

MDDF 2021 Spec Updates

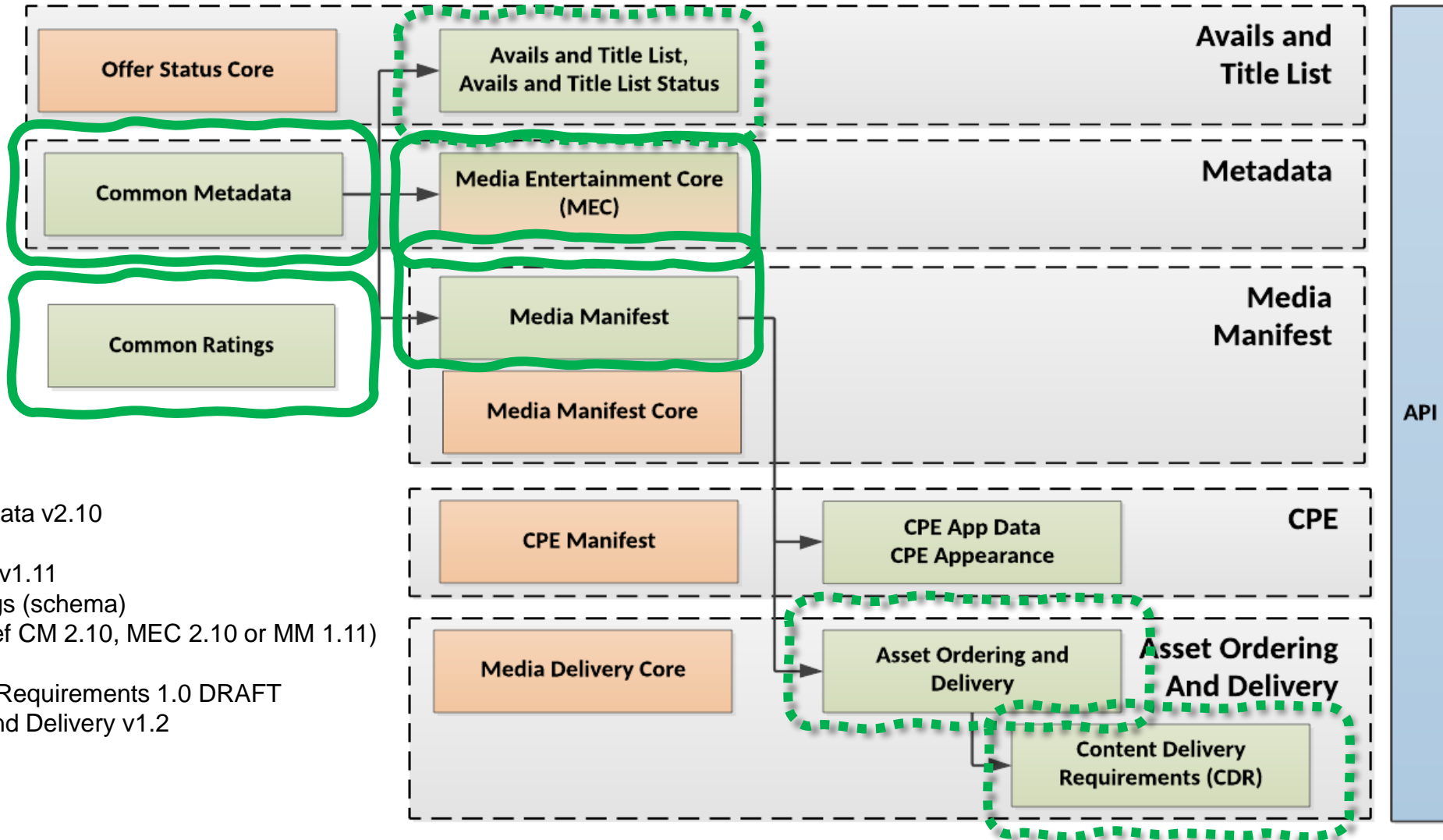
December 28, 2021

Topics

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- Overview of changes
- Basic Metadata
 - Common Metadata/Media Entertainment Core (MEC)
- Digital Asset Metadata
 - Common Metadata/Media Entertainment Core (MEC)
 - Media Manifest/Media Manifest Core (MMC)

