EIDR: BEST PRACTICE – DIGITAL PACKAGES

This document details the best practice for registering EIDR IDs for use with distribution bundles and packages.

Table of Contents

1 Introduction ........................................................................................................1
2 Common Digital Package Scenarios .................................................................2
3 Registering a Digital Package .........................................................................3
   3.1 Registration Structures ...........................................................................3
       3.1.1 The Preferred Digital Package Structure ........................................3
       3.1.2 A Transitional Digital Package Structure .......................................4
       3.1.3 Registering a Manifestation of Digital Package ..............................5
       3.1.4 Registering Tracks in a Digital Package Manifestation ....................5
   3.2 Metadata Requirements ...........................................................................6
       3.2.1 Base Object Data for a Digital Package Compilation ....................6
       3.2.2 Extra Object Metadata for a Digital Package Compilation .............7
   3.3 Using Lightweight Relationships with Digital Packages .........................8
       3.3.1 isPackagingOf ................................................................................8
       3.3.2 isPromotionFor, isSupplementTo, isAlternateContentFor ................8
4 Packages of Packages ..................................................................................9
5 Enhanced Digital Package Discovery ............................................................9
6 IMF & DCP ....................................................................................................10

1 Introduction

EIDR has very well established practices for registering individual works in various forms from abstract title registrations to specific encodings or manifestations. It also has structures in place to register bundles or packages for multiple works made available for distribution or delivery as a single unit. For ease of reference, we call these “Digital Packages.”
Digital Packages may add “bonus” or “value-added” material to what was originally a stand-alone work. Often, these Digital Packages are created when exploiting the primary work in an ancillary market or distribution channel. Digital Packages may also combine multiple, independent works into one deliverable unit, such as a set of episodes from a series or a set of motion pictures presented together. These Digital Packages may also include additional “bonus” or “value-added” material in addition to the primary works.

For a Digital Package the content is in digital form, but it may be presented on physical media, delivered across the wire, or broadcast over the air. This includes Blu-rays and DVDs, EST packages, UltraViolet bundles, etc. Digital Packages are intended for sale or presentation to consumers, so they do not include commercial distribution bundles (which have their own practices), but do include things like a DCP, which is presented directly to an audience. Traditional mezzanine files are a gray area, but can be constructed following Digital Package practices.

**NOTE:** The EIDR digital package does not describe in what order or combination the individual elements may be presented (as with a CPL), only that they are available as a single deliverable unit (as with an inventory list).

### 2 Common Digital Package Scenarios

- **Bonus materials** (director’s commentary, outtakes, etc.) distributed along with the primary work.

- **Multiple, primary works distributed as a single item** (three installments of a film franchise, multiple episodes of a series, etc.).

- **Multiple edits of the same work distributed as a single item** (original theatrical release with an un-cut version, etc.).
3 Registering a Digital Package

Digital Packages are registered as EIDR Compilations, which provide a structure for enumerating the inventory of items included in the Digital Package, each identified by an associated EIDR ID. All of the items listed in a Digital Package Compilation must be of the same type: all Edits, all Manifestations, or all Compilations (which are themselves Digital Packages).

NOTE: The most common and recommended practice is to register a Digital Package as a collection of Edits, rather than Manifestations. A Digital Package of Compilations is a special case, discussed below under “Packages of Packages.”

Each element of the Compilation can be named and/or numbered for convenient reference, but this does not dictate the playback order (for independent items such as two feature films in a boxed set) or which combination of items may play back synchronously (as with the primary feature and a director’s commentary audio track). Nor do the items in a Compilation distinguish between multiple peer works or between a primary feature and ancillary materials included in the Digital Package.

3.1 Registration Structures

3.1.1 The Preferred Digital Package Structure

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1 While Compilations are always root records within the EIDR hierarchy, they have the structural type of the elements they contain. So, while other root (or title) records are Abstractions, a Compilation of Edits has a structural type of Performance to match the type of the Edits it contains. To help reinforce this special nature, Compilations are shown as shaded, rather than blue, boxes in the illustrative diagrams.
• Include at least one primary work in the Digital Package, identified by its EIDR Edit ID:
  o May identify multiple, peer works (bundle of Episodes, boxed set, etc.)
  o May identify multiple Edits of the same work
  o May identify secondary works (bonus features, trailers, etc.)
• If the Digital Package inventory is not exhaustive, set “hasOtherInclusions” to “True”

The Compilation ID references the entire included Digital Package. This matches current studio practice for Avails & UV Bundles.

3.1.2 A Transitional Digital Package Structure

A Digital Package with no identified inventory in the Compilation record.

