INTERNATIONAL STANDARD ISO/IEC 23003-1:2007/Amd.1:2008
TECHNICAL CORRIGENDUM 1

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION
INTERNATIONAL ELECTROTECHNICAL COMMISSION • МЕЖДУНАРОДНАЯ ЭЛЕКТРОТЕХНИЧЕСКАЯ КОМИССИЯ • COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

Information technology — MPEG audio technologies

Part 1:
MPEG Surround

AMENDMENT 1: Conformance testing

TECHNICAL CORRIGENDUM 1

Technologies de l'information — Technologies audio MPEG

Partie 1: Ambiance MPEG

AMENDEMENT 1: Essai de conformité

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO/IEC 23003-1:2007/Amd.1:2008 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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Replace all "heaac_mps_*" conformance sequences attached to ISO/IEC 23003-1:2007/Amd.1:2008 with the corresponding sequences attached to this document.

In 8.4.2.3.9: EcData(), add the following statement to bsXXXdataMode:

Shall have the value 0 or 3 if ps == 0 and **bsIndependencyFlag** is set to 1.

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Replace Tables AMD1.5, AMD1.6, AMD1.7, AMD1.8 and AMD1.13 with the corrected versions below, where the changes are highlighted by gray background:

Table AMD1.5 — List of MPEG Surround conformance test sequences with MPEG-4 AAC profile downmix

Sequence			aac_mps_oneicc	aac_mps_param_4	aac_mps_param_5	aac_mps_param_7	aac_mps_param_10	aac_mps_param_14	aac_mps_param_20	aac_mps_param_28	aac_mps_qmf	aac_mps_quant_0
downmix coder	AOT		2	2	2	2	2	2	2	2	2	2
	extAOT		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
	backwards compatible		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
	SBR present		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
	SSC Embedding		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
	number of channels		2	2	2	2	2	2	2	2	1	2
	sampling frequency		48000	48000	48000	48000	48000	48000	48000	48000	48000	48000
	frame length		1024	1024	1024	1024	1024	1024	1024	1024	1024	1024
time slots / frame			16	16	16	16	16	16	16	16	16	16
parameter bands			28	4	5	7	10	14	20	28	28	28
tree configuration			2	2	2	2	2	2	2	2	0	2
quantization mode			0	0	0	0	0	0	0	0	0	0
one ICC			1	0	0	0	0	0	0	0	0	0
arbitrary downmix			0	0	0	0	0	0	0	0	0	0
arbitrary tree			0	0	0	0	0	0	0	0	0	0
surround gain			2	2	2	2	2	2	2	2	2	2
LFE gain			1	1	1	1	1	1	1	1	1	1
downmix gain			4	4	4	4	4	4	4	4	4	4
matrix comp. mode			0	0	0	0	0	0	0	0	0	0
temp shape config			0	0	0	0	0	0	0	0	0	0
decorr config			0	0	0	0	0	0	0	0	0	0
energy based qu.			0	0	0	0	0	0	0	0	0	0
3D stereo			0	0	0	0	0	0	0	0	0	0

number of LFE bands	2	1	1	1	1	2	2	2	2	2
residual coding	0	0	0	0	0	0	0	0	0	0
arbitrary downmix residual	0	0	0	0	0	0	0	0	0	0
residual sampling rate	...	...	...	...	...	...	...	...	...	...
number of residual frames	...	...	...	...	...	...	...	...	...	...
number of residual bands	...	...	...	...	...	...	...	...	...	...
tttModeLow	1	1	1	1	1	1	1	1	...	1
tttLow start band	0	0	0	0	0	0	0	0	...	0
tttLow stop band	28	4	5	7	10	14	20	28	...	28
tttModeHigh	0	0	0	0	0	0	0	0	...	0
tttHigh start band	...	...	...	...	...	...	...	...	...	...
tttHigh stop band	...	...	...	...	...	...	...	...	...	...

Table AMD1.6 — List of MPEG Surround conformance test sequences with MPEG-4 AAC profile downmix (ctd.)

Sequence		aac_mps_quant_1	aac_mps_quant_2	aac_mps_quant_3	aac_mps_res	aac_mps_shape_ges	aac_mps_shape_stp	aac_mps_smooth	aac_mps_tree_5151	aac_mps_tree_5152	aac_mps_tree_525
downmix coder	AOT	2	2	2	2	2	2	2	2	2	2
	extAOT	...	...	...	...	...	...	...	...	...	...
	backwards compatible	...	...	...	...	...	...	...	...	...	...
	SBR present	...	...	...	...	...	...	...	...	...	...
	SSC Embedding	...	...	...	...	...	...	...	...	...	...
	number of channels	2	1	1	2	2	2	2	1	1	2
	sampling frequency	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000
	frame length	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024
time slots / frame		16	16	16	16	16	16	16	16	16	16
parameter bands		28	28	28	28	28	28	28	28	28	28