MDDF Updates



Spec updates

- Common Metadata v2.10
- MEC v2.10
- Media Manifest v1.11
- Common Ratings (schema)

Schema Updates (ref CM 2.10, MEC 2.10 or MM 1.11)

- Avails 2.6
- Content Delivery Requirements 1.0 DRAFT
- Asset Ordering and Delivery v1.2

Updated as-needed

- Common Ratings

Common Ratings

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- Ratings Releases in 2021
 - 2.4.4 February
 - 2.4.5 April
 - 2.4.6 October
 - 2.4.7 December
- Revised Schema (first time since 2015)
 - Version 1.2 adds support for deprecated Reasons
 - Motivation: Some systems like DJCTQ (Brazil) have a large number of Reasons that no longer apply. Decided to deprecate them. Note that we already deprecate Systems and Ratings.

Basic Metadata

Common Metadata/Media Entertainment Core (MEC)

LocalizedInfo targeting

- Added this clarification:

When LocalizedInfo is targeted to a language, @language is used. When it is targeted to a region, Region or ExcludedRegion is used. When it is targeted to a specific audience, TargetAudience is used. These can be used in conjunction with each other. When multiple instances of LocalizedInfo exist, they must contain unique combinations of @language, Region, Excluded Region, and TargetAudience to disambiguate them. When conditions overlap, the most narrowly targeted LocalizedInfo should be used. For example, if a LocalizedInfo reference English and the US, when used in the US it should be preferred over another LocalizedInfo that just references English.

CountryOfOrigin

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- CountryOfOrigin/@interpretation
 - CountryOfOrigin generally means the creative center of a title. This is generally understood, even if the definitions are vague.
 - However, in some cases it is desirable to be more specific
 - @interpretation is no controlled vocabulary, although the following values should be used when they apply:
 - ‘creative’ – a country associated with ‘primary creative control’ as defined above.
 - ‘financial’ – a country associated with financial control
 - ‘location’ – a country associated with significant principal photography, visual effects, or other creation of picture or sound.

Pronouns-type

- There was formerly no way to express pronouns
- Pronouns type is either
 - @nopronouns = 'true' which means the person would prefer pronouns not be used. Generally, their name is used instead
 - Pronouns:
 - Subjective (e.g., she, he, they, ze)
 - Objective (e.g., her, him, them, hir)
 - Adjective (e.g., her, his, hers)
 - Possessive (e.g., hers, his, hers)
 - Reflexive (e.g., herself, himself, herself)
 - Not all pronouns need to be included. Common practice is to include at least Subjective and Objective

SequenceParsing-type

- To fully address Image Sequences in Media Manifest, additional information is needed to address sequencing numbers
 - Typically sequence numbers are included in filenames, such as the following: `un_ff25_ib_0100_el_dd_v001-fire.1000.exr`
 - This is targeted towards image sequences, but the implement is general enough to cover any numbered sequence
 - An image sequence is a sequence of images. Raw frames from a video camera is an image sequence.
- Common Metadata adds the type which is used in Media Manifest
 - It includes (optionally) a spec reference (e.g., VFX Image Sequence File Naming), starting and ending sequence values, and information on where to find the sequence number in the file.

SequenceParsing-type

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Element	Attribute	Definition	Value	Card.
SequenceParsing-type				
PatternSpec		The specification that defines parsing rules.	xs:string	0..1
StartsWith		Number associated with the first in the sequence.	xs:integer	0..1
EndsWith		Number associated with the last in the sequence. This must be \geq StartsWith.	xs:integer	0..1
FilenameEmbedding		If true, sequence is embedded in the filename. Attributes define the rules used when embedding.	xs:string	0..1
	location	Where the sequence number is found.	xs:string	0..1
	precededBy	Character or characters that precede the sequence number	xs:string	0..1
	terminatedBy	Character or characters that follow the sequence number	xs:string	0..1
	fixedDigits	The number of digits with leading zeros where necessary, of the sequence number. A value of 0 means the number of digits is variable.	xs:integer	0..1
	sequential	If true (default), sequences numbers are sequential. If 'false' there may be gaps	xs:boolean	0..1

