

# Errata Notice on Schema Locations

(May 19, 2021)

This standard makes use of namespace locations with a form of <http://www.scte.org/schemas/xyz/>\*, where “xyz” is the location of the specific schema being referenced. Due to limitations on the current SCTE•ISBE website, those specific locations are not available.

To find such schemas:

1. Go to the standards download page at <https://www.scte.org/download-scte-isbe-standards/>
2. Search for the standard number (xyz in the above example)
3. Expand the listing by clicking the plus (+) button to the left of the standard number

The expanded list will show the desired schema.

This notice will be removed once the exact namespace values are functional.

# SCTE • ISBE<sup>®</sup>

## S T A N D A R D S

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Digital Video Subcommittee

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**SCTE STANDARD**

**SCTE 236 2021**

**Content Metadata**

## NOTICE

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## 1. Introduction

### 1.1. Executive Summary

This standard (SCTE 236) defines the metadata typically required when a provider delivers on demand content to a distributor. This standard supersedes the CableLabs specification known as MD-SP-CONTENTv3.0-C01-151104. Special attention is paid to conversion to and from earlier versions of the CableLabs specifications.

### 1.2. Scope

This standard describes the grammar needed to represent information pertinent to the distribution, presentation and consumption of multimedia content. In a normal use case, the metadata originates from a provider and is distributed to operators.

This standard uses Extensible Markup Language (XML) extensively. A markup language defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. The reader is referred to the normative [XML] references for additional background and definitions.

A set of files referenced in this document contains the normative XML Schema definition that *may* be used to validate XML documents purported to conform to this specification. .

### 1.3. Intended Audience

This standard is written for providers and consumers of content and metadata. It can be used to acquire Live to On Demand content or file based On Demand content. It can also be used for guide data information.

### 1.4. Areas for Further Investigation or to be Added in Future Versions

It may be useful in the future to look at other metadata standards and attempt to unify key names and definitions. Some examples include EIDR, Schema.org and Movielabs metadata standards and specifications.

## 2. Normative References

The following documents contain provisions, which, through reference in this text, constitute provisions of this document. At the time of Subcommittee approval, the editions indicated were valid. All documents are subject to revision; and while parties to any agreement based on this document are encouraged to investigate the possibility of applying the most recent editions of the documents listed below, they are reminded that newer editions of those documents might not be compatible with the referenced version.

### 2.1. SCTE References

[SCTE 35] SCTE 35 2019a, Digital Program Insertion Cueing Message for Cable, Society of Cable Telecommunications Engineers (SCTE), 2019a.

### 2.2. Standards from Other Organizations

[Ad-ID] Ad-ID Structure, <https://www.ad-id.org>

[EIDR] EIDR ID Format can be found at: <https://www.eidr.org>

[IETF BCP 47]	IETF BCP 47, Tags for Identifying Languages, 2009, Internet Engineering Task Force.
[ISAN]	ISAN (International Standard Audiovisual Number) website – <a href="http://www.isan.org">http://www.isan.org</a>
[ISCI]	Industry Standard Commercial Identification
[ISO 3166]	International Organization for Standardization, ISO 3166-1:2006. Code for the representation of names of countries and their subdivisions – Part 1: Country codes.
[ISO 4217]	International Organization for Standardization, ISO 4217:2008. Codes for the representation of currencies and funds.
[ISRC]	International Standard Recording Code (ISRC) FAQ: <a href="http://www.riaa.com/issues/audio/isrc_faq.asp">http://www.riaa.com/issues/audio/isrc_faq.asp</a>
[RFC 1034]	IETF RFC 1034, Domain names - concepts and facilities. P.V. Mockapetris. November 1987.
[RFC 3986]	IETF RFC 3986, Uniform Resource Identifier (URI): Generic Syntax. T. Berners-Lee, R. Fielding, L. Masinter. January 2005.
[XML InfoSet]	W3C Recommendation, "XML InfoSet (Second Edition)", John Cowan, Richard Tobin, 4 February 2004, <a href="http://www.w3.org/TR/2004/REC-xml-infoset-20040204/">http://www.w3.org/TR/2004/REC-xml-infoset-20040204/</a> .
[XML Namespaces]	W3C Recommendation, "Namespaces In XML (Third Edition)", Tim Bray, et al, 08 December 2009, <a href="http://www.w3.org/TR/2006/REC-xml-names-20091208/">http://www.w3.org/TR/2006/REC-xml-names-20091208/</a> .
[XML SchemaP1]	W3C Recommendation, "XML Schema Part 1: Structures (Second Edition)", H. Thompson, et al, 28 October 2004, <a href="http://www.w3.org/TR/xmlschema-1/">http://www.w3.org/TR/xmlschema-1/</a> .
[XML SchemaP2]	W3C Recommendation, "XML Schema Part 2: Datatypes (Second Edition)", P. Biron, et al, 28 October 2004, <a href="http://www.w3c.org/TR/xmlschema-2/">http://www.w3c.org/TR/xmlschema-2/</a> .
[XML]	W3C REC: eXtensible Markup Language (XML) 1.1, 29 September 2006.

