



Using EIDR with IMF

Technical Note

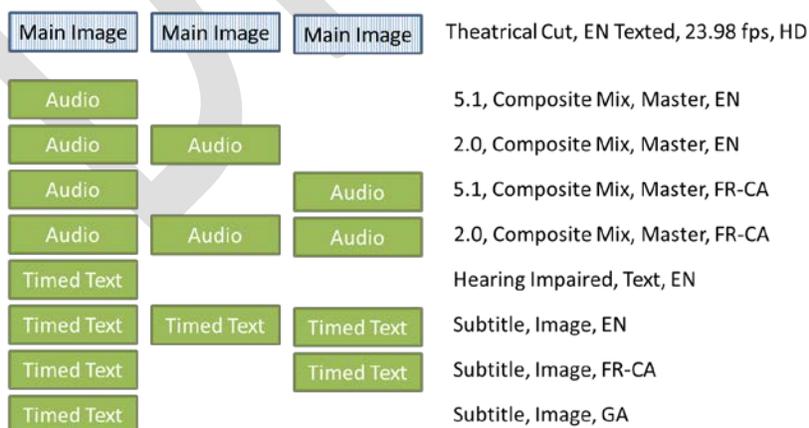
1 Scope

This Technical Note specifies best practices for using EIDR Content Identifiers to identify the audiovisual content of an Interoperable Master Format (IMF) Composition using EIDR Edit (Level 2) and Manifestation (Level 3) IDs. This practice accounts for the fact that there may be multiple versions of the same work or more than one unique IMF representation of a work active at the same time.

2 Overview

The audiovisual content of an IMF Composition is associated with a single Distribution Master, which consists of a Main Image track of a single complete work (movie, TV Episode, advertisement, etc.) plus some number of synchronized essence tracks.

Any change to the Main Image track (change to policy cards, aspect ratio, resolution, burn-ins, etc.) results in a new Distribution Master, but the addition (or removal) of synchronized essence tracks (subs and dubs) does not result in a new Distribution Master, simply a different inventory of items included in the Distribution Master. For example, all of the following represent the same Distribution Master because the Main Image is the same, while only the synchronized tracks differ.



Each vertical stack represents a single Distribution Master where the Main Image is unchanged. The Main Image track is identified with an EIDR Manifestation ID, registered as a descendent of the Main Image track's Edit ID.

3 Identifying a Distribution Master

3.1 Overview

The Distribution Master associated with a Composition is typically associated with up to four EIDR records, from high- to low-level:

- An EIDR Title (Level 1) record¹ that identifies the content in the abstract, e.g. the movie or TV episode;
- An EIDR Edit (Level 2) record that identifies a specific edit of the content;
- An EIDR Generic Manifestation (Level 3) record that identifies a specific sequence of images associated with the content; and
- An EIDR Digital Manifestation (Level 3) record that identifies a specific sequence of images (the Generic Manifestation) associated with a specific set of localized components, e.g. audio and subtitle tracks.

Best practices for the creation and selection of EIDR Title, Edit, and Manifestation records are documented in *Best Practices for Creating EIDR Title Records*, *Best Practices and Use Cases for EIDR Edits*, and *How to Use EIDR to Identify Versions for Distribution Purposes*. The sections that follow provide additional guidance on selecting Edit and Generic Manifestation records that match the audiovisual content of a Composition.

3.2 Selecting EIDR Identifiers

Distribution Masters are, by EIDR definition, Manifestations (EIDR Level 3) and SHOULD be identified by an EIDR Manifestation ID.

However, if there is only ever one Distribution Master per EIDR Edit ID, then the Edit ID is sufficiently differentiating and the Distribution Master MAY be identified by an Edit ID² alone.

3.3 Storing EIDR Identifiers

The CPL `ContentVersionList` element:

- MAY include exactly one `ContentVersion` element containing the EIDR Title ID (Level 1) of the Distribution Master;
- SHALL include exactly one `ContentVersion` element containing the EIDR Edit ID (Level 2) of the Distribution Master; and
- SHOULD include exactly one `ContentVersion` element containing the EIDR Manifestation ID (Level 3) of the Distribution Master.

A `ContentVersion` element of the CPL that contains an EIDR Identifier SHOULD conform to the following:

¹ A Title record is the first ancestor of an Edit record that is not an Edit record.

² This is the first non-Manifestation ancestor of the Distribution Master's specific Manifestation ID.

- The `ContentVersion/Id` element SHALL be equal to the URN representation of the EIDR Identifier as specified in RFC 7302; and
- The `ContentVersion/Label` element SHOULD be set according to Table 1.

Table 1. ContentVersion/Label Format.

EIDR Record Type	ContentVersion/Label
Title	"EIDR Title (Level 1)"
Edit	"EIDR Edit (Level 2)"
Generic Manifestation	"EIDR Generic Manifestation (Level 3)"

EXAMPLE:

```
<ContentVersion>
  <Id>urn:eidr:10.5240:ECA3-005E-C21B-B02D-34C0-Z</Id>
  <Label>EIDR Edit (Level 2)</Label>
</ContentVersion>
```

EXAMPLE:

```
<ContentVersion>
  <Id>urn:eidr:10.5240:0CEC-3E15-7A54-6893-A8D9-6</Id>
  <Label>EIDR Title (Level 1)</Label>
</ContentVersion>
<ContentVersion>
  <Id>urn:eidr:10.5240:ECA3-005E-C21B-B02D-34C0-Z</Id>
  <Label>EIDR Edit (Level 2)</Label>
</ContentVersion>
```

3.4 Storing EIDR Metadata

An EIDR ID can be resolved into its descriptive metadata by querying the EIDR Registry, which provides several different access methods and can return data in a variety of formats. Third-party services and in-house systems can also be integrated with the EIDR Registry via the EIDR API or SDKs. This ensures access to the most current, accurate, and complete EIDR metadata available.

