

EIDR SYSTEM
VERSION 2.0.9

DATA FIELDS REFERENCE

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Data Fields Reference.

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1 INTRODUCTION

This document provides detailed description of the metadata fields stored by EIDR for various types of audiovisual assets. One can use this reference manual to understand the results from EIDR resolutions and queries; and to map to and from other metadata systems. Further guidance for EIDR record creators can be found in the *EIDR Best Practices Guide*.

The manual is based on the EIDR XML Schema. All EIDR schemas are available at <http://www.eidr.org/schema>. The common.xsd file is the starting point for other useful information about working with records.

The reader is assumed to be familiar with the *EIDR Registry User's Guide*, which provides an overview of the EIDR System.

CONVENTIONS:

`Courier` typeface is used for strings that users might type such as enumerated values and for system output.

1.1 INTRODUCTION TO CONTENT

A content record is defined and described by its metadata. The guide is divided into three major sections for different classes of records and relationships:

- Base Object Type – Describes a set of fields that are common to all content. Some instances of Movie, TV (show), Web (original content), Short, and Supplemental Referent Types can be defined solely with base data.
- Derived Types – Objects of derived type include extra metadata (in addition to base metadata). The derived object types are: Series, Season, Episode, Clip, Compilation, Composite, Edit, and Manifestation.
- Other Relationships – Lightweight relationships that connect records after they have been created. These are created with a small amount of extra metadata in a record.

In order to keep the amount of metadata small, the metadata required for an object has been chosen to meet these requirements:

- To differentiate a particular object from others that may be similar in many aspects but not identical and need to be distinguished. (This also helps restrict the creation of duplicate ID's.)
- To define relationships among objects.
- To support the distribution workflow (such as a private sequence number or information about a language-only track for mastering onto several different DVDs).

Not all possible combinations of Referent Type and object type are permissible. For example, a Clip object cannot have a Referent Type of Interactive Material. The legal combinations are enforced by the system's Data Validation Rules, and also described below for each object type.

One of the advantages of EIDR is that assets can be described in detail and related versions can be grouped in parent-child relationships into a tree or graph. The EIDR Referent Types of content records can be either a parent or child as follows:

- The root of a tree can be any Referent Type except Season: Compilation, Interactive Material, Movie, Series, Short, Supplemental, TV, Web.
- Children can be any Referent Type except for Series or Compilation: Interactive Material, Movie, Season, Short, Supplemental, TV, Web.

The allowed Referent Type of the parent of a child is restricted as is discussed below in Derived Types. For example, the parent of a Season cannot be a Movie.

1.2 HOW TO READ THE TABLES

There are tables of metadata fields for each data type. For each of the metadata fields listed in this document, the following information is presented as columns.

NAME: The name of the metadata field in the schema.

CATEGORY: All data fields fall into the following broad categories.

- **Required:** Fields required for registration. For child objects (such as series episodes), these fields may sometimes be inherited and do not need to be directly provided. This is discussed in detail below in the Derived Types section.
- **Optional:** Fields that are optional. Note that in case of child objects some optional fields can be inherited from the parent. Some optional fields are marked **Recommended**.

TYPE: The data type of the field is usually a standard programming type such as Boolean, integer, or string (including enumerated lists), which are expressed in XML as a simpleType (and are given an xs: namespace prefix). In some other cases, this is a type referenced in one of the following:

- MovieLabs Common Metadata 2.1 (md: prefix) as found at <http://movielabs.com/schema/md/v2.1/md-v2.1.xsd> —generically (documentation at <http://movielabs.com/md/md/>)
<http://www.eidr.org/schema/2.0/md-v21-eidr.xsd> — specific to EIDR.
- DOI Metadata Kernel (doi: prefix) as found at <http://dx.doi.org/10.1000/276>
- DOI version of ISO 3166-1 alpha 2 code as found at <http://dx.doi.org/10.1000/279>

If attributes apply, their name and data type will be added to form a list of items enclosed in {} brackets. An attribute will be described as optional or else it is required.

Note that text strings (including enumerations) are not case sensitive in the EIDR database. Case can be used, though, to improve readability in a user-provided string (for example in a title). Note that enumerated values are case sensitive in XML, and so may result in a schema-validation error if not capitalized correctly.

Some fields are shown with a type of n/a, which means that it is a complexType (enclosing element). In this case, its sub-elements will be described in a separate details section usually below.

CARDINALITY: The cardinality for optional fields has a range that starts with 0 (such as 0 or 0-1). Required fields start with 1. Repeating items have an upper limit of n (such as 1-n).

Examples of field data are found following the tables in the form of XML output from the REST API. For details on generating XML from the Registry see the *EIDR REST API Reference* and the *EIDR Registry User's Guide*.

NOTE: Explanatory details for the field.

1.3 EIDR ID'S

Various interrelated types of unique ID's are used within the EIDR system:

1. **Party ID** – This identifies an organization. These are referred to as partyDOIType in the data Type column. Parties can be used in several ways in the EIDR system. For example, they can serve as the registrant of a content record or be referenced in an asset's metadata as playing a role in the physical production of an audiovisual asset. Party ID's are maintained by the EIDR system administrator. The party prefix in the public registry is 10.5237. A party used for registering content will have one or more associated users.
2. **User ID** – This identifies a user. The user prefix in the public registry is 10.5238. All users are associated with a single party. Your EIDR system administrator will supply your user ID and associated party.
3. **Asset ID** – This identifies content within the system. These are referred to as assetDOIType in the data Type column. The content prefix in the public registry is 10.5240. A request for registering content comes through the public API to create a new object, which is described by a set of metadata. If the required metadata has been provided and they do not describe any existing object then an ID is allocated and its associated metadata is stored in the repository.
4. **Video Service** – This identifies a video content service such as a network or feed. The prefix in the public registry for this is 10.5239. These may be arranged in a hierarchy reflecting relationships such as corporate ownership.

Each of these ID's belongs to a different namespace (by virtue of prefixes) and has a different (suffix) format and therefore cannot be substituted for each other. All are valid instances of the doi:doiName data type. However, other doi:doiName values cannot be substituted for any EIDR ID's. For example, 10.1000/182 is a valid DOI Name, but it cannot be used for an EIDR party, user or content record.

2 BASE OBJECT TYPE

All content types share the EIDR Base Object Metadata. The base type extends the DOI Kernel metadata. Certain Base Object fields can map to DOI fields as indicated in the Type or Explanatory Notes columns of the metadata table. For more information on this mapping see the Appendix II: DOI Resolution.

The following Referent Types can be created using only a base object type:

- Movie
- TV
- Web
- Short
- Supplemental.

If only a Base Object is used to create these Referent Types, then these will be the fundamental version (root of a tree). For example, the Abstraction of a Movie or a one-time-only TV show. Other versions of the content will be registered using derived types with additional metadata (as described in the Derived Types section). All other Referent Types will always require a derived object type.

The following table describes the base metadata:

Field	Category	Type	Cardinality	Explanatory Notes
StructuralType	Required	doi:creationStructuralType, an enumeration: Abstraction, Performance, Digital, Physical	1	Abstraction is for objects that have no reality, such as a series container or the most basic concept of the original work. A title-level record such as a Movie should be abstract. This cannot apply to the following Referent Types: Clip, Edit or Manifestation. Performance is used for a particular Edit or version of a work. It cannot be used for Interactive Material. Digital is for particular files. Most typical for Manifestations, but also used for Web, Clip or Edit. Physical is used for physical media such as a piece of film or tape, but it should <i>not</i> be used in the current version of the EIDR Registry.

Mode	Required	Enumeration: Visual, AudioVisual, Audio, Other	1	Mode refers to the types of data in the content record: Visual is used for silent works (that do not have a soundtrack). AudioVisual for works with audio and visual components. This will be the most common mode in EIDR. Audio is used for soundtracks and for alternate audio tracks that can exist as entities on their own (such as other languages, voice-over commentary). Other is used for material that is not strictly audio-visual such as Interactive Material. This is a maps to doi:mode.
ReferentType	Required	Enumeration: Series, Season, TV, Movie, Short, Web, Compilation, Interactive Material, Supplemental	1	The ReferentType describes the abstract nature of the content of a referent irrespective of its StructuralType. See “Referent Type details” below. This maps to doi:creationType.
ResourceName	Required	{xs:string of 0-128 characters, lang of xs:language, optional titleClass attribute enumerated}	1	This is the name of the object, along with the language in which the name is expressed. The titleClass describes the title, which for the main title is usually release. See “Title Details” below. This name is not necessarily consumer presentable; it is used for differentiation. For a base record this should follow the official name of the asset (such as “Rocky III” not “Rocky 3 “or “The Women” not “Women, The”) including, if possible, capitalization. You should not use ASCII for accented characters (such as Quien for Quién). This maps to doi:creationName with a Type of “Title”.

AlternateResourceName	Optional	{xs:string of 1-128 characters, lang of xs:language, optional titleClass controlled vocabulary}	1-128	Optional alternate title(s) for the work, for example a working title or a code name. See “Title Details” below. This maps to doi:creationName.
OriginalLanguage	Required	{xs:language, mode of doi:mode restricted to controlled vocabulary of Audio or Visual, optional type with enumeration of primary, narration, dialogcentric, commentary, normal, SDH, large, forced, easyreader, other	1-32	The principal language(s) of this record. For almost all works this will be a single value (in other words incidental languages such as Russian in “The Hunt for Red October” should be ignored). Should be multi-valued for works that are multi-lingual such as the movie “Babel”. For works without dialog, this is the language of the credits. For sporting events or performing arts productions (such as opera), this is the language of the host or announcer not of the players or performers. For details on the value see the “Language Codes” section below. Can only be set at the root, Season or Episode level. The type attribute will should be “primary” for audio works and “normal” for silent works.
VersionLanguage	Optional	{xs:language, mode of doi:mode restricted to controlled vocabulary of Audio or Visual, optional type with enumeration of primary, narration, dialogcentric, commentary, normal, SDH, large, forced, easyreader, other	0-64	This is for the languages of a derivative asset such as subtitles or dubbing of an Edit, Clip or Manifestation. For details on the value see the “Language Codes” section below. It cannot be applied at the root, Season or Episode level. All values will be automatically generated for Manifestations if the Audio or Subtitle Tracks specify languages. For details on the type attribute, see the “Digital Details” section under Manifestations.

AssociatedOrg	Required (if either 1 Director or 4 Actors are not present)	{optional idType attribute with the following enumerated values: EIDRPartyID, ISNI; optional organizationID of xs:string; required role attribute with the following enumerated values: producer, distributor, broadcaster, editor, encoder, other}	0-16	This is the list of organizations that are most responsible for making this asset. For details see the “AssociatedOrg Details” section below. For an abstract work such as a Series, the role might be producer and the Party, the principal production company. For a dubbed local version, the role might be distributor. It does not necessarily include the Registrant’s Party. See section on Parties in the <i>EIDR Registry User’s Guide</i> for more information. The idType and organizationID map to the identifier element of doi:principalAgent. Note some experimental works or user-generated content will not have an Associated Organization.
ReleaseDate	Required	xs:gYear or xs:date	1	This is the date the object in question was released. It should be to as fine a degree as possible, and must provide at least a year. The term released may have different meanings in different contexts. For example, it is the actual theatrical release date for new movies; the original air date for TV shows; and the date a file was finished for a simple Manifestation. For details see the “Time and Date” section below.
CountryOfOrigin	Required	ISO 3166-1 alpha 2 code	0-32	The home country of the companies which had primary creative control of the creation of the work. In EIDR, these companies are generally the Associated Org with a producer role. A dubbed Manifestation or censored Edit might have a different Country of Origin than its parent.

Status	Required	Enumeration: valid in development	1	Most IDs will be valid. Valid should be used for all released content. Valid records are visible to all. In development records should be used with caution. They are hidden to everyone except the Registrant or authorized proxies. They are intended to be ultimately promoted to valid. Note: The status of the object being registered cannot be valid if the parent is in development. For details on this topic see the <i>EIDR Registry User's Guide</i> .
ApproximateLength	Required	xs:duration	1	The approximate duration of the work. For abstract root objects, such as a Movie, this may be estimated, but it becomes more concrete with individual Edits and Manifestations. Only provide what is significant. For example, do not provide a trailing 00S, unless it is really accurate to seconds. Seconds should not be provided for Abstractions except very short works. For a Series and Season this should be the length of a typical episode since this will help with identification. The ApproximateLength field should be 0 for Interactive Material.
AlternateID	Optional	{xs:string, type enumerated, domain of xs:anyURI if type is Proprietary, optional relation enumerated}	0-n	A list of 0 or more IDs for the object in other systems. If needed, these can be used for disambiguation at registration time. For the controlled vocabulary of the attributes see "Alternate ID details" below.
DisplayName	Optional	{xs:string of 1-128 characters, lang of xs:language}	0-1	Deprecated. This optional name should be used for display by human interfaces, if it is present. It is not assumed to be useful for queries and other operational activities. Note that this field is normalized for whitespace when stored.

Administrators	Required	n/a	1	See the section "Administrators Details" below.
Credits	Optional (required if Associated Org. is not provided)	n/a	0-1	See section "Credits Details" below.
RegistrantExtra	Optional	xs:string of 1-128 characters	0-1	Optional information added by the Registrant. This is not used for purposes of disambiguation. Although the format and meaning of the data are private to the Registrant, it is visible to anyone able to see the object.
Description	Optional	{xs:string of 1-128 characters, lang of xs:language}	0-1	Optional description of the object; this is not intended as a description of the underlying content, but of the specific object being registered. For example Brazilian Release, 25th Anniversary Director's Cut or PAL low-res streaming.

Sample Base Object Data XML for a released Movie (after it has been created and given an EIDR content ID):

```
<BaseObjectData>
  <ID>10.5240/4DDF-A111-8543-E67B-58F6-2</ID>
  <StructuralType>Abstraction</StructuralType>
  <Mode>AudioVisual</Mode>
  <ReferentType>Movie</ReferentType>
  <ResourceName lang="en" titleClass="release">Ben-Hur</ResourceName>
  <OriginalLanguage mode="Audio" type="primary">en</OriginalLanguage>
  <AssociatedOrg idType="EIDRPartyID" organizationID="10.5237/169B-EDEB" role="producer">
    <md:DisplayName>Metro-Goldwyn-Mayer</md:DisplayName>
    <md:AlternateName>MGM</md:AlternateName>
  </AssociatedOrg>
  <AssociatedOrg idType="EIDRPartyID" organizationID="10.5237/03E2-6787" role="producer">
    <md:DisplayName>sam zimbalist</md:DisplayName>
  </AssociatedOrg>
  <ReleaseDate>1959</ReleaseDate>
  <CountryOfOrigin>US</CountryOfOrigin>
  <Status>valid</Status>
```

```

<ApproximateLength>PT3H32M</ApproximateLength>
<AlternateID xsi:type="ISAN">0000-0002-E823-0000-0-0000-0000-3</AlternateID>
<Administrators>
  <Registrant>10.5237/superparty</Registrant>
</Administrators>
<Credits>
  <Director>
    <md:DisplayName>William Wyler</md:DisplayName>
  </Director>
  <Actor>
    <md:DisplayName>Charlton Heston</md:DisplayName>
  </Actor>
  <Actor>
    <md:DisplayName>Jack Hawkins</md:DisplayName>
  </Actor>
</Credits>
</BaseObjectData>

```

2.1 REFERENT TYPE DETAILS

In DOI terms, the referent is the item to which the DOI refers independent of any particular instantiation or meaning. The DOI handbook says: ReferentType typically describes the abstract nature of the content of a referent irrespective of its structuralType. For example, an object created as a movie is a movie whether it is being shown in a cinema, broadcast as an edited version over terrestrial TV, streamed over the Internet, or played from a DVD. A fundamental object can have multiple children through relationships such as a Clip, Edit or Manifestation.

