Audio, video and multimedia systems and equipment -Multimedia e-publishing and e-book technologies -Raster-graphics image-based e-books



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

	This Estonian standard EVS-EN 63029:2017 consists of the English text of the European standard EN 63029:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.10.2017.	Date of Availability of the European standard is 06.10.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <u>standardiosakond@evs.ee</u>.

ICS 33.160.99, 35.140, 35.240.30

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Koduleht <u>www.evs.ee</u>; telefon 605 5050; e-post <u>info@evs.ee</u>

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 63029

October 2017

ICS 33.160.99; 35.140; 35.240.30

English Version

Audio, video and multimedia systems and equipment Multimedia e-publishing and e-book technologies - Rastergraphics image-based e-books
(IEC 63029:2017)

Systèmes et équipements audio, vidéo et multimédias -Technologies multimédias pour la publication au format numérique et les livres numériques - Livres numériques basés sur des images à balayage de trames (IEC 63029:2017) Audio-, Video- und Multimediasysteme, -Geräte und -Komponenten - Multimedia-E-Publishing und -E-Book-Technologien - Rastergrafikbasierte E-Books (IEC 63029:2017)

This European Standard was approved by CENELEC on 2017-08-16. 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 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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 100/2817/CDV, future edition 1 of IEC 63029, prepared by IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 63029:2017.

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)	2018-05-16
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-08-16

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

Endorsement notice

The text of the International Standard IEC 63029:2017 was approved by CENELEC as a European Standard without any modification.

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication IEC 61966-2-1	<u>Year</u> -	<u>Title</u> Multimedia systems and equipment - Colour measurement and management Part 2-1: Colour management - Default RGB colour space - sRGB Graphic technology Prepress digital data exchange Tag image file format for image technology (TIFF/IT)	<u>EN/HD</u> EN 61966-2-1	<u>Year</u> - -
		S		
		9		
		7		
		OLO COLO COLO COLO COLO COLO COLO COLO		
		C.		
			Q,	
			Ö	
				75
				50
				0.

CONTENTS

F	DREWO	RD	4
IN	TRODU	CTION	6
1	Scope	9	7
2	Norm	ative references	7
3	Term	s and definitions	7
4		er-graphic image-based e-book	
•	4.1	General	
	4.2	Target sourcebook	
5		ning scheme	
Ū	5.1	Cutting the sourcebook	
	5.2	Scanning sourcebook	
	5.3	Setup/adjustment of image quality related parameters	
	5.3.1	Elimination of unintended density variation	
	5.3.2	Resolution	
	5.3.3	Highlight washout point	
	5.3.4	Tone curve adjustment / Black point setup	
	5.4	Post-processing / encoding	
	5.4.1	Post-processing	10
	5.4.2	Encoding	10
Ar		nformative) Defect examples	
	A.1	Image loss Image tilt	11
	A.2	Image tilt	12
	A.3	Show-through	13
	A.4	Line image discontinuity	
	A.5	Moiré	
	A.6	Highlight washout	
	A.7	Highlight washout and unwanted shadow clipping	
Bi	bliograp	hy	18
		Workflow for generating e-book from sourcebook	
Fi	gure 2 –	Tone curve adjustment / Black point setup	10
Fi	gure A.1	- An example of the double-page spread without image loss	11
	-	– An example of the double-page spread with image loss	
	_	– An example of the text image without image tilt	
		– An example of the text image with image tilt	
Fi	gure A.5	– An example of the text image without show through	13
		– An example of the text image with show through	
		– An example of the text image without line image discontinuity	
	-	- An example of the text image with line image discontinuity	
	•	An example of the photographic image without moiré	
		0 – An example of the photographic image with moiré	
	_	1 – An example of the business graphics image without highlight washout	
Fi	gure A.1	2 – An example of the business graphics image with highlight washout	16

igure A.14 – An example of	f the photographic image with highlight washout
	f the photographic image with unwanted shadow clipping
7:	
0,	
C,	
0	
	8
	4.
	7
	6.

INTRODUCTION

Scanning of existing printed books is presently carried out widely to store their content in an electronic format: raster-graphics image-based e-books. The scanning includes number of parameters and sometimes results in poor-quality scanned data due to inappropriate parameter settings.

The scanning devices with storage memory and automatic document feeders enable swift production of raster-graphics image-based e-books with a brief procedure that does not require advanced skills and knowledge.

Scanning schemes can have many attributes which affect to the quality of raster-graphics image-based e-books, such as environmental conditions, sheet cutting/scanning operation, resolution, highlight washout point, tone curve adjustment/black point setup, post-processing and encoding. For example, inadequate selection of the scanning resolution can cause moiré in halftone images and discontinuation of lines in text images. The purpose of this document is to specify a scanning scheme for developing raster-graphics image-based e-books. When conforming to this document, a reasonable quality of raster-graphics image-based e-books is SO ORCHICA OCACARO DE LEGA DE to be expected.