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Digital living network alliance (DLNA) home networked device interoperability guidelines –
Part 6-1: Remote User Interface – HTML5

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DIGITAL LIVING NETWORK ALLIANCE (DLNA) HOME NETWORKED DEVICE INTEROPERABILITY GUIDELINES –

Part 6-1: Remote User Interface – HTML5

FOREWORD

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International Standard IEC 62481-6-1 has been prepared under technical area 8: Multimedia home systems and applications for end-user network, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this International Standard is based on the following documents:

CDV	Report on voting
100/2740/CDV	100/2887/RVC

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

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

A list of all parts of IEC 62481 series, published under the general title *Digital Living Network Alliance (DLNA) home networked device interoperability guidelines,* can be found on the IEC website.

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

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- withdrawn,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

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

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

INTRODUCTION

Consumers are acquiring, viewing, and managing an increasing amount of digital media (photos, music, and video) on devices in the consumer electronics (CE), mobile, and personal computer (PC) domains. As such, they want to conveniently enjoy the content, regardless of the source, across different devices and locations in the home. The digital home vision integrates the Internet, mobile, and broadcast networks through a seamless, interoperable network, which will provide a unique opportunity for manufacturers and consumers alike. In order to deliver on this vision, a common set of industry design guidelines is needed that allows vendors to participate in a growing marketplace, leading to more innovation, simplicity, and value for consumers. This document serves that purpose and provides vendors with the information needed to build interoperable networked platforms and devices for the digital home.

DIGITAL LIVING NETWORK ALLIANCE (DLNA) HOME NETWORKED DEVICE INTEROPERABILITY GUIDELINES –

Part 6-1: Remote User Interface – HTML5

1 Scope

This part of IEC 62481-6 specifies guidelines that define HTML5 Remote User Interface (RUI-H). HTML5 allows operators to develop "write once, play anywhere" content applications across a broad range of browsers and platforms. Through native integration, HTML5 enables the repurposing of single codebases, resulting in reduced development costs and the provision of a unique UI for every device.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 62481-1-1:2017, *Digital living network alliance (DLNA) home networked device interoperability guidelines – Part 1-1: Architecture and protocols*

IEC 62481-2:2017, *Digital living network alliance (DLNA) home networked device interoperability guidelines – Part 2: Media Format Profiles*

IEC 62481-3:2017, *Digital living network alliance (DLNA) guidelines – Part 3: Link protection*

ISO/IEC 14496-22, *Information technology – Coding of audio-visual objects – Part 22: Open Font Format*
http://www.iso.org/iso/catalogue_detail.htm?csnumber=52136

ISO/IEC 29341-1, *Information Technology – UPnP Device Architecture – Part 1-1: UPnP Device Architecture*

ISO/IEC 29341-12-1, *Information Technology – UPnP Device Architecture – Part 12-1: Remote User Interface Device Control Protocol – Remote User Interface Client Device*

ISO/IEC 29341-12-2, *Information Technology – UPnP Device Architecture – Part 12-2: Remote User Interface Device Control Protocol – Remote User Interface Server Device*

ISO/IEC 29341-12-11, *Information Technology – UPnP Device Architecture – Part 12-11: Remote User Interface Device Control Protocol – Remote User Interface Server Service*

ISO/IEC 29341-12-10, *Information Technology – UPnP Device Architecture – Part 12-10: Remote User Interface Device Control Protocol – Remote User Interface Client Service*

ANSI/SCTE 35, Digital Program Insertion Cueing Message for Cable
http://www.scte.org/documents/pdf/standards/ANSI_SCTE%2035%202007%20Digital%20Program%20Insertion%20Cueing%20Message%20for%20Cable.pdf
or J.181
http://www.itu.int/rec/T-REC-J.181/en

IETF RFC 1983, Internet Users' Glossary
https://tools.ietf.org/html/rfc1983

IETF RFC 2246 TLS Protocol Version 1.0
http://tools.ietf.org/html/rfc2246

IETF RFC 3986, Uniform Resource Identifier (URI): General Syntax
https://tools.ietf.org/html/rfc3986

IETF RFC 4346 Transport Layer Security (TLS) Protocol Version 1.1
http://tools.ietf.org/html/rfc4346

IETF RFC 5246 Transport Layer Security (TLS) Protocol Version 1.2
http://tools.ietf.org/html/rfc5246

W3C CSS Background CSS Backgrounds and Borders Module Level 3
http://www.w3.org/TR/css3-background/

W3C CSS Multicolumn, CSS Multi-column Layout Module
http://www.w3.org/TR/css3-multicol/

W3C CSS Namespaces CSS Namespaces Module
http://www.w3.org/TR/css3-namespace/

W3C CSS Text CSS Text Module Level 3
http://www.w3.org/TR/css3-text/

W3C CSS Transforms CSS Transforms Module Level 1
http://www.w3.org/TR/css-transforms-1/

W3C HTML5, Specification, A vocabulary and associated APIs for HTML and XHTML
http://www.w3.org/TR/html5/

W3C Touch Events, Touch Events
http://www.w3.org/TR/touch-events/

W3C Key Values, W3C DOM Level 3 KeyboardEvent key Values
https://dvcs.w3.org/hg/dom3events/raw-file/tip/html/DOM3Events-key.html

W3C WOFF File Format
http://www.w3.org/TR/WOFF/

W3C MSE, Media Source Extensions
http://www.w3.org/TR/media-source/

W3C EME, Encrypted Media Extensions
http://www.w3.org/TR/encrypted-media/

W3C Crypto, Web Cryptography API
http://www.w3.org/TR/WebCryptoAPI/

W3C HTML Sourcing Inband Tracks, Sourcing In-band Media Resource Tracks from Media Containers into HTML
http://dev.w3.org/html5/html-sourcing-inband-tracks/

W3C XML Schema Part 2, Datatypes Second Edition
http://www.w3.org/TR/xmlschema-2/

W3C WebSocket, The WebSocket API
http://www.w3.org/TR/websockets/