

JY dfYXghUj bcgHb] g]ghYa]]b'cdfYa U! JY dfYXghUj bcgHb] Y!nUcÿb]ýhj c`]b`Y!_b¶[Y
!`Cgbcj b]Zfa UhnUY!nUcÿb]ýhj c`f¶7 * & (, .&\$- Ł

Multimedia systems and equipment - Multimedia e-publishing and e-books - Generic
format for e-publishing (IEC 62448:2009)

Multimediasysteme und -geräte - E-Publishing und E-Books für Multimedia-
Anwendungen - Allgemeines Format für E-Publishing (IEC 62448:2009)

Systèmes et appareils multimedia - Edition électronique multimedia et livres
électroniques - Format générique relatif à l'édition électronique (CEI 62448:2009)

<https://standards.iteh.ai/catalog/standards/sist/2efc6813-aeba-45a1-9850-08d9812f1587/sist-en-62448-2009>

Ta slovenski standard je istoveten z: EN 62448:2009

ICS:

01.140.40	Založništvo	Publishing
33.160.60	X^] ^•œ} ãQ ~ ã ^ãã\ ð •ãc{ ãã Á] ^{ æÁæ c ^\[} ^ ^} &^	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 62448:2009

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 62448:2009

<https://standards.iteh.ai/catalog/standards/sist/2efc6813-aeba-45a1-9850-08d9812f1587/sist-en-62448-2009>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62448

August 2009

ICS 33.160.60; 35.240.30

English version

**Multimedia systems and equipment -
Multimedia E-publishing and E-books -
Generic format for E-publishing
(IEC 62448:2009)**

Systèmes et appareils multimédia -
Edition électronique multimédia
et livres électroniques -
Format générique
relatif à l'édition électronique
(CEI 62448:2009)

Multimediasysteme und -geräte -
E-Publishing und E-Books
für Multimedia-Anwendungen -
Allgemeines Format für E-Publishing
(IEC 62448:2009)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This European Standard was approved by CENELEC on 2009-07-01. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 100/1386A/CDV, future edition 2 of IEC 62448, prepared by technical area 10, Multimedia e-publishing and e-book, of IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62448 on 2009-07-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2010-04-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2012-07-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62448:2009 was approved by CENELEC as a European Standard without any modification.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 62448:2009
<https://standards.iteh.ai/catalog/standards/sist/2efc6813-aeba-45a1-9850-08d9812f1587/sist-en-62448-2009>

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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>
IEC/TS 62229	2006	Multimedia systems and equipment - Multimedia e-publishing and e-book - Conceptual model for multimedia e-publishing	-	-
ISO 639	Series	Codes for the representation of names of languages	-	-
ISO 3166-1	- ¹⁾	Codes for the representation of names of countries and their subdivisions - Part 1: Country codes	-	-
ISO 8601	- ¹⁾	Data elements and interchange formats - Information interchange - Representation of dates and times	-	-
ISO/IEC 646	- ¹⁾	Information technology - ISO 7-bit coded character set for information interchange	-	-
ISO/IEC 10646	2003	Information technology - Universal	-	-
A1	2005	multiple-octet coded character set (UCS)	-	-
A2	2006		-	-
A3	2008		-	-
A4	2008		-	-
A5	2008		-	-
ISO/IEC 19757-2	2003 ²⁾	Information technology - Document Schema	-	-
A1	2006	Definition Language (DSDL) - Part 2: Regular-grammar based validation - RELAX NG	-	-

¹⁾ Undated reference.

²⁾ ISO/IEC 19757-2 + A1 are superseded by ISO/IEC 19757-2:2008.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 62448:2009

<https://standards.iteh.ai/catalog/standards/sist/2efc6813-aeba-45a1-9850-08d9812f1587/sist-en-62448-2009>



IEC 62448

Edition 2.0 2009-02

INTERNATIONAL STANDARD

**Multimedia systems and equipment – Multimedia E-publishing and E-books –
Generic format for E-publishing**

STANDARD PREVIEW
(standards.iteh.ai)
[SIST EN 62448:2009](https://standards.iteh.ai/catalog/standards/sist/2efc6813-aeba-45a1-9850-08d9812f1587/sist-en-62448-2009)
<https://standards.iteh.ai/catalog/standards/sist/2efc6813-aeba-45a1-9850-08d9812f1587/sist-en-62448-2009>

