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AMENDMENT 18
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Information technology — Coding of audio-visual objects —

Part 4: Conformance testing

AMENDMENT 18: Conformance of MPEG-1/2 Audio in MPEG-4

Technologies de l'information — Codage des objets audiovisuels —

Partie 4: Essai de conformité

AMENDEMENT 18: Conformité de MPEG-1/2 Audio dans MPEG-4

Reference number
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Foreword

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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.

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Amendment 18 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*.

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Information technology — Coding of audio-visual objects —

Part 4:
Conformance testing

AMENDMENT 18: Conformance of MPEG-1/2 Audio in MPEG-4

In subclause 6.5.1 File name conventions, insert the following row into Table 29 after the row for DST:

Layer-3	l3_<coreSetup>_<fs>	l3_<coreSetup>_<fs>_<chan>

In subclause 6.6, add the following subclause:

6.6.21 Layer-3

6.6.21.1 Compressed data

6.6.21.1.1 Characteristics

Conformant Layer-3 compressed MPEG-4 data shall have the Layer-3 data stored as specified in ISO/IEC 14496-3, subpart 9.

6.6.21.1.2 Test procedure

Each compressed data shall meet the syntactic and semantic requirements specified in ISO/IEC 14496-3. The decoded data shall also meet the requirements defined in ISO/IEC 11172-3 and ISO/IEC 13818-3. If a syntactic element is not listed below, no restrictions apply to that element. The **reserved** element shall be encoded with the value zero.

6.6.21.1.2.1 AudioSpecificConfig

audioObjectType: Shall be encoded with the value 34.

6.6.21.1.2.2 Bitstream payload

syncword: shall be set to the total length of the mp3_channel_element (consisting of header, error_check, side_info and main data) in bytes

main_data_begin (9/8 bit): shall be set to the correct value for the corresponding MPEG-1/2 Layer 3 bitstream, or to zero

main_data(): shall be stored immediately following the side information

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6.6.21.2 Decoders

6.6.21.2.1 Characteristics

The MPEG-4 Layer-3 object type (“mp3on4”) is the counterpart to the MPEG-1/2 Layer-3, though also offering multi-channel support and support for lower sampling rates. The compressed MPEG-4 data syntax is defined in ISO/IEC 14496-3. The Audio Object Type Layer-3 contains re-formatted ISO/IEC 11172-3 or ISO/IEC 13818-3 Layer 3 compressed data.

6.6.21.2.2 Test procedure

The test procedures specified in ISO/IEC 11172-4 and ISO/IEC 13818-4 shall be applied. If no test is specified, a check of conformance using appropriate measurements, e.g. the LSB criterion or objective perceptual measurement systems, is not mandatory but highly recommended.

6.6.21.2.3 Test sequences

To test MPEG-4 Layer-3 decoders, ISO/IEC JTC 1/SC 29/WG 11 supplies a number of test sequences. The test sequences are defined in Table AMD18.1.

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Table AMD18.1 — MPEG-1/2 Audio on MPEG-4 Layer-3 test sequences

file base name	Mnemonic	origin	content	IDex	ID	bitrate_index	sampling_rate	mode	JS	CRC	test procedure
l3-test10101	he_32khz	11172-4	sine	1	1	0001	10	11	none	x	none
l3-test10102	he_44khz	11172-4	sine	1	1	0001	00	11	none	x	none
l3-test10103	he_48khz	11172-4	sine	1	1	0001	01	11	none	x	none
l3-test10104	si	11172-4	noise	1	1	0101	00	11	none	x	none
l3-test10105	si_block	11172-4	noise	1	1	0101	00	11	none	x	none
l3-test10106	si_huff_patched	derived from si_huff (11172-4)	noise	1	1	0101	00	11	none	x	none
l3-test10107	mp3on4_1	new	music	1	1	0101	01	11	none	none	none
l3-test10201	he_mode	11172-4	sine	1	1	1001	00	all	MS, IS	x	none
l3-test10202	hecommon	11172-4	sine	1	1	1001	00	00	none		none
l3-test10203	intens	new	noise	1	1	1001	00	01	IS	x	none
l3-test10204	sin1k0db	11172-4	sine	1	1	1001	00	01	none	x	none
l3-test10205	worstcas	new	artificial	1	1	1110	00	01	none	x	none
l3-test10206	compl	11172-4	sweep (10 Hz …10 kHz, -20 dB)	1	1	0101	01	11	none	x	RMS
l3-test10207	mp3on4_2	new	music	1	1	1001	01	01	MS	none	none
l3-test10501	mp3on4_5	new	music	1	1	1110	01	11,01,01	MS	none	none
l3-test20140	bitrate_16_all	13818-4	tonal, sine	1	0	0001	10	11	none	x	none
l3-test20141	bitrate_22_all	13818-4	tonal, sine	1	0	0001	00	11	none	x	none
l3-test20142	bitrate_24_all	13818-4	tonal, sine	1	0	0001	01	11	none	x	none
l3-test20143	compl24	13818-4	sweep (10 Hz …10 kHz, -20 dB)	1	0	1100	01	11	none	x	RMS
l3-test20244	noise	13818-4	white noise	1	0	1010	00	01	none	x	none
l3-test20245	is2	13818-4	white noise	1	0	1110	00	01	IS	x	none
l3-test20246	ms2	13818-4	white noise	1	0	1110	00	01	MS, IS	x	none
l3-test20247	Test_20_00	new	sweep	1	0	1010	00	01	IS	x	none
l3-test20248	Test_20_80	new	sweep	1	0	1010	00	01	IS	x	none
l3-test25101	compl12	new	sweep (10 Hz …5 kHz, -20 dB)	0	0	1000	01	11	none	x	RMS
l3-test25102	bitrate_8_all	new	sine	0	0	0000	10	11	none	x	none
l3-test25103	bitrate_11_all	new	sine	0	0	0000	00	11	none	x	none
l3-test25104	bitrate_12_all	new	sine	0	0	0000	01	11	none	x	none
l3-test25201	noise	new	noise	0	0	1000	00	01	none	x	none
l3-test25202	test20_00	new	sweep (10 Hz …5 kHz)	0	0	1000	00	01	none	x	none
l3-test25203	test20_80	new	sweep (10 Hz …5 kHz)	0	0	1000	00	01	none	x	none
l3-test25204	bitrates_8i	new	noise	0	0	1000	10	01	IS	x	none
l3-test25205	bitrates_11i	new	noise	0	0	1000	00	01	MS, IS	x	none
l3-test25206	bitrates_12i	new	noise	0	0	1000	01	01	MS, IS	x	none
l3-test25207	sw_8i	new	sweep (550 Hz … 5 kHz)	0	0	0100	10	01	IS	x	none
l3-test25208	sw_11i	new	sweep (550 Hz … 5 kHz)	0	0	0100	00	01	IS	x	none
l3-test25209	sw_12i	new	sweep (550 Hz … 5 kHz)	0	0	0100	01	01	IS	x	none

Add test sequences provided in the electronic attachment into the subdirectories compressedMp4, referencesWav and informative, respectively.

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