To address situations where the EIDR Registry cannot be queried, e.g. no Internet access is available, EIDR descriptive metadata in its XML form may be stored directly into `ContentVersion` elements using the extension mechanism specified in Section 6.9.1 of SMPTE ST 2067-3.

EXAMPLE 1:

```
<ContentVersion>
  <Id>urn:eidr:10.5240:0CEC-3E15-7A54-6893-A8D9-6</Id>
  <Label>EIDR Title (Level 1)</Label>
  <ResourceName lang="en" titleClass="release"
    xmlns="http://www.eidr.org/schema">Monarch Douglas Bank</ResourceName>
</ContentVersion>
```

It is possible to include an entire EIDR metadata record, if desired.

EXAMPLE:

```
<ContentVersion>
  <Id>urn:eidr:10.5240:0CEC-3E15-7A54-6893-A8D9-6</Id>
  <Label>EIDR Title (Level 1)</Label>
  <eidr:FullMetadata xmlns="http://www.eidr.org/schema"
    xmlns:md="http://www.movielabs.com/schema/md/v2.1/md"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <BaseObjectData>
      <ID>10.5240/0CEC-3E15-7A54-6893-A8D9-6</ID>
      <StructuralType>Abstraction</StructuralType>
      <Mode>AudioVisual</Mode>
      <ReferentType>TV</ReferentType>
      <ResourceName lang="en" titleClass="release">Monarch Douglas
        Bank</ResourceName>
      ...
    <Credits>
      <Director>
```

```

    <md:DisplayName>Paul Edwards</md:DisplayName>
  </Director>
  <Actor>
    <md:DisplayName>James Spader</md:DisplayName>
  </Actor>
  <Actor>
    <md:DisplayName>Megan Boone</md:DisplayName>
  </Actor>
  <Actor>
    <md:DisplayName>Diego Klattenhoff</md:DisplayName>
  </Actor>
  <Actor>
    <md:DisplayName>Ryan Eggold</md:DisplayName>
  </Actor>
</Credits>
</BaseObjectData>
<ExtraObjectMetadata>
  <EpisodeInfo>
    <Parent>10.5240/D15D-6EA2-D2D9-DCAA-DD0F-Q</Parent>
    <SequenceInfo>
      <md:DistributionNumber
        domain="spe.sony.com">2</md:DistributionNumber>
      <md:HouseSequence domain="spe.sony.com">202</md:HouseSequence>
    </SequenceInfo>
  </EpisodeInfo>
</ExtraObjectMetadata>
</eidr:FullMetadata>
</ContentVersion>

```

4 Selecting an EIDR Edit (Level 2) ID

An EIDR Edit represents any creative change made to the contents of an audiovisual object. Such creative changes include, for example, modifications to the timeline, such as with a Director's cut, sanitizing audio or blurring video to accommodate the mores of a region, or changing music to accommodate rights clearance.

The EIDR Edit associated with a Distribution Master SHOULD therefore:

- Identify the audiovisual content of the Distribution Master absent any translated audio or subtitle track; and
- Reflect any creative change, including changes made for censorship purposes, e.g. blurring of image, and changes to the timeline, e.g. Director's cut.

5 Selecting an EIDR Generic Manifestation (Level 3) ID

An EIDR Generic Manifestation is used to capture the unique characteristics of the image track underlying the Distribution Master.

A Distribution Master SHOULD be associated with an EIDR Generic Manifestation, whose parent SHOULD be an EIDR Edit selected as noted above.

The EIDR Generic Manifestation SHOULD conform to those specified in EIDR *Data Fields Reference*, unless specified otherwise by Table 2.

Table 2. EIDR Manifestation Fields.

EIDR Field	Provisions
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StructuralType	"performance"
ReleaseDate	The Generic Manifestation's creation year (or full date), if known. Inherited, if not.
ApproximateLength	Equal to the duration of the Composition as calculated per Section 7.1 of SMPTE ST 2067-3
Description	Human-readable description of the audiovisual content, e.g. "French (1.85 picture, 16.1 sound, dubbed)"
ManifestationClass	Include "Master"
MadeForRegion	List the country(ies) or territory(ies) for which the Generic Manifestation was originally produced. ³
ManifestationDetails	Include a value equal to "IMF Distribution Master" with the domain attribute set to "eidr.org". Other values <u>MAY</u> be present
Digital/Track/Video	When present, it indicates the differentiating characteristics of the Distribution Master

6 References

SMPTE ST 2067-3, Interoperable Master Format — Composition Playlist

(<https://dx.doi.org/10.5594/S9781614827498>)

EIDR Data Fields Reference (http://eidr.org/documents/EIDR_2.0_Data_Fields.pdf)

EIDR Best Practices Guide (http://eidr.org/documents/EIDR_2.0_Best_Practices.pdf)

EIDR Best Practice – Ratings Registrations (http://eidr.org/documents/EIDR_BP_Ratings.pdf)

IETF RFC 7302, Entertainment Identifier Registry (EIDR) URN Namespace Definition

(<https://tools.ietf.org/html/rfc7302>)

EIDR How to Use EIDR to Identify Versions for Distribution Purposes

(http://eidr.org/documents/FAQ_How_to_Use_EIDR_to_Identify_Versions_for_Distribution_Purposes_DRAFT_2014-06.pdf)

³ If the Generic Manifestation is later used in different regions, the MadeForRegion field of the Generic Manifestation record is not modified. This field captures the original intent for which the Generic Manifestation was created. It is not an exhaustive inventory of all territories where it is eventually used.