The EIDR ReferentType can have one of following values:

Value	Explanatory Notes
Series	An abstraction that contains ordered or unordered individual items. Its child Episode records can have a Referent Type of TV, Movie, Web, or Short.
Season	A second level of grouping below a Series. Its child Episode records can have a Referent Type of TV, Movie, Web, or Short.
TV	Content that first appeared via broadcast. This includes telefilms. This should only apply to records with a ReleaseDate after 1935.

Movie	Content that first appeared in a theatre (in the US) or a cinema (in most of the rest of the world) or was released directly to video. This type is intended for feature films and other long-form motion pictures. If the duration is ≤ 40 minutes then the record should be given the Short type.
Web	Content that first appeared on the Web. This should not be used for content from elsewhere that has been made available on the Web.
Short	A standalone work that is not more than 40 minutes in actual content duration that was not made for television. This should not be used for a clip or excerpt.
Compilation	A collection of multiple whole works that is not more precisely describable such as an Ultraviolet bundle or a DVD with multiple works. This can only be used with the Compilation data type.
Interactive Material	For content that is not strictly audiovisual and is not intended to be viewed in linear fashion. This covers DVD menus, interactive TV overlays, customized players, etc.
Supplemental	Loosely defined to cover a trailer or value-added materials, or miscellaneous content such as outtakes, rushes or special segments (such as a making-of featurette).

2.2 TITLE DETAILS

Titles in EIDR are placed in Resource Name fields. Titles are xs:string, but are limited to 128 characters. Note that EIDR supports Unicode for user-defined text strings such as the title. Titles require a lang attribute, which is described in the Language Codes section below. EIDR also optionally allows a titleClass attribute that can have one of the following values:

Value	Explanatory Notes
release	Title as released. This name should appear in the credits for modern commercial works.
abbreviated	Shortened version of a longer title. Example: “Prince Caspian” for “The Chronicles of Narnia: Prince Caspian”.
working	Working title such as “Eight Arms to Hold You” for “Help!”. Might be used for a pre-release registration that is later replaced with the actual title.
acronym	SATC for “Sex and the City”. Provide only if commonly used. Should not be used for the primary title.
fan-based	What fans call the work. Provide only if commonly used. Should not be used for the primary title.
internal	Any internal or code name. Use only if necessary. Should not be used for the primary title.
series numeric	Used when a work does not have an identifying name, but can be distinguished based on its season or episode numbers. For example: Season 2 Episode 3 of The Simpsons. Applies only to the primary title of Seasons and Episodes. Automatically generated.
series date	Used when a work does not have an identifying name, but can be distinguished based on its full release date (and optionally time slot). For example: The Evening News [2012-10-13]. Applies only to the primary title of Seasons and Episodes. Automatically generated.
regional	Regional title that may be in the same language as the original. Can be used for foreign titles.
broadcast	If a broadcast release has a different name. Should not be used for the primary title.
AKA	Also Known As. Could be used for a Series that has changed its name, such as “The Hollywood Squares” which later became simply “Hollywood Squares”. Could be used for a retitled home entertainment release in the original language.
FKA	Formerly Known As. Could be used if a Series has changed its name and you know this one came earlier.
transliterated	Most commonly used for Romanized versions of titles originally in non-Roman scripts (such as a Japanese title in romaji). Example: “Tengen Toppa Guren Ragan” is the transliterated title of 天元突破グレンラガン, but the Roman title never actually appears in the work itself (or localized versions) and is provided only as a convenience for non-Japanese speakers.
other	Used when no other type fits. Might be used for a descriptive title given by an archive for an actuality.

Note that the title (free) text is normalized for whitespace when stored.

2.3 LANGUAGE CODES

In EIDR, language codes are used in fields such as Original Language or as attributes for fields such as Titles and Descriptions. Language codes are type xs:language, which is specified according to IETF RFC 5646. See ***EIDR Language Code Best Practice***. Some examples are:

- The simplest case is a two-letter code (originating from ISO 639-1) such as `fr` for French. Three-letter codes are required for some languages such as `sgn` for sign language (subtype not known) and `zxx` for no language (which can apply to some of the earliest actuality films).
- Additional detail may be necessary if there are multiple localized versions of the same language. Some titles are available in different versions of the same language for different regions perhaps with different titles. For example, the movie released in the United States as *The Hangover* is called *Lendemain de veille* in French-speaking Canada (`fr-CA`). Another variation on this includes region codes `es-419`, which represents Spanish (`es`) appropriate to the UN-defined Latin America and Caribbean region (419). Use `sgn-FR` for French sign language (LSF), and `sgn-US` for American Sign Language (ASL).
- Additional detail can also describe the textual representation, which might be applicable to subtitles. For example, `mn-Cyrl` represents the Mongolian language written in Cyrillic script; `mn-Latn` is Mongolian written using Latin script.
- The two types of additional detail can be combined. For example, `sr-Latn-RS` represents Serbian (`sr`) written using Latin script as used in Serbia (`RS`).

For further information on this subject see <http://tools.ietf.org/html/rfc5646>. Note that these fields are normalized when stored. The language (first part) is lowercased, scripts are title-cased, and countries are uppercased. This has no effect on searching, but merely makes display consistent and more readable.

2.4 ASSOCIATEDORG DETAILS

The Associated Organization element typically contains the following elements:

Field	Category	Type	Cardinality	Notes
DisplayName	Required	xs:string of 1-128 characters	1	The official name of the organization as it may appear in the credits. This type supports Unicode so do not provide an ASCII version of the name for this field or the Alternate. This maps to the name element of doi:principalAgent. If an EIDR Party is provided this data will be filled in <i>automatically</i> .
AlternateName	Optional	xs:string of 1-128 characters	0-32	A variation on the name if helpful in de-duplication such as an acronym (MGM).

So the Associated Organization element can be as simple as:

```
<AssociatedOrg role="producer">
  <md:DisplayName>Metro-Goldwyn-Mayer</md:DisplayName>
</AssociatedOrg>
```

Or as detailed as:

```
<AssociatedOrg idType="EIDRPartyID" organizationID="10.5237/169B-EDEB" role="producer">
  <md:DisplayName>Metro-Goldwyn-Mayer</md:DisplayName>
  <md:AlternateName>MGM</md:AlternateName>
</AssociatedOrg>
```

2.5 TIME AND DATE

Date is based on XML `xs:date`, which is inspired by ISO 8601. So for example August 9, 2002 would be represented as 2002-08-09. The date may also be represented less precisely by the year alone (`xs:gYear`). Note that the month and day must be two digits.

All times (both length and position) in the EIDR system are represented as a duration. Duration is based on XML `xs:duration`, which is the ISO 8601 extended format `PnYnMnDtnHnMnS`, where `nY` represents the number of years, `nM` the number of months, `nD` the number of days, 'T' is the date/time separator, `nH` the number of hours, `nM` the number of minutes and `nS` the number of seconds. The number of seconds can include decimal digits to arbitrary precision. For example, to indicate a duration of 2 hours, and 30 minutes, one would write: `PT2H30M`. Only provide what is significant, for example, use `2H`, not `2H00M00S`, unless really accurate to seconds. Note that all times are normalized when stored so that for example `PT90M` becomes `PT1H30M` and `PT1H5S` becomes `PT1H0M5S`. This has no effect on searching, but merely makes display consistent.

2.6 ALTERNATE ID DETAILS

The Alternate ID requires a `type` attribute that must have one of the following values:

Value	Explanatory Notes
Ad-ID	4 alphanumeric chars (company code), 7 alphanumeric (generated code), optional 'H' (for HD version)
AMG	A Rovi video or disc ID.
Baseline	Baseline ID. The form is a 7-digit integer.
cIDF	Content ID Forum Content ID
CRID	See RFC 4078. The ID form is <code>crid://<DNS name>/<data></code>
DOI	A non-EIDR <code>doi:name</code> (i.e., with a non-EIDR prefix)
GRId	Global Release Identifier: 2 character (identifier scheme), 5 character (issuer code), 10 character (release number), 1 check character. Letters must be upper case. Either all dashes are present, or none are.
IMDB	IMDb Title ID. The form is <code>tt</code> followed by a 7-digit integer.
ISAN	International Standard Audiovisual Number 4-4-4-4, 4-4-4-4-C (C is a check digit), 4-4-4-4-C-4-4-C, or 4-4-4-4-4-4. Hex digits and check digits must be upper case. All occurrences in a string of - must be one of dash, space or nothing. The 24-digit forms must have both check digits or none.
ISRC	International Standard Recording Code: a 2-character (non-digit) country code, 3-character (alphanumeric or digit) registrant code, 2-digit year of reference, 5-digit designation code, with optional separating dashes. Letters are upper case. Either all dashes are present, or none are.
IVA	Internet Video Archive ID. The form is a 7-digit integer (that cannot have 0 as the first digit).
MUZE	A Rovi video or disc ID.
Proprietary	For proprietary or internal numbering systems, <code>domain</code> is a required attribute (e.g., <code>studio.com</code>). For example: <code><AlternateID xs:type=eidr:Proprietary domain="studio.com">XYZZY</AlternateID></code>

Value	Explanatory Notes
SMPTE-UMID	SMPTE Unique Material Identifier
TRIB	Tribune Media
TVG	TV Guide
UPC	Universal Product Code – twelve decimal digits
URI	The format here is <code>scheme://domain name/data [# query] [#fragment]</code> . Note that an IP address is not permitted.
UUID	UUID in form 8-4-4-4-12. Both upper and lowercase hex digits allowed.
URN	IETF Uniform Resource Names: <code>urn: <NID> : <NSS></code> . See RFC 2141 for details.

So a complete example would be:

```
<AlternateID xs:type="ISAN">0000-0002-E823-0000-0-0000-0000-3</AlternateID>
```

The Alternate ID optionally supports a `relation` attribute that can have one of the following values:

Value	Explanatory Notes
IsSameAs	The referent of the EIDR ID is equivalent to the referent of the Alternate ID. For example, this would apply to an IMDb ID for a root Movie record.
IsEntirelyContainedBy	The referent of the EIDR ID is entirely contained by the referent of the Alternate ID. In this case, the Alternate ID might apply to a DVD that contains other material.
ContainsAllOf	The whole of the AlternateID's referent is included in the EIDR referent.
IsPartiallyContainedBy	Some of the EIDR referent is contained in the AlternateID's referent – this could be a temporal piece, such as a 3 minute section, or a component-based piece, such as the audio or video track.
ContainsPartOf	Some of the Alternate ID's referent is included in the EIDR referent – this could be a temporal piece, such as a 3 minute section, or a component-based piece, such as the audio or video track.
IsDerivedFrom	The EIDR referent is derived from the Alternate ID's referent, e.g., the EIDR referent is a version, etc. of the Alternate ID's referent.
IsSourceOf	The Alternate ID's referent is a version, etc. of the EIDR referent. This might apply when the ID comes from an online distributor such as iTunes or Hulu but is being attached to an EIDR root record either because the EIDR Edit has not been created or cannot be determined. This is the inverse of IsDerivedFrom.
HasCueSheet	The Alternate D specifies an audio cue sheet (in whatever format is implied by the particular AlternateID) listing audio works of interest included the referent of EIDR ID. EIDR itself could be used to build simple cue sheets (IDs only, not position) with ContainsAllOf and ContainsPartOf, but this is not recommended for anything other than very simple cases.
Other	The relationship between the EIDR ID and the Alternate Identifier is unknown or not one of those listed above.

2.7 ADMINISTRATORS DETAILS

The following table explains the Administrators sub-elements:

Field	Category	Type	Cardinality	Explanatory Notes
Registrant	Required	partyDOIType	1	The Registrant must be the Party of the User that creates the content record. The system maintains a list of Registrant Parties, each described by an EIDR Party ID (such as 10.5237/C208-D56A). These registrants can be, for example, the creator of the work, the rights holder, or an authorized proxy for one of them. The Registrant field cannot be changed after the initial registration.
MetadataAuthority	Optional	partyDOIType	0-4	The Registrant can include this field to indicate the Party that is authoritatively knowledgeable about the record and may assist in maintaining the accuracy of the data in the record. Only Parties that have this permitted role may be used in this field.

Note that all non-administrative EIDR Parties ID's are normalized to uppercase when stored. This has no effect on searching, but merely makes display consistent.

2.8 CREDITS DETAILS

The Credit information should be provided in the base and inherited by the child for Movies, Shorts and one-time-only television programs. For Series, these will depend as described in Series section. They may change for special circumstances in child objects. For example, for an Episode (say for a guest star) or for an Edit such as a dubbed version of an animated television show or Movie (such as the American release of the Japanese film *Ponyo*).

The following table explains the Credits subfields:

Field	Category	Type	Cardinality	Notes
Director	Optional (required if 1 Associated Org. or 4 Actors is not provided)	md:PersonNameType	0-2	This can contain one or more of the elements of this type, but it is usually just the md:DisplayName element. Display Names should match the actual credits (for example, Jean Gabin not Gabin, Jean). If multiple, choose the first billed. One director may substitute for AssociatedOrg to satisfy minimum metadata requirements.

Field	Category	Type	Cardinality	Notes
Actor	Optional (required if 1 Associated Org. or 1 Director is not provided)	md:PersonNameType	0-4	These should be the top-billed talent. For a documentary, this could be the narrator or the subject if a biography. This can contain one or more of the elements of this type, but it is usually just the md:DisplayName element. Four Actors may substitute for AssociatedOrg to satisfy minimum metadata requirements.

Here is a sample Credits element which has two actors:

```
<Credits>
  <Actor>
    <md:DisplayName>Jerry Seinfeld</md:DisplayName>
  </Actor>
  <Actor>
    <md:DisplayName>Jason Alexander</md:DisplayName>
  </Actor>
</Credits>
```

Note that these free-text fields are normalized for whitespace when stored. This has no effect on searching, but merely makes display consistent.

3 DERIVED TYPES

All data described in Base Object Type above applies to the derived types, and is similarly either required or optional. Derived types provide extra metadata, some of which is always required.

All derived types except Series, Composite and Interactive Material have a parent: Season, Episode, Clip, Edit, and Manifestation. Derived types with a parent can inherit base data from the parent as follows:

Inheritance	Required Fields	Optional Fields
Can be inherited	StructuralType Mode ReferentType ResourceName OriginalLanguage ReleaseDate CountryOfOrigin ApproximateLength	VersionLanguage AssociatedOrg DisplayName Director Actor
Cannot be inherited	Status Administrators Registrant	AlternateResourceName AlternateID RegistrantExtra Description MetadataAuthority

An object can have only one parent. Inheritance is from the nearest ancestor. If a field is not inherited and provided directly with the object, then it is considered self-defined. (Extra metadata is always self-defined.) Some fields that are optional in a base object are required for certain derived types as described in each section below. Some fields that are usually inherited must be specified for certain derived types as described below.

