and     -->
<!--  VALUE attributes.  The TYPE attribute may be used to specify   -->
<!--  the rendering of ordered and unordered lists.                  -->

<!-- Definition lists – DT for term, DD for its definition           -->
<!ELEMENT DL    – -  (DT|DD)+ >
<!ATTLIST DL
    compact     (compact) #IMPLIED  -- more compact style           --
    >

<!ELEMENT DT – O  ( %text)* >
<!ELEMENT DD – O   %flow; >

<!-- Ordered lists OL, and unordered lists UL                        -->
<!ELEMENT (OL|UL) – -  (LI)+ >

<!--  Numbering style                                                -->
<!--    1   Arabic numbers      1, 2, 3, ...                         -->
<!--    a   lower alpha         a, b, c, ...                         -->
<!--    A   upper alpha         A, B, C, ...                         -->
<!--    i   lower Roman         i, ii, iii, ...                      -->
<!--    I   upper Roman         I, II, III, ...                      -->
<!--                                                                 -->
<!--  The style is applied to the sequence number which by default   -->
<!--  is reset to 1 for the first list item in an ordered list.      -->
<!--                                                                 -->
<!--  This can't be expressed directly in SGML due to case folding.  -->

<!ATTLIST OL                            -- Ordered Lists            --
    type         %OLStyle    #IMPLIED    -- numbering style          --
    start       NUMBER      #IMPLIED    -- starting sequence number --
    compact     (compact)   #IMPLIED    -- reduced interitem spacing --
    >

<!ATTLIST UL                            -- Unordered Lists          --
    type         %ULStyle    #IMPLIED    -- bullet style             --
    compact     (compact)   #IMPLIED    -- reduced interitem spacing --
    >

<!ELEMENT (DIR|MENU) – -  (LI)+ -( %block) >
<!ATTLIST DIR
    compact     (compact)   #IMPLIED
    >
<!ATTLIST MENU
    compact     (compact)   #IMPLIED
    >


<!--  The type attribute can be used to change the bullet style     -->
<!--  in unordered lists and the numbering style in ordered lists    -->

<!ELEMENT LI – O  %flow                  -- list item                -->
<!ATTLIST LI
    type         %LIStyle    #IMPLIED    -- list item style          --
    value       NUMBER      #IMPLIED    -- reset sequence number    --
    >

<!--================ Forms ===============================================-->
<!—- This tag is not supported by TeleWeb Superteletext Profile browsers        -->
<!—- The whole content of form elements must be ignored.            -->

<!ELEMENT FORM – -  %body.content -(FORM) >

<!--============================ Tables ================================-->
<!-- Widely deployed subset of the full table standard, see RFC 1942 -->
<!-- e.g., at http://www.ics.uci.edu/pub/ietf/html/rfc1942.txt       -->

<!-- horizontal placement of table relative to window                -->
<!ENTITY  % Where        "(left | center | right)" >

<!-- horizontal alignment attributes for cell contents               -->
<!ENTITY  % cell.halign  "align   %txtset #IMPLIED" >

<!-- vertical alignment attributes for cell contents                 -->
<!ENTITY  % cell.valign  "valign (top | middle | bottom)  #IMPLIED" >
```

```
<!ELEMENT TABLE     – - (CAPTION?, TR+) >
<!ELEMENT TR        – O (TH|TD)* >
<!ELEMENT (TH|TD)   – O  %body.content >

<!ATTLIST TABLE                          -- Table Element             --
    align            %Where  #IMPLIED    -- table position in window  --
    width            %Length #IMPLIED    -- table width in window     --
    height           %Pixels #IMPLIED    -- table height in pixels    --
    border           %Border #IMPLIED    -- frame width around table  --
    cellspacing      %Pixels #IMPLIED    -- spacing between cells     --
    cellpadding      %Pixels #IMPLIED    -- spacing within cells      --
    bgcolor          %Color  #IMPLIED    -- background color          --
    background       %URL    #IMPLIED    -- background image          --
    transparency     %Transparency   #IMPLIED
    >

<!ELEMENT CAPTION – - ( %text;)*         -- table or figure caption   -->
<!ATTLIST CAPTION
    align   (top|bottom|left|center|right)  #IMPLIED
    valign  (top|bottom)                    #IMPLIED
    >

<!ATTLIST TR                         -- table row                     --
     %cell.halign                     -- horizontal alignment in cells --
     %cell.valign                     -- vertical alignment in cells   --
    bgcolor      %Color  #IMPLIED    -- background color              --
    transparency     %Transparency   #IMPLIED
    >

<!ATTLIST (TH|TD)                    -- header or data cell           --
    nowrap      (nowrap) #IMPLIED    -- suppress word wrap            --
    rowspan     NUMBER      1        -- number of rows spanned        --
    colspan     NUMBER      1        -- number of cols spanned        --
     %cell.halign                     -- horizontal alignment in cell  --
     %cell.valign                     -- vertical alignment in cell    --
    width        %Pixels #IMPLIED    -- suggested width for cell      --
    height       %Pixels #IMPLIED    -- suggested height for cell     --
    bgcolor      %Color  #IMPLIED    -- background color              --
    background   %URL    #IMPLIED    -- background image              --
    transparency     %Transparency   #IMPLIED
    >

