SLOVENSKI STANDARD
SIST EN 62665:2016

01-december-2016

Nadomešča:
SIST EN 62665:2012

Večpredstavnostni sistemi in oprema - Večpredstavnostne tehnologije za e-založništvo in e-knjige - Besedno vodilo za predstavitev tiskanega besedila slušateljem (IEC 62665:2015)

Multimedia systems and equipment - Multimedia e-publishing and e-books technologies - Texture map for auditory presentation of printed texts (IEC 62665:2015)

Multimediageräte und -systeme - Multimedia e-publishing und e-book Technologien - Textur Abbildung für die auditive Darstellung von gedruckten Texten (IEC 62665:2015)

Systèmes et appareils multimédia - Technologies de l'édition électronique multimédia et des livres électroniques - Carte de texture pour la présentation auditive de textes imprimés (IEC 62665:2015

Ta slovenski standard je istoveten z: **EN 62665:2016**

ICS:

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 62665:2016 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62665

March 2016

ICS 33.160.60; 35.240.20; 35.240.30

Supersedes EN 62665:2012

English Version

Multimedia systems and equipment - Multimedia e-publishing and e-books technologies - Texture map for auditory presentation of printed texts (IEC 62665:2015)

Systèmes et appareils multimédia - Technologies de l'édition électronique multimédia et des livres électroniques - Carte de texture pour la présentation auditive de textes imprimés (IEC 62665:2015)

Multimediageräte und -systeme - Multimedia e-publishing und e-book Technologien -Textur Abbildung für die auditive Darstellung von gedruckten Texten (IEC 62665:2015)

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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

European foreword

The text of document 100/2431/CDV, future edition 2 of IEC 62665, 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 62665:2016.

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)	2016-10-15
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-01-15

This document supersedes EN 62665:2012.

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Endorsement notice

The text of the International Standard IEC 62665:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62875:2015 NOTE Harmonized as EN 62875:2015.

IEC 62665

Edition 2.0 2015-12

INTERNATIONAL STANDARD

colour inside

Multimedia systems and equipment – Multimedia e-publishing and e-book technologies –Texture map for auditory presentation of printed texts

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 33.160.60; 35.240.20; 35.240.30

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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MULTIMEDIA SYSTEMS AND EQUIPMENT – MULTIMEDIA E-PUBLISHING AND E-BOOK TECHNOLOGIES – TEXTURE MAP FOR AUDITORY PRESENTATION OF PRINTED TEXTS

FOREWORD

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International Standard IEC 62665 has been prepared by technical area 10: Multimedia e-publishing and e-book technologies, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This second edition cancels and replaces the first edition published in 2012 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition.

a) Two different control codes are described by the different terms: "control codes for text" and "control codes for speech".
b) Pack processing and LZSS processing are shown in their additional subclauses.
c) An example of the header file "Speechio.h" is added.
d) An example of error correction encoding is shown in additional Annex D.

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

CDV	Report on voting
100/2431/CDV	100/2507/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 stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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

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

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

INTRODUCTION

Information interchange via printed documents between blind or visually impaired people has been carried out by using Braille. However, in order to be able to read Braille, particular tuition is required. Learning Braille is very difficult for aged as well as visually non-impaired people.

Printed documents with texts and text-encoded texture maps can be interchanged by ordinary circulation or publication mechanisms. They are readable as ordinary printed materials and comprehensible by blind or visually impaired people with the support of decoding and auditory presentation equipment.

Today, interchanging of printed documents has become wide-spread and international. The text-encoding scheme to generate a texture map should therefore be standardized at an international level.

Patent

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 as listed below:

PATENT No. 3499220 (Japan)
PATENT No. 4439756 (Japan)
PATENT No. 4744745 (Japan)
PATENT No. 4772631 (Japan)

IEC takes no position concerning the evidence, validity and scope of these patent rights.

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MULTIMEDIA SYSTEMS AND EQUIPMENT – MULTIMEDIA E-PUBLISHING AND E-BOOK TECHNOLOGIES – TEXTURE MAP FOR AUDITORY PRESENTATION OF PRINTED TEXTS

1 Scope

In order to generate a texture map for auditory presentation of printed text information, this International Standard specifies

– a text encoding scheme to generate a texture map,
– a physical shape and dimension of the texture map for printing,
– additional features for texture map printing,
– texture map decoding and an auditory presentation of decoded texts.

These specifications enable the interchange of documents and publications between visually impaired and non-impaired people.

2 Terms and definitions

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

2.1
texture map
two dimensional cell patterns which include alignment lines and a data matrix which is generated from text data compression and error correction encoding

2.2
auditory presentation equipment
equipment including an engine to carry out a text-to-speech

3 Texture map

3.1 Names of elements

A shape and names of a texture map are indicated in Figure 1. The shape represents the M size in Table 1.