Creating objects with a parent also creates a relationship between the child and parent object. The relationship is summarized in the Relationship field of the SimpleInfo view of an object with details in extra relationship-specific metadata. Here is the example of the Relationship field for an Edit:

```
<Relationship type="isEditOf">10.5240/32D7-A9D7-9BC1-F5A4-ACB4-Q</Relationship>
```

For details on object views available when retrieving metadata from the Registry see the *EIDR Registry User's Guide* and the *EIDR REST API Reference*.

The sections that follow provide a list of extra object metadata fields for each derived type that is relevant to creating and modifying these types. The sections begin with the related Series, Season and Episode objects.

3.1 SERIES

A Series could be broadcast (including mini-series), theatrical (such as *The Perils of Pauline*) or on the web (such as lonelygirl15). Episodes in a series must have one of the following values for its Referent Type: TV, Movie, Web, or Short.

Alternate Resource Names can be provided for other markets. The Approximate Length should be the length of a typical episode. For a mini-series, this can be the total duration of all the episodes (especially since they will be compared to Movies that combine all the episodes). The Credits should be provided if they do not change for the entire series; otherwise, this information should be provided in the Season or Episode.

The extra metadata when creating a Series:

Field	Category	Type	Cardinality	Notes
EndDate	Optional	xs:gYear or xs:date	0-1	Recommended if known. The date the last item from the series was released or aired. This should not be present for a current series or if the end date is not known. For details see the Time and Date section.
SeriesClass	Optional	Enumeration: Episodic, Anthology, Mini-series	0-1	Describes the type of Series. Most Series are Episodic. Anthology refers to series made up of standalone works such as documentaries. Anthology triggers de-duplication of its Episodes.
NumberRequired	Optional	xs:boolean	0-1	If true then all child records of a Series (Episodes or Seasons) must specify an inherent order. If the Series only has Season children then this should be true.
DateRequired	Optional	xs:boolean	0-1	If true then all child records must specify a full date (xs:date) for the Release Date field. This is useful when the season-less episodes do not have a title as in a news program or soap opera. This is usually not present or false at the Series level.
OriginalTitleRequired	Optional	xs:boolean	0-1	If true then all the Series children must specify a self-defined title. Most modern fictional series episodes will have one, while seasons almost always do not. (If OriginalTitleRequired is true then child records cannot have a title class of Series Numeric or Series Date.) This is usually not present or false at the Series level.

Here is sample XML for the extra metadata for a Series that has ended:

```
<ExtraObjectMetadata>
  <SeriesInfo>
    <EndDate>2009</EndDate>
    <NumberRequired>true</NumberRequired>
  </SeriesInfo>
```

</ExtraObjectMetadata>

3.2 SEASON

A Season is a child object of a Series. A Season has a Referent Type of Season. (In other words, the Referent Type cannot be inherited from its parent Series.) A Season should be created even if there is only one. However, a TV mini-series such as “Roots” may not be given a Season.

Most Seasons do not have an explicit Resource Name. However in EIDR, this field cannot be inherited or empty. If a value is not provided by the Registrant then the Registry will provide one based on the Series Name and the Sequence Number, or if no Sequence Number is present then the Release Date (and EndDate if given). The name is constructed using the following respective formats:

<Series Name>: Season <SequenceNumber >

<Series Name> [<ReleaseDate > - <EndDate>]

Example:

```
<ResourceName lang="en" systemGenerated="true" titleClass="series numeric">30 Rock: Season 4</ResourceName>
```

The Release Date must always be specified for Seasons. The Release Date of every season must be greater than or equal to the Release Date of the Series. Numbered seasons must have a Release date greater than or equal to the preceding numbered season. The Release Date of Season 1 should have the same date or year as the Parent’s.

One or two of the data requirement fields is *recommended* for all Seasons: NumberRequired, OriginalTitleRequired, DateRequired.

The extra metadata when creating a Season of a Series:

Field	Category	Type	Cardinality	Notes
Parent	Required	assetDOIType	1	EIDR content identifier of the parent object, which must have a ReferentType of Series.
EndDate	Optional	xs:gYear or xs:date	0-1	Recommended if known. The date the last item from the season was released or aired. For the current season, this may not be present. For details see the “Time and Date” section.

Field	Category	Type	Cardinality	Notes
SeasonClass	Optional	Enumeration: Main, Adjunct, Recut, Mini-series, Pro Forma	0-n	Describes the type of Season: The original broadcast Seasons should be Main. (If the class is absent, then the Season will be treated as Main.) Adjunct – an additional Season not part of the main sequence of Seasons Recut – consists of recut Episodes from an existing Season (often associated with mini-series). Mini-series – the original constitution of a mini-series, e.g. 7-night vs. 5-night seasons. Subsequent re-edited versions may be listed as Recut Seasons. Pro Forma – the Series does not have Seasons, e.g. a soap opera, daily program, or film serial, but the Registrant needs a placeholder. All Episodes of all Pro Forma Seasons of a Series are evaluated during de-duplication.
NumberRequired	Optional	xs:boolean	0-1	If true then all child Episodes must specify an inherent order. This will require a unique Distribution Number or a House Number for each Episode of the Season. Most fictional series will have an explicit order, but anthology series sometimes do not.
DateRequired	Optional	xs:boolean	0-1	If true then all child Episodes must specify a full date (xs:date) for the Release Date of the season's Episodes. This is useful when the episodes do not have a title as in a news program or soap opera.
OriginalTitleRequired	Optional	xs:boolean	0-1	If true then all child Episodes must specify a self-defined title. Most modern fictional series will have one. (If OriginalTitleRequired is true then child Episodes may not have a title class of Series Numeric or Series Date.)
SequenceNumber	Optional	xs:positiveInteger	0-1	The number of the season within the series. The first Season should always be 1.

Here is sample XML for the extra metadata of a completed Season:

```
<ExtraObjectMetadata>
  <SeasonInfo>
    <Parent>10.5240/920C-D802-C433-807B-246C-S</Parent>
    <EndDate>2010</EndDate>
    <NumberRequired>true</NumberRequired>
    <SequenceNumber>4</SequenceNumber>
  </SeasonInfo>
</ExtraObjectMetadata>
```

3.3 EPISODE

An Episode is a child object of a Series or Season.

A Structural Type of Abstraction is required for an Episode. An Episode must have one of the following values for its Referent Type: TV, Movie, Web, or Short. It cannot inherit this field from its parent. The Release Date must also be specified for Episodes.

The base object field ResourceName must be supplied for each Episode if OriginalTitleRequired of the parent is true.

Some episodes do not have an explicit Resource Name. However in EIDR, this field cannot be inherited or empty. If a title is not provided by the Registrant then the Registry will provide one based on the parent Name and the Episode Distribution Number or if there is no Sequence Number is present then the Release Date (and TimeSlot if given). The name is constructed using the following respective formats:

<parent Resource Name>: Episode <SequenceNumber >

<parent Resource Name> [<ReleaseDate >]

Example:

```
<ResourceName lang="en" systemGenerated="true" titleClass="series numeric">Jeopardy!: Season 25: Episode 2</ResourceName>
```

The base object field ReleaseDate must be use the full xs:date form for each Episode if the DateRequired of the parent is true.

The extra metadata when creating an Episode of a Series:

Field	Category	Type	Cardinality	Notes
Parent	Required	assetDOIType	1	DOI identifier of a parent object, which must have a ReferentType of Series or Season. Episodes in a one-off series (e.g. a TV miniseries) will have a parent series; in a recurring series (e.g., The Muppet Show), episodes will have a parent season.

Field	Category	Type	Cardinality	Notes
EpisodeClass	Optional	Enumeration: Main, Pilot, Standalone, Special, Omnibus, Recut, Segment	0-n	Describes the type of Episode. The original broadcast Episodes should be Main. If the class is absent then the Episode will be treated as Main. Pilot – Series pilot Standalone – was or is in distribution as a standalone TV show (e.g. Pilot), TV Movie (e.g., merged mini-series), theatrical release (e.g. Anthology series), etc. Special – an Episode outside the usual sequence such as a Christmas special. Omnibus – an edited down synopsis of other Episodes, such as a recap of the prior week’s episodes. Recut – recut (2-night from original 7-night), split, merged, derived webisodes Segment – an individual part that that can stand on its own or be combined into a whole episode (e.g., the two 15-minute stories aired together in a 30-minute animated program).
SequenceInfo	Optional	n/a	0-1	For defining sequence numbers. For details, see below.
TimeSlot	Optional	xs:time	0-1	The start time of the time slot of the original broadcast. This should be provided <i>only</i> if the series has multiple original episodes within the same calendar day. This might apply to a news program for example. For programs that may be broadcast in more than one time zone, specify the time and time zone of the first presentation. For example, 09:00:00-08:00 for 9:00am Pacific Standard Time. The time zone offset is optional if the program is broadcast in one time zone.

The SequenceInfo element offers up to three types of number fields. All may be present in an Episode. The practice for each type of field is to follow a consistent human meaningful pattern within a domain. The pattern is associated with a domain. In general, the same domain will apply to each DistributionNumber or HouseSequence for all episodes within a series. Details on the fields:

Field	Category	Type	Cardinality	Notes
md:DistributionNumber	Required if NumberRequired of the parent is true.	{xs:string (8 restricted characters beginning with a non-negative integer), optional domain of xs:anyURI (restricted)}	0-1	The position number of the episode within the parent. The most common value will be a positive integer starting with episode 1 for each season (should <i>not</i> be cumulative). 0 is allowed for EpisodeClass=Pilot or Special. When needed, this can include an alphabetic character (such as 1A). This can be followed by a delimiter (colon, slash, dash, period or comma) followed by alphanumerics (such as 11A/11B). The number and domain cannot be duplicated by another episode for the same parent.

Field	Category	Type	Cardinality	Notes
md:HouseSequence	Optional	{xs:string (8 characters limited to any characters from 0-9a-zA-Z:/-.,), optional domain=xs:anyURI (restricted)}	0-1	Registrants may want to register an item before an official number is known, and elements of unordered groups usually have some internal identifier beyond their title. For example, the house sequence may indicate the order in which episodes were filmed. The number and domain cannot be duplicated by another episode for the same parent.
md:AlternateNumber	Optional	{xs:string (8 characters restricted), domain=xs:anyURI (restricted)}	0-32	Any alternate sequence number. Examples include: a number that is cumulative across seasons; numbers that result from re-ordering in foreign distribution; a number that is not from the content creators such as an EPG provider.

Here is sample XML for the extra metadata of an Episode:

```
<ExtraObjectMetadata>
  <EpisodeInfo>
    <Parent>10.5240/14F9-6921-47AF-E605-E45D-H</Parent>
    <SequenceInfo>
      <md:DistributionNumber domain="spe.sony.com">2</md:DistributionNumber>
      <md:AlternateNumber domain="spe.sony.com">5518</md:AlternateNumber>
    </SequenceInfo>
  </EpisodeInfo>
</ExtraObjectMetadata>
```

An object with Episode information can also add Composite information (as described in the Composite section) that will then be included in the ExtraObjectMetadata element. For example, a Bugs Bunny TV episode composed of a group of Shorts originally released theatrically by Warner Bros. studio could make use of Composite information. The Composite fields are used for identification and tracking, and not for de-duplication.

Here is an example of XML of an Episode that is a Composite with two components:

```
<ExtraObjectMetadata>
  <EpisodeInfo>
    <Parent>10.5240/94C6-8298-704F-290B-582E-G</Parent>
    <md:DistributionNumber domain="eidr.org">7</md:DistributionNumber>
  </EpisodeInfo>
  <CompositeInfo>
    <CompositeClass>Mashup</CompositeClass>
    <Element>
```

```
<ID>10.5240/1883-53BD-C433-82FB-7BA6-K</ID>  
</Element>  
<Element>  
  <ID>10.5240/70CD-C87F-B7CC-A641-19EA-D</ID>  
</Element>  
</CompositeInfo>  
</ExtraObjectMetadata>
```

3.4 CLIP

The Clip data type is used for one and only one, contiguous fragment of an asset. A Clip can be of any Structural Type, but would typically be Performance or Digital.

The Approximate Length field must be specified for all Clips (as it cannot be inherited in this case). The Approximate Length will be the Clip's Duration plus padding, if any. Padding adds trivial material at the beginning or end (such as studio logos, disclaimers, a title identifying the clip, etc.). If the additions are non-trivial then the record should be registered as a Composite derived type (or an object type which can have Composite data, such as Base Object Type).

The extra metadata when creating a Clip:

Field	Category	Type	Cardinality	Notes
Parent	Required	assetDOIType	1	The EIDR record from which this object is clipped. The parent object must have a Referent Type of TV, Movie, Short, or Web; and its Structural Type cannot be Abstraction.
ComponentsMode	Required	Enumeration: Visual Audiovisual, Audio, Other, InteractiveMaterial, All	1	One value from an expanded list of EIDR Base Object Mode field. For example, a video clip (without the audio) from a movie would be Visual.
Start	Optional	xs:duration	0-1	The start time in the parent of the extract, if known. (See below.)
Duration	Optional	xs:duration	0-1	This is the length of the clipped segment itself within the parent. (This does not include padding.)

A Clip can be defined with:

- Parent only
- Parent and duration. This is used for certain kinds of licensing deals (such as any 30 seconds) or when the exact start time is not known.
- Parent and start time. This is useful for some content recognition systems that have efficiency optimizations once a threshold amount of source material is found.
- Parent, start time, and duration.

Here is minimal sample XML for the extra metadata of a Clip:

```
<ClipInfo>
```

```

<Parent>10.5240/9BFC-F28F-4565-7F11-A926-K</Parent>
<ComponentsMode>Visual</ComponentsMode>
</ClipInfo>

```

3.5 COMPILATION

A Compilation is a grouping of individual items. Generally, each item in a Compilation is included in its entirety, and exists separately within the Compilation. Examples include themed distribution packages, Ultraviolet compilations, franchises, and the contents of a DVD or Blu-ray disc. Note that while the elements of a Compilation can be sequenced, their order is not considered significant when identifying a Compilation. A Compilation may include another Compilation (for example a boxed set). Note that a Compilation may only have a child record that is a Manifestation.

The Referent Type of a Compilation must be a Compilation.

The Structural Type of a Compilation can be Abstraction, Performance, or Digital. The Structural Type must match that of its Entries (except for "Compilation" Entries). For franchises, the Abstraction level would typically apply. A collection of Edits must have a Structural Type of Performance. For a Distribution Bundle Compilation Class or home entertainment packages, the Entries are usually Edits. If the Compilation will have a child Manifestation, then its Structural Type must be a Performance as well. A collection of Manifestations would have a Structural Type of Digital.

The Release Date refers to the date the Compilation was created. Country of Origin should refer to the creator of the Compilation. The Approximate Length should generally be zero. Credits will not apply except if they are common across the underlying components (such as a DVD of a TV Season).

Note: All non-Compilation Entries for EIDR records in a Compilation must share the same Structural Type.

