

---

**Večpredstavno e-založništvo in e-knjige - Osnovni format za e-založništvo**  
**(IEC 62448:2013)**

Multimedia e-publishing and e-books – Generic format for e-publishing (IEC 62448:2013)

Multimediasysteme und -geräte - E-Publishing und E-Books für Multimedia-Anwendungen - Allgemeines Format für E-Publishing (IEC 62448:2013)

**(standards.iteh.ai)**

Systèmes et équipements multimédia - Publication et livres électroniques multimédia - Format générique pour la publication électronique (CEI 62448:2013)

<https://standards.iteh.ai/catalog/standards/sist/9fb7c800-491c-4b9c-a24e-3ecc1942736/sist-en-62448-2014>

**Ta slovenski standard je istoveten z: EN 62448:2014**

---

**ICS:**

01.140.40	Založništvo	Publishing
33.160.60	Večpredstavni (multimedijski) sistemi in oprema za telekonference	Multimedia systems and teleconferencing equipment
35.240.30	Uporabniške rešitve IT v informatiki, dokumentiranju in založništvu	IT applications in information, documentation and publishing

**SIST EN 62448:2014****en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 62448:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/9fb7c800-491c-4b9c-a24e-3ecc1f942736/sist-en-62448-2014>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 62448**

April 2014

ICS 33.160.60; 35.240.30

Supersedes EN 62448:2009

English version

**Multimedia systems and equipment -  
Multimedia e-publishing and e-books -  
Generic format for e-publishing  
(IEC 62448:2013)**

Systèmes et équipements multimédia -  
Publication et livres électroniques  
multimédia -  
Format générique pour la publication  
électronique  
(CEI 62448:2013)

Multimediasysteme und -geräte -  
E-Publishing und E-Books für Multimedia-  
Anwendungen -  
Allgemeines Format für E-Publishing  
(IEC 62448:2013)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

This European Standard was approved by CENELEC on 2014-01-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

<https://standards.iteh.ai/catalog/standards/sist/9fb7c800-491c-4b9c-a24e->

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 100/2053/CDV, future edition 3 of IEC 62448, prepared by technical area 10, "Multimedia e- publishing and e-book technologies", of IEC/TC 100, "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62448:2014.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-10-18
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-01-01

This document supersedes EN 62448:2009.

EN 62448:2014 includes the following significant technical changes with respect to EN 62448:2009:

- a) Addition of Annex C.
- b) Related minor changes in Clause 6.
- c) Updates in Annex B.

[SIST EN 62448:2014](https://standards.iteh.ai/catalog/standards/sist/9fb7c800-491c-4b9c-a24e-3ecc18942736/sist-en-62448-2014)

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

## Endorsement notice

The text of the International Standard IEC 62448:2013 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 62605:2011      NOTE      Harmonised as EN 62605:2011 (not modified).

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 19757-2	2008	Information technology - Document Schema Definition Language (DSDL) - Part 2: Regular-grammar-based validation - RELAX NG	-	-
ISO 639-1	-	Codes for the representation of names of languages - Part 1: Alpha-2 code	-	-
ISO 3166-1	-	Codes for the representation of names of countries and their subdivisions - Part 1: Country codes	-	-

[SIST EN 62448:2014](https://standards.iteh.ai/catalog/standards/sist/9fb7c800-491c-4b9c-a24e-3ecc1f942736/sist-en-62448-2014)

<https://standards.iteh.ai/catalog/standards/sist/9fb7c800-491c-4b9c-a24e-3ecc1f942736/sist-en-62448-2014>

# CENELEC

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 62448:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/9fb7c800-491c-4b9c-a24e-3ecc1f942736/sist-en-62448-2014>



IEC 62448

Edition 3.0 2013-11

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

Multimedia systems and equipment – Multimedia e-publishing and e-books –  
Generic format for e-publishing

Systemes et équipements multimédia – Publication et livres électroniques  
multimédia – Format générique pour la publication électronique

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

PRICE CODE  
CODE PRIX

**XH**

ICS 33.160.60; 35.240.30

ISBN 978-2-8322-1202-8

**Warning! Make sure that you obtained this publication from an authorized distributor.  
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## CONTENTS

