

INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

Systèmes et appareils multimédia – Technologies de l'édition électronique multimédia et des livres électroniques – Spécification d'impression de la carte de texture pour la présentation auditive de textes imprimés



THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2015 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC online collection - oc.iec.ch

Discover our powerful search engine and read freely all the publications previews. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 000 terminological entries in English and French, with equivalent terms in 18 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Recherche de publications IEC -

webstore.iec.ch/advsearchform

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études, ...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: sales@iec.ch.

IEC online collection - oc.iec.ch

Découvrez notre puissant moteur de recherche et consultez gratuitement tous les aperçus des publications. Avec un abonnement, vous aurez toujours accès à un contenu à jour adapté à vos besoins.

Electropedia - www.electropedia.org

Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 000 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 16 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

Systèmes et appareils multimédia – Technologies de l'édition électronique multimédia et des livres électroniques – Spécification d'impression de la carte de texture pour la présentation auditive de textes imprimés

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 33.160

ISBN 978-2-8322-9335-5

**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	3
1 Scope	5
2 Normative reference	5
3 Terms and definitions	5
4 Printing specification	6
4.1 General.....	6
4.2 Size of a texture map.....	6
4.3 Printing quality of a texture map.....	6
4.3.1 Printing quality.....	6
4.3.2 Sampling line.....	7
4.3.3 Quality measure	8
4.4 Location of a texture map.....	11
4.5 Location of a notch	11
Annex A (informative) Examples of visible quality of a texture map.....	13
Annex B (informative) Creating process of printed matter including a texture map	15
Figure 1 – Sampling lines in case of size M texture map.....	7
Figure 2 – Reflectance pattern of cells on scanning the sampling lines	8
Figure 3 – Length between end points of tick marks of a horizontal sampling line	9
Figure 4 – Location of a texture map.....	11
Figure 5 – Location of a single notch	12
Figure 6 – Location of double notches	12
Figure A.1 – Texture map with high printing quality.....	13
Figure A.2 – Texture map including low contrast cells and non-square cells.....	13
Figure A.3 – Texture map with low sharpness	14
Figure A.4 – Texture map processed by non-preserving data compression	14
Figure B.1 – Creating process of printed matter including a texture map.....	15
Table 1 – Sizes of a texture map.....	6
Table 2 – Printing quality of a texture map.....	7
Table 3 – Value of print contrast	8
Table 4 – Value of symmetry of cell pattern	9
Table 5 – Value of squareness.....	9
Table 6 – Value of size accuracy	10
Table 7 – Value of tick mark identification	10
Table 8 – Value of quiet zone sufficiency	10
Table 9 – Value of uselessness of error correction.....	11
Table 10 – Value of decodability	11

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

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 itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, accept IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 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.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62875 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.

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

CDV	Report on voting
100/2292/CDV	100/2400/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 website 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.

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

1 Scope

The texture map for auditory presentation of printed texts is printed on paper or shown on display devices. This International Standard specifies the printing quality of this texture map on paper.

In order to ensure an interoperability of the texture map specified in IEC 62665, a printing specification based on the quality of this International Standard should be employed.

2 Normative reference

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.

IEC 62665, *Multimedia systems and equipment – Multimedia e-publishing and e-books technologies – Texture map for auditory presentation of printed texts*

3 Terms and definitions

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

3.1

texture map

two dimensional cell patterns which include alignment lines and a data matrix

[SOURCE: IEC 62665, 2.1, modified – Definition has been clarified.]

3.2

data matrix

two dimensional cell patterns generated from text data compression and error correction encoding

3.3

cell

minimum square dot which constitutes a data matrix

3.4

alignment line

border line which encloses a texture map

Note 1 to entry: An alignment line consists of solid lines and tick marks. The solid lines have a cell's width and may partially be interrupted.

Note 2 to entry: For additional information on alignment lines, see IEC 62665.