Amendment 1:2012 to
SMPTE 382-2007

SMPTE STANDARD

Material Exchange Format — Mapping AES3 and Broadcast Wave Audio into the MXF Generic Container — Amendment 1

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Approved
March 14, 2012

Foreword

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SMPTE Engineering Documents are drafted in accordance with the rules given in Part XIII of its Administrative Practices.

SMPTE Amendment 1 to SMPTE 382-2007 was prepared by Technology Committee 31FS.

1 Scope

The following recommends changes to be made to ST 382:2007 as a result from the incorporation of the "Channel IDs" and "Mono Source Track IDs" properties to Amendment 1 to SMPTE ST 377-1:2011. Note that citations to "337M" are intentional to refer to SMPTE 337M-2000 to remain consistent with the remainder of SMPTE 382.

2 Replace the text of Section 6.7 with the following

Annex E specifies the semantics of Channel ID (per SMPTE ST 377-1:2011) for audio essence conforming to this specification, thereby providing a simple mechanism for mapping one or two channels of audio from a Source Package. It provides an optional mechanism for an MXF decoder to "play" a subset of stored audio channels. A complete N to M audio channel mapping mechanism is outside the scope of this specification.

3 Replace the title of Annex E with the following

Channel ID Semantics (Normative)

4 Replace the body of Annex E with the following

SMPTE ST 377-1:2011 specifies an optional Channel ID property that may be used to select one or two channels out of N-channel essence described by a top-level file package, but leaves the semantics of such property to the specification applicable to the underlying audio essence. The following specifies the semantics of Channel ID for audio essence conforming to this specification.

A value of N in the Channel ID property identifies the Nth channel within the essence. The first channel has a Channel ID of 1.

In the case of sound compressed and mapped into AES pairs according to SMPTE 337M, it is necessary to identify the source channel in greater detail, since each AES pair may contain multiple SMPTE 337M streams, within one or more subchannels, as provided by the underlying compression system. In this case, the Channel ID shall be interpreted as a structured number according to the following bit mapping:

Table E.1 – Structure of Channel ID property

Bit numbers	Name	Meaning
31-24	Subchannel	1-based index of the Subchannel number within the SMPTE 337M AES pair 0 implies all Subchannels in a Stream
23	StreamFlag	1 if a specific Stream is selected by bits 22-16 0 implies all Streams in a SMPTE 337M AES Pair
22-16	Stream	When bit 23=1, 0-based Stream number within the SMPTE 337M AES pair Otherwise, 0
15-0	Subframe	Index of the source channel. For AES, this is the 1-based index of the subframe. For BWF, this is the 1-based index of the channel number

Notes:

1 Channel ID in the range 1-65535 applies to AES or BWF essence.

2 This encoding of bits 31-16 permits values of Channel ID in the range 1-65535 to have the same effect irrespective of whether the essence is compressed and carried per SMPTE 337M or not.