The extra elements of a Compilation are:

Field	Category	Type	Cardinality	Notes
Entry	Optional	md:CompObjEntry-type	0-n	The components of the Compilation. See details below.
CompilationClass	Required	{enumeration, optional hasOtherInclusions of xs:boolean}	1	Enumeration: Blu-ray, Digital Cinema, Distribution Bundle, DVD, EST, Franchise, Home Entertainment, Syndication, Series, Season, Other The hasOtherInclusions attribute Indicates whether Entry elements include entries beyond the scope of the CompilationClass. If the Compilation does not include an exhaustive inventory of the contents, then set the hasOtherInclusions attribute to "true". This might be used to indicate value-added materials that are not registered in EIDR or are unknown. To assert that the inventory list is complete, then set hasOtherInclusions to "false". Otherwise, do not include this attribute. Only applies if "true".

The Entry sub-elements are:

Field	Category	Type	Cardinality	Notes
DisplayName	Optional	xs:string of 1-128 characters	0-1	The name of the Compilation component. Use if the title of the work changed in the Compilation.
EntryNumber	Optional	xs:string of 1-128 characters	0-1	Indicates the position of this entry within the Compilation. The format matches that of an EIDR Episode number.
EntryClass	Optional	Enumeration: Episode, Installment, Part, Season	0-1	Describes the association between the Entry elements. Installment is part of a sequential but non-episodic set of items (such as a film and its sequels, or a franchise).
ContentID	Required	assetDOIType	1	The EIDR content ID of the Compilation component.

All of the fields in the CompilationInfo are used in de-duplication.

Here is sample XML for the extra metadata of a Compilation:

```
<CompilationInfo>
  <md:Entry>
    <md:DisplayName>Kung Fu Panda</md:DisplayName>
    <md:ContentID>10.5240/5233-4300-1194-B216-EC76-U</md:ContentID>
  </md:Entry>
  <md:Entry>
    <md:DisplayName>Kung Fu Panda 2</md:DisplayName>
    <md:ContentID>10.5240/3E4A-6394-F8FF-A2D3-0C0C-B</md:ContentID>
  </md:Entry>
  <md:CompilationClass>DVD</md:CompilationClass>
</CompilationInfo>
```

3.6 COMPOSITE

Composites are a single continuous item composed of a sequence of other items. This would include for example a trailer or other promotion with various clips, or an episode created by combining multiple episodes.

The Referent Type for an object with Composite metadata must be TV, Movie, Web, Short, or Supplemental. For example, a trailer, which is often a Composite, would have a Referent Type of Supplemental.

Composite data fields can be included at the time an object is created. Composite information can also be added to a base object type or an Episode. See the *EIDR Registry User's Guide* for details on adding Relationships.

The components of Composites can vary by type and degree of specificity:

- Clips that are already known and have their own EIDR content ID.
- Known pieces of a work that are not already defined as clips (in other words, the work has an EIDR ID, but the clips do not).
- Unknown pieces of a known work (in other words, the work has an EIDR content ID, the piece does not, and the specific start and end of the clip are not identified).

A component that does not have an EIDR content ID can be referenced in the composite with an AlternateID.

The extra metadata (CompositeInfoType in the schema) when creating a Composite derived type:

Field	Category	Type	Cardinality	Notes
CompositeClass	Required	Enumeration: Mashup, Omnibus, Excerpt, Inclusion, Other	1	Describes the type of composite. Mashup – The work is primarily a sequence of clips, edited together, with little other material. This is the most common class. Omnibus is a condensed summary of a group of shows, such as a weekly run of a serial. Excerpt contains clips from other works, put together in a larger context e.g. “100 most annoying continuity bloopers,” “Cameos you never spotted,” etc. The excerpts are the main focus of the containing work. This is different from a Mashup, which is represents a new unified whole. Inclusion – One or two things included in larger work, e.g. a documentary with clips from films or news broadcasts. The included items support the main work, but are not its main focus. Other is for anything not covered by any other Class.

Element	Optional	n/a	0-n	For its subfields, see the Element Details section below. Note that the order of elements in a Composite is not significant for de-duplication.
---------	----------	-----	-----	---

Sample XML for a Composite:

```
<CompositeInfo>
  <CompositeClass>Mashup</CompositeClass>
  <Element>
    <ID>10.5240/2046-2046-2046-2046-02BC-V</ID>
    <SourceStart>0S</Start>
    <SourceDuration>PT30M</SourceDuration>
  </Element>
  <Element>
    <ID>10.5240/2046-2046-2046-2046-0283-Q</ID>
    <SourceStart>0S</Start>
    <SourceDuration>PT6M</SourceDuration>
  </Element>
</CompositeInfo>
```

3.6.1 ELEMENT DETAILS

The sub-elements of the Element element:

Field	Category	Type	Cardinality	Notes
ID	Required if OtherID not provided	assetDOIType	0-1	The EIDR ID of a component object (such as a Clip).
OtherID	Required if ID not provided	{xs:string, type enumerated, domain of xs:anyURI if type is Proprietary, optional alternateIDRelationType enumerated}	0-1	The Alternate ID of a component object (such as a Clip). See Section “2.6 Alternate ID details” for details.
SourceStart	Optional	xs:duration	0-1	Start time of content taken from object referred to by ID.
SourceDuration	Optional	xs:duration	0-1	Duration of content taken from object referred to by ID.

Field	Category	Type	Cardinality	Notes
ComponentsMode	Optional	Enumeration: Visual, AudioVisual, Audio, Other, InteractiveMaterial, All	0-1	One value from an expanded list of EIDR Base Object Mode element.
DestStart	Optional	xs:duration	0-1	Start time of this element within the composite.
DestDuration	Optional	xs:duration	0-1	Duration of this element within the composite.
Description	Optional	xs:string of 1-128 characters	0-1	Describes how this element is used within the composite.

3.7 EDIT

An Edit is anything that changes the audio or visual content of an asset (whereas a Manifestation does not change the content, only the digital representation of it). Of the Base Metadata fields, StructuralType, Release Date and Approximate Length must be specified in the registration for all Edits (in other words, they cannot be inherited).

The Version Language could be specified for an Edit in the absence of a detailed Manifestation, but in general, languages should be handled at the Manifestation level. Some cases where you might specify the Version Language in an Edit:

- A silent film that has translated intertitles (such as the English version of “Metropolis”).
- If you're creating an Edit for some other reason (as indicated by an EditInfo field such as EditClass) and that Edit differs in its set of languages from the Original (for example if it is dubbed or has forced subtitles), then you may record the Version Languages in the Edit.
- The rare case of a movie that was filmed twice with the same cast each time in a different language (such as the recent “In the Land of Blood and Honey”).

The Edit Use, Class and Made for Region fields improve the ability of parts of the supply chain to find the edit they need, without relying on the free-text Description field.

The extra metadata when creating an Edit record:

Field	Category	Type	Cardinality	Notes
Parent	Required	assetDOIType	1	EIDR content ID of the parent object, which must have a Referent Type of TV, Movie, Short, Web or Supplemental. An isEditOf relationship is created to the parent.
EditUse	Required	Enumeration	1	This field is intended to capture the original, primary, intended use of the Edit. In many cases, the actual uses will be different, such as the Apple iTunes Store distributing a Theatrical cut. See the “EditUse details” section below.
EditClass	Optional	Enumeration	0-8	This field describes what has been done to the content of the Edit. See the “EditClass details” section below.
MadeForRegion	Optional	Enumeration	0-8	This describes the region(s) for which the version was originally made. (This does not imply anything about where the Edit is actually distributed.) The values can be Domestic, International or an ISO 3166-1 alpha 2 code. Note that Domestic and International are only meaningful in relation to a single Country of Origin.

Field	Category	Type	Cardinality	Notes
EditDetails	Optional	{xs:string of 1-128 characters, required domain of xs:anyURI}	0-8	Unlike the base Description field, this field is used in matching to distinguish one Edit from another. Purely informational text should go in the Description. The domain should not include the URI scheme (for example, mychannel.com). Each value must have a different domain attribute. However, related URI's are allowed within a single record such as domain="mychannel.com/1" and partners.mychannel.com.
ColorType	Required	md:ColorType-type, which has an enumeration: color, bandw, colorized, composite	1	Type of color in the visual portion of the content. color will be the most common color type. bandw for black and white. colorized is for video that has had color added to what was originally filmed in black-and-white. composite mixes black and white and color segments in the same frame as in the movie <i>Sin City</i> .
ThreeD	Required	xs:boolean	1	Set to true if this version is 3D. This should be true even if only part of the Edit is actually 3D (and the rest is 2D).

Here is sample XML for the extra metadata of an Edit:

```
<ExtraObjectMetadata>
  <EditInfo>
    <Parent>10.5240/95F1-4D95-6A6B-E859-9410-F</Parent>
    <EditUse>Theatrical</EditUse>
    <ColorType>color</ColorType>
    <ThreeD>>false</ThreeD>
  </EditInfo>
</ExtraObjectMetadata>
```

3.7.1 EDITUSE DETAILS

Edit Use can take one of the following values:

Value	Notes
Theatrical	For theatres

Value	Notes
Home Video	Such as retail, VHS; DVD; Blu-ray disc; Electronic sell-through (EST) such as iTunes or Amazon Instant Video; streaming services (e.g., Netflix); SVOD; TVOD/PPV.
Broadcast	Cable, satellite or terrestrial TV networks including syndication.
Hospitality	For viewing in a hotel or aboard an airplane or cruise ship. Also for military facilities.
Web	For Edits of Web Titles or Web-specific Edits of others, e.g., web syndication (such as Hulu or iPlayer).
Unknown	For use when an Edit is required for data model practices, but the true nature of the Edit is not known
General	A non-specific, wide-use release.

3.7.2 EDITCLASS DETAILS

Edit class can take one or more of the following values:

Value	Notes
Original	Indicates the version originally created for distribution. Generally, this value is used by itself without other values.
Unrated	Not reviewed or not rated
Censored	Edited or cut for rating or region
Sanitized	Censored, but not cut, for expletives or sexual content
Sanitized Audio	Audio is censored, but not cut, such as blanked or bleeped out.
Sanitized Picture	Video is censored, but not cut, such as blurred or pixelated.
Extended	A version made longer for example with additional scenes such as for the Extended Edition of Peter Jackson's Lord of the Rings on DVD.

Value	Notes
Shortened	Shortened (for example, cut to fit a specific television slot)
Director's Cut	Director's cut (often with an Approximate Length field that is longer)
Colorized	Such as was done to the film "Topper" in 1985.
Restored	This includes restoring lost elements (scenes, music) and enhancing surviving elements. Usually applies to the treatment of historical films that were produced on physical film. Example: the release of Alfred Hitchcock's "Rear Window" in 2000.
Restored Audio	For cases when only the audio has been restored.
Restored Picture	For cases when only the video has been restored.
Anniversary	Anniversary edition such as "Gone with the Wind" 70th Anniversary Edition.
Rereleased	Reissued for other reasons
Creative	Made primarily for other creative reasons
Technical	Made primarily for other technical reasons
Alternate Ending	Includes an alternate ending. For example, the 1985 comedy mystery film "Clue", was released with three different endings.
Recap	Includes recap of previous episodes or split segments
Product Placement	Includes additional or different product placement
Dialog	Includes changes in dialog (not just a change in language)
Music	Includes changes in music (for example, licensing for a different geography)
Sound Effects	Includes changes in sound effects
Credits	Includes different main titles or end credits

Value	Notes
Dubbing Credits	Includes changes in dubbing credits
Logos	Includes changes in production logos
Overture	Includes overture music or other interstitial material
Intermission	Includes intermission music or other interstitial material
Exit	Includes exit music or other interstitial material
Other	If unable to categorize otherwise

3.8 MANIFESTATION

A Manifestation describes a particular distributable instantiation of a work. For example, the Manifestation object type represents asset files in EIDR (such as the H.264 version of an asset). The encoding information is not intended to be a complete description of an encoded object; it needs to be sufficient for disambiguation at registration time and useful for managing the objects in the post-production and distribution workflow.

Of the Base Metadata, the Structural Type must always be specified for Manifestations.

The extra metadata when creating a Manifestation object type can have two general levels of detail:

- **Generic Manifestation** – A simple format that describes the file at a high level and includes only the ManifestationClass. In this case, the Structural Type is Performance. Any Version Languages can be specified in the BaseObjectData.
- **Technical Manifestation** – A more complete format that contains detailed information about its container or tracks. In this case, the Structural Type is Digital. Any Version Languages specified in the ManifestationInfo will be automatically summarized in the BaseObjectData.

The tracks can be any of the following:

- Audio
- Video
- Subtitle and captioning
- Interactive.

An Encoding Agent can be provided for individual components of a Manifestation. For example, it can be used if the encoding of individual components has been subcontracted out from the eventual Registrant or Associated Organization. The primary entity responsible for producing the Manifestation would be recorded in the Base Metadata with an “encoder” role attribute.

The following tables describe the extra metadata for the Manifestation object:

Field	Category	Type	Cardinality	Notes
Parent	Required	assetDOIType	1	EIDR content ID of the parent object, which must have a Referent Type of TV, Movie, Short, Web, Supplemental or Interactive Material. Relationship of IsManifestationOf is created to the parent.
ManifestationClass	Required	Enumeration such as: VOD, EST, DVD	1-8	The reason for the Manifestation. For information on the values see section 3.8.1 “Manifestation Class Details”.

Field	Category	Type	Cardinality	Notes
MadeForRegion	Optional	Enumeration	0-8	This describes the region(s) for which this instance of the work was originally made. (This does not imply anything about where the Manifestation is actually distributed.) The values can be Domestic, International or an ISO 3166-1 alpha 2 code. Note that Domestic and International are only meaningful in relation to a single Country of Origin.
ManifestationDetails	Optional	{xs:string of 1-128 characters, required domain of xs:anyURI}	0-8	Unlike the base Description field, this field is used to logically distinguish one Edit from another. Purely informational text should go in the Description. The domain should not include the URI scheme (for example, just "decellc.com" for UltraViolet). Each value must have a different domain attribute. However, related URI's are allowed within a single record such as domain="decellc.org/CFF/cvr".

Here is sample XML for the extra metadata of a generic Manifestation such as might be found in archives or institutional collections:

```
<ManifestationInfo>
  <Parent>10.5240/8CE9-63F0-4746-2DD4-9070-F</Parent>
  <ManifestationClass>DVD</ManifestationClass>
</ManifestationInfo>
```

3.8.1 MANIFESTATION CLASS DETAILS

Manifestation class can take one or more of the following values:

Value	Notes
Version Language	The Manifestation changes the language of the version.
VOD	Video on Demand
EST	Electronic Sell-Through
Game Machine	Game machine platforms
Mobile	Mobile platforms

Value	Notes
Web	Web distribution
Master	A master file
Mezzanine	A mezzanine file
Proxy	Low-resolution version for editing, Web preview, etc.
Screener	An advance copy of a film
DVD	DVD
Blu-ray	Blu-ray
HD	High-definition
SD	Standard-definition
UHD	Ultra-high-definition
Other	If unable to categorize otherwise

3.8.2 DIGITAL DETAILS

A Digital element may contain any number of the following in any order:

Field	Category	Type	Cardinality	Notes
Track	Optional	md:DigitalAssetMetadata-type	0-n	Logical tracks of the Digital Manifestation. See details below.
Container	Optional	md:ContainerMetadata-type	0-n	Container of the Digital Manifestation. See details below.