<!--======================== Document Head ============================-->

<!--  %head.misc defined earlier on as "SCRIPT|STYLE|LINK"            -->

<!ENTITY  % head.content "TITLE &amp; ISINDEX? &amp; BASE?" >

<!ELEMENT HEAD O O  ( %head.content) +( %head.misc) >

<!--  The TITLE element is not part of the flow of text.  It should  -->
<!--  be displayed, for example, as the page header or window title. -->

<!ELEMENT TITLE – - (#PCDATA)* -( %head.misc) >

<!ELEMENT ISINDEX – O EMPTY >

<!--  The BASE element gives an absolute URL for dereferencing       -->
<!--  relative URLs.                                                 -->
<!--                                                                 -->
<!--  In the absence of a BASE element the document URL should be    -->
<!--  used.  Note that this is not necessarily the same as the URL   -->
<!--  used to request the document, as the base URL may be           -->
<!--  overridden by an HTTP header accompanying the document.        -->

<!ELEMENT BASE – O EMPTY >
<!ATTLIST BASE
    href     %URL  #REQUIRED
    >

<!-- SCRIPT/STYLE are place holders for transition to Profile 2    -->

<!ELEMENT STYLE  – - CDATA -- placeholder for style info            -->
<!ELEMENT SCRIPT – - CDATA -- placeholder for script statements     -->

<!--====================== Document Structure =======================-->
```

```
<!ENTITY  % attr.version "VERSION CDATA #FIXED ' %TeleWeb.version;'" >

<!ENTITY  % html.content "HEAD, BODY" >

<!ELEMENT HTML O O  ( %html.content) >

<!--====================== TeleWeb Extensions =======================-->

<!ELEMENT MARQUEE – - (#PCDATA | FONT |  %font)* >

<!--  Note: a marquee cannot contain anchors, images, scripts, maps  -->
<!--  or other inappropriate elements.  It can only contain text and -->
<!--  font requests.                                                  -->

<!ATTLIST MARQUEE
    behavior        (alternate | scroll | slide)    scroll
    bgcolor          %Color      #IMPLIED
    direction       (left | right | up | down)      #IMPLIED
    height           %Length     #IMPLIED
    hspace           %Pixels     0
    loop            NUMBER      1
    scrollamount     %Pixels     3
    scrolldelay     NUMBER      16 -- ms --
    transparency     %Transparency   #IMPLIED
    vspace           %Pixels     0
    width            %Length     #IMPLIED
    >

<!--                            The End                             -->
```

Annex E
(informative)

TeleWeb default CSS2 style sheet

TeleWeb does not support style sheets. The style sheet is used here as syntax to describe the default behaviour.

The following style sheet describes the default style sheet for TeleWeb. Browsers that do not support the italic font style should use the plain style instead.

```
A:link    IMG
           { border-width:  0px;
             border-style:  solid;
             solid border-color: blue }

A:visited IMG
           { border-width:  0px;
             border-style:  solid;
             border-color:  blue }

A:active  IMG
           { border-width:  0px;
             border-style:  solid;
             border-color:  blue }

ADDRESS    { font-style:    italic }

B          { font-weight:   bolder }

BIG        { font-size:     larger }

BLOCKQUOTE { margin-left:   35px;
             margin-right:  35px }

BODY       { margin-left:   9px;
             margin-right:  9px;
             margin-top  : 15px;
             margin-bottom 15px;
             font-family:   proportional;
             font-size:     small;
             font-style:    normal;
             font-weight:   normal;
             background:    #D4D4D4;
             color:         black }

CAPTION    { margin-bottom: 10px }

CENTER     { text-align:    center }

CITE       { font-style:    italic }

CODE       { font-family:   monospace }

DD         { margin-left:   50px }

DFN        { font-family:   italic }
```

```
DIV         { }

DIR         { list-style:    disc }

DT          { }

EM          { font-style:    italic }

H1          { margin-top:    15px;
              margin-bottom: 15px;
              font-size:     x-large;
              font-weight:   bold }

H2          { margin-top:    15px;
              margin-bottom: 15px;
              font-size:     large;
              font-weight:   bold }

H3          { margin-top:    15px;
              margin-bottom: 15px;
              font-size:     medium;
              font-weight:   bold }

H4          { margin-top:    15px;
              margin-bottom: 15px;
              font-size:     small;
              font-weight:   bold }

H5          { margin-top:    15px;
              margin-bottom: 15px;
              font-size:     x-small;
              font-weight:   bold }

H6          { margin-top:    15px;
              margin-bottom: 15px;
              font-size:     xx-small;
              font-weight:   bold }

HR          { margin-top:    6px;
              margin-bottom: 6px;
              text-align:    center;
              border-top-color:    #555555;
              border-right-color:  #AAAAAA;
              border-bottom-color: #AAAAAA;
              border-left-color:   #555555 }

I           { font-style:    italic }

KBD          { font-family:  monospace }

LI           { margin-left:  35px }

MENU         { }

OL           { list-style:   decimal;
               margin-top:   0px }

P            { margin-top:   18px;
               margin-bottom: 18px }
```

```
PRE         { margin-top:   18px;
              margin-bottom: 18px;
              font-family:  monospace;
              white-space:  pre }

