INTERNATIONAL STANDARD

ISO/IEC 14496-4

Second edition
2004-12-15

AMENDMENT 23
2008-04-15

Information technology — Coding of audio-visual objects —

Part 4: Conformance testing

AMENDMENT 23: Synthesized texture conformance

Technologies de l'information — Codage des objets audiovisuels —

Partie 4: Essai de conformité

AMENDEMENT 23: Conformité de texture synthétisée

Reference number
ISO/IEC 14496-4:2004/Amd.23:2008(E)

© ISO/IEC 2008

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS

Not for Resale

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2008

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 ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS

© ISO/IEC 2008 – All rights reserved

Not for Resale

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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

Amendment 23 to ISO/IEC 14496-4:2004 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

--`,,```,,,,````-`-`,,`,,`,`,,`---

© ISO/IEC 2008 – All rights reserved

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

Information technology — Coding of audio-visual objects —

Part 4:
Conformance testing

AMENDMENT 23: Synthesized texture conformance

Modify 4.3.3.1.6.1 (Structure) as follows:

Add 0x07 `objectTypeIndication` to the list of supported streams for streamType 0x04. The sentence should now state:

If `streamType` = 0x04, the `objectTypeIndication` attribute shall take on one of the values from 0x07, 0x20, 0x60-0x65, 0x6A and 0xFF. The last value shall indicate that no profile is specified.

In 4.4.3.1, add the following row at the end of Table 4 and renumber the first column:

N°	Feature	Reference of Test sequence and associated method
1	SynthesizedTexture	ST_001_BG_Gray through ST_038_Venice see details in annex X

In 4.4.3.3, add the following rows at the end of Table 6:

Name	Provider	Content
ST_001_BG_Gray	Vimatix	Background points only, each point carries same color (gray)
ST_002_BG_Gray_Green	Vimatix	2 types of background color points: gray and green
ST_003_BG_Gray_Green_Red	Vimatix	3 types of background color points: red green and gray
ST_004_BG_Grey_Green_Red_ Blue	Vimatix	4 types of background color points: red green, blue and gray
ST_005_Edge_Rect_Red	Vimatix	Red Rectangle (Edges) on top of the gray background
ST_006_Edge_Rect_Red_ Wide_Color_Profiles	Vimatix	Widened color profiles of the Edges cover surrounding of the rectangle
ST_007_Ridge	Vimatix	A narrow velvet Ridge is added to previous scene

© ISO/IEC 2008 – All rights reserved

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

Name	Provider	Content
ST_008_Ridge_Wide_Color_Profiles	Vimatix	Ridge color profile width is wider and spans over more pixels
ST_009_Double_Edge_Narrow	Vimatix	Ridge of stream ST_007_Ridge is converted Edge
ST_010_Double_Edge_Wide	Vimatix	The Ridge of ST_008_Ridge_Wide_Color_Profiles is converted to Edge
ST_011_Stripe_2_Colors	Vimatix	Green rectangular stripe added on top of the gray background
ST_012_Stripe_3_Colors	Vimatix	Same color (red) on both side of color profiles
ST_013_Stripe_4_Colors	Vimatix	Two colors on opposite sides of color profiles (red and blue)
ST_014_Stripe_Edge_Full	Vimatix	Velvet Edge line in Z shape added to the previous scene
ST_015_Stripe_Edge_S_Profile	Vimatix	Color profiles affect only one side of the Edge
ST_016_Stripe_Stripe_Narrow	Vimatix	Narrow velvet stripe replaces an Edge
ST_017_Stripe_Blend_3_Colors	Vimatix	Color profiles of rectangular stripe softly blend with the background
ST_018_Stripe_Patch	Vimatix	4 patches are added inside the blue rectangle
ST_019_Patch	Vimatix	3 arrays of patches on top of a gray background scene
ST_020_BG_Rects	Vimatix	Rectangular shapes are represented with background points only resulting in soft Edges
ST_021_BG_Rects_Edges	Vimatix	Edges are added on top of the background points resulting in sharp Edges
ST_022_Girl_Portrait_Full	Vimatix	A photo-realistic scene represented all core ST elements: Background points, Edges, Ridges, Stripes and Patches
ST_023_Girl_Filter_Specks	Vimatix	Stream ST_022 no Patches
ST_024_Girl_Portrait_Filter_Specks_Filter_Stripes	Vimatix	Stream ST_022 no Patches nor Stripes
ST_025_Girl_Filter_Specks_No_Ridges	Vimatix	Stream ST_022, no Patches; Ridges converted to Edges
ST_026_Girl_Filter_Specks_No_Ridges_Filter_Stripes	Vimatix	Stream ST_022 no Patches, Ridges converted to edges and no Stripes
ST_027_Boy_Full	Vimatix	Photorealistic scene with all ST core elements
ST_028_Yosi	Vimatix	Photorealistic scene with all ST core elements
ST_029_Bambi_Layers	Vimatix	Cartoon scene cut to layers and holding 6 contour lines
ST_030_Object_Rect	Vimatix	Static rectangle built of edges