A Digital Track element must contain one of the following elements:

Field	Category	Type	Cardinality	Notes
Audio	Optional	md:DigitalAssetAudioData-type	0-n	Audio track type. See “Audio Track Details” below
Video	Optional	md:DigitalAssetVideoData-type	0-n	Video track type. See “Video Track Details” below.
Subtitle	Optional	md:DigitalAssetSubtitleData-type	0-n	Subtitle track type. See “Subtitle Track Details” below.
Interactive	Optional	md:DigitalAssetInteractiveData-type	0-n	Interactive material track type. Not common. See “Interactive Track Details” below.

A Container element may contain the following:

Field	Category	Type	Cardinality	Notes
Type	Required	Enumeration	1	Type of Container. For example: CFF – Common File Format (UltraViolet). MP4 - MPEG-4 Part 14, ISO/IEC 14496-14:2003
Track	Required	md:ContainerTrackMetadata-type	1-n	Track metadata. See details below.
Hash	Optional	{xs:string, method of md:Hash-type such as MD5}	0-n	Hash of the Container and the method used to generate it. The methods from md:Hash-type are as follows. Legal values for Message Digest: MD2, MD4, MD5. Legal values for Secure Hash: SHA-0, SHA-1, SHA-2, SHA-3
Size	Optional	xs:positiveInteger	0-1	Size of container in bytes (octets).
ContainerReference	Optional	xs:string of 1-128 characters	0-1	Cross-reference to be used if this Container is used in some other Container in this or another Manifestation. (Analogous to TrackReference for Tracks)
ContainerSpecificMetadata	Optional	md:ContainerSpecific-type	0-1	Additional information about the content and structure of the Container. See details below.

A Container Track element must contain one and only one of the following:

Field	Category	Type	Cardinality	Notes
ExternalTrackReference	Required if InternalTrackReference is not provided	{EIDR content ID, namespace attribute, location attribute, trackReference attribute of 128 characters}	0-1	Used to specify the inclusion of a Track defined in some structure other than the one that contains the current Track. The reference may be to a standalone Track or part of another Container. If part of a Container, the trackReference attribute should point to the Digital Track in the other Container.
InternalTrackReference	Required if ExternalTrackReference is not provided	xs:string of 0-128 characters	0-1	Reference to a Track that is internal to the Container. This is used when it is preferred to refer to Track by ID's rather than metadata. A Track may not contain an empty InternalTrackReference unless it is the only Track, in which case it means that the Container implicitly includes all of the other Tracks and Containers from the containing Manifestation.

This describes the ContainerSpecificMetadata elements:

Field	Category	Type	Cardinality	Notes
EncodingAgent	Optional	partyDOIType	0-1	For the EIDR Party that created this Container or Track, or is otherwise associated with it. Informational only, and not used for access control.
Description	Optional	xs:string of 1-128 characters	0-1	Description of the Container.

Here is sample XML for a Digital element for UltraViolet:

```

<Digital>
  <Container>
    <md:Type>CFF</md:Type>
    <md:Track><md:InternalTrackReference></md:InternalTrackReference></md:Track>
  </Container>
  <Track>
    <md:Video><md:Type>primary</md:Type>
    <md:Encoding>
      <md:Codec>H.264</md:Codec>
      <md:CodecType>IANA:h.264</md:CodecType>
      <md:BitrateMax>1600000</md:BitrateMax>
    </md:Encoding>
  </Track>
</Digital>

```

```

</md:Encoding>
<md:Picture>
  <md:AspectRatio>1:1</md:AspectRatio>
  <md:FrameRate>24</md:FrameRate>
</md:Picture>
</md:Video>
</Track>
<Track>
<md:Audio><md:Type>primary</md:Type>
  <md:Encoding>
    <md:Codec>AAC</md:Codec>
    <md:BitrateMax>192000</md:BitrateMax>
    <md:SampleRate>48000</md:SampleRate>
    <md:SampleBitDepth>16</md:SampleBitDepth>
  </md:Encoding>
  <md:Language dubbed="false">en</md:Language>
  <md:Channels>2</md:Channels>
</md:Audio>
</Track>
<Track>
<md:Audio><md:Type>primary</md:Type>
  <md:Encoding>
    <md:Codec>DTS-HRA</md:Codec>
    <md:BitrateMax>192000</md:BitrateMax>
    <md:SampleRate>48000</md:SampleRate>
    <md:SampleBitDepth>24</md:SampleBitDepth>
  </md:Encoding>
  <md:Language dubbed="false">en</md:Language>
  <md:Channels>6</md:Channels>
</md:Audio>
</Track>
<Track>
<md:Subtitle>
  <md:Format HDImage="false" SDImage="false">Text</md:Format>
  <md:Type>normal</md:Type>
  <md:FormatType>SMPTE 2052-1 Timed Text</md:FormatType>
  <md:Language>en</md:Language>
</md:Subtitle>
</Track>
<Track>
  <md:Subtitle>

```

```

<md:Format HDImage="false" SDImage="false">Text</md:Format>
<md:Type>normal</md:Type>
<md:FormatType>SMPTE 2052-1 Timed Text</md:FormatType>
<md:Language>en</md:Language>
</md:Subtitle>
</Track>
</Digital>

```

3.8.3 AUDIO TRACK DETAILS

The following fields are found in an Audio element:

Field	Category	Type	Cardinality	Notes
Description	Optional	{xs:string of 1-128 characters, lang of xs:language}	0-1	Explanation of what the audio encoding is, why it exists, and similar.
Type	Optional	Controlled vocabulary: primary, narration, dialogcentric, commentary, other	0-1	Describes purpose of the track. If not present, track is assumed to be primary. Based on md:string-Audio-Type. Narration is for the visually impaired and may use multiple channels. Dialogcentric is for the hearing impaired and may use multiple channels. Commentary on the video may be paired with a PIP.
Language	Required	{xs:language, dubbed Boolean attribute}	1	The language of this Track. Dubbed is false for works with subtitles.
Encoding	Optional	md:DigitalAssetAudioEncoding-type	0-1	See Audio Encoding Details immediately below.
Channels	Optional	xs:string	0-1	Number of audio channels, either as a 1–2-digit integer (e.g., 2) or of the form x.y where x is a 1–2-digit integer of full channels, and y is limited channels (e.g. 5.1). (Based on md:string-Audio-Channels.)
TrackReference	Optional	xs:string of 1-128 characters	0-1	Track cross-reference to be used in conjunction with container-specific metadata. (Based on md:string-TrackReference.)
Private	Optional	md:PrivateData-type	0-1	See the “Private Details” section below.

Sample XML for the Audio block:

```

<md:Audio>
  <md:Type>primary</md:Type>

```

```

<md:Encoding>
  <md:Codec>AAC</md:Codec>
  <md:BitrateMax>192000</md:BitrateMax>
  <md:SampleRate>48000</md:SampleRate>
  <md:SampleBitDepth>16</md:SampleBitDepth>
</md:Encoding>
<md:Language dubbed="false">en</md:Language>
<md:Channels>2</md:Channels>
</md:Audio>

```

3.8.4 AUDIO ENCODING DETAILS

This describes the audio encoding details. Equivalent to md:DigitalAssetAudioEncoding-type.

Field	Category	Type	Cardinality	Notes
Codec	Required	Enumeration	1	Codec used to encode the audio data such as AAC, AIFF, FLAC, Vorbis, WAV, or WMA. If the codec is unknown, this element should not be included.
CodecType	Optional	xs:string	0-n	Encoding of codec type based on formal registries. The first part includes the name of the authority which must be either: mpeg4ra, IANA, rfc4281 This is followed by a colon and then up to 128 characters. For example: rfc4281: audio/3gpp2; codecs=mp4a.E1
BitrateMax	Optional	xs:integer	0-1	Maximum bitrate (bits/second)
BitrateAverage	Optional	xs:integer	0-1	Bitrate averaged over the entire track. (bits/second)
VBR	Optional	Enumeration: VBR, Constrained VBR, 2-pass VBR	0-1	VBR type. (Based on md:string-Audio-Enc-VBR.)
SampleRate	Optional	xs:integer	0-1	Optional temporal sample rate in Hz (samples/second)
SampleBitDepth	Optional	xs:integer	0-1	Optional number of bits per audio sample
ChannelMapping	Optional	Enumeration	0-1	Indication of how channels are mapped to intended speaker locations. See “Channel Mapping Details” below.
Watermark	Optional	DigitalAssetWatermark-type	0-n	Information about watermark(s) embedded in audio. See “Watermark Details” section below.
ActualLength	Optional	xs:duration	0-1	Optional number of bits per audio sample

Sample XML for the Encoding element:

```

<md:Encoding>
  <md:Codec>AAC</md:Codec>
  <md:BitrateMax>192000</md:BitrateMax>
  <md:SampleRate>48000</md:SampleRate>
  <md:SampleBitDepth>16</md:SampleBitDepth>
</md:Encoding>

```

3.8.5 CHANNEL MAPPING DETAILS

This describes the values that have been defined for EIDR. This starts with SMPTE 428-3 and adds values for multiple tracks in one channel. Based on md:string-Audio-Enc-ChannelMapping.

Value	Notes
Enumeration: Left, Center, Right, LFE screen, Left surround, Right surround, Center surround, Left center, Right center, LFE 2, Vertical height front, Top center surround, Left wide, Right wide, Rear surround left, Rear surround right, Left surround direct, Right surround direct	From SMPTE 428-3
Stereo	Left and Right
5.1 matrix	5.1 channels matrixed in two channels
Surround	Greater than two channels, without a specific channel assignment
L,R,C,LFE,LS,RS	Left, Right, Center, Low Frequency Effects, Left Surround, Right Surround
L,C,R,LS,RS,LFE	Left, Center, Right, Left Surround, Right Surround, Low Frequency Effects

3.8.6 WATERMARK DETAILS

This describes the Watermark element details:

Field	Category	Type	Cardinality	Notes
Vendor	Optional	xs:string of 2-128 characters	0-1	Organization associated with the watermark.
ProductAndVersionID	Optional	xs:string of 1-128 characters	0-1	Identification of specific watermark version of the technology. It must be sufficiently precise to differentiate between incompatible watermarks from the same Vendor.
Data	Optional	xs:string of 1-256 characters	0-1	Data is a string that either contains the information encoded by the watermark or is a reference to that data. Its content is outside the scope of this document. This may be vendor- private data.

3.8.7 PRIVATE DETAILS

This describes the Private element details that have been defined for EIDR. Based to md:PrivateData-type.

Field	Category	Type	Cardinality	Notes
EncodingAgent	Optional	partyDOIType	0-1	For the EIDR Party that created this container or track, or is otherwise associated with it. Informational only, and not used for access control.
Description	Optional	xs:string of 1-128 characters	0-1	Description of this Track.
Hash	Optional	{xs:string, method of md:Hash-type such as MD5}	0-8	Hash of the file and the method used to generate it. The values for method from md:Hash-type are as follows: Message Digest: MD2, MD4, MD5. Secure Hash: SHA-0, SHA-1, SHA-2, SHA-3
Size	Required	{xs:positiveInteger, optional pad of xs:positiveInteger}	1	Size of the track, in bytes, with optional pad attribute block size to which Size is padded.

3.8.8 VIDEO TRACK DETAILS

The following fields are found in a Video element:

Field	Category	Type	Cardinality	Notes
Description	Optional	{xs:string of 1-128 characters, lang of xs:language}	0-1	Explanation of what the audio encoding is, why it exists, and similar.
Type	Optional	Controlled vocabulary: primary, overlay, angle, other	0-1	Describes purpose of the track. If not present, track is assumed to be primary. Based on md:string-Video-Type. Whether the primary has burned-in subtitles is determined by the presence of the SubtitleLanguage element. overlay refers to PIP or other overlay track, intended for use with a “primary” track. angle is alternate angle track. Other is for none of the above.
Encoding	Optional	md:DigitalAssetVideoEncoding- type	0-1	See “Video Encoding Details” immediately below.
Picture	Required	md:DigitalAssetVideoPicture-type	1	See “Picture Details” below.
ColorType	Optional	md:ColorType-type, which has an enumeration: color, bandw, colorized, composite, unknown	0-1	Type of color in the visual portion of the content. color will be the most common color type. bandw for black and white. colorized is for video that has had color added to what was originally filmed in black-and-white. composite mixes black and white and color segments in the same frame as in the movie Sin City. unknown is for assets based on legacy metadata where color type is not specified.

Field	Category	Type	Cardinality	Notes
PictureFormat	Optional	Controlled vocabulary: Letterbox, Pillarbox, Full, Stretch, Pan and Scan, Other	0-1	Based on the md:string-Video-PictureFormat type. “Full” means the entire original image is substantially included and that the active pixels fit the full area of the picture (within a few pixels). (This should not be confused with fullscreen, a term that may also refer to Pan and Scan.) “Pan and Scan” also includes any other cropping methods. “Other” is picture format encoding other than the above applies. For example, “SmileBox” or “windowbox”.
SubtitleLanguage	Optional	{xs:language, closed Boolean attribute, type attribute (enumeration: normal, SDH, large, forced, commentary, easyreader, other)}	0-1	Indicates the presence of subtitles embedded in the video stream, either closed (e.g., EIA-608B) or rendered into the video. This would apply to silent films with intertitles, where the type value would be “normal”. This should <i>not</i> be used for subtitles handled via separate tracks. Subtitles in separate tracks should be included in DigitalAssetMetadata-type’s Subtitle element. This is md:DigitalAssetVideoSubtitleLanguage-type.
SignedLanguage	Optional	xs:language	0-1	Indicates the presence of signed language in the video. The value must be a sign language such as American or French Sign Language.
CardsetList	Optional	md:DigitalAssetCardsetList-type	0-n	Cardsets, such as distribution logos and anti-piracy notices, embedded in video. See “Cardset List Details” below.
TrackReference	Optional	xs:string of 1-128 characters	0-1	Track cross-reference to be used in conjunction with container-specific metadata. (Based on md:string-TrackReference.)
Private	Optional	md:PrivateData-type	0-1	See the “Private Details” section below.

Sample XML for the Video block:

```

<md:Video>
  <md:Type>primary</md:Type>
  <md:Encoding>
    <md:Codec>H.264</md:Codec>
    <md:CodecType>IANA:h.264</md:CodecType>
    <md:BitrateMax>1600000</md:BitrateMax>
  </md:Encoding>

```

```

<md:Picture>
  <md:AspectRatio>1:1</md:AspectRatio>
  <md:FrameRate>24</md:FrameRate>
</md:Picture>
</md:Video>

```

3.8.9 VIDEO ENCODING DETAILS

This describes the audio encoding details. Equivalent to md:DigitalAssetAudioEncoding-type.