SAMP        { font-family:  monospace }

SMALL       { font-size:    smaller }

STRIKE      { text-decoration: line-through }

STRONG      { font-weight:  bolder }

SUB         { vertical-align: sub }

SUP         { vertical-align: super }

TD          { vertical-align: middle;
              text-align:   left }

TH          { vertical-align: middle;
              font-weight:  bolder;
              text-align:   center }

TT          { font-family:  monospace }

U           { text-decoration: underline }

UL          { list-style:   disc }

UL UL       { list-style:   circle }

UL UL UL    { list-style:   square }

VAR         { font-style:   italic }
```

Annex F
(normative)

Font metrics

The following tables define the metrics of all fonts. There is one proportional and one monospaced font each in five different sizes. For the proportional font, the advances of all glyphs are listed. For the monospaced font, the advances of all glyphs are equal. If bold or italics styles are supported, the same metrics as for the plain styles shall be used.

```
--------------------------------------------------------------------------------
Generic Name = sans-serif
Type         = Proportional
HTML Size    = 1, 2
Size         = 22 pixels
Ascent       = 17 pixels
Descent      =  5 pixels
Text Lines   = 22.9
Line Gap     = -1

Advances:

 32 ' '  6     33 '!'  6     34 '"'  8     35 '#' 16     36 '$' 11     37 ' %' 16
 38 '&' 12     39 '''  5     40 '('  8     41 ')'  8     42 '*'  7     43 '+' 13
 44 ','  5     45 '-'  7     46 '.'  5     47 '/'  7     48 '0' 11     49 '1' 11
 50 '2' 11     51 '3' 11     52 '4' 11     53 '5' 11     54 '6' 11     55 '7' 11
 56 '8' 11     57 '9' 11     58 ':'  5     59 ';'  5     60 '<' 12     61 '=' 11
 62 '>' 12     63 '?'  9     64 '@' 15     65 'A' 11     66 'B' 11     67 'C' 10
 68 'D' 12     69 'E' 10     70 'F'  9     71 'G' 11     72 'H' 12     73 'I'  5
 74 'J'  5     75 'K' 10     76 'L'  9     77 'M' 15     78 'N' 12     79 'O' 12
 80 'P' 11     81 'Q' 12     82 'R' 11     83 'S' 10     84 'T'  9     85 'U' 12
 86 'V' 11     87 'W' 15     88 'X' 10     89 'Y' 10     90 'Z' 10     91 '['  8
 92 '\'  7     93 ']'  8     94 '^' 11     95 '_'  8     96 '`' 10     97 'a'  9
 98 'b' 10     99 'c'  9    100 'd' 10    101 'e' 10    102 'f'  6    103 'g' 10
104 'h' 10    105 'i'  5    106 'j'  5    107 'k'  9    108 'l'  6    109 'm' 14
110 'n'  9    111 'o' 10    112 'p' 10    113 'q' 10    114 'r'  6    115 's'  8
116 't'  7    117 'u' 10    118 'v'  9    119 'w' 14    120 'x'  9    121 'y'  9
122 'z'  9    123 '{'  8    124 '|'  6    125 '}'  8    126 '~' 11
160 ' '  6    161 '¡'  6    162 '¢' 11    163 '£' 11    164 '¤' 11    165 '¥' 11
166 '¦'  6    167 '§' 10    168 '¨' 10    169 '©' 15    170 'ª'  9    171 '«'  9
172 '¬' 13    173 '-'  7    174 '®' 15    175 '¯'  8    176 '°'  8    177 '±' 10
178 '²'  9    179 '³'  9    180 '´' 10    181 'µ'  9    182 '¶' 12    183 '·'  5
184 '¸'  8    185 '¹'  9    186 'º'  9    187 '»'  9    188 '¼' 17    189 '½' 17
190 '¾' 17    191 '¿'  9    192 'À' 11    193 'Á' 11    194 'Â' 11    195 'Ã' 11
196 'Ä' 11    197 'Å' 11    198 'Æ' 16    199 'Ç' 10    200 'È' 10    201 'É' 10
202 'Ê' 10    203 'Ë' 10    204 'Ì'  5    205 'Í'  5    206 'Î'  5    207 'Ï'  5
208 'Ð' 12    209 'Ñ' 12    210 'Ò' 12    211 'Ó' 12    212 'Ô' 12    213 'Õ' 12
214 'Ö' 13    215 '×' 13    216 'Ø' 13    217 'Ù' 12    218 'Ú' 12    219 'Û' 12
220 'Ü' 12    221 'Ý' 10    222 'Þ' 10    223 'ß' 11    224 'à'  9    225 'á'  9
226 'â'  9    227 'ã'  9    228 'ä'  9    229 'å'  9    230 'æ' 14    231 'ç'  9
232 'è' 10    233 'é' 10    234 'ê' 10    235 'ë' 10    236 'ì'  5    237 'í'  5
238 'î'  5    239 'ï'  5    240 'ð' 10    241 'ñ' 10    242 'ò' 10    243 'ó' 10
244 'ô' 10    245 'õ' 10    246 'ö' 10    247 '÷' 13    248 'ø' 10    249 'ù' 10
250 'ú' 10    251 'û' 10    252 'ü' 10    253 'ý'  9    254 'þ' 11    255 'ÿ'  9