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE

XH

ICS 33.160.60; 35.240.30

ISBN 2-8318-1031-1

CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references	8
3 Terms and definitions	8
4 Position and requirements for generic format.....	9
4.1 Generic format in contents creation/distribution model.....	9
4.2 Requirements for generic format	9
5 Notation	10
6 Logical structure.....	10
7 Semantics	11
Annex A (normative) BBeB Xylog Format.....	12
Annex B (normative) XMDF XML format.....	88
Bibliography.....	180
Figure 1 – Contents creation/distribution model	9
Figure A.1 – Conceptual diagram of the “Block layout”	31
Figure A.2 – Coordinate system	32
Figure A.3 – Page layout composition	33
Figure A.4 – Block layout composition	34
Figure A.5 – Bgimagemode attribute	40
Figure A.6 – Layout attribute	41
Figure B.1 – XML tree structure	88
Figure B.2 – Example of valign="middle"	124
Figure B.3 – Example of dropped capital.....	128
Figure B.4 – Left and right margin of a paragraph	128
Figure B.5 – Horizontal writing in vertical text	131
Figure B.6 – Ruby.....	132
Figure B.7 – Example of search page object instance rendering	140
Figure B.8 – Comic object Instance.....	144
Table A.1 – Data types	35
Table A.2 – Attribute of BBeBXylog.....	35
Table A.3 – Attribute of Info	36
Table A.4 – Attribute of Title	36
Table A.5 – Attribute of Autor.....	36
Table A.6 – Attribute of Publisher	37
Table A.7 – Attribute of Label	37
Table A.8 – Attribute of Cthumbnail	37
Table A.9 – Attribute of TocLabel.....	38
Table A.10 – Attribute of Page	39
Table A.11 – Attribute of Wait	42

Table A.12 – Attribute of TextBlock	43
Table A.13 – rubyalign attribute	45
Table A.14 – rubyadjust attribute	46
Table A.15 – rubyoverhang attribute	46
Table A.16 – empdotsposition attribute	46
Table A.17 – emplineposition attribute	46
Table A.18 – emplinetype attribute	47
Table A.19 – align attribute	47
Table A.20 – blockrule attribute	48
Table A.21 – Attribute of P	49
Table A.22 – Attribute of Plot	50
Table A.23 – Attribute of Fill	51
Table A.24 – Attribute of Space	51
Table A.25 – Attribute of CharButton	51
Table A.26 – Attribute of Gaiji	52
Table A.27 – Attribute of Box	52
Table A.28 – linetype attribute	53
Table A.29 – Attribute of EmpDots	53
Table A.30 – Attribute of Empline	54
Table A.31 – Attribute of DrawChar	54
Table A.32 – Attribute of ImageBlock	55
Table A.33 – Attribute of ButtonBlock	58
Table A.34 – Attribute of BaseButton	60
Table A.35 – Attribute of FocusinButton	60
Table A.36 – Attribute of JumpTo	60
Table A.37 – Attribute of Run	60
Table A.38 – runoption attribute	61
Table A.39 – Attribute of PushButton	61
Table A.40 – Attribute of UpButton	61
Table A.41 – Attribute of Canvas	62
Table A.42 – Attribute of PutObj	63
Table A.43 – Attribute of Moveto	64
Table A.44 – Attribute of Lineto	64
Table A.45 – arrowtype attribute	65
Table A.46 – Attribute of DrawBox	65
Table A.47 – Attribute of DrawEllipse	66
Table A.48 – Attribute of RuledLine	67
Table A.49 – Attribute of BookStyle	67
Table A.50 – Attribute of SetDefault	68
Table A.51 – setwaitprop attribute	69
Table A.52 – Attribute of RegistFont	69
Table A.53 – Attribute of BookSetting	70
Table A.54 – Attribute of TextStyle	71

Table A.55 – Attribute of BlockStyle	74
Table A.56 – Attribute of PageStyle	76
Table A.57 – Attribute of Window	79
Table A.58 – Attribute of PopUpWin	79
Table A.59 – Attribute of Sound	80
Table A.60 – Attribute of SoundStream	80
Table A.61 – Attribute of ImageStream	81
Table A.62 – Attribute of Header	81
Table A.63 – Attribute of Footer	82
Table A.64 – Attribute of eSound	83
Table A.65 – Attribute of Font	83
Table A.66 – Attribute of Image	84
Table A.67 – Attribute of Button	85
Table B.1 – Base characters for reading	90
Table B.2 – Standard character set	90
Table B.3 – Usable characters for a telephone number	98
Table B.4 – Characters usable for email addresses	98
Table B.5 – Characters usable for the lookup key	113
Table B.6 – Color names	150
Table B.7 – Examples of additional standard character sets	151
Table B.8 – Example of additional characters usable for readings	151
Table B.9 – Example of additional sorting rules	152
Table B.10 – Example of additional language specific attributes for <enable_key_type>	153

INTERNATIONAL ELECTROTECHNICAL COMMISSION

MULTIMEDIA SYSTEMS AND EQUIPMENT – MULTIMEDIA E-PUBLISHING AND E-BOOKS – GENERIC FORMAT FOR E-PUBLISHING

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

International Standard IEC 62448 has been prepared by technical area 10: Multimedia e-publishing and e-book, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This second edition cancels and replaces the first edition, published in 2007 and constitutes a technical revision.