Field	Category	Type	Cardinality	Notes
Codec	Required	Enumeration	1	Codec used to encode the video data such as H.264, Sorenson 3. See " </md:Encoding> Video Codec Details" below.
CodecType	Optional	xs:string	0-n	Encoding of codec type based on formal registries. The first part includes the name of the authority which must be either: mpeg4ra, IANA This is followed by a colon and then up to 128 characters. For example: mpeg4ra: mp4v
MPEGProfile	Optional	Enumeration	0-1	The MPEG profile: For MPEG-2: SP, MP, SNR, Spatial, HP, 422, MVP For MPEG-4: MP, CBP, BP, MP, XP, HiP, CHiP (Constrained High Profile), Hi10P, Hi422P, Hi444P, Hi444PP, Hi10IP, Hi422IP, Hi444IP, C444IP, SBP, SCBP, SHP, SHIP, SCHP, StereoHP, MultiviewHP
MPEGLLevel	Optional	Enumeration	0-1	The MPEG level: For MPEG-2: LL, ML, H-14 (High Level 1440), HL For MPEG-4: 1, 1b, 1.1, 1.2, 1.3, 2, 2.1, 2.2, 3, 3.1, 3.2, 4, 4.1, 4.2, 5.1, 5.2
BitrateMax	Optional	xs:integer	0-1	Maximum bitrate (bits/second)
BitrateAverage	Optional	xs:integer	0-1	Bitrate averaged over the entire track. (bits/second)
VBR	Optional	Enumeration: VBR, Constrained VBR, 2-pass VBR	0-1	VBR type. (Based on md:string-Audio-Enc-VBR.)
SampleRate	Optional	xs:integer	0-1	Optional temporal sample rate in Hz (samples/second)
SampleBitDepth	Optional	xs:integer	0-1	Optional number of bits per audio sample
ChannelMapping	Optional	Enumeration	0-1	See "Channel Mapping Details".

Field	Category	Type	Cardinality	Notes
Watermark	Optional	Enumeration	0-n	Information about watermark(s) embedded in audio. See “Watermark Details” below.
ActualLength	Optional	xs:duration	0-1	The actual duration of the encoded video stream.

Sample XML for the Encoding element:

```
<md:Encoding>
  <md:Codec>H.264</md:Codec>
  <md:CodecType>IANA:h.264</md:CodecType>
  <md:BitrateMax>1600000</md:BitrateMax>
</md:Encoding>
```

3.8.10 VIDEO CODEC DETAILS

This describes the video encoding codec enumeration. This is based on md:string-Video-Enc-Codec.

Value	Notes
AVI Uncompressed	AVI Uncompressed
CineForm HD	CineForm HD
DIVX	DivX
DV	DV, including variants such as DVCPRO, DVCAM, etc.
H.264	H.264, MPEG-4 Part 10
JPEG2000	JPEG 2000
MOBICLIP	Actimagine’s Mobiclip
MPEG1	MPEG 1 Part 2
MPEG2	MPEG 2 Part 2
On2	On2 codec when not VP6, VP7 or VP8, or exact codec is unknown.

Value	Notes
PHOTOJPEG	PHOTOJPEG
PRORES	Apple ProRes
PRORESHQ	Apple ProRes HQ
PRORES422	Apple ProRes 422
QT Uncompressed	Apple QT Uncompressed
REAL	RealVideo
Spark	Sorenson Spark
SVQ	Sorenson Video Quantizer
WMV	Windows Media Video when not WMV7, WVM8 or WMV9 or exact codec is unknown.
WMV7	Windows Media Video 7
WMV8	Windows Media Video 8
WMV9	Windows Media Video 9
VC1	Microsoft VC-1
VP6	On VP6
VP7	On VP7
VP8	On VP8
XVID	Xvid
OTHER	None of the above.

3.8.11 PICTURE DETAILS

This is md:DigitalAssetVideoPicture-type. Only AspectRatio is required in this element.

Field	Category	Type	Cardinality	Notes
AspectRatio	Required	Restricted to a pattern of N:M, NN:M, N.NN:M	1	Video aspect ratio of the encoded object, which may differ from that of the original. 16:9 is HD, 4:3 is SD, 1.85:1 is 37:20, 2.2:1 is 11:5, 2.35:1 is 47:20.
PixelAspect	Required	Controlled vocabulary: NTSC, PAL, square, other	0-1	Aspect ratio of a pixel. Note that the arithmetic ratio is implied (square would be 1:1, NTSC is 10:11). Same as md:string-Video-Pic-PixelAspect.
WidthPixels	Required	xs:int	0-1	Number of columns encoded (e.g., 1920)
HeightPixels	Required	xs:int	0-1	Number of rows encoded (e.g., 1080)
ActiveWidthPixels	Optional	xs:int	0-1	Must be <= WidthPixels
ActiveHeightPixels	Optional	xs:int	0-1	Must be <=HeightPixels
FrameRate	Required	{xs:int, multiplier, timecode}	0-1	In frames per second. If interlaced, use frame rate (e.g., NTSC is 30), not the field rate. The multiplier attribute indicates whether the 1000/1001 multiple should be applied. There is only one legal value for this attribute which is "1000/1001". If present, then apply 1000/1001 multiplier to FrameRate. For example, a FrameRate of 30 with multiplier="1000/1001" defines an actual frame rate of 29.97. If the frame rate is integral, this attribute shall not be present. The timecode attribute indicates how drop frames are handled in timecode. The values are: Drop (Drop frame SMPTE timecode), EBU (AES/EBU embedded timecode), Other.

Field	Category	Type	Cardinality	Notes
Progressive	Required	{xs:boolean, scanOrder}	0-1	true for progressive false for interlaced The scanOrder attribute indicates the scan order which differentiates interlaced types. The values for false are TFF (Top Field First), BFF (Bottom Field First), while true this value is <i>not</i> recommended, but if supplied must be PFF (Picture Per Field).
ColorSubSampling	Optional	Enumerated: 4:1:1, 4:2:0, 4:2:2, 4:4:4	0-1	Chroma subsampling method.
Colorimetry	Optional	Enumerated: 601, 709, 2020, P3	0-1	“601” – ITU Recommendation BT.601, Studio encoding parameters of digital television for standard 4:3 and wide screen 16:9 aspect ratios http://www.itu.int/rec/R-REC-BT.601/en “709” – ITU Recommendation BT.709, Parameter values for the HDTV standards for production and international program exchange. http://www.itu.int/rec/R-REC-BT.709/en “2020” – ITU Recommendation BT.2020, Parameter values for ultra-high definition television systems for production and international program exchange. http://www.itu.int/rec/R-REC-BT.2020/en “P3” – SMPTE PR 431-2:2011 D-Cinema Quality – Reference Projector and Environment. This is also referred to as DCI-P3 or P3.
Type3D	Optional	Controlled vocabulary: IMAX, RealD, etc.	0-1	Describes type of 3D picture. Required if ThreeD is true.

Sample XML for the Picture element:

```
<md:Picture>
  <md:AspectRatio>1:1</md:AspectRatio>
  <md:FrameRate>24</md:FrameRate>
</md:Picture>
```

3.8.12 CARDSET LIST DETAILS

A cardset is the collection of static text or graphics separate from the work itself that appear at the beginning or end of the video. Cardsets are typically specific to a market and include distributor logos and anti-piracy warnings. Cardsets may be embedded in video (i.e., burned in) or overlaid on video via a subtitle.

The following fields are found in a CardsetList element:

Field	Category	Type	Cardinality	Notes
Type	Optional	Controlled Vocabulary: Theatrical, Broadcast, Hospitality, Rental, EST	0-1	The intended general usage of the cardset list. Based on md:string-Subtitle-Format.
Region	Optional	Enumeration	0-1	This describes the region(s) for which the cardset was made. The values can be Domestic, International or an ISO 3166-1 alpha 2 code.
Cardset	Required	md:DigitalAssetCardset-type	1	Description of the cardset. See immediately below.

The following fields are found in a Cardset element:

Field	Category	Type	Cardinality	Notes
Type	Required	Controlled Vocabulary: AntiPiracy, DistributionLogo, Rating, DubbingCredit, Intermission, EditNotice, Other	1-n	The intended general usage of the cardset list. This is identical to md:string-Cardset-Type.
Description	Optional	xs:string of 1-128 characters	0-1	Description of cardset (human readable).
Sequence	Optional	xs:positiveInteger	0-1	Order of display for this cardset. A higher number represents later display. Cardsets with the same sequence must not overlap Region.

3.8.13 SUBTITLE TRACK DETAILS

The following fields are found in a Subtitle element:

Field	Category	Type	Cardinality	Notes
Format	Optional	{Controlled Vocabulary: Text, Image, Combined, SDImage of xs:boolean, HDImage of xs:boolean }	0-1	Format for subtitles that are in separate components from the video. Based on md:string-Subtitle-Format. SDImage Are subtitle images targeted towards SD included? "true" means yes, "false" or absent means no. This only applies if Format is "Image" or "Combined" HDImage Are subtitle images targeted towards HD included? "true" means yes, "false" or absent means no. This only applies if Format is "Image" or "Combined"
Description	Optional	{xs:string of 1-128 characters, lang of xs:language}	0-1	Explanation of what the subtitle is/why it exists, etc. Description is in the language of the Description text.
Type	Required	Controlled Vocabulary: normal, SDH, large, forced, commentary, easyreader, other	1-8	Subtitle purpose. If the track has more than one intended use, then include multiple instances of Type. Based on md:string-Subtitle-Type. normal – typically used for the actors' dialogue SDH – for the hearing impaired large – for the visually impaired forced – subtitles are always shown (regardless of whether the user has enabled subtitles) easyreader – complying with US Federal requirements [47CFR9.103(c)(9)]
FormatType	Optional	Controlled Vocabulary: 3GPP, Blu-ray, DCI, DVB, DVD, SMPTE 21052-1 Timed Text, SRT, TTML, WebVTT	0-8	Subtitle format. If the track has more than one intended use, then include multiple instances of Type. The most common value is simply normal. Based on md:string-Subtitle-FormatType.

Field	Category	Type	Cardinality	Notes
Language	Required	xs:language	1	Language of the subtitle.
CardSetList	Optional	md:DigitalAssetCardsetList-type	0-n	See “Cardset List Details”.
TrackReference	Optional	1-64 character xs:string	0-1	Track cross-reference to be used in conjunction with container-specific metadata. See explanation under .
Private	Optional	md:PrivateData-type	0-1	See the “Private Details” section below.

Sample XML for the Subtitle element:

```
<md:Subtitle>
  <md:Format HDImage="false" SDImage="false">Text</md:Format>
  <md:Type>normal</md:Type>
  <md:FormatType>SMPTE 2052-1 Timed Text</md:FormatType>
  <md:Language>en</md:Language>
</md:Subtitle>
```

3.8.14 INTERACTIVE TRACK DETAILS

The following fields are found in an Interactive element:

Field	Category	Type	Cardinality	Notes
Type	Required	Controlled vocabulary	1	Describes purpose of the track. Menu – Menu system for navigating settings, value added material and other options. Standalone Game – Playable game that runs independently of audio or video material Overlay Game – Game synchronized to audio or video material Skins – Information that customizes appearance Interactivity – Ability to choose settings, value added material and other options outside of menus. For example, pop-ups. Other – None of the above.

Field	Category	Type	Cardinality	Notes
FormatType	Optional	Controlled vocabulary: text, executable, metadata	0-1	Describes the format of the track. Text – Instructive text. Executable – Software that is executable through a runtime environment such as those described in “Interactive Encoding Details” RuntimeEnvironment. Metadata – Declarative data that describes behavior to a runtime environment
Language	Optional	{xs:language, dubbed Boolean attribute}	0-1	The language of this Track. Dubbed is false for subtitles.
Encoding	Optional	md:DigitalAssetInteractiveEncoding-type	0-1	See “Interactive Encoding Details” below.
TrackReference	Optional	xs:string of 1-128 characters	0-1	Track cross-reference to be used in conjunction with container-specific metadata. (Based on md:string-TrackReference.)
Private	Optional	md:PrivateData-type	0-1	See the “Private Details” section above.

3.8.15 INTERACTIVE ENCODING DETAILS

This describes the interactive encoding details. Equivalent to md:DigitalAssetInteractiveEncoding-type.

Field	Category	Type	Cardinality	Notes
RuntimeEnvironment	Required	Enumeration	1	The execution runtime environment for the interactive content: CMX – Connected Media Experience Flash – Adobe Flash BD-J – Blu-ray Java MHEG – MHEG-5, or more formally ISO/IEC 13522-5. HTML5 – W3C HTML5 Other – may be used when there is not a type convention.
FirstVersion	Optional	xs:string of 1-64 characters	0-1	Earliest version of RuntimeEnvironment in which this encoding will play. If it plays in all versions, or all versions less than or equal to LastVersion, this element may be omitted.

Field	Category	Type	Cardinality	Notes
LastVersion	Optional	xs:string of 1-64 characters	0-1	Last version of RuntimeEnvironment in which this encoding will play. If it plays in all versions, or all versions after FirstVersion, this element may be omitted.

4 OTHER RELATIONSHIPS

EIDR supports four other optional relationships:

- IsAlternateContentFor – for alternate content that is synchronized to the main asset, such as audio or an alternate camera angle. (This should not be used for translations, which are handled by Manifestations.)
- IsPackagingOf – for creating a collection of assets that are released together.
- IsPromotionOf – for promotional objects such as a trailer.
- IsSupplementTo – for ancillary material that might be found on a DVD, such as an outtake or behind-the-scenes feature.

These have two purposes:

- To aid in locating related assets – the primary purpose.
- To guide disambiguation.

In general, these are applied to top-level (root) records. So, for example, a top-level trailer would be a promotion, but an encoding of that trailer would not.

All of them have two required fields, an ID and an enumerated descriptor (a relationship-specific class element), both of which can be queried by value. None of them provides inheritance information. These relationships can also be modified and deleted as described in the *EIDR Registry User's Guide*.

4.1 ALTERNATE CONTENT

This can be applied to all Referent Types except Series and Season.

The extra metadata when creating an IsAlternateContentFor Relationship:

Field	Category	Type	Cardinality	Notes
ID	Required	assetDOIType	1	The EIDR record for which this object is Alternate Content.
AlternateContentClass	Required	Enumeration: Descriptive Audio, Camera Angle, Parental Control, Censored, Commentary (Director), Commentary (Other), Sing Along, Trivia Track, Other	1	The type of Alternate Content. Descriptive Audio is intended for audio description/narrative audio tracks for the visually impaired.

Sample XML for Alternate Content:

```

<AlternateContentInfo>
  <ID>10.5240/B5FE-987F-3A25-0DC9-F56E-9</ID>
  <AlternateContentClass>Descriptive Audio</AlternateContentClass>
</AlternateContentInfo>

```

4.2 PACKAGING

An example of a packaging scenario: a packaging relationship can be added to an Edit of a Movie pointing to a Composite that represents a physical DVD release. If the trailer for the movie was a bonus item on the DVD, and the trailer was registered in EIDR then it could also have this relationship added to it, again with the DVD release as the Parent and DVD as the PackagingClass.

The extra metadata when creating an IsPackagingOf Relationship:

Field	Category	Type	Cardinality	Notes
ID	Required	assetDOIType	1	The EIDR record for which this object is part of the Packaging.
PackagingClass	Required	Enumeration: DVD, BD, HD, SD, Streaming, Streaming (Web), Streaming (Mobile), Download (Web), Download (Mobile), VOD, Broadcast, Digital Cinema, Other	1	The type of packaging.