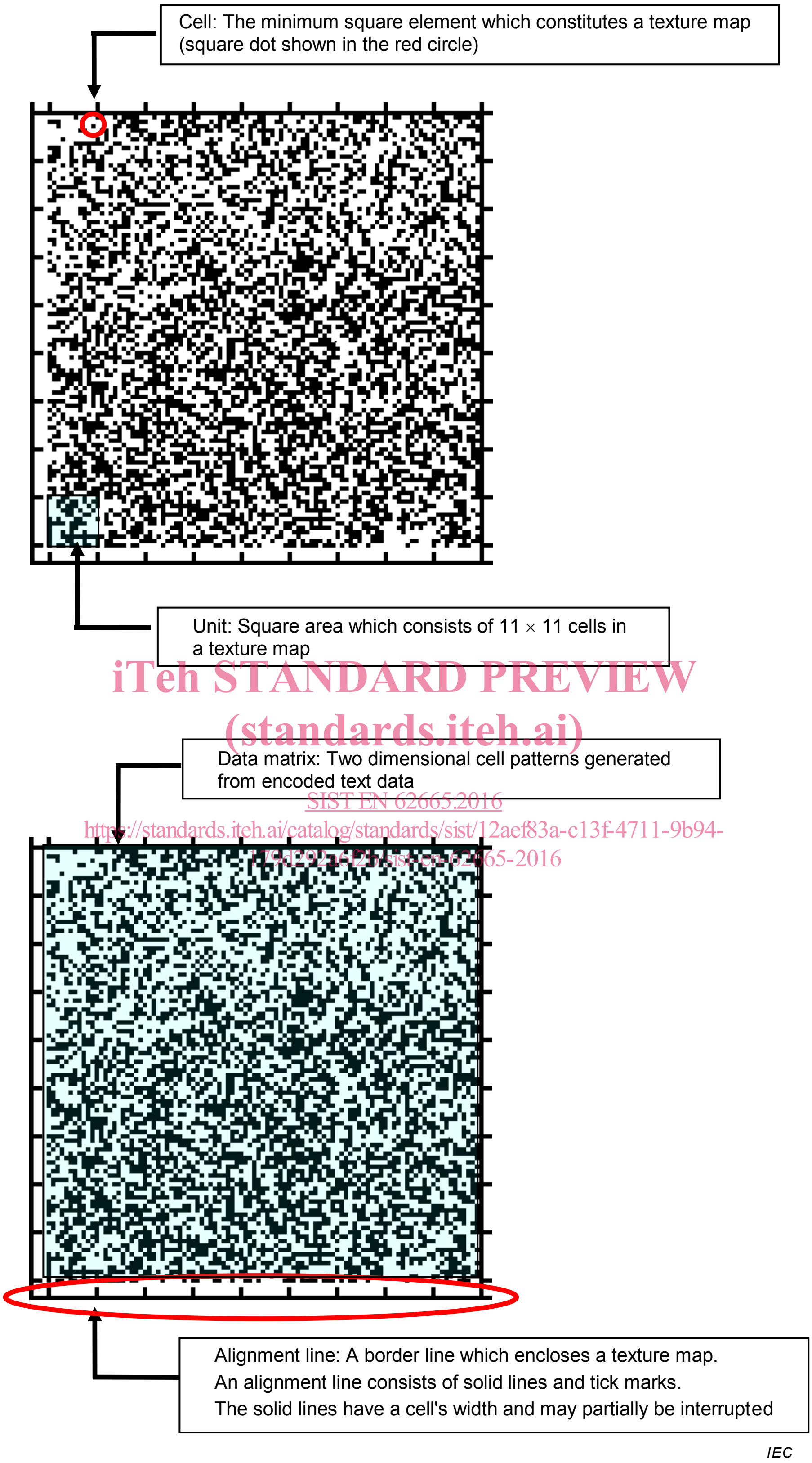

Figure 1 – Shape and elements of a texture map

3.2 Size and data volume

Texture maps have four sizes: XS, S, M and L. The corresponding data volumes are shown in Table 1.

Table 1 – Sizes and data volume of texture maps

Size	Number of cells	Number of units	Dimensions at printing mm	Error correction level	Data volume (Double byte characters)
XS	40 × 40	3 × 3	6,8 × 6,8	strong	41
				medium	48
				weak	51
S	73 × 73	6 × 6	12,4 × 12,4	strong	250
				medium	298
				weak	329
M	106 × 106	9 × 9	17,9 × 17,9	strong	651
				medium	768
				weak	840
L	117 × 117	10 × 10	19,8 × 19,8	strong	793
				medium	921
				weak	1 027

NOTE 1 Number of cells: Cells including alignment line.

NOTE 2 Dimensions at printing: Dimensions of a BMP (bitmap) image created by the SpeechioSymbol [1] function (see 3.3.2.2) at printing with 600 dpi resolution.

NOTE 3 Error correction: One of the 3 levels of error correction: strong, medium and weak, is specified by the SpeechioEncode function at encoding texts to a texture map.

NOTE 4 Data volume: The values in this table depend on a compression of text data.

3.3 Encoding scheme of a texture map from texts

3.3.1 General

The process of generating a texture map from texts is shown in Figure 2. The SpeechioEncode function encodes input texts to create cell data that are stored in a buffer called bit string. Then, the SpeechioSymbol function processes the buffered cell data to generate image data of a texture map.

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[1] Speechio™ is the trade mark of a product supplied by KOSAIDO Co., Ltd.

This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the product named. Equivalent products may be used if they can be shown to lead to the same results.