The main changes with respect to the previous edition are listed below.

- Addition of Annex B – XMDF XML format
- Related changes in Clauses 2 and 6.

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

CDV	Report on voting
100/1386A/CDV	100/1501/RVC

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.

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.

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 62448:2009

<https://standards.iteh.ai/catalog/standards/sist/2efc6813-ae8a-45a1-9850-08d9812f1587/sist-en-62448-2009>

INTRODUCTION

Markets for multimedia e-book and e-publishing require standardization of formats for e-book data interchange among associated people; authors, data preparers, publishers and readers. The formats are classified into submission format, generic format and reader's format. The submission format has to support an interaction between authors and data preparers. The reader's format depends on e-publishing equipment. The generic format has to provide an interchange format for data preparers and publishers and therefore should be e-publishing equipment independent.

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of patents.

Sony Corporation has informed IEC that it has patent applications or granted patents.

The IEC takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured the IEC that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with the IEC. Information may be obtained from:

Sony Corporation

6-7-35 Kitashinagawa, Shinagawa-ku

JP – Tokyo 141-0001

Sharp Corporation has informed IEC that it has patent applications or granted patents.

The IEC takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured the IEC that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with the IEC. Information may be obtained from:

Sharp Corporation

Platform Technology Development Center

2613-1, Ichinomoto-cho, Tenri, Nara

632-8587 JAPAN

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. The IEC shall not be held responsible for identifying any or all such patent rights.

MULTIMEDIA SYSTEMS AND EQUIPMENT – MULTIMEDIA E-PUBLISHING AND E-BOOKS – GENERIC FORMAT FOR E-PUBLISHING

1 Scope

This International Standard specifies a generic format for multimedia e-publishing employed for e-book data interchange among data preparers and publishers, satisfying a number of publishers requirements: revisable, extensible and heterogeneous logical structure.

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/TS 62229:2006, *Multimedia systems and equipment – Multimedia e-publishing and e-book – Conceptual model for multimedia e-publishing*

ISO 639(all parts), *Codes for the representation of names of languages*

ISO 646, *Information technology – ISO 7-bit-coded character set for information interchange*

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions – Part 1: Country codes*

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

ISO/IEC 10646, *Information technology – Universal Multiple-Octet Coded Character Set (UCS)*

Amendment 1 (2005)

Amendment 2 (2006)

Amendment 3 (2008)

Amendment 4 (2008)

Amendment 5 (2008)

ISO/IEC 19757-2:2003, *Information technology – Document Schema Definition Language (DSDL) – Part 2: Regular-grammar based validation – RELAX NG*

Amendment 1 (2006)

3 Terms and definitions

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

3.1

multimedia e-book

multimedia content consisting of texts, graphics, sounds and/or videos

[IEC 62229, 3.2]

3.2**data preparer**

organization or person that prepares an e-book; an editor is an example of a preparer

[IEC 62229, 3.3 modified]

3.3**publisher**

organization or person that issues and distributes an e-book

[IEC 62229, 3.4]

3.4**generic format**

format for multimedia e-book contents created and edited by a data preparer and modified by a publisher to a reader's format for e-book distribution

4 Position and requirements for generic format**4.1 Generic format in contents creation/distribution model**

The conceptual model for multimedia e-publishing [IEC 62229] defines a contents creation/distribution model shown in Figure 1.



Figure 1 – Contents creation/distribution model
<https://standards.iteh.ai/catalog/standards/sist/2efc6813-aeba-45a1-9850-08d9812f1587/sist-en-62448-2009>

Between the adjacent processing steps, data preparer and publisher, e-book contents data are interchanged using the generic format. Merging original texts, graphics, sounds and/or videos provided by authors, the data preparer creates and edits the e-book data in a generic format. The e-book data are stored and forwarded to the publishers.

Publishers modify the generic format into reader's formats appropriate for distribution schemes and devices. The generic format can be used for e-book distribution as well.

4.2 Requirements for generic format

The generic format can satisfy the following requirements of the data preparer and the publisher:

- a) logical structure:
 - the generic format has to have a logical structure that can easily be revised;
- b) style specification:
 - the logical elements in the generic format should be rendered in accordance with a style specification for creating an appropriate reader's format;
- c) heterogeneous structures:
 - multimedia e-books may include heterogeneous structures such as mathematics, chemistry and music notes according to the genre of contents. Those specific structures should be imported to the generic format;
- d) metadata:
 - the generic format should support some metadata to manage the e-book contents data.