Sample XML for Packaging:

```

<PackagingInfo>
  <ID>10.5240/E334-70A8-9B50-4084-6F8C-0</ID>
  <PackagingClass>Streaming</PackagingClass>
</PackagingInfo>

```

4.3 PROMOTION

The extra metadata when creating an IsPromotionOf Relationship:

Field	Category	Type	Cardinality	Notes
ID	Required	assetDOIType	1	The EIDR record for which this object is a Promotion of.

Field	Category	Type	Cardinality	Notes
PromotionClass	Required	Enumeration: Broadcast Ad, Theatrical Trailer, Infomercial, EPK, DVD Trailer, Web, Mobile, UGC Site, Radio Spot, Other	1	The type of promotion. EPK is Electronic Press Kit.

Sample XML for a Promotion:

```
<PromotionInfo>
  <ID>10.5240/1212-3434-5656-7878-0000-Q</ID>
  <PromotionClass>Theatrical Trailer</PromotionClass>
</PromotionInfo>
```

4.4 SUPPLEMENT

This can be applied to all Referent Types except Series and Season.

The extra metadata when creating an IsSupplementTo Relationship:

Field	Category	Type	Cardinality	Notes
ID	Required	assetDOIType	1	The EIDR record for which this object is supplemental to.
SupplementalContentClass	Required	Enumeration: Interactivity, Outtake, Making Of, Interview, Music, Music Video, Deleted Scene, Behind the scenes, B-roll, Featurette, Selected Clips, Other	1	The type of supplemental content.

Sample XML for Supplemental Content:

```
<SupplementalContentInfo>
  <ID>10.5240/0CFA-101D-A652-ABDE-02FA-T</ID>
  <SupplementalContentClass>Outtake</SupplementalContentClass>
</SupplementalContentInfo>
```

5 PROVENANCE DATA

In addition to user-defined data, EIDR records have a number of system-defined fields. For content, the foremost of these is the EIDR content ID itself. There is a resolution format option called Provenance which collects information about the history of a record. The following table describes all the fields of this format:

Field	Category	Type	Cardinality	Notes
ID	Required	assetDOIType	1	The EIDR content ID of the record.
IssueNumber	Required	xs:integer	1	The version number of the record. The initial registration is 1. Each modify increments the number by one.
Status	Required	Enumeration: valid in development alias	1	This is similar to the Status field in the BaseObjectData, but it is available even when the object is deleted. Most IDs will be valid. Valid should be used for all released content. Valid records are visible to all. in development records are hidden to everyone except the registrant or authorized parties on the ACL. They are intended to be ultimately promoted to valid. alias is for objects that have been aliased. For details on this topic see the <i>EIDR Registry User's Guide</i> .
Administrators	Required	n/a	1	See the section "Administrators Details" above.
CreatedBy	Optional	eidr:userDOIType	0-1	EIDR username that created the record. This field is not visible to those users that are not on the ACL for the record. For details on the ACL see the <i>EIDR Registry User's Guide</i> .
CreationDate	Required	xs:dateTime	1	Creation timestamp in UTC based on receipt by the Registry.
LastModifiedBy	Optional	eidr:userDOIType	0-1	EIDR username that last modified the record. This field is not visible to those users that are not on the ACL for the record. For details on the ACL see the <i>EIDR Registry User's Guide</i> .
LastModificationDate	Required	xs:dateTime	1	Last modification timestamp in UTC based on receipt by the Registry.
PublicationDate	Required	xs:dateTime	1	Publication timestamp with milliseconds in UTC based on when processing of the record was completed by the Registry. When present, this is always > the last modification date.

Here is a sample XML response to a resolution request for the Provenance view of an object that has been modified once:

```
<ProvenanceMetadata xmlns="http://www.eidr.org/schema">
  <ID>10.5240/E09B-6EFF-3AD1-DCF1-AE15-3</ID>
  <IssueNumber>2</IssueNumber>
  <Status>valid</Status>
  <Administrators>
    <Registrant>10.5237/superparty</Registrant>
  </Administrators>
  <CreationDate>2015-08-07T16:44:31Z</CreationDate>
  <LastModificationDate>2015-08-10T17:21:41Z</LastModificationDate>
  <PublicationDate>2015-08-10T17:21:49.965Z</PublicationDate>
</ProvenanceMetadata>
```

APPENDIX I: FIELDS WHICH HAVE ASCII EQUIVALENTS

The Registry generates ASCII equivalents for many fields with values that use diacritical characters in Latin scripts (such as u for ü and l for ł). The mapping is based on Unicode NFKD decomposition plus the Latin supplement (Latin-ASCII.xml) from the Unicode Common Locale Data Repository. This applies to the following fields:

```
/FullMetadata/BaseObjectData/ResourceName  
/FullMetadata/BaseObjectData/AlternateResourceName  
/FullMetadata/BaseObjectData/DisplayName  
/FullMetadata/BaseObjectData/AssociatedOrg/DisplayName  
/FullMetadata/BaseObjectData/AssociatedOrg/AlternateName  
/FullMetadata/BaseObjectData/Credits/Director/DisplayName  
/FullMetadata/BaseObjectData/Credits/Actor/DisplayName  
/FullMetadata/BaseObjectData/Description  
/FullMetadata/ExtraObjectMetadata/CompilationInfo/Entry/DisplayName  
/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/Description  
/FullMetadata/ExtraObjectMetadata/ManifestationInfo/.../Description
```

Other AssociatedOrg and Credit fields that are part of Common Metadata also have ASCII equivalents, however, these other fields are not a recommended part of EIDR Best Practices.

Note that all the fields mentioned above are also subject to space normalization.

APPENDIX II: DOI RESOLUTION

While EIDR records will usually be resolved in a native EIDR format, some interoperable applications may choose to use the DOI format. This format maps the EIDR content fields to the DOI standard kernelMetadata fields as described below. Note that some of the mappings are not always precise (such as referentCreation character for films without dialog that have a musical score; or the type for EIDR InteractiveMaterial).

DOI Field	DOI Kernel Subfield	EIDR Content mapping rule
referentDoiName		/BaseObjectData/ID field
primaryReferentType		Always has a value of "Creation"
registrationAgencyDoiName		Always "10.1000/ra-5"
issueDate		/Provenance/LastModificationDate field
issueNumber		/Provenance/IssueNumber field
referentCreation.name	@primaryLanguage	/BaseObjectData/ResourceName@lang attribute
	value	/BaseObjectData/ResourceName field (For an aliased record, this will be Aliased when followAlias=false)
	type	Always "Title"
referentCreation.identifier	nonUriValue	One for each identifier of the referent itself. If aliased then the EIDR Content ID to which the object is aliased. (See Resolve API in the <i>EIDR Registry User's Guide</i> .)
	uri	Zero or more URI's for the identifier including the @returnType ("text/html" or where applicable: "application/xml" or "application/rdf+xml")

DOI Field	DOI Kernel Subfield	EIDR Content mapping rule
	type	Will always include the EidrContentID. For any AlternateID with a @relation that is "IsSameAs" or <empty> (except Amazon or Netflix) will be the @type attribute or ProprietaryIdentifier. Only if ProprietaryIdentifier: /BaseObjectData/AlternateID@domain -> @validNamespace
referentCreation.structuralType		/BaseObjectData/StructuralType field
referentCreation.mode		/BaseObjectData/Mode field Note that AudioVisual results in two DOI modes Audio and Visual
referentCreation.character		Based on /BaseObjectData/Mode field: Audio -> Language Visual-> Image AudioVisual -> Language and Image Exception: object with ReferentType of InteractiveMaterial -> Other
referentCreation.type		/BaseObjectData/ReferentType field: Movie->"Film" TV->"TvProgramme" Short->"ShortFilm" Web-> "WebResource" AND "MovingImage" (if Mode is Visual) Series -> "Series" Season -> "Season" Supplemental-> "SupplementalResource" AND "MovingImage" (if Mode is Visual) Interactive-> "InteractiveResource" Compilation -> "MovingImage"
referentCreation.PrincipalAgent	name.value	/BaseObjectData/AssociatedOrg/DisplayName /BaseObject/Credits/Director/DisplayName /BaseObject/Credits/Actor/DisplayName

DOI Field	DOI Kernel Subfield	EIDR Content mapping rule
	name.type	Always "Name"
	identifier.value	Only if includes AssociatedOrg: /BaseObjectData/AssociatedOrg@organizationID
	identifier.type	Only if includes AssociatedOrg: /BaseObjectData/AssociatedOrg@idType
	role	For AssociatedOrg: Based on /BaseObjectData/AssociatedOrg@role attribute: broadcaster or distributor -> Publisher all others -> CorporateCreator For Director, use "Director" For Actor, use "Actor"
referentCreation.linkedCreation	Identifier.nonUriValue	EIDR ID of each linkedCreation, and the Alternate ID if it does not have @relation=IsSameAs or empty (but will include Amazon and NetFlix).
	Identifier.uri	Two URI's for the linkedCreation for each @returnType ("text/html" and "application/xml")
	Identifier.type	Will always be EidrContentID
	referentCreationRole	For records that themselves are a child, this will be its EIDR derived record type such as Edit, Season or Episode, except for: Manifestation -> Fixation.

DOI Field	DOI Kernel Subfield	EIDR Content mapping rule
	referentCreationSequenceIdentifier. value	For records that themselves are a child, this will be: SeasonInfo/SequenceNumber EpisodeInfo/DistributionNumber EpisodeInfo/HouseSequence EpisodeInfo/AlternateNumber
	referentCreationSequenceIdentifier. type	For records that themselves are a child, this will always be "ProprietaryIdentifier"
	referentCreationSequenceIdentifier. type@userDefinedType	This will be the applicable EIDR field name: SequenceNumber DistributionNumber HouseSequence AlternateNumber

DOI Field	DOI Kernel Subfield	EIDR Content mapping rule
	linkedCreationRole	<p>For child records of the referent, this will be the EIDR derived record type such as Edit, Season or Episode, except for: Manifestation -> Fixation (also used for Amazon and Netflix Alternate ID's)</p> <p>For Alternate ID @relation values: InEntirelyContainedBy -> referentCreationRole = "Part" ContainsAllOf -> linkedCreationRole = "Part" IsPartiallyContainedBy -> linkedCreationRole= "TakesContent" ContainsPartOf -> referentCreationRole = "TakesContent" IsDerivedFrom -> referentCreationRole = "Derivation" IsSourceOf -> linkedCreationrole = "Derivation" hasCueSheet -> linkedcreationRole = "CueSheet"</p> <p>For EIDR Relationships: isCompositeOf -> TakesContent (for each item in the Composite) isCompilationOf -> Part (for each item in the Compilation) isPackagingOf -> Fixation isPromotionFor -> PromotionalResource isSupplementTo -> SupplementalResource isAlternateContentFor -> AlternateContent</p>

Here is a sample XML response to a resolution request for the DOIKernel view for a Season:

```
<?xml version="1.0" encoding="UTF-8"?>
<kernelMetadata xmlns="http://www.doi.org/2010/DOISchema">
  <referentDoiName>10.5240/B94E-F500-7164-57DB-82F5-6</referentDoiName>
  <primaryReferentType>Creation</primaryReferentType>
  <registrationAgencyDoiName>10.1000/ra-5</registrationAgencyDoiName>
  <issueDate>2015-01-07</issueDate>
  <issueNumber>7</issueNumber>
  <referentCreation>
    <name primaryLanguage="en">
      <value>Mysterious Journeys: Season 1</value>
      <type>Title</type>
    </name>
    <identifier>
      <nonUriValue>10.5240/B94E-F500-7164-57DB-82F5-6</nonUriValue>
      <uri returnType="text/html">https://ui.eidr.org/view/content?id=10.5240/B94E-F500-7164-57DB-82F5-6</uri>
      <uri returnType="application/xml">https://doi.org/10.5240/B94E-F500-7164-57DB-82F5-6</uri>
      <type>EidrContentID</type>
    </identifier>
    <identifier>
      <nonUriValue>1069705</nonUriValue>
      <type validNamespace="spe.sony.com/ProductID">ProprietaryIdentifier</type>
    </identifier>
    <identifier>
      <nonUriValue>X7754402</nonUriValue>
      <type validNamespace="spe.sony.com/MPM">ProprietaryIdentifier</type>
    </identifier>
    <structuralType>Abstraction</structuralType>
    <mode>Audio</mode><mode>Visual</mode>
    <character>Language</character><character>Image</character>
    <type>Season</type>
    <principalAgent>
      <name>
        <value>mike mathis productions</value>
        <type>Name</type>
      </name>
      <identifier>
        <value>10.5237/8696-318E</value><type>EIDRPartyID</type>
      </identifier>
      <role>CorporateCreator</role>
    </principalAgent>
  </referentCreation>
</kernelMetadata>
```

```

</principalAgent>
<principalAgent><name><value>Ron Zimmerman</value><type>Name</type></name><role>Director</role></principalAgent>
<principalAgent><name><value>Erik Todd Dellums</value><type>Name</type></name><role>Actor</role></principalAgent>
<principalAgent><name><value>Blake Clark</value><type>Name</type></name><role>Actor</role></principalAgent>
<linkedCreation>
  <identifier>
    <nonUriValue>10.5240/BFC3-3DCA-7BEF-A4B6-E16B-Z</nonUriValue>
    <uri returnType="text/html">https://ui.eidr.org/view/content?id=10.5240/BFC3-3DCA-7BEF-A4B6-E16B-Z</uri>
    <uri returnType="application/xml">https://doi.org/10.5240/BFC3-3DCA-7BEF-A4B6-E16B-Z</uri>
    <type>EidrContentID</type>
  </identifier>
  <referentCreationRole>Season</referentCreationRole>
  <referentCreationSequenceIdentifier>
    <value>1</value>
    <type userDefinedType="SequenceNumber">ProprietaryIdentifier</type>
  </referentCreationSequenceIdentifier>
</linkedCreation>
<linkedCreation>
  <identifier><nonUriValue>10.5240/40F2-A02E-6132-8F82-A2DE-P</nonUriValue>
    <uri returnType="text/html">https://ui.eidr.org/view/content?id=10.5240/40F2-A02E-6132-8F82-A2DE-P</uri>
    <uri returnType="application/xml">https://doi.org/10.5240/40F2-A02E-6132-8F82-A2DE-P</uri>
    <type>EidrContentID</type>
  </identifier>
  <linkedCreationRole>Episode</linkedCreationRole>
</linkedCreation>
<linkedCreation>
  <identifier>
    <nonUriValue>10.5240/20DF-9454-66B9-E9E7-7D41-S</nonUriValue>
    <uri returnType="text/html">https://ui.eidr.org/view/content?id=10.5240/20DF-9454-66B9-E9E7-7D41-S</uri>
    <uri returnType="application/xml">https://doi.org/10.5240/20DF-9454-66B9-E9E7-7D41-S</uri>
    <type>EidrContentID</type>
  </identifier>
  <linkedCreationRole>Episode</linkedCreationRole>
</linkedCreation>
<linkedCreation>
  <identifier>
    <nonUriValue>10.5240/AB2D-6075-8A0A-1969-2887-H</nonUriValue>
    <uri returnType="text/html">https://ui.eidr.org/view/content?id=10.5240/AB2D-6075-8A0A-1969-2887-H</uri>
    <uri returnType="application/xml">https://doi.org/10.5240/AB2D-6075-8A0A-1969-2887-H</uri>
    <type>EidrContentID</type>
  </identifier>

```

```
<linkedCreationRole>Episode</linkedCreationRole>
</linkedCreation>
<linkedCreation>
  <identifier>
    <nonUriValue>10.5240/A8E3-7701-0B2F-15B4-C878-P</nonUriValue>
    <uri returnType="text/html">https://ui.eidr.org/view/content?id=10.5240/A8E3-7701-0B2F-15B4-C878-P</uri>
    <uri returnType="application/xml">https://doi.org/10.5240/A8E3-7701-0B2F-15B4-C878-P</uri>
    <type>EidrContentID</type>
  </identifier>
  <linkedCreationRole>Episode</linkedCreationRole>
</linkedCreation>
</referentCreation>
</kernelMetadata>
```

APPENDIX III: DATA VALIDATION RULES

When EIDR records are matched, created or modified, the data is validated in two ways:

1. The data must first conform to the EIDR schema (which specifies many of the requirements on fields and which elements are compatible with one another).
2. The EIDR Registry then performs a number of additional validation tests (that cannot be expressed in an XML schema).