FOREWORD.....	10
INTRODUCTION.....	12
1 Scope.....	13
2 Normative references .....	13
3 Terms and definitions .....	13
4 Position and requirements for generic format.....	14
4.1 Generic format in contents creation/distribution model .....	14
4.2 Requirements for generic format .....	14
5 Notation.....	14
6 Logical structure .....	14
7 Semantics .....	17
Annex A (normative) BBeB Xylog format.....	18
A.1 General.....	18
A.2 Structure description .....	18
A.3 Block layout .....	37
A.3.1 Layout .....	37
A.3.2 Block .....	37
A.3.3 Coordinate system.....	38
A.4 Terminology.....	38
A.4.1 Page layout .....	38
A.4.2 Block layout.....	39
A.4.3 Data types .....	40
A.5 Elements and attributes.....	41
A.5.1 BBeBXylog .....	41
A.5.2 BookInformation .....	41
A.5.3 Info.....	41
A.5.4 BookInfo .....	42
A.5.5 Title .....	42
A.5.6 Author .....	42
A.5.7 BookID .....	42
A.5.8 Publisher .....	42
A.5.9 Label .....	43
A.5.10 Category.....	43
A.5.11 Classification .....	43
A.5.12 FreeText.....	43
A.5.13 DocInfo.....	43
A.5.14 Cthumbnail .....	43
A.5.15 Language .....	43
A.5.16 Creator .....	43
A.5.17 SumPage.....	44
A.5.18 Keyword .....	44
A.5.19 TOC .....	44
A.5.20 TocLabel .....	44
A.5.21 Main .....	44
A.5.22 Page.....	44
A.5.23 Wait.....	48

A.5.24	TextBlock .....	48
A.5.25	P .....	55
A.5.26	Plot.....	56
A.5.27	CR.....	57
A.5.28	Fill .....	57
A.5.29	Space .....	57
A.5.30	CharButton .....	57
A.5.31	Rubi.....	57
A.5.32	Oyamoji .....	57
A.5.33	Gaiji.....	58
A.5.34	AltString .....	58
A.5.35	Org .....	58
A.5.36	Alt.....	58
A.5.37	Rubimoji .....	58
A.5.38	Box.....	58
A.5.39	EmpDots.....	59
A.5.40	EmpLine .....	60
A.5.41	Sub.....	60
A.5.42	Sup.....	60
A.5.43	Yoko .....	60
A.5.44	Tate.....	60
A.5.45	Nekase.....	60
A.5.46	NoBR.....	60
A.5.47	DrawChar .....	60
A.5.48	Italic .....	61
A.5.49	Bold.....	61
A.5.50	ImageBlock.....	61
A.5.51	ButtonBlock .....	64
A.5.52	BaseButton .....	66
A.5.53	FocusinButton .....	67
A.5.54	JumpTo .....	67
A.5.55	Run .....	67
A.5.56	SoundStop.....	68
A.5.57	CloseWindow.....	68
A.5.58	PushButton.....	68
A.5.59	UpButton .....	68
A.5.60	Canvas .....	69
A.5.61	PutObj .....	70
A.5.62	Moveto .....	71
A.5.63	Lineto .....	71
A.5.64	DrawBox.....	72
A.5.65	DrawEllipse .....	73
A.5.66	RuledLine .....	74
A.5.67	Style.....	74
A.5.68	BookStyle .....	74
A.5.69	SetDefault .....	75
A.5.70	RegistFont.....	76
A.5.71	BookSetting.....	77
A.5.72	TextStyle .....	78

iTech STANDARD PREVIEW

(standards.iteh.ai)

SIST EN 62448:2014

<https://standards.iteh.ai/catalog/standards/sist/91b7c800-491c-4b9c-a24c-3ccc1942736/sist-en-62448-2014>

A.5.73	BlockStyle .....	82
A.5.74	PageStyle .....	84
A.5.75	Objects .....	87
A.5.76	Window .....	87
A.5.77	PopUpWin .....	88
A.5.78	Sound .....	88
A.5.79	SoundStream .....	89
A.5.80	ImageStream .....	89
A.5.81	Header .....	90
A.5.82	Footer .....	91
A.5.83	eSound .....	92
A.5.84	Font .....	92
A.5.85	Image .....	93
A.5.86	Button .....	94
A.6	Reserved elements .....	94
A.6.1	General .....	94
A.6.2	ShowOrder .....	94
A.6.3	SetText .....	94
A.6.4	div .....	94
A.6.5	SendMessage .....	95
A.6.6	SimpleTextBlock .....	95
A.6.7	MoveObj .....	95
A.6.8	ViewPoint .....	95
A.6.9	MiniPage .....	95
A.6.10	PageDiv .....	95
A.6.11	BlockList .....	95
A.6.12	Text .....	95
A.6.13	SimpleText .....	95
A.6.14	Locate .....	95
A.6.15	Import .....	95
A.6.16	ObjLink .....	95
A.6.17	FileLink .....	95
A.6.18	Solo .....	96
A.6.19	Pages .....	96
A.6.20	Template .....	96
A.6.21	TemplateSet .....	96
A.6.22	PlotText .....	96
A.6.23	AutoSpacing .....	96
A.6.24	Span .....	96
A.6.25	Property .....	96
Annex B (normative)	X MDF XML format .....	97
B.1	General .....	97
B.2	Overview of the format's structure .....	97
B.3	Elements and attributes .....	98
B.3.1	General .....	98
B.3.2	Page_ID .....	98
B.3.3	Object_ID .....	99
B.3.4	Char_ID .....	99
B.3.5	Reading .....	99