© ISO/IEC 2008 – All rights reserved
Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

Name	Provider	Content
ST_031_Object_Rect_Skeleton	Vimatix	One bone skeleton tied to the rectangle of ST_030
ST_032_Object_Rect_No_ Animation	Vimatix	A rectangle is cut into Object, no animation
ST_033_Object_Rect_ Translation	Vimatix	Rectangular object is translated
ST_034_Object_Rect_Rotation	Vimatix	Rectangular object is rotated
ST_035_Object_Rect_Bend	Vimatix	Rectangular object is bent
ST_036_Object_Rect_Full_ Animation	Vimatix	Rectangular object is translated, bent, rotated and stretched simultaneously
ST_037_Bambi	Vimatix	Animated cartoon using all elements of ST
ST_038_Venice	Vimatix	A photo-realistic animation using all elements of ST

Add Annex F:

Annex F
(informative)

Breakdown of test bit-streams for Synthesized Texture Object Type

Sequence Name	Background Points	Edges	Ridges	Stripes	Patches	Contours	Layers	Skeleton Bones	Animation	Key Frames	Object Rotate	Object Translate	Object Bend	Object Stretch
ST_001_BG_Gray	1024													
ST_002_BG_Gray_Green	1024													
ST_003_BG_Gray_Green_Red	1024													
ST_004_BG_Grey_Green_Red_Blue	1024													
ST_005_Edge_Rect_Red	948	1												
ST_006_Edge_Rect_Red_Wide_Color_Profiles	948	1												
ST_007_Ridge	926	1	4											
ST_008_Ridge_Wide_Color_Profiles	926	1	4											

© ISO/IEC 2008 – All rights reserved

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

Sequence Name	Background Points	Edges	Ridges	Stripes	Patches	Contours	Layers	Skeleton Bones	Animation	Key Frames	Object Rotate	Object Translate	Object Bend	Object Stretch
ST_009_Double_Edge_Narrow	926	2												
ST_010_Double_Edge_Wide	926	2												
ST_011_Stripe_2_Colors	924			2										
ST_012_Stripe_3_Colors	924			2										
ST_013_Stripe_4_Colors	924			2										
ST_014_Stripe_Edge_Full	846	2		1										
ST_015_Stripe_Edge_S_Profile	846	2		1										
ST_016_Stripe_Stripe_Narrow	924	2		1										
ST_017_Stripe_Blend_3_Colors	924	1		1										
ST_018_Stripe_Patch	924	1		1	4									
ST_019_Patch	1024				45									
ST_020_BG_Rects	3848													
ST_021_BG_Rects_Edges	3543	5												
ST_022_Girl_Portrait_Full	2320	184	18	150	294									
ST_023_Girl_Filter_Specks	2320	184	18	150										
ST_024_Girl_Portrait_Filter_Specks_Filter_Stripes	2320	184	18		1									
ST_025_Girl_Filter_Specks_No_Ridges	2320	238		150	1									
ST_026_Girl_Filter_Specks_No_Ridges_Filter_ Stripes	2320	88			1									
ST_027_Boy_Full	1577				456									
ST_028_Yosi	5874	611			601									
ST_029_Bambi_Layers	1286	64			11	6	6							
ST_030_Object_Rect	680	1												
ST_031_Object_Rect_Skeleton	680	1						1						
ST_032_Object_Rect_No_Animation	680	1						1						

--`,,```,,,,````-`-`,,`,,`,`,,`---

© ISO/IEC 2008 – All rights reserved
Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

Sequence Name	Background Points	Edges	Ridges	Stripes	Patches	Contours	Layers	Skeleton Bones	Animation	Key Frames	Object Rotate	Object Translate	Object Bend	Object Stretch
ST_033_Object_Rect_Translation	680	1						1	1	2		1		
ST_034_Object_Rect_Rotation	680	1						1	1	2	1			
ST_035_Object_Rect_Bend	680	1						1	1	3			1	
ST_036_Object_Rect_Full_Animation	680	1						1	1	4	1	1	1	1
ST_037_Bambi	1268	77			11			29	1	15	1	1	1	
ST_038_Venice	4304	1580						12	1	50	1	1	1	

--`,,```,,,,````-`-`,,`,,`,`,,`---
© ISO/IEC 2008 All rights reserved
Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

ICS 35.040

Price based on 5 pages

© ISO/IEC 2008 – All rights reserved
Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale