

Audio Track Files

Best Practices

1. Scope

This document specifies best practices for IMF Audio Track Files, which are specified in SMPTE ST 2067-2. In particular, it provides guidance on the contents of the MCALabelSubDescriptor defined in SMPTE ST 377-4, which adds information to each audio channel and soundfield group.

2. Status of this Document

This Best Practice is published by the IMF User Group¹. It may be updated, replaced or obsoleted by other documents at any time. Readers are encouraged to consult the following for a list of current issues, to which they are invited to contribute.

<https://github.com/imfug/004-audio-track-files>

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3. Recommendations

Each Soundfield Group should be wrapped into a single Audio Track File.

EXAMPLE: A 5.1 soundfield group is contained in a single Audio Track File that contains 6 audio channels.

The value of MCA Audio Element Kind should be one of the Use Class symbols specified in PCD ST 377-41:2020³, Table 3.

The value of MCA Audio Content Kind should be one of the Content symbols specified in PCD ST 377-41:2020, Table 2.

The value MCA Title and MCA Title Version should be n/a if no specific values are provided.

Tag Symbols for 2-channel programs should clearly distinguish the method used to create the soundfield:

- chL and chR (channel) and sgST (soundfield group) for standard stereo; or
- chLt and chRt (channel) and sgLtRt (soundfield group) for matrix encoded Lt-Rt pair.

The value of the MCA Tag Symbol item should be consistent with the value of the MCA Tag Name item.

Table 1 provides examples MCALabelSubDescriptor values for a selection of content types.

Table 1. Examples of MCALabelSubDescriptor values for a selection of content types.

Content Type	Spoken Language (RFC 5646)	Soundfield Group				Audio Channel	
		MCA Audio Content Kind	MCA Audio Element Kind	MCA Tag Name	MCA Tag Symbol	MCA Tag Name	MCA Tag Symbol
Primary	Language per RFC 5646 (e.g. en-US, es-419)	PRM	FCMP	Lt-Rt	sgLtRt	Left Total	chLt
						Right Total	chRt
Music & Effects	No value required	ME	ICMP	Standard Stereo	sgST	Left	chL
						Right	chR
Dialogue	Language per RFC 5646 (e.g. en-US, es-419)	DX	ICMP	Standard Stereo	sgST	Left	chL
						Right	chR
Sound Effects	No value required	FX	ICMP	Standard Stereo	sgST	Left	chL
						Right	chR
Music	No value required	MX	ICMP	Standard Stereo	sgST	Left	chL
						Right	chR
Primary	Language per RFC 5646 (e.g. en-US, es-419)	PRM	FCMP	5.1	sg51	Left	chL
						Right	chR
						Center	chC
						LFE	chLFE
						Left Surround	chLs
						Right Surround	chRs

¹ <https://www.imfug.com/>

² <http://creativecommons.org/licenses/by-nd/4.0/>

³ <https://github.com/SMPTE/ST377-4-Revision-and-ST377-41>