This is an allowed, but not a recommended practice intended to be used temporarily:
• While an organization’s internal practices and systems are developed to support proper Digital Package registrations with full inventory lists
• During a Digital Package’s development before the contents are clearly identified

When registering a Digital Package using the transitional structure, you must:
• Fill in all of the required Base Object Data.
• Provide a narrative Description of the intended Package contents/purpose.
• Select a Compilation Class (this is a required field).
• Set the “hasOtherInclusions” attribute set to “True.”
• Include any available alternate identifiers, including any in-house identifiers that reference the intended Digital Package.

At least the primary work(s) included in the Digital Package should be added to the EIDR Compilation ASAP, resetting the hasOtherInclusions attribute to “False” as soon as the recorded inventory is complete. This transforms the transitional structure into the preferred structure noted above.
3.1.3 Registering a Manifestation of Digital Package

If required for a particular workflow, Digital Package Compilations can have Manifestation child records.

- The Manifestation has no Tracks, so it is assumed that the Manifestation includes all of the items in the Package inventory.
- The Manifestation can identify specific Made-For Regions and Version Languages that differ from the Original Languages in the Compilation.
- The Manifestation should include a Container (or wrapper) that describes how the Package is constructed (MXF, Zip, ISO, etc.).

A single Digital Package Compilation may have multiple child Manifestations, each for a different packaging mechanism, set of made-for regions, set of version languages, etc.

3.1.4 Registering Tracks in a Digital Package Manifestation

If required for a particular workflow, the Container in a Digital Package Manifestations can have External Track References that identify the specific tracks included in the Manifestation.

The External Track References point to:
• Other Manifestations in their entirety by specifying a Manifestation ID with no Track Reference.

• Specific Tracks or Containers in other Manifestations by specifying a Manifestation ID with a Track Reference.

**NOTE:** A Registry validation rule will only allow external Manifestation references to descendants of the Edit records included in the parent Compilation.

### 3.2 Metadata Requirements

#### 3.2.1 Base Object Data for a Digital Package Compilation

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
</table>
| **StructuralType** | Required. Use “Performance.”  
                     **NOTE:** Compilations normally have a Structural Type of “Abstraction,” but since these are collections of Edits, which are themselves a “Performance,” it makes sense to class the Compilation as a Performance as well. This facilitates creating Manifestations derived directly from the Compilation (since Manifestations are not allowed to have abstract parents). |
| **Mode**         | Required. The aggregate of the included Modes (generally, AudioVisual). |
| **ReferentType** | Required. Use “Compilation.” |
| **ResourceName** | Required. The name by which the Digital Package is known when made available for distribution. Make note of the Title Language and Set the Title Class to “release.”  
Add any alternate titles or nicknames as Alternate Resource Names.  
**NOTE:** Do not include package descriptive text such as “DVD,” “EST,” or “boxed set,” unless those are part of the actual title. |
| **ReleaseDate**  | Required. The year or full date of the Digital Package’s first release.  
**NOTE:** The Digital Package’s Release Date must be equal to or later than the Release Dates of the included items. |
| **Duration**     | Required. Use “0” (zero). |
| **AssociatedOrg** | Record the company that assembled or distributed the Digital Package as a “distributor.”  
If the primary works in the Digital Package share a common production company, record it as a “producer.” |
### Field Value

**CountryOfOrigin**  
Required. The home countries of the primary Associated Orgs. If it is not possible to determine the home country of any of the Digital Package's Associated Orgs, then use “AQ” to indicate that the Country of Origin is unknown.  

**NOTE:** In the EIDR 2.1 release, “XX” will replace “AQ” as the unknown country code.

**OriginalLanguage**  
Required. The aggregate Version Languages of the principal works. (The included items are generally Edits, so they are most accurately described by their Version Languages, not by the Original Languages of their abstract title record.) There may be more than one value, recorded in decreasing order of prominence.  
Discard any “und” language codes unless that is the only language code present.  

**NOTE:** If an included Edit does not have Version Languages, then use its Original Languages instead.

**Credits: Director and Actor**  
Include Director(s) and Actor(s) if (and only if) they are consistent across all of the included principal works.

**AlternateID**  
Optional, but highly recommended. Include any identifiers (internal system IDs, UPCs, etc.) that specific identify the Digital Package. Do not include identifiers that reference the included items – these are alternate identifiers for the entire Digital Package only.

**Description**  
Optional. This is not used in automated de-duplication, but may assist in discovery or manual review to distinguish the Digital Package from the primary work or if there are similar Digital Packages. Also, record the language of the Description.