	B.3.6	Filename .....	99
	B.3.7	Standard character .....	100
	B.3.8	Standard character string .....	100
	B.3.9	Extended character.....	100
	B.3.10	Extended character string .....	101
	B.3.11	External character .....	101
	B.3.12	External character string.....	102
	B.3.13	External extended character string .....	102
	B.3.14	Coordinates .....	102
	B.3.15	Polygonal_region.....	103
	B.3.16	Color .....	103
	B.3.17	Date .....	104
	B.3.18	Time.....	104
	B.3.19	Country.....	104
	B.3.20	Personal_name.....	104
	B.3.21	Organization_name .....	105
	B.3.22	Address .....	105
	B.3.23	Permission .....	106
	B.3.24	Keyword .....	106
	B.3.25	Telephone_number.....	107
	B.3.26	Mail_address .....	107
B.4		Description format details .....	108
	B.4.1	General .....	108
	B.4.2	Book information modules <bvf> .....	109
	B.4.3	Bibliographic data <book_info> .....	109
	B.4.4	Content management module <body_module> .....	116
	B.4.5	Event info module <event_info> .....	129
	B.4.6	Parts data module <parts_module> .....	134
	B.4.7	Object instances .....	139
B.5		Color names (normative).....	197
B.6		Localization (informative).....	198
	B.6.1	Possible additions .....	198
	B.6.2	Standard characters .....	198
	B.6.3	Characters usable for reading.....	199
	B.6.4	Sorting rules for <search_table_def> .....	199
	B.6.5	Additional attributes for <enable_key_type> .....	200
B.7		Specification of the XMDF XML format in the RELAX NG compact syntax.....	200
	B.7.1	General .....	200
	B.7.2	Tags and attributes for object instances, bibliographic data and other data for content structure .....	200
	B.7.3	Tags and attributes for dictionary data object instance.....	229
	B.7.4	Tags and attributes for text object instance 2.....	235
Annex C (normative)		ESP format .....	248
	C.1	General.....	248
	C.2	Overview.....	248
	C.2.1	Content structure.....	248
	C.2.2	XML files .....	249
	C.2.3	The relationship between body data and style data.....	249
	C.2.4	Character codes .....	250

C.2.5	Line break codes .....	250
C.2.6	Coding precautions .....	250
C.2.7	Restrictions .....	251
C.3	Elements and attributes .....	252
C.3.1	General .....	252
C.3.2	Common tags .....	253
C.3.3	Text-related tags .....	255
C.3.4	Dictionary-related tags .....	271
C.3.5	Search-table related tags .....	276
C.3.6	Comic-related tags .....	279
C.3.7	Bibliography data tags .....	285
C.3.8	Global settings data tags .....	289
C.3.9	Table of contents/item data tags .....	290
C.3.10	Animation data tags .....	292
C.4	Style data .....	293
C.4.1	General .....	293
C.4.2	Properties .....	293
C.4.3	Property-selector combinations .....	305
C.5	Comments to specifications .....	313
C.5.1	Block tag behavior .....	313
C.5.2	Style data parsing .....	314
C.5.3	Folder structure .....	315
C.5.4	Indicating vendor-specific information .....	316
C.5.5	Minimum/small/medium/large/maximum values that indicate text size, text spacing, and line spacing .....	317
C.5.6	Font size descriptions .....	317
C.6	Color names .....	317
C.7	Specification of ESP format in the RELAX NG compact syntax .....	318
Bibliography	.....	352
Figure 1	– Contents creation/distribution model .....	14
Figure A.1	– Conceptual diagram of the “Block layout” .....	37
Figure A.2	– Coordinate system .....	38
Figure A.3	– Page layout composition .....	39
Figure A.4	– Block layout composition .....	40
Figure A.5	– Bgimagemode attribute .....	46
Figure A.6	– Layout attribute .....	47
Figure B.1	– XML tree structure .....	98
Figure B.2	– Example of valign=”middle” .....	140
Figure B.3	– Example of dropped capital .....	145
Figure B.4	– Left and right margin of a paragraph .....	145
Figure B.5	– Horizontal writing in vertical text .....	148
Figure B.6	– Ruby .....	149
Figure B.7	– Example of search page object instance rendering .....	171
Figure B.8	– Comic object Instance .....	176
Figure C.1	– Content XML file example .....	249
Figure C.2	– Style data example .....	250