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--------------------------------------------------------------------------------
Generic Name = sans-serif
Type         = Proportional
HTML Size    = 3
Size         = 24 pixels
Ascent       = 18 pixels
Descent      =  6 pixels
Text Lines   = 20.9
Line Gap     = -1
```

```
Advances:

 32 ' '  6     33 '!'  6     34 '"'  9     35 '#' 17     36 '$' 12     37 ' %' 16
 38 '&' 14     39 '''  5     40 '('  8     41 ')'  8     42 '*'  7     43 '+' 15
 44 ',' 5      45 '-'  8     46 '.'  6     47 '/'  8     48 '0' 12     49 '1' 12
 50 '2' 12     51 '3' 12     52 '4' 12     53 '5' 12     54 '6' 12     55 '7' 12
 56 '8' 12     57 '9' 12     58 ':'  6     59 ';'  5     60 '<' 15     61 '=' 15
 62 '>' 15     63 '?' 10     64 '@' 17     65 'A' 12     66 'B' 12     67 'C' 10
 68 'D' 13     69 'E' 11     70 'F' 10     71 'G' 12     72 'H' 13     73 'I'  6
 74 'J'  6     75 'K' 12     76 'L'  9     77 'M' 17     78 'N' 14     79 'O' 14
 80 'P' 12     81 'Q' 14     82 'R' 12     83 'S' 11     84 'T' 10     85 'U' 13
 86 'V' 12     87 'W' 17     88 'X' 12     89 'Y' 11     90 'Z' 11     91 '['  8
 92 '\'  8     93 ']'  8     94 '^' 13     95 '_'  9     96 '`' 11     97 'a' 10
 98 'b' 11     99 'c'  9    100 'd' 11    101 'e' 11    102 'f'  7    103 'g' 11
104 'h' 11    105 'i'  5    106 'j'  5    107 'k' 10    108 'l'  6    109 'm' 17
110 'n' 11    111 'o' 11    112 'p' 11    113 'q' 11    114 'r'  7    115 's'  9
116 't'  7    117 'u' 11    118 'v' 11    119 'w' 15    120 'x' 10    121 'y' 11
122 'z' 10    123 '{'  7    124 '|'  6    125 '}'  7    126 '~' 15
160 ' '  6    161 '¡'  6    162 '¢' 12    163 '£' 12    164 '¤' 12    165 '¥' 12
166 '¦'  6    167 '§' 11    168 '¨' 11    169 '©' 17    170 'ª' 10    171 '«' 11
172 '¬' 15    173 '-'  8    174 '®' 17    175 '¯' 11    176 '°'  9    177 '±' 14
178 '²' 10    179 '³' 10    180 '´' 11    181 'µ' 11    182 '¶' 13    183 '·'  6
184 '¸' 11    185 '¹' 10    186 'º' 10    187 '»' 11    188 '¼' 19    189 '½' 19
190 '¾' 19    191 '¿' 10    192 'À' 12    193 'Á' 12    194 'Â' 12    195 'Ã' 12
196 'Ä' 12    197 'Å' 12    198 'Æ' 18    199 'Ç' 11    200 'È' 11    201 'É' 11
202 'Ê' 11    203 'Ë' 11    204 'Ì'  6    205 'Í'  6    206 'Î'  6    207 'Ï'  6
208 'Ð' 13    209 'Ñ' 14    210 'Ò' 14    211 'Ó' 14    212 'Ô' 14    213 'Õ' 14
214 'Ö' 14    215 '×' 14    216 'Ø' 14    217 'Ù' 13    218 'Ú' 13    219 'Û' 13
220 'Ü' 13    221 'Ý' 11    222 'Þ' 11    223 'ß' 13    224 'à' 10    225 'á' 10
226 'â' 10    227 'ã' 10    228 'ä' 10    229 'å' 10    230 'æ' 16    231 'ç' 10
232 'è' 11    233 'é' 11    234 'ê' 11    235 'ë' 11    236 'ì'  5    237 'í'  5
238 'î'  5    239 'ï'  5    240 'ð' 11    241 'ñ' 11    242 'ò' 11    243 'ó' 11
244 'ô' 11    245 'õ' 11    246 'ö' 11    247 '÷' 15    248 'ø' 11    249 'ù' 11
250 'ú' 11    251 'û' 11    252 'ü' 11    253 'ý' 10    254 'þ' 11    255 'ÿ' 10

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--------------------------------------------------------------------------------
Generic Name = sans-serif
Type         = Proportional
HTML Size    = 4
Size         = 27 pixels
Ascent       = 21 pixels
Descent      =  6 pixels
Text Lines   = 18.5
Line Gap     = -1

Advances:

