

# Common Metadata, MEC, Manifest, MMC

## Summary of 2019 Updates

- Common Metadata v2.8: [www.movielabs.com/md/md](http://www.movielabs.com/md/md)
- Media Entertainment Core (MEC) v2.8: [www.movielabs.com/md/mec](http://www.movielabs.com/md/mec)
- Media Manifest v1.9: [www.movielabs.com/md/manifest](http://www.movielabs.com/md/manifest)
- Media Manifest Core (MMC) v2.0: [www.movielabs.com/md/mmc](http://www.movielabs.com/md/mmc)  
(no changes)

# Common Metadata Usage in other specs

**NOTE:** Common Metadata element and attribute definitions are used by Media Entertainment Core (MEC), Media Manifest (Media Manifest Core [MMC]), Avails and Title List, Asset Ordering and Delivery, and other specifications

Updates to Common Metadata are inherited by these specifications. For example, additions of codec definitions in Digital Asset Metadata become part of the Media Manifest Inventory

# Version Intent

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- Problem
  - Sometime applications need to know the specific version covered by the metadata
- Solution
  - Added Basic/VersionIntent, contains:
    - Audience (see previous slide)
    - Description – user-visible description (can be localized)
    - EditUse, EditClass and MadeForRegion from EIDR (See Data Fields Reference <https://eidr.org/technical-documentation/>)
    - User-defined values in name/value pairs (Terms)
  - Note: Can also specify Version Language (VersionLanguage)

# Audience

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- Problem
  - There is a need to target metadata such as synopsis to specific demographics, windows, license models (e.g., SVOD vs. AVOD), or other conditions
- Solution
  - Added LocalizedInfo/TargetAudience
    - Organized around
      - Who (e.g., demographic)
      - When (e.g., window or time frame)
      - What (e.g., license type, bonus/no-bonus, for-sale/owned)
    - Also supports user-defined terms such as IDs (e.g., campaign ID) and generalized terms (name/value pairs)

# Common Metadata Referencing LMT

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- Problem
  - BCP 47 provides a framework for languages, but there are so many language combinations there is high likelihood of encoding the same language in different ways
- Solution
  - The Language Metadata Table group within MESA has create a process, encoding rules and a list of common language tags
  - CM references LMT as with the following language
    - The Language Metadata Table (LMT) [LMT] is emerging as a standard for encoding languages.
    - Where languages are listed in LMT, Audio Language Tag or Visual Language Tag should be used as listed.
    - In some cases there are two encodings for the same language. Where they are not ambiguous, the shortest form should be used. For example, Afrikaans can be encoded as 'af' or 'af-ZA'. As Afrikaans there is no Afrikaans dialect outside of South Africa (ZA), 'af' is sufficient and recommended.
    - LMT Policies and Practices should be followed.

# Related-to

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- Problem
  - e.g., movie is based on a particular book
  - Introduced in previous version, but ability to relate content to content, events, people, etc. is too limited
- Added ability to support
  - Expanded object
    - Work
    - Character
    - PersonOrGroup
    - Period
    - Place
    - Event
  - Characteristics (e.g., fictional)
  - GroupingEntity
  - Expanded relationships
    - isrelatedto, isbasedon, performedat, takesplaceat, takesplaceduring, isremakeof
    - Legend, Era, Timeframe

# Ratings: Ratings for reason

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- Problem
  - Ratings systems have individual ratings for each reason (e.g., 16 for Violence and 12 for Drug Use). Example: Kijkwijzer (NL)
- Solution
  - Added @Value to Reason

```
<md:Rating>
  <md:Region>
    <md:country>NL</md:country>
  </md:Region>
  <md:System>Kijkwijzer</md:System>
  <md:Value>16</md:Value>
  <md:Reason value='16'>G</md:Value>
  <md:Reason value='12'>A</md:Value>
  <md:Reason value='AL'>S</md:Value>
  <md:Reason value='16'>T</md:Value>
  <md:Reason value='12'>H</md:Value>
  <md:Reason value='AL'>D</md:Value>
</md:Rating>
```

# Localized Ratings

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- Problem
  - Ratings logos and descriptions cannot be localized
- Solution
  - Add @language (xs:language) to LinkToLogo and Description
  - Description also gets
    - @authoritative to indicate it is official
    - @origin to indicate where it comes from if not official



# Controlled vocabulary updates

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- Added 'md' as identifier scheme so it can be used in ContentIdentifier-type
  - People were using this as a best practice, now it's defined
- Add ReleaseType of 'FOD' (Free on Demand)
- Added ProRes 4444 XQ and ProRes 4444 codecs
- Removed duplicate "ITT" timed text type
- Added "IAB" codec for SMPTE ST 2098-2 Immersive Audio Bitstream
- Added "Silent" audio Type
- Added container types
- Added singalong subtitle Type

# Validation(ability) Improvements

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- Problem
  - Profile isn't sufficient to distinguish minor variations (e.g., MMC movies vs. TV)
- Solutions
  - Added @subProfile to Compatibility/Profile
- Problem
  - Sometimes need to provide instructions to validator to accept certain variants (e.g., accept multiple root-level Experiences in MMC)
- Solution
  - Added ValidatorParameter (0..n) which is of Terms-type (i.e., name/value pairs) to Compatibility/

# Miscellaneous

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- Added instructions for URI encoding of Genre @id
- Added WorkType values for ‘printed’ works (books, comics, etc.)
  - This is particularly targeted for related-to, but can be used for other applications of encoding content (e.g., in bonus/extras/VAM)
- Added SubType to video, subtitle and image. Increased cardinality to 0..n in audio.
- Added note that PrimarySpokenLanguage could be a sign language
- Added Terms-type (originally from Avails) and Compatibility-type to Common Metadata because it’s used in other specs (particularly Asset Ordering and Delivery)
  - Existing instances remain unchanged to maintain backwards compatibility
- Added EIDRURN-type because EIDR URN format is used commonly
- Changed xs:integer Inventory terms that cannot be zero to xs:nonNegativeInteger