tree configuration	2	0	0	2	2	2	2	0	1	2
quantization mode	0	1	2	0	0	0	0	0	0	0
one ICC	0	0	0	0	0	0	0	0	0	0
arbitrary downmix	0	0	0	0	0	0	0	0	0	0
arbitrary tree	0	0	0	0	0	0	0	0	0	0
surround gain	2	2	2	2	2	2	2	2	2	2
LFE gain	1	1	1	1	1	1	1	1	1	1
downmix gain	4	4	4	4	4	4	4	4	4	4
matrix comp. mode	0	0	0	0	0	1	0	0	0	0
temp shape config	0	0	0	0	2	1	0	0	0	0
decorr config	0	0	0	0	0	0	0	0	2	0
energy based qu.	0	0	0	0	0	0	0	0	0	0
3D stereo	0	0	0	0	0	0	0	0	0	0
number of LFE bands	2	2	2	2	2	2	2	2	2	2
residual coding	0	0	0	1	0	0	0	0	0	0
arbitrary downmix residual	0	0	0	0	0	0	0	0	0	0
residual sampling rate	⋮	⋮	⋮	48000	⋮	⋮	⋮	⋮	⋮	⋮
number of residual frames	⋮	⋮	⋮	1	⋮	⋮	⋮	⋮	⋮	⋮
number of residual bands	⋮	⋮	⋮	7,7,7,7	⋮	⋮	⋮	⋮	⋮	⋮
tttModeLow	1	⋮	⋮	1	1	1	1	⋮	⋮	1
tttLow start band	0	⋮	⋮	0	0	0	0	⋮	⋮	0
tttLow stop band	28	⋮	⋮	28	28	28	28	⋮	⋮	28
tttModeHigh	0	⋮	⋮	0	0	0	0	⋮	⋮	0
tttHigh start band	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
tttHigh stop band	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮

Table AMD1.7 — List of MPEG Surround conformance test sequences with MPEG-4 High Efficiency AAC profile downmix

	Sequence	heaac_mps_oneicc	heaac_mps_param_4	heaac_mps_param_5	heaac_mps_param_7	heaac_mps_param_10	heaac_mps_param_14	heaac_mps_param_20	heaac_mps_param_28	heaac_mps_qmf	heaac_mps_quant_0
downmix coder	AOT	2	2	2	2	2	2	2	2	2	2
	extAOT	5	5	5	5	5	5	5	5	5	5
	backwards compatible	-	-	-	-	-	-	-	-	-	-
	SBR present	1	1	1	1	1	1	1	1	1	1
	SSC Embedding	-	-	-	-	-	-	-	-	-	-
	number of channels	2	2	2	2	2	2	2	2	1	2
	sampling frequency	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000
	frame length	2048	2048	2048	2048	2048	2048	2048	2048	2048	2048
time slots / frame		32	32	32	32	32	32	32	32	32	32
parameter bands		20	4	5	7	10	14	20	28	20	20
tree configuration		2	2	2	2	2	2	2	2	0	2
quantization mode		0	0	0	0	0	0	0	0	0	0
one ICC		1	0	0	0	0	0	0	0	0	0
arbitrary downmix		0	0	0	0	0	0	0	0	0	0
arbitrary tree		0	0	0	0	0	0	0	0	0	0
surround gain		2	2	2	2	2	2	2	2	2	2
LFE gain		1	1	1	1	1	1	1	1	1	1
downmix gain		4	4	4	4	4	4	4	4	4	4
matrix comp. mode		0	0	0	0	0	0	0	0	0	0
temp shape config		0	0	0	0	0	0	0	0	0	0
decorr config		0	0	0	0	0	0	0	0	0	0
energy based qu.		0	0	0	0	0	0	0	0	0	0
3D stereo		0	0	0	0	0	0	0	0	0	0
number of LFE bands		2	1	1	1	1	2	2	2	2	2
residual coding		0	0	0	0	0	0	0	0	0	0

arbitrary downmix residual	0	0	0	0	0	0	0	0	0	0
residual sampling rate	¦	¦	¦	¦	¦	¦	¦	¦	¦	¦
number of residual frames	¦	¦	¦	¦	¦	¦	¦	¦	¦	¦
number of residual bands	¦	¦	¦	¦	¦	¦	¦	¦	¦	¦
tttModeLow	1	1	1	1	1	1	1	1	¦	1
tttLow start band	0	0	0	0	0	0	0	0	¦	0
tttLow stop band	19	4	5	7	10	13	19	22	¦	19
tttModeHigh	5	0	0	0	0	5	5	5	¦	5
tttHigh start band	19	¦	¦	¦	¦	13	19	22	¦	19
tttHigh stop band	20	¦	¦	¦	¦	14	20	28	¦	20

Table AMD1.8 — List of MPEG Surround conformance test sequences with MPEG-4 High Efficiency AAC profile downmix (ctd.)