Add images to characters and people

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- Added BasicMetadataPeople-type/ImageReference
- Added BasicMetadataCharacter-type/ImageReference
- This are modeled on ArtReference in LocalizedInfo
 - Image reference
 - @resolution
 - @purpose

BillingBlockOrder

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- Needed support for when Billing Block Order is territory-specific
- Allow multiple instance of BillingBlockOrder
 - Use of multiple instances restricted to when there are multiple territories
- Added @region attribute (union of country and countryRegion)

Miscellaneous

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- Added ID types
 - ETC C4ID
 - IMFUG Virtual Track Fingerprint
- Added @disposition to language description: ‘verified’, ‘unverified’, and ‘approximate’ (close and probably usable)
- Associated Org
 - Added @roleCategory. Can be used to indicate descriptions such as ‘independent’
- Replicated manifest:Timecode-type in Common Metadata (md:Timecode-type) to allow (timed text) offsets to be specified in timecode
 - Should have been here in the first place—oops! There are now two definitions, which is probably unavoidable

Digital Asset Metadata

Common Metadata/Media Entertainment Core (MEC)

Media Manifest/Media Manifest Core (MMC)

Updates to Digital Asset Metadata impact Media Manifest's Inventory

Audio Type

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- Added 'lecturing' – 'dubbing' voiceover with underlying audio still audible

Subtitle

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- Changed cardinality of language from 1 to 1..n to accommodate subtitles with multiple languages
- Added new types for timed text used as intermediate work products (e.g., scripts for dubbing): Script, Template
- Added Properties
 - Max Characters Per Second (including reading speed algorithm, and how spaces, punctuation and ½ characters are counted)
 - Max Lines per Event
 - Whether annotations are included
- Added information about subtitle generation
 - Whether advanced technology was used (auto text to speech, auto segmentation, auto translation, and OCR)
- FormatTypes
 - Added Lambda Cap, IMSC 1.1, TTML1 (specifically), TTML 2, SubViewer (.sbv, .sub), TI DLP Cinema XML
 - Noted that DXFP shouldn't be used unless it is pre-TTML DXFP.
- Added SDR/HDR/SDR-HDR target
- Added detailed encoding description for images (both encoding and color volume information). Color volume could be used with text, although presumably HDR/SDR will be sufficient.
- Added "AdditionalOffset" supports the case where subtitles have 1) timecodes baselines different from video, and 2) that difference is not captured in the subtitle media file
 - Offset is represented by a timecode (relative to video): Subtitle event timecode + AdditionalOffset = video timecode associated with that event.
- Added WritingFeatures for additional attributes (to be defined by Best Practice), such as
 - Whether are there glosses (e.g., Ruby), enhancements, or diacritic marks
 - Direction of the text (Left-to-right, right-to-left, or top-to-bottom)

Media Manifest/MMC

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- Media Manifest
 - Reference Common Metadata 2.10
 - Added SequenceParsing to ContainerReference-type to support sequences (particularly image sequences) – see CM SequenceParsing-type
 - Added guidance for using Markers for ad-insertion
- MMC
 - No update

Markers for Ad-Insertion

- No additional specification needed to enable simple ad insertion
 - Note that more complex ad insertion (future) might include groupings and targeting guidance
- The following language was added for clarification

When using markers for ad insertion, the following are applicable: FFCB (First Frame Commercial Black), LFCB (Last Frame Commercial Black), FPCI (Fixed Point Candidate Insertion), FFCO (First Frame Candidate Overlay), and LCFO (Last Frame Candidate Overlay). Ads can be inserted following the frame that precedes FFCB or FPCI. If there are commercial blacks, playback resumes with the frame following LFCB. Overlays can start no earlier than FFCO and end no later than LCFO.

Language disposition

- In (too frequent) cases, the reported language is incorrect. We need a means to know whether the language has been verified
- @disposition was defined in CM to be 'verified', 'unverified' and 'approximate' (close and probably usable)
- DigitalAsset/<media>/Language picks up @disposition
 - Audio
 - Video/Language, SubtitleLanguage, SignedLanguage
 - Subtitle/Language
 - Image/Language