This section summarizes the content validation tests. The rules are specified here from the perspective of each of the API functions (and not how the metadata record is eventually serialized or disseminated from the Registry). Note that the Match API may skip certain validation rules. Rules that are marked with an asterisk (*) below do not apply to Match. Validation rules are generally also included in the description of the fields in Sections 2 and 3.

Terminology (as used in tables below for each type of API method or operation: create, modify, etc.):

- Fixed: Implies the value set for the field is a controlled vocabulary.
- Fixed and conditional: Implies the value set for the field is a controlled vocabulary, but the actual values from the set depend on some other condition.
- Conditional: The actual values from the set depend on some other condition.
- Must be specified: Implies the value for the field must exist. The schema will enforce the format of the value.
- Must be absent: Implies the field must not exist.
- Enforced by schema: Implies no additional rule exists for the field besides what the schema already enforces. For certain field-type combinations, additional rules besides what the schema enforces are required. For those cases where additional rules are not required, this phrase would be used (in order to be thorough).
- Inherited from nearest ancestor if not specified: Implies the value for the field is inherited from its nearest ancestor if not specified.
- Not Applicable or blank rule: Implies no rule exists for the field regardless of whether the schema enforces or not.

CREATE VALIDATION

Base Object Metadata by Creation Type:

Field	Basic	Series	Season	Episode	Manifestation	Edit
Referent Type	Fixed: One of TV, Movie, Short, Web, Supplemental. Short cannot be more than 1 hour. Movie must be more than 30 minutes.	Fixed: Series	Fixed: Season	Fixed: One of TV, Movie, Short, Web, Supplemental. Short cannot be more than 1 hour. Movie must be more than 30 minutes.	Inherited from nearest ancestor if not specified. If specified, it must be one of TV, Movie, Short, Web, Supplemental, Interactive Material.	Inherited from nearest ancestor if not specified. If specified, it must be one of TV, Movie, Short, Web, Supplemental, Interactive Material.
Structural Type	Fixed: Abstraction	Fixed: Abstraction	Fixed: Abstraction	Fixed: Abstraction	Fixed and conditional: One of Performance or Digital	Fixed: Performance
Mode	AudioVisual must be after 1893					
Resource Name	May not be empty.	May not be empty.	Conditional: If parent's OriginalTitleRequired is true, must be specified. May not be empty.	Conditional: If parent's OriginalTitleRequired is true, must be specified. May not be empty.	Inherited from nearest ancestor if not specified. If specified, may not be empty.	Inherited from nearest ancestor if not specified. If specified, may not be empty.
Alternate Resource Name	Must not duplicate the Resource Name or another Alternate (or their ASCII variants).					

Field	Basic	Series	Season	Episode	Manifestation	Edit
Original Languages	Enforced by schema.	Enforced by schema.	Must be absent.	Must be absent.	Each Original Language must be distinct. The “type” and “mode” attributes are taken into account.	Must be absent.
Version Languages	Must be absent.	Must be absent.	Must be absent.	Must be absent.	Each Version Language must be distinct. The “type” and “mode” attributes are taken into account.	Each Version Language must be distinct. The “type” and “mode” attributes are taken into account.
Associated Org	Must not duplicate both Display Name and role					

Field	Basic	Series	Season	Episode	Manifestation	Edit
Release Date	Cannot be more than 20 years in the future. All records must be >1877. TV Referent Type must be >1935.	Cannot be more than 20 years in the future or later than EndDate. All records must be >1877.	Conditional: If parent's DateRequired is true, the full date must be specified. Conditional: If the Sequence Number is greater than 1 then it must be later than the previous season. Cannot be more than 20 years in the future or later than its EndDate or outside the time period defined by the Release and EndDate of its parent Series.	Must be specified. TV Referent Type must be >1935. Conditional: If parent's DateRequired is true, the full date must be specified. Cannot be more than 20 years in the future or outside the time period defined by the Release and EndDate of its parent.	All records must be >1877. Inherited from nearest ancestor if not specified.	Must be specified. Cannot be more than 20 years in the future. All records must be >1877. TV Referent Type must be >1935.
Country of Origin	Must not duplicate another value.					
Approximate Length	Cannot be zero.	Enforced by schema.	Enforced by schema.	Inherited from nearest ancestor if not specified. Cannot be zero.	Inherited from nearest ancestor if not specified. Cannot be zero.	Must be specified. Cannot be zero.
Alternate ID	The same record cannot have an identical ID twice. Cannot be empty or zero.					
Registrant	Must match the Party ID used in Authorization.					
Actor/Director	Cannot be empty and cannot contain a colon or semi-colon.					

Base Object Metadata by Creation Type (continued):

Field	Clip	Interactive Material	Compilation	Composite
Referent Type	Inherited from nearest ancestor if not specified. If specified, it must be one of TV, Movie, Short, Web, Supplemental	Fixed: Interactive Material	Fixed: Compilation	Fixed: One of TV, Movie, Short, Web, Supplemental.
Structural Type	Fixed: One of Performance, Digital, Physical.	Fixed: One of Abstraction, Digital.	Fixed: Abstraction, Performance, or Digital	Fixed: One of Abstraction, Performance, Digital, Physical.
Mode	Inherited from nearest ancestor if not specified.	AudioVisual must be after 1893.	AudioVisual must be after 1893.	AudioVisual must be after 1893
Resource Name	Inherited from nearest ancestor if not specified.	May not be empty.	Inherited from nearest ancestor if not specified.	May not be empty.
Original Language	Must be absent.	Must be absent.	Enforced by schema.	Must be absent.
Associated Org	Must not duplicate both Display Name and role.			
Release Date	Inherited from nearest ancestor if not specified. All records must be >1877. TV Referent Type must be >1928.	All records must be >1877.	All records must be >1877.	Enforced by schema.
Associated Org	Must not duplicate another value.			
Approximate Length	Must be specified. Cannot be zero.	Enforced by schema.	Enforced by schema.	Enforced by schema. Cannot be zero.

Field	Clip	Interactive Material	Compilation	Composite
Alternate ID	The same record cannot have an identical ID twice.			
Registrant	Must match the Party ID used in Authorization.			
Actor/Director	Cannot be empty and cannot contain a colon or semi-colon.			

Extra Object Metadata by Creation Type:

Note that a Series must include at least one its Extra Object Metadata fields.

Field	Season	Episode	Edit	Manifestation	Compilation	Composite
Sequence Number	Conditional: If parent's NumberRequired is true, must be specified. Cannot duplicate another Sequence Number and Season Class among the parent's Seasons.*					
Distribution Number		Conditional: If parent's NumberRequired is true, must be specified. Cannot duplicate another number and domain among the parent's Episodes.*				
House Number		Cannot duplicate another House number and domain among the parent's Episodes.				

Field	Season	Episode	Edit	Manifestation	Compilation	Composite
Alternate Number		Cannot duplicate another Alternate number and domain among the parent's Episodes.				
EndDate	Cannot be outside the time period defined by the Release and EndDate of its parent Series.	Cannot be outside the time period defined by the Release and EndDate of its parent.				
Interactive Component Reference ID				If specified, must be a content ID whose referent type is Interactive Material.		
ExternalTrackReference ID				If specified, must be a content ID that has isManifestationOf as one of its relationships. Status should not be "in development" when source is "valid".		
Edit Class			Must be unique across the supplied multiples.			

Field	Season	Episode	Edit	Manifestation	Compilation	Composite
Made For Region			Must be unique across the supplied multiples.	Must be unique across the supplied multiples.		
Track/Language				Each Version Language must be distinct. The “type” and “mode” attributes are taken into account.		
Track/Hash				Only one Hash of a particular type in a record that contains hashes (i.e., if more than one Hash is present, each one must have a different has method.) Must be globally unique within EIDR.	Each Version Language must be distinct. The “type” and “mode” attributes are taken into account.	
CodecType				Only a single CodecType element is allowed per namespace. That is, if more than one is present, they must be from different namespaces.		

Field	Season	Episode	Edit	Manifestation	Compilation	Composite
Entry/ ContentID					<p>All non-Compilation Entries for EIDR records must share the same Structural Type (except for “Compilation” entries).</p> <p>Every ContentID in a Compilation must be unique.</p> <p>Status should not be “in development” when source is “valid”.</p>	
Composite Element						<p>Every Element in a Composite must be different. For example, if two elements use the same ID, they must have different start/duration or ComponentsMode.</p>
Composite Element ID						<p>Must be a non-aliased ID.</p> <p>Status should not be “in development” when source is “valid”.</p>

Graph Compatibility of Parent by child Create Type:

Parent Field	Season	Episode	Manifestation	Edit	Clip
Referent Type	Series	Series or Season	One of TV, Movie, Short, Web, Supplemental, Interactive Material.	One of TV, Movie, Short, Web, Supplemental.	One of TV, Movie, Short, Web, Supplemental.
Structural Type			One of Performance, Digital, Physical, unless parent's Referent Type is Interactive Material, in which case Abstraction is also permitted.		One of Performance, Digital, Physical.
Status	Cannot be in development, if Child status is valid.	Cannot be in development, if Child status is valid.	Cannot be in development, if Child status is valid.	Cannot be in development, if Child status is valid.	Cannot be in development, if Child status is valid.
Extra Object Metadata Relationships			Parent must have one of these relationships with any object: isCompilation, isManifestation.	Parent must not have this relationship with any object: isManifestation.	Parent must not have this relationship with any object: isManifestation.

MODIFY VALIDATION

Note that the following fields cannot be modified for any content record:

- ID (this is a system-defined field)
- Status (use the Promote API to change this field)
- Registrant.

For Series and Seasons, the following additional rules apply:

Field	Series	Season
Referent Type	Cannot be modified (must remain Series)	Cannot be modified (must remain Season)
NumberRequired	Conditional: if set to true, all children must specify SequenceNumber (if Season) or DistributionNumber (if Episode).	Conditional: if set to true, all children must specify DistributionNumber.
DateRequired	Conditional: if set to true, all children must specify the full ReleaseDate.	Conditional: if set to true, all children must specify the full ReleaseDate.
OriginalTitleRequired	Conditional: if set to true, all children must define a Resource Name.	Conditional: if set to true, all children must define a Resource Name.

The graph compatibility is that the defining relationship for child objects cannot be changed (including removed) using the Modify API. This applies to: Season (isSeasonOf), Episode (isEpisodeOf), Edit (isEditOf), Clip (isClipOf), Composite (isCompositeOf), Manifestation (isManifestationOf).

RELATIONSHIP API VALIDATION

Add Relationship API by Creation Type:

Field	Composite	Alternate Content Info	Packaging Info	Promotion Info	Supplement Content Info
ID	Must be a non-aliased ID. Status should not be "in development" when source is "valid".				
Referent Type	Fixed: One of TV, Movie, Short, Supplemental, Web.	Fixed: One of TV, Movie, Short, Supplemental, Web, Interactive Material	Fixed: One of TV, Movie, Short, Supplemental, Web, Interactive Material, Series, Season	Fixed: One of TV, Movie, Short, Supplemental, Web, Interactive Material, Series, Season	Fixed: One of TV, Movie, Short, Web, Supplemental, Interactive Material
Parent:					
ID (target)	The Composite Element ID must be a non-aliased ID.	Must be a non-aliased ID.	Must be a non-aliased ID.	Must be a non-aliased ID.	Must be a non-aliased ID.
Graph compatibility	The target must not be the same as ID. The object, if at all, has only these pre-existing relationships: isEpisode, isPromotion, isSupplement, isAlternate, isPackaging.	The target must not be the same as ID. The ID must not already have the same relationship with the target of the same relationship Class.	The target must not be the same as ID. The ID must not already have the same relationship with the target of the same relationship Class.	The target must not be the same as ID. The ID must not already have the same relationship with the target of the same relationship Class.	The target must not be the same as ID. The ID must not already have the same relationship with the target of the same relationship Class.

Remove Relationship API by Creation Type:

Field	Composite	Alternate Content Info	Packaging Info	Promotion Info	Supplement Content Info
ID					
ID (target)	Must be absent.	Conditional: If specified, must be the target of isAlternate relationship.	Conditional: If specified, must be the target of isPackaging relationship.	Conditional: If specified, must be the target of isPromotion relationship.	Conditional: If specified, must be the target of isSupplement relationship.
Graph compatibility	The ID must already have this relationship with the target.	The ID must already have this relationship with the target.	The ID must already have this relationship with the target.	The ID must already have this relationship with the target.	The ID must already have this relationship with the target.

For the Replace Relationship API, the rules from both Remove Relationship and Add Relationship apply.

PROMOTE API VALIDATION

Promote API rules:

Field	Rule
ID	Must be a non-aliased ID.
Status	Fixed: in development.
Graph compatibility	Parent's Status, if any, must not be in development.

ALIAS & DELETE API VALIDATION

Alias API rules:

Field	Rule
ID	Must be a non-aliased ID.
ID (target)	Must be a non-aliased ID.
Status	Fixed: valid or in development.
Graph compatibility	<p>Must not be the target of relationships: isSeason, isEpisode, isEdit, isClip, isCompilation, isComposite, isManifestation, isPromotion, isSupplement, isAlternate, isPackaging.</p> <p>Must not be the target of a Compilation ContentID or ExternalTrackReference.</p> <p>If the Referent Type of the source record is Series or Season, the target record must not have any of these relationships: isEpisode, isEdit, isClip, isCompilation, isComposite. isManifestation.</p> <p>The target must not be part of a chain of aliases, where the length of the chain starting from target is greater than 5.</p> <p>The source must not be part of the chain.</p>

Delete API rules:

Field	Rule
ID	Must be a non-aliased ID.
Status	Fixed: valid or in development.
Graph compatibility	<p>Must not be the target of relationships: isSeason, isEpisode, isEdit, isClip, isCompilation, isComposite, isManifestation, isPromotion, isSupplement, isAlternate, isPackaging.</p> <p>Must not be the target of a Compilation ContentID or ExternalTrackReference.</p>