 32 ' '  7     33 '!'  7     34 '"' 10     35 '#' 19     36 '$' 14     37 ' %' 17
 38 '&' 15     39 '''  6     40 '('  9     41 ')'  9     42 '*'  8     43 '+' 16
 44 ',' 6      45 '-'  9     46 '.'  6     47 '/'  8     48 '0' 14     49 '1' 14
 50 '2' 14     51 '3' 14     52 '4' 14     53 '5' 14     54 '6' 14     55 '7' 14
 56 '8' 14     57 '9' 14     58 ':'  6     59 ';'  6     60 '<' 16     61 '=' 16
 62 '>' 16     63 '?' 10     64 '@' 19     65 'A' 13     66 'B' 13     67 'C' 11
 68 'D' 14     69 'E' 12     70 'F' 11     71 'G' 14     72 'H' 14     73 'I'  7
 74 'J'  7     75 'K' 13     76 'L' 10     77 'M' 18     78 'N' 15     79 'O' 15
 80 'P' 13     81 'Q' 15     82 'R' 13     83 'S' 12     84 'T' 11     85 'U' 14
 86 'V' 13     87 'W' 19     88 'X' 13     89 'Y' 12     90 'Z' 11     91 '['  9
 92 '\'  8     93 ']'  9     94 '^' 14     95 '_' 10     96 '`' 12     97 'a' 11
 98 'b' 12     99 'c' 10    100 'd' 12    101 'e' 12    102 'f'  7    103 'g' 12
104 'h' 12    105 'i'  6    106 'j'  6    107 'k' 11    108 'l'  6    109 'm' 19
110 'n' 12    111 'o' 12    112 'p' 12    113 'q' 12    114 'r'  8    115 's' 10
116 't'  8    117 'u' 12    118 'v' 11    119 'w' 15    120 'x' 11    121 'y' 11
122 'z' 10    123 '{'  8    124 '|'  5    125 '}'  8    126 '~' 16
160 ' '  7    161 '¡'  7    162 '¢' 14    163 '£' 14    164 '¤' 14    165 '¥' 14
166 '¦'  6    167 '§' 11    168 '¨' 12    169 '©' 18    170 'ª' 11    171 '«' 11
172 '¬' 16    173 '-'  9    174 '®' 18    175 '¯' 14    176 '°'  9    177 '±' 16
178 '²' 11    179 '³' 11    180 '´' 12    181 'µ' 12    182 '¶' 15    183 '·'  7
184 '¸' 10    185 '¹' 11    186 'º' 11    187 '»' 11    188 '¼' 21    189 '½' 21
190 '¾' 21    191 '¿' 10    192 'À' 13    193 'Á' 13    194 'Â' 13    195 'Ã' 13
196 'Ä' 13    197 'Å' 13    198 'Æ' 19    199 'Ç' 11    200 'È' 12    201 'É' 12
202 'Ê' 12    203 'Ë' 12    204 'Ì'  7    205 'Í'  7    206 'Î'  7    207 'Ï'  7
208 'Ð' 14    209 'Ñ' 15    210 'Ò' 15    211 'Ó' 15    212 'Ô' 15    213 'Õ' 15
214 'Ö' 15    215 '×' 16    216 'Ø' 15    217 'Ù' 14    218 'Ú' 14    219 'Û' 14
220 'Ü' 14    221 'Ý' 12    222 'Þ' 13    223 'ß' 13    224 'à' 11    225 'á' 11
226 'â' 11    227 'ã' 11    228 'ä' 11    229 'å' 11    230 'æ' 18    231 'ç' 10
```

```
232 'è' 12    233 'é' 12    234 'ê' 12    235 'ë' 12    236 'ì'  6    237 'í'  6
238 'î'  6    239 'ï'  6    240 'ð' 14    241 'ñ' 12    242 'ò' 12    243 'ó' 12
244 'ô' 12    245 'õ' 12    246 'ö' 12    247 '÷' 16    248 'ø' 12    249 'ù' 12
250 'ú' 12    251 'û' 12    252 'ü' 12    253 'ý' 11    254 'þ' 12    255 'ÿ' 11

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--------------------------------------------------------------------------------
Generic Name = sans-serif
Type         = Proportional
HTML Size    = 5
Size         = 31 pixels
Ascent       = 24 pixels
Descent      =  7 pixels
Text Lines   = 16.0
Line Gap     = -1

Advances:

