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INTERNATIONAL STANDARD

colour inside

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

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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- withdrawn,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)
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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.