# Display Indicators (previously released in v2.7.1)

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- Problem (note was sent to WG mailing list)
  - Text says:
    - *The values used for Display Indicator are **at the discretion of the Publisher and the Retailer**. Examples of values conceived for this element include, “CC”, “DVS”, “P” (season premiere) and “F” (finale).*
  - But, schema enforced controlled vocabulary (enumeration):

```
<xs:simpleType name="string-DisplayIndicators">  
  <xs:restriction base="xs:string">  
    <xs:enumeration value="CC"/>  
    <xs:enumeration value="F"/>  
    <xs:enumeration value="P"/>  
    <xs:enumeration value="DD"/>  
    <xs:enumeration value="SAP"/>  
    <xs:enumeration value="DVS"/>  
  </xs:restriction>  
</xs:simpleType>
```
- Solution
  - Define string-DisplayIndicators as xs:string without enumeration
  - Released in CM 1.7.1 schema

# Media Entertainment Core (MEC)

# MEC Updates

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- Substantive change
  - Changed Title length from 60 to unlimited
- Editorial
  - Strengthened recommendation to use TitleSort
  - Corrected element names (spec error, correct in schema)
- Structural
  - Added Compatibility for conveying version (same structure as Media Manifest)
    - Uses Compatibility-type from Common Metadata

# Media Manifest

# Improved container reference

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- Problem
  - Sometimes multiple containers are needed for a single asset (e.g., Atmos)
- Solution
  - Allow multiple instances of ContainerReference in Inventory objects
- Problem
  - Container references don't say the container type
  - This makes it hard to distinguish one container from another if there are multiple options
- Solution
  - Added Container Type and SubType so it's clear what kind of container is being referenced (e.g., "IMF" and "2E" for ST2067 IMF Application 2E).



# Add @bonus to ALIDExperienceMap

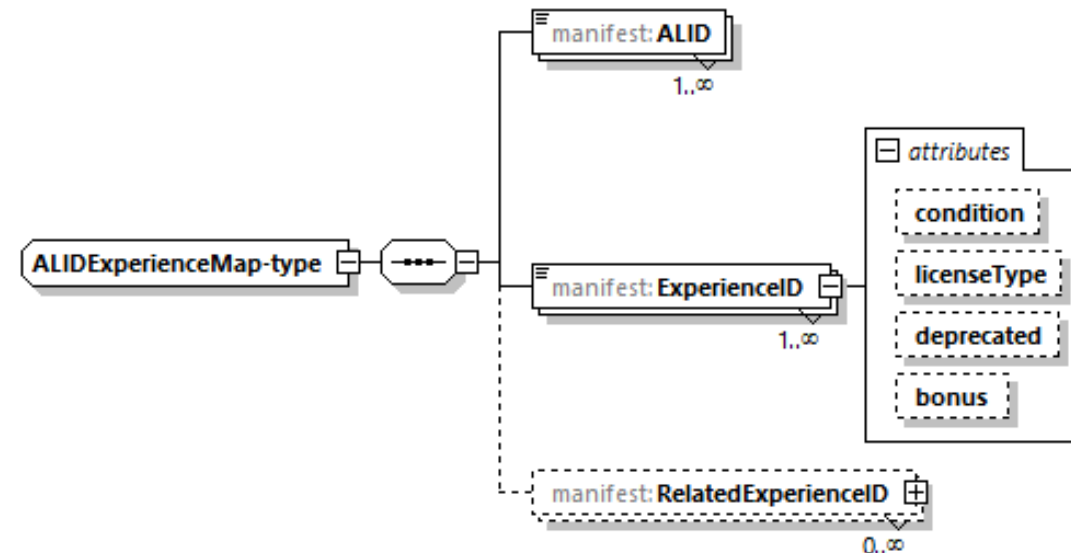
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- Problem

- Avails 1.8 has Bonus column to indicate whether or not there is bonus
- This becomes an attribute of the ALID, not a distinct ALID so we need a way to map to the correct (i.e., with/without bonus) Experience

- Solution

- Add @bonus attribute



# Deprecated ALIDs in ALIDExperienceMap

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- Problem
  - Existing method of indicating deprecated ALIDs allows only works when there is one ExperienceID
  - Need a method to express mappings for deprecated ALIDs to multiple Experiences
- Solution
  - Added @deprecated to ALID
  - This covers all mappings
  - Existing mechanism can is not recommended, but can still be used (if there is only one ExperienceID)

- Mirrored Common Metadata improvements to Compatibility structure
  - Added @subProfile to Profile, and ValidatorParameter to allow Validation to provide more flexibility in validating specific configurations
- Added Purpose and CardsetSeq to Clip and ImageClip.
  - Adds symmetry—same mechanism supported for video
- Added text Description to TrackMetadataPurpose-type
  - Purpose includes things like encoding intent, and worktype contained in tracks
- Added InventorySingleTrack-type to support references to a single track
- Added ability to index TextGroups in TimedEvents. Clarified usage in TextGroup definition
- Added Source to inventory objects so it's clear where it comes from (used primarily in asset ordering and delivery)

# Clarifications, Corrections and Vocabulary

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- Corrected InventoryMetadata-type/ContainerReference/@type to be optional (correct in schema)
- Added TimedEvent/TextGroupID/@index to align with schema