 32 ' '  8     33 '!'  8     34 '"' 12     35 '#' 22     36 '$' 16     37 ' %' 20
 38 '&' 18     39 '''  7     40 '(' 11     41 ')' 11     42 '*' 10     43 '+' 19
 44 ','  7     45 '-' 10     46 '.'  7     47 '/' 10     48 '0' 16     49 '1' 16
 50 '2' 16     51 '3' 16     52 '4' 16     53 '5' 16     54 '6' 16     55 '7' 16
 56 '8' 16     57 '9' 16     58 ':'  7     59 ';'  7     60 '<' 19     61 '=' 19
 62 '>' 19     63 '?' 12     64 '@' 22     65 'A' 16     66 'B' 16     67 'C' 13
 68 'D' 16     69 'E' 14     70 'F' 13     71 'G' 16     72 'H' 17     73 'I'  8
 74 'J'  8     75 'K' 15     76 'L' 12     77 'M' 21     78 'N' 18     79 'O' 18
 80 'P' 15     81 'Q' 18     82 'R' 16     83 'S' 14     84 'T' 13     85 'U' 17
 86 'V' 16     87 'W' 22     88 'X' 15     89 'Y' 15     90 'Z' 13     91 '[' 11
 92 '\' 10     93 ']' 11     94 '^' 16     95 '_' 12     96 '`' 14     97 'a' 13
 98 'b' 14     99 'c' 11    100 'd' 14    101 'e' 14    102 'f'  9    103 'g' 14
104 'h' 14    105 'i'  7    106 'j'  7    107 'k' 13    108 'l'  8    109 'm' 22
110 'n' 14    111 'o' 14    112 'p' 14    113 'q' 14    114 'r'  9    115 's' 12
116 't'  9    117 'u' 14    118 'v' 13    119 'w' 18    120 'x' 13    121 'y' 13
122 'z' 11    123 '{'  9    124 '|'  6    125 '}'  9    126 '~' 19
160 ' '  8    161 '¡'  8    162 '¢' 16    163 '£' 16    164 '¤' 16    165 '¥' 16
166 '¦'  6    167 '§' 13    168 '¨' 14    169 '©' 22    170 'ª' 16    171 '«' 13
172 '¬' 19    173 '-' 10    174 '®' 22    175 '¯' 14    176 '°' 11    177 '±' 19
178 '²' 13    179 '³' 13    180 '´' 14    181 'µ' 14    182 '¶' 17    183 '·'  7
184 '¸' 14    185 '¹' 13    186 'º' 13    187 '»' 13    188 '¼' 24    189 '½' 24
190 '¾' 24    191 '¿' 12    192 'À' 16    193 'Á' 16    194 'Â' 16    195 'Ã' 16
196 'Ä' 16    197 'Å' 16    198 'Æ' 23    199 'Ç' 13    200 'È' 14    201 'É' 14
202 'Ê' 14    203 'Ë' 14    204 'Ì'  8    205 'Í'  8    206 'Î'  8    207 'Ï'  8
208 'Ð' 16    209 'Ñ' 18    210 'Ò' 18    211 'Ó' 18    212 'Ô' 18    213 'Õ' 18
214 'Ö' 18    215 '×' 19    216 'Ø' 18    217 'Ù' 17    218 'Ú' 17    219 'Û' 17
220 'Ü' 17    221 'Ý' 15    222 'Þ' 15    223 'ß' 16    224 'à' 13    225 'á' 13
226 'â' 13    227 'ã' 13    228 'ä' 13    229 'å' 13    230 'æ' 21    231 'ç' 11
232 'è' 14    233 'é' 14    234 'ê' 14    235 'ë' 14    236 'ì'  7    237 'í'  7
238 'î'  7    239 'ï'  7    240 'ð' 15    241 'ñ' 14    242 'ò' 14    243 'ó' 14
244 'ô' 14    245 'õ' 14    246 'ö' 14    247 '÷' 19    248 'ø' 14    249 'ù' 14
250 'ú' 14    251 'û' 14    252 'ü' 14    253 'ý' 13    254 'þ' 15    255 'ÿ' 13

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--------------------------------------------------------------------------------
Generic Name = sans-serif
Type         = Proportional
HTML Size    = 6, 7
Size         = 36 pixels
Ascent       = 28 pixels
Descent      =  8 pixels
Text Lines   = 13.7
Line Gap     = -1

Advances:

 32 ' '  9     33 '!'  9     34 '"' 13     35 '#' 26     36 '$' 18     37 ' %' 23
 38 '&' 20     39 '''  8     40 '(' 12     41 ')' 12     42 '*' 11     43 '+' 22
 44 ','  8     45 '-' 12     46 '.'  8     47 '/' 11     48 '0' 18     49 '1' 18
 50 '2' 18     51 '3' 18     52 '4' 18     53 '5' 18     54 '6' 18     55 '7' 18
 56 '8' 18     57 '9' 18     58 ':'  8     59 ';'  8     60 '<' 22     61 '=' 22
 62 '>' 22     63 '?' 14     64 '@' 25     65 'A' 18     66 'B' 18     67 'C' 15
 68 'D' 19     69 'E' 16     70 'F' 15     71 'G' 18     72 'H' 19     73 'I'  9
 74 'J'  9     75 'K' 17     76 'L' 14     77 'M' 25     78 'N' 21     79 'O' 20
 80 'P' 17     81 'Q' 20     82 'R' 18     83 'S' 17     84 'T' 15     85 'U' 19
 86 'V' 18     87 'W' 25     88 'X' 17     89 'Y' 17     90 'Z' 15     91 '[' 13
```