#### 3.2.2 Extra Object Metadata for a Digital Package Compilation

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry</td>
<td>Include a separate Entry for each item in the Digital Package inventory.</td>
</tr>
<tr>
<td>Entry.DisplayName</td>
<td>Optional. Provide a descriptive name for the included item. Often, this is the ResourceName from the identified EIDR record, but it may be tailored to this specific context.</td>
</tr>
</tbody>
</table>
### Field Value

**Entry.Number**
Optional. May be used to order the included items. (This is not necessarily the playback sequence.)

**Entry.Class**
Optional. May be used to identify the type of the included item: Episode, Installment, Part, or Season

**Entry.ContentID**
Required. The EIDR ID of the included Edit record.

**CompilationClass**
Required. Identifies the general type of the Digital Package. Of the valid Compilation Class values, the most likely for use in a Digital Package are: Blu-ray, Digital Cinema, DVD, EST, Home Entertainment, and Other

*NOTE:* If the Compilation does not include an exhaustive inventory of the Digital Package's contents, then set the “hasOtherInclusions” attribute to “True.” If you wish to assert that the inventory list is complete, then set hasOtherInclusions to “False.” Otherwise, do not include this attribute.

#### 3.3 Using Lightweight Relationships with Digital Packages

It is not necessary, but you may wish to document the inclusion of items in a Digital Package using EIDR Lightweight Relationships.

**3.3.1 isPackagingOf**

The included items in a Digital Package Compilation are inherently included as part of the Digital Package, but there is no specific reference in the included items' EIDR record indicating that it is part of the Digital Package. You may do this by adding an isPackagingOf relationship linking the included item to the Compilation.

For example, if you wanted to note that an abstract title record is included in a particular Digital Package, you could link the title record to the Compilation using an isPackagingOf relationship. The Compilation itself would point to the Edit record that is registered below the abstract title record.

**3.3.2 isPromotionFor, isSupplementTo, isAlternateContentFor**

In addition to including items in a Digital Package Compilation, you should record how those items are related when one items is ancillary content for another item. You do this by linking the ancillary item to its associated primary item with an appropriate Lightweight Relationship following standard practice.

For example, a trailer should be linked to the movie it promotes with an isPromotionFor relationship, while a behind-the-scenes featurette should be linked to the referenced feature with an isSupplementalTo relationship.
4 Packages of Packages

There are occasions when it is necessary to create a Digital Package that represents an aggregation of other Digital Packages. For example, if one has a collection of DVDs (where each is defined as a Digital Package) that is released as a boxed set. The boxed set would have its own EIDR Digital Package ID. The associated Compilation record would then contain a list of the included DVDs, each represented by an EIDR Digital Package ID of their own. All of the standard Digital Package best practices apply, with the exception that the type of the included items in the Digital Package of Packages is Compilation rather than Edit. Any derived Manifestations would then refer to the aggregate package.

NOTE: If the particular workflow calls for it, this is one situation where you may wish to use a Compilation of Manifestations rather than of Edit. Specifically, the Digital Package of Packages Compilation would only include Manifestations derived from Digital Package Compilations. To distinguish this from standard Digital Package of Packages (containing Edits), the Structural Type would be “Digital” rather than “Performance,” to match the Structural Types of the included Manifestations.

5 Enhanced Digital Package Discovery

Normally, one traverses an EIDR registration tree from root to leaves and back again using graph traversal functions. These are single-inheritance trees where each record keeps track of its own parent, but the parents do not include explicit references to their children. Compilations are not part of this tree structure. Their contained elements are not strictly child records nor is the Compilation ID stored in the included records.

Compilations that include a particular EIDR record can be found using an EIDR query, but this requires a separate operation and lacks some of the convenience of a graph traversal.

So, as a future feature EIDR will add the ability to traverse to a record’s “foster family” of associated Compilations using the Get Children function. The enhanced Get Children will return both direct children and separately identified “foster parents” – the Compilation records that include the current EIDR record as an inventory item. Once you have the Compilation ID, a further Get Children call will return any descendant Manifestations.

This will make it possible to traverse the structure on the left (shown as the records are actually organized in the EIDR Registry) as if it were organized as shown on the right.
(with the Digital Package Compilation appearing as if it were a child of the Primary Work’s Edit).

A reverse traversal up the registration tree can be performed using a graph traversal function or by simply inspecting each record to identify its parent ID. For the Digital Package Compilation, you would extract its included inventory of EIDR IDs since, as a root record, it does not have a Parent ID.

6 IMF & DCP

Specific EIDR registration practices for IMF (Interoperable Master Format) files and DCPs (Digital Cinema Packages), which are very similar, have not yet been defined. This will be the subject of future discussion as industry adoption of IMF continues and the IMF’s own specifications and practices mature.