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**ISO/IEC JTC 1/SC 29/WG 03 MPEG SYSTEMS**

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# Defects found in 8th edition of ISO/IEC 13818-1

Some issues have been detected in the specification and appropriate Gitlab issues have been created at

<http://mpegx.int-evry.fr/software/groups/MPEG/Systems/MPEG2-System/-/issues>

as shown in Figure 1.

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Figure 1 – Snapshot of the Issue Tracker

The issues are described separately in the following clauses.

## Defects found in clause 2.6.51

In 2.6.51 of the 8th edition of ISO/IEC 13818-1, we find the following as the semantic definition of the fields in FmxBufferSize descriptor (cf. Figure 2):

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Figure 2 – FmxBufferSize descriptor

The semantic definitions refer to clause **11.2** of ISO/IEC 14496-1 however the last clause number in the 4th Edition is **8**.

See http://mpegx.int-evry.fr/software/MPEG/Systems/MPEG2-System/ed.8/-/issues/3

## Defects found in clauses 2.6.112 and 2.6.113

The MPEG-H 3D audio text label descriptor syntax in clause 2.6.112 and semantics in clause 2.6.113 include an element named 3dAudioSceneInfoID. Its semantic specification refers to an external specification by: *See 15.3 ISO/IEC 23008-3*.

Searching ISO/IEC 23008-3 does not yield any results for '3dAudioSceneInfoID'.

Some extended description of the correlation between this element and a definition in ISO/IEC 23008-3 should be made.

See http://mpegx.int-evry.fr/software/MPEG/Systems/MPEG2-System/ed.8/-/issues/4

## Defects found in clause 2.6.113 and 2.6.116

The semantic definitions provided in clause 2.6.113 include the following three flags:

* maeGroupDescriptionPresent – A one-bit flag signalling the presence of description text for groups.
* maeSwitchgroupDescriptionPresent – A one-bit flag signalling the presence of description text for switch groups.
* maeGroupPresetDescriptionPresent – A one-bit flag signalling the presence of description text for group presets.

None of these flags are present in the descriptor syntax in Table 2-124, clause 2.6.116.

Given that the presence of Group Descriptions, Switch Group Descriptions and Group Presets Descriptions can be determined by numGroupDescriptions, numSwitchGroupDescriptions and numGroupPresetsDescriptions being greater than zero, these flags are probably not required in the descriptor syntax.

See http://mpegx.int-evry.fr/software/MPEG/Systems/MPEG2-System/ed.8/-/issues/5

## Minor edits on Table 2-114 and Table 2-134

In 2.6.96 of the 8th edition of ISO/IEC 13818-1, Table 2-114, we find (cf. Figure 3):

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Figure 3 – Semantics of HDR\_WGC\_Idc

In ISO/IEC CD 23091-2, CICP Coding-independent code points, Part 2: Video, BT.709 is generally referenced rather than BT.1886. Thus, it makes sense to do the same here.

The change also affects Table 2-134, because both the HEVC and VVC video descriptor contain the HDR\_WCG\_idc field and the same semantics.

# Probable solutions

## FmxBufferSize descriptor

Most probably, only the name changed (due to a trademark on FlexMux, not sure whether the name is still protected); the semantics never changed.

Accordingly, we would need to:

* replace all instances of FlexMux by M4Mux
* rename DefaultFlexMuxDescriptor() to DefaultM4MuxBufferDescriptor() and update reference to 7.4.2.8 of ISO/IEC 14491-1:2010
* rename FlexMuxDescriptor() to M4MuxBufferDescriptor() and update reference to 7.4.2.7 of ISO/IEC 14491-1:2010
* probably rename FmxBufferSize to M4MxBufferSize

## Edits on Table 2-114

It is proposed to change right hand box text for HDR\_WCG\_idc = 0 (SDR):

*SDR (i.e., SDR video) is based on the Rec. ITU-R BT.709 OETF using BT.709 color primaries with a corresponding reference EOTF for flat panel displays as specified in BT.1886 (see Note 1)*

## Edits on Table 2-134

There are two options:

* Implement the same change in Table 2-134 as proposed for Table 2-114 above or
* Refer to Table 2-114 again from clause 2.6.130 and remove Table 2-134:

***HDR\_WCG\_idc*** *– This 2-bit field indicates the presence or absence of high dynamic range (HDR) and/or wide color gamut (WCG) video components in the associated PID according to Table 2-114. This field shall not be set to 2 unless sps\_bit\_depth\_minus8 as defined in Rec. ITU-T H.266 | ISO/IEC 23090-3 in the associated video is greater than or equal to 2.*

The latter option causes more editorial efforts because 19 subsequent tables need to be renumbered (and all references to them accordingly).