```
 92 '\' 11     93 ']' 13     94 '^' 19     95 '_' 13     96 '`' 16     97 'a' 15
 98 'b' 16     99 'c' 13    100 'd' 16    101 'e' 16    102 'f' 10    103 'g' 16
104 'h' 17    105 'i'  8    106 'j'  8    107 'k' 15    108 'l'  9    109 'm' 25
110 'n' 17    111 'o' 16    112 'p' 16    113 'q' 16    114 'r' 11    115 's' 14
116 't' 11    117 'u' 17    118 'v' 14    119 'w' 21    120 'x' 15    121 'y' 14
122 'z' 13    123 '{' 10    124 '|'  7    125 '}' 10    126 '~' 22
160 ' '  9    161 '¡'  9    162 '¢' 18    163 '£' 18    164 '¤' 18    165 '¥' 18
166 '¦'  7    167 '§' 14    168 '¨' 16    169 '©' 25    170 'ª' 14    171 '«' 14
172 '¬' 22    173 '-' 12    174 '®' 25    175 '¯' 16    176 '°' 13    177 '±' 22
178 '²' 14    179 '³' 14    180 '´' 16    181 'µ' 17    182 '¶' 20    183 '·'  8
184 '¸' 16    185 '¹' 14    186 'º' 14    187 '»' 14    188 '¼' 28    189 '½' 28
190 '¾' 28    191 '¿' 14    192 'À' 18    193 'Á' 18    194 'Â' 18    195 'Ã' 18
196 'Ä' 18    197 'Å' 18    198 'Æ' 26    199 'Ç' 15    200 'È' 16    201 'É' 16
202 'Ê' 16    203 'Ë' 16    204 'Ì'  9    205 'Í'  9    206 'Î'  9    207 'Ï'  9
208 'Ð' 19    209 'Ñ' 21    210 'Ò' 20    211 'Ó' 20    212 'Ô' 20    213 'Õ' 20
214 'Ö' 20    215 '×' 22    216 'Ø' 20    217 'Ù' 19    218 'Ú' 19    219 'Û' 19
220 'Ü' 19    221 'Ý' 17    222 'Þ' 17    223 'ß' 18    224 'à' 15    225 'á' 15
226 'â' 15    227 'ã' 15    228 'ä' 15    229 'å' 15    230 'æ' 24    231 'ç' 13
232 'è' 16    233 'é' 16    234 'ê' 16    235 'ë' 16    236 'ì'  8    237 'í'  8
238 'î'  8    239 'ï'  8    240 'ð' 18    241 'ñ' 17    242 'ò' 16    243 'ó' 16
244 'ô' 16    245 'õ' 16    246 'ö' 16    247 '÷' 22    248 'ø' 16    249 'ù' 17
250 'ú' 17    251 'û' 17    252 'ü' 17    253 'ý' 14    254 'þ' 16    255 'ÿ' 14

8364 (EURO) 18
```

```
--------------------------------------------------------------------------------
Generic Name = monospace
Type         = Monospaced
HTML Size    = 1, 2
Size         = 22 pixels
Ascent       = 16 pixels
Descent      =  6 pixels
Text Lines   = 22.8
Line Gap     = -1
Advance      =  9 pixels (for all glyphs)
```

```
--------------------------------------------------------------------------------
Generic Name = monospace
Type         = Monospaced
HTML Size    = 3
Size         = 24 pixels
Ascent       = 18 pixels
Descent      =  6 pixels
Text Lines   = 20.9
Line Gap     = -1
Advance      = 10 pixels (for all glyphs)
```

```
--------------------------------------------------------------------------------
Generic Name = monospace
Type         = Monospaced
HTML Size    =  4
Size         = 27 pixels
Ascent       = 20 pixels
Descent      =  7 pixels
Text Lines   = 18.5
Line Gap     = -1
Advance      = 11 pixels (for all glyphs)
```

```
--------------------------------------------------------------------------------
Generic Name = monospace
Type         = Monospaced
HTML Size    =  5
Size         = 31 pixels
Ascent       = 23 pixels
Descent      =  8 pixels
Text Lines   = 16.0
Line Gap     = -1
Advance      = 13 pixels (for all glyphs)
```

```
--------------------------------------------------------------------------------
```