Sequence		heaac_mps_quant_1	heaac_mps_quant_2	heaac_mps_quant_3	heaac_mps_res	heaac_mps_shape_ges	heaac_mps_shape_stp	heaac_mps_smooth	heaac_mps_tree_5151	heaac_mps_tree_5152	heaac_mps_tree_525
downmix coder	AOT	2	2	2	2	2	2	2	2	2	2
	extAOT	5	5	5	5	5	5	5	5	5	5
	Backwards compatible	¦	¦	¦	¦	¦	¦	¦	¦	¦	¦
	SBR present	1	1	1	1	1	1	1	1	1	1
	SSC Embedding	¦	¦	¦	¦	¦	¦	¦	¦	¦	¦
	number of channels	2	1	1	2	2	2	2	1	1	2
	sampling frequency	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000
	frame length	2048	2048	2048	2048	2048	2048	2048	2048	2048	2048
time slots / frame		32	32	32	32	32	32	32	32	32	32

parameter bands	20	20	20	28	20	20	20	20	20	20
tree configuration	2	0	0	2	2	2	2	0	1	2
quantization mode	0	1	2	0	0	0	0	0	0	0
one ICC	0	0	0	0	0	0	0	0	0	0
arbitrary downmix	0	0	0	0	0	0	0	0	0	0
arbitrary tree	0	0	0	0	0	0	0	0	0	0
surround gain	2	2	2	2	2	2	2	2	2	2
LFE gain	1	1	1	1	1	1	1	1	1	1
downmix gain	4	4	4	4	4	4	4	4	4	4
matrix comp. mode	0	0	0	0	0	1	0	0	0	0
temp shape config	0	0	0	0	2	1	0	0	0	0
decorr config	0	0	0	0	0	0	0	0	2	0
energy based qu.	0	0	0	0	0	0	0	0	0	0
3D stereo	0	0	0	0	0	0	0	0	0	0
number of LFE bands	2	2	2	2	2	2	2	2	2	2
residual coding	0	0	0	1	0	0	0	0	0	0
arbitrary downmix residual	0	0	0	0	0	0	0	0	0	0
residual sampling rate	⋮	⋮	⋮	24000	⋮	⋮	⋮	⋮	⋮	⋮
number of residual frames	⋮	⋮	⋮	1	⋮	⋮	⋮	⋮	⋮	⋮
number of residual bands	⋮	⋮	⋮	7,7,7,7	⋮	⋮	⋮	⋮	⋮	⋮
tttModeLow	1	⋮	⋮	1	1	1	1	⋮	⋮	1
tttLow start band	0	⋮	⋮	0	0	0	0	⋮	⋮	0
tttLow stop band	19	⋮	⋮	15	19	19	19	⋮	⋮	19
tttModeHigh	5	⋮	⋮	5	5	5	5	⋮	⋮	5
tttHigh start band	19	⋮	⋮	15	19	19	19	⋮	⋮	19
tttHigh stop band	20	⋮	⋮	28	20	20	20	⋮	⋮	20

Table AMD1.13 — List of MPEG Surround conformance test sequences with PCM downmix

Sequence		pcm_mps_arbdmx	pcm_mps_arbdmxres	pcm_mps_mtx	pcm_mps_oneicc	pcm_mps_param_4	pcm_mps_param_5	pcm_mps_param_7	pcm_mps_param_10	pcm_mps_param_14	pcm_mps_param_20	pcm_mps_param_28	pcm_mps_qmf	pcm_mps_quant_0	pcm_mps_quant_1	pcm_mps_quant_2	pcm_mps_quant_3
core coder	sampling frequency	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000
	sample resolution	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	bsBDChannels	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0
	bsBDFrameLength	17	17	17	15	15	15	15	15	15	15	15	15	15	15	15	15
	bsBDSubframes	2	5	2	3	3	3	3	3	3	3	3	3	3	3	3	3
time slots / frame		18	18	18	16	16	16	16	16	16	16	16	16	16	16	16	16
parameter bands		28	28	28	28	4	5	7	10	14	20	28	28	28	28	28	28
tree configuration		2	2	2	2	2	2	2	2	2	2	2	0	2	2	0	0
quantization mode		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
one ICC		0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
arbitrary downmix		1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
arbitrary tree		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
surround gain		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
LFE gain		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
downmix gain		0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4
matrix comp. mode		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
temp shape config		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
decorr config		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
energy based qu.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3D stereo		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
number of LFE bands		2	2	2	2	1	1	1	1	1	2	2	2	2	2	2	2
residual coding		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
arbitrary downmix residual		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
residual sampling rate		-	32000	-	-	-	-	-	-	-	-	-	-	-	-	-	-

number of residual frames	⋮	1	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
number of residual bands	⋮	12	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
tttModeLow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	⋮	⋮
tttLow start band	0	0	0	0	0	0	0	0	0	0	0	1	0	0	⋮	⋮
tttLow stop band	28	28	28	28	4	5	7	10	14	20	28	1	28	2	⋮	⋮
tttModeHigh	0	0	0	0	0	0	0	0	0	0	0	1	0	0	⋮	⋮
tttHigh start band	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
tttHigh stop band	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
bsSmoothMode	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bsQuantCoarseXXX	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0