Figure C.3 – Tag coding example .....	250
Figure C.4 – Numbers that indicate the origin point for the absolute position on the page .....	253
Figure C.5 – <section> tag coding example .....	254
Figure C.6 – Content/page progression directions .....	315
Figure C.7 – Folder (directory) structure example .....	316
Table A.1 – Data types .....	41
Table A.2 – Attribute of BBeBXylog .....	41
Table A.3 – Attribute of Info .....	41
Table A.4 – Attribute of Title .....	42
Table A.5 – Attribute of Author .....	42
Table A.6 – Attribute of Publisher .....	42
Table A.7 – Attribute of Label .....	43
Table A.8 – Attribute of Cthumbnail .....	43
Table A.9 – Attribute of TocLabel .....	44
Table A.10 – Attribute of Page .....	45
Table A.11 – Attribute of Wait .....	48
Table A.12 – Attribute of TextBlock .....	49
Table A.13 – rubyalign attribute .....	51
Table A.14 – rubyadjust attribute .....	52
Table A.15 – rubyoverhang attribute .....	52
Table A.16 – empdotsposition attribute .....	52
Table A.17 – emplineposition attribute .....	53
Table A.18 – emplinetype attribute .....	53
Table A.19 – align attribute .....	53
Table A.20 – blockrule attribute .....	54
Table A.21 – Attribute of P .....	56
Table A.22 – Attribute of Plot .....	56
Table A.23 – Attribute of Fill .....	57
Table A.24 – Attribute of Space .....	57
Table A.25 – Attribute of CharButton .....	57
Table A.26 – Attribute of Gaiji .....	58
Table A.27 – Attribute of Box .....	59
Table A.28 – linetype attribute .....	59
Table A.29 – Attribute of EmpDots .....	59
Table A.30 – Attribute of Empline .....	60
Table A.31 – Attribute of DrawChar .....	61
Table A.32 – Attribute of ImageBlock .....	62
Table A.33 – Attribute of ButtonBlock .....	65
Table A.34 – Attribute of BaseButton .....	66
Table A.35 – Attribute of FocusinButton .....	67
Table A.36 – Attribute of JumpTo .....	67

Table A.37 – Attribute of Run.....	67
Table A.38 – runoption attribute.....	68
Table A.39 – Attribute of PushButton.....	68
Table A.40 – Attribute of UpButton.....	68
Table A.41 – Attribute of Canvas.....	69
Table A.42 – Attribute of PutObj.....	70
Table A.43 – Attribute of Moveto.....	71
Table A.44 – Attribute of Lineto.....	71
Table A.45 – arrowtype attribute.....	72
Table A.46 – Attribute of DrawBox.....	72
Table A.47 – Attribute of DrawEllipse.....	73
Table A.48 – Attribute of RuledLine.....	74
Table A.49 – Attribute of BookStyle.....	75
Table A.50 – Attribute of SetDefault.....	75
Table A.51 – setwaitprop attribute.....	76
Table A.52 – Attribute of RegistFont.....	77
Table A.53 – Attribute of BookSetting.....	77
Table A.54 – Attribute of TextStyle.....	79
Table A.55 – Attribute of BlockStyle.....	83
Table A.56 – Attribute of PageStyle.....	85
Table A.57 – Attribute of Window.....	87
Table A.58 – Attribute of PopUpWin.....	88
Table A.59 – Attribute of Sound.....	88
Table A.60 – Attribute of SoundStream.....	89
Table A.61 – Attribute of ImageStream.....	90
Table A.62 – Attribute of Header.....	90
Table A.63 – Attribute of Footer.....	91
Table A.64 – Attribute of eSound.....	92
Table A.65 – Attribute of Font.....	92
Table A.66 – Attribute of Image.....	93
Table A.67 – Attribute of Button.....	94
Table B.1 – Base characters for reading.....	99
Table B.2 – Examples of standard character sets.....	100
Table B.3 – Usable characters for a telephone number.....	107
Table B.4 – Characters usable for email addresses.....	108
Table B.5 – Characters usable for the lookup key.....	127
Table B.6 – Color names.....	198
Table B.7 – Examples of standard character sets for different languages.....	199
Table B.8 – Example of additional characters usable for readings for different languages.....	199
Table B.9 – Example of additional sorting rules.....	200
Table B.10 – Example of additional language specific attributes for <enable_key_type>.....	200
Table C.1 – ESP format structure.....	249

Table C.2 – Usable line break codes.....	250
Table C.3 – Half-width symbols for file names.....	251
Table C.4 – Notations .....	252
Table C.5 – Property-selector correspondence.....	305
Table C.6 – Tags that make independent blocks .....	314
Table C.7 – Property parsing .....	314
Table C.8 – An example of conversion to numeric values.....	317
Table C.9 – Color names .....	318

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 62448:2014](https://standards.iteh.ai/catalog/standards/sist/9fb7c800-491c-4b9c-a24e-3ecc1f942736/sist-en-62448-2014)

<https://standards.iteh.ai/catalog/standards/sist/9fb7c800-491c-4b9c-a24e-3ecc1f942736/sist-en-62448-2014>