```
Generic Name = monospace
Type         = Monospaced
HTML Size    =  6
Size         = 36 pixels
Ascent       = 27 pixels
Descent      =  9 pixels
Text Lines   = 13.7
Line Gap     = -1
Advance      = 15 pixels (for all glyphs)
```

Annex G
(informative)

TeleWeb Superteletext profile reference decoder

G.1 Superteletext profile reference decoder

The TeleWeb Superteletext profile reference decoder consists of a reference receiver and a reference browser. This reference decoder is platform independent and is the basis for further porting activities to specific embedded hardware platforms. A PC-based graphical device interface display simulator is available for displaying TeleWeb content. A TeleWeb logo as pictured in Clause G.2 is connected to this reference decoder. Documentation can be obtained via the contact addresses in Clause 0.

A schematic overview of the Superteletext profile reference decoder and GDI display simulator is given in Clause G.4.

G.1.1 TeleWeb reference receiver

- Data transmission using IDL format B
- Uses DVB data carousels transmitted in VBI or DVB
- FEC and CRC
- Prioritized file database
- Pre-filtering of pages

G.1.2 TeleWeb reference browser

- Implements a browser based on the requirements in this standard
- Easy navigation with left, right, up, down, select, colour keys and number keys
- Bookmark management
- History support

G.1.3 Software design

- Object-oriented ANSI C design
- Platform independent
- Prepared for easy porting to embedded 16/32-bit platforms
- PC-based development with slicer and display simulator
- Automatic test system

G.1.4 Hardware requirements

- 16- or 32-bit controller
- 640×480 display for content
- min. 188 colours
- ~ 500 Kbytes for code (including GDI and fonts)
- >5 Mbytes RAM for database
- 1 Mbytes RAM workspace

G.2 Logo connected to the Superteletext profile reference decoder

IEC 692/05

Figure G.1 – TeleWeb logo

G.3 Contact

The following internet site contains detailed information on the TeleWeb reference decoder: http://www.superteletext.tv. From this site a PC-based simulation of the TeleWeb decoder is available. Broadcasters and service providers can verify their own TeleWeb content to ensure correct working and layout. This PC simulation shows the exact look and feel of TeleWeb equipped TV sets in the market!

For information on certification, contact TARA Systems GmbH Munich/Germany, Internet address: http://www.tara-systems.de.

G.4 Schematic overview

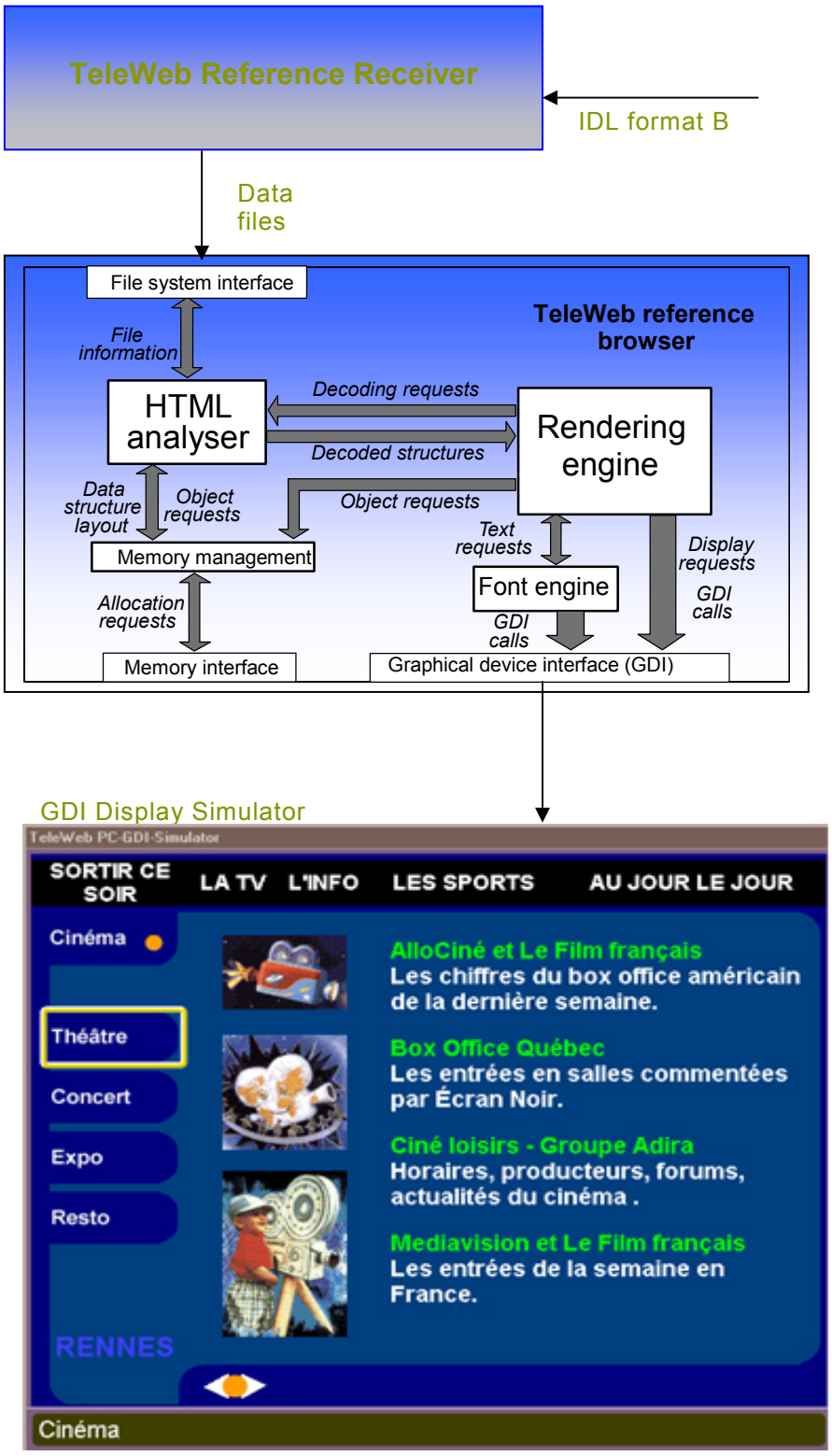

Figure G.2 – Schematic overview of a TeleWeb reference decoder

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.....

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researcher ❑
design engineer ❑
safety engineer ❑
testing engineer ❑
marketing specialist ❑
other.....

Q3 I work for/in/as a: *(tick all that apply)*

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tenders ❑
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thesis ❑
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Q5 This standard meets my needs: *(tick one)*

not at all ❑
nearly ❑
fairly well ❑
exactly ❑

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standard is incomplete ❑
standard is too academic ❑
standard is too superficial ❑
title is misleading ❑
I made the wrong choice ❑
other .....

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(3) average,
(4) above average,
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