INTERNATIONAL STANDARD

ISO/IEC 15938-7

First edition
2003-12-01

AMENDMENT 6
2011-10-01

Information technology — Multimedia content description interface —

Part 7: Conformance testing

AMENDMENT 6: Conformance testing for video signature tools

Technologies de l'information — Description de l'interface du contenu multimédia —

Partie 7: Essais de conformité

AMENDEMENT 6: Essai de conformité pour outils de signature video

Reference number
ISO/IEC 15938-7:2003/Amd.6:2011(E)

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Published in Switzerland

Foreword

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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.

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Amendment 6 to ISO/IEC 15938-7:2003 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

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In 7.3.4, Naming Scheme for Visual Conformance Descriptions, add the following items to Table 3 and corresponding bitstreams:

Table 3 — Naming Scheme for Video Conformance Descriptions

Descriptor/Descriptionscheme	Basename
Video signature	VideoSignature

Replace 7.3.5 with:

7.3.5 Visual extraction methods

The extraction methods for most descriptors are not explicitly specified for tools defined in ISO/IEC 15938-3, therefore conformance testing of extraction methods is not required. The exceptions to this are the Image and Video Signature descriptors for which the extraction methods are explicitly defined in ISO/IEC 15938-3:2002/Amd.3:2009 and ISO/IEC 15938-3:2002/Amd.4:2010.

After 7.3.5.1.2, insert the following new subclause:

7.3.5.2 Video Signature Conformance

This subclause specifies the conformance test for the video signature descriptor. An implementation of the video signature extraction method shall be referred to as a video signature extractor. To be conformant a video signature extractor shall pass the conformance test.

To verify conformance of a video signature extractor, test video signature descriptors shall be extracted from a set of videos and compared to a set of reference video signature descriptors. The specified video set consists of 31 videos. These videos and their reference video signature descriptors are included in VideoSignatureConformanceTestset_1of2.zip and VideoSignatureConformanceTestset_2of2.zip. The filenames of the videos and their reference video signature descriptors, and the number of frames for each video are shown in Table Amd6.1. The FrameSignature element and the FrameConfidence element for each frame of the test video signature shall be compared with the FrameSignature and the FrameConfidence for the corresponding frame of the reference video signature. The total number of frame comparison shall be 162853.

In order for the video signature extractor being tested to pass the conformance test, the FrameSignature and the FrameConfidence for 99.99% or more of all frames from the specified video set, i.e. 162837 frames or more out of 162853 frames, shall satisfy the following two conditions.

1. **FrameSignature Element**: The number of dimensions whose ternary values differ between the test and the reference video signatures shall be less than or equal to 15 out of 380, if the FrameConfidence values of both the test and the reference video signatures are greater than or equal to 4. The ternary values of the frame signature shall be decoded from the binary representation according to Table E.1.

2. **FrameConfidence Element**: The absolute value of the difference between the FrameConfidence values of the test and the reference video signatures shall be less than or equal to 7. The absolute value V shall be calculated as,

$$V = Abs(conf_T - conf_R)$$

where $conf_T$ and $conf_R$ denote the FrameConfidence values of the test and reference video signatures respectively.

Table AMD6.1 — Video Signature conformance test set

No	Video	Video signature descriptor	Number of frames
1	Inca_Trail_15-19_0.mpg	Inca_Trail_15-19_0.bin	4500
2	Inca_Trail_15-19_12.mpg	Inca_Trail_15-19_12.bin	4500
3	Inca_Trail_26-29_30.mpg	Inca_Trail_26-29_30.bin	4500
4	Inca_Trail_5_3.mpg	Inca_Trail_5_3.bin	4500
5	Inca_Trail_7_0.mpg	Inca_Trail_7_0.bin	4500
6	Inca_Trail_9-14_53.mpg	Inca_Trail_9-14_53.bin	4500
7	NEC_IndoorA1_02.mpg	NEC_IndoorA1_02.bin	5425
8	NEC_IndoorA1_06.mpg	NEC_IndoorA1_06.bin	5425
9	NEC_IndoorB1_00.mpg	NEC_IndoorB1_00.bin	5425
10	NEC_IndoorB1_06.mpg	NEC_IndoorB1_06.bin	5425
11	NEC_Misc1_00.mpg	NEC_Misc1_00.bin	5425
12	NEC_Misc3_09.mpg	NEC_Misc3_09.bin	5425
13	NEC_Misc4_00.mpg	NEC_Misc4_00.bin	5425
14	sejong_MFL1.mpg	sejong_MFL1.bin	5440
15	sejong_MFL5.mpg	sejong_MFL5.bin	5448
16	sejong_MFL25.mpg	sejong_MFL25.bin	5447
17	sejong_MFL38.mpg	sejong_MFL38.bin	5448
18	sejong_MFL45.mpg	sejong_MFL45.bin	5434
19	sejong_MFL55.mpg	sejong_MFL55.bin	5448
20	sejong_MFL125.mpg	sejong_MFL125.bin	5448
21	sejong_MFL131.mpg	sejong_MFL131.bin	5448
22	sejong_MFL138.mpg	sejong_MFL138.bin	5447
23	sejong_MFL155.mpg	sejong_MFL155.bin	5448
24	sejong_MFL191.mpg	sejong_MFL191.bin	5447
25	SongDo_09.mpg	SongDo_09.bin	5425
26	InhaUniversity_PR001.mpg	InhaUniversity_PR001.bin	5425
27	InhaUniversity_PR031.mpg	InhaUniversity_PR031.bin	5425
28	InhaUniversity_PR060.mpg	InhaUniversity_PR060.bin	5425
29	InhaUniversity_PR065.mpg	InhaUniversity_PR065.bin	5425
30	InhaUniversity_PR075.mpg	InhaUniversity_PR075.bin	5425
31	InhaUniversity_PR084.mpg	InhaUniversity_PR084.bin	5425