### 2.3. Published Materials

- No normative references are applicable.

## 3. Informative References

The following documents might provide valuable information to the reader but are not required when complying with this document.

### 3.1. SCTE References

[CEP3.0]	SCTE 254 2019, Content Encoding Profiles 3.0 Specification
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### 3.2. Standards from Other Organizations

[ADI1.1]	CableLabs Asset Distribution Interface Specification Version 1.1, MD-SP-ADI1.1-C01-120803, August 3, 2012, Cable Television Laboratories, Inc.
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[Content1.1] CableLabs Video-on-Demand Content Specification Version 1.1, MD-SP-VOD-CONTENT1.1-C01-120803, August 3, 2012, Cable Television Laboratories, Inc.

[GENRES] Genres list can be found at: <https://www.ctam.com>

[Content3.0] [CableLabs Content 3.0 Specification](#), MD-SP-CONTENTv3.0-C01-151104, November 4, 2015, Cable Television Laboratories, Inc.

[MPAA] Motion Picture Association of America Ratings, <https://filmratings.com>

[TV] TV Parental Guidelines, <https://www.tvguidelines.org>

### 3.3. Published Materials

- No informative references are applicable.

## 4. Compliance Notation

<i>shall</i>	This word or the adjective “ <i>required</i> ” means that the item is an absolute requirement of this document.
<i>shall not</i>	This phrase means that the item is an absolute prohibition of this document.
<i>forbidden</i>	This word means the value specified shall never be used.
<i>vital</i>	This word indicates a course of action to be followed strictly (no deviation is permitted).
<i>should</i>	This word or the adjective “ <i>recommended</i> ” means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighted before choosing a different course.
<i>should not</i>	This phrase means that there may exist valid reasons in particular circumstances when the listed behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
<i>may</i>	This word or the adjective “ <i>optional</i> ” means that this item is truly optional. One implementor may choose to include the item because a particular marketplace requires it or because it enhances the product, for example; another implementor may omit the same item.
<i>deprecated</i>	Use is permissible for legacy purposes only. Deprecated features may be removed from future versions of this document. Implementations should avoid use of deprecated features.



## 5. Abbreviations and Definitions

### 5.1. Abbreviations

Ad-ID	Advertising Digital Identification
ADI.1	Asset Distribution Interface Specification Version 1.1
AMS	asset management system
EIDR	Entertainment Identifier Registry
EPG	electronic program guide
HD	high definition
ID	identifier
ISAN	International Standard Audiovisual Number
ISCI	Industry Standard Commercial Identifier
ISRC	International Standard Recording Code
MPAA	Motion Picture Association of America
MSO	multiple system operator
SCTE	Society of Cable Telecommunications Engineers
SVOD	subscription video-on-demand
TV	television
URI	uniform resource identifier
VOD	video-on-demand
XSL	(eXtensible Stylesheet Language
XML	eXtensible Markup Language

### 5.2. Definitions

Asset	A combination of content and associated metadata, except for a Content Asset, which includes only metadata, and that directly or indirectly refers to content. An Asset <i>may</i> be an abstract container of references to other Assets with metadata that applies to all of the referenced Assets.
Asset Distribution Interface	The means by which assets (content as well as metadata describing that content) are transported from a provider to an Asset Management System. In addition, it provides a mechanism by which ‘block’ updates <i>may</i> be made to previously distributed assets. These block updates include metadata replacement, adding a new child asset to a previously received asset and deleting an asset.
Asset Distribution System	Provides transportation of Assets from the premises of the Assets’ provider to the premises of the MSO. It interfaces to the Asset Management System using the Asset Distribution Interface (ADI).
Asset Management System	An entity that stores and manages the lifecycle of Assets.
Content	Audio, video, or still picture creative materials used to form a movie, preview, poster art, etc. file (e.g., MPEG-encoded movie).
Content Asset	A specific type of Asset which is only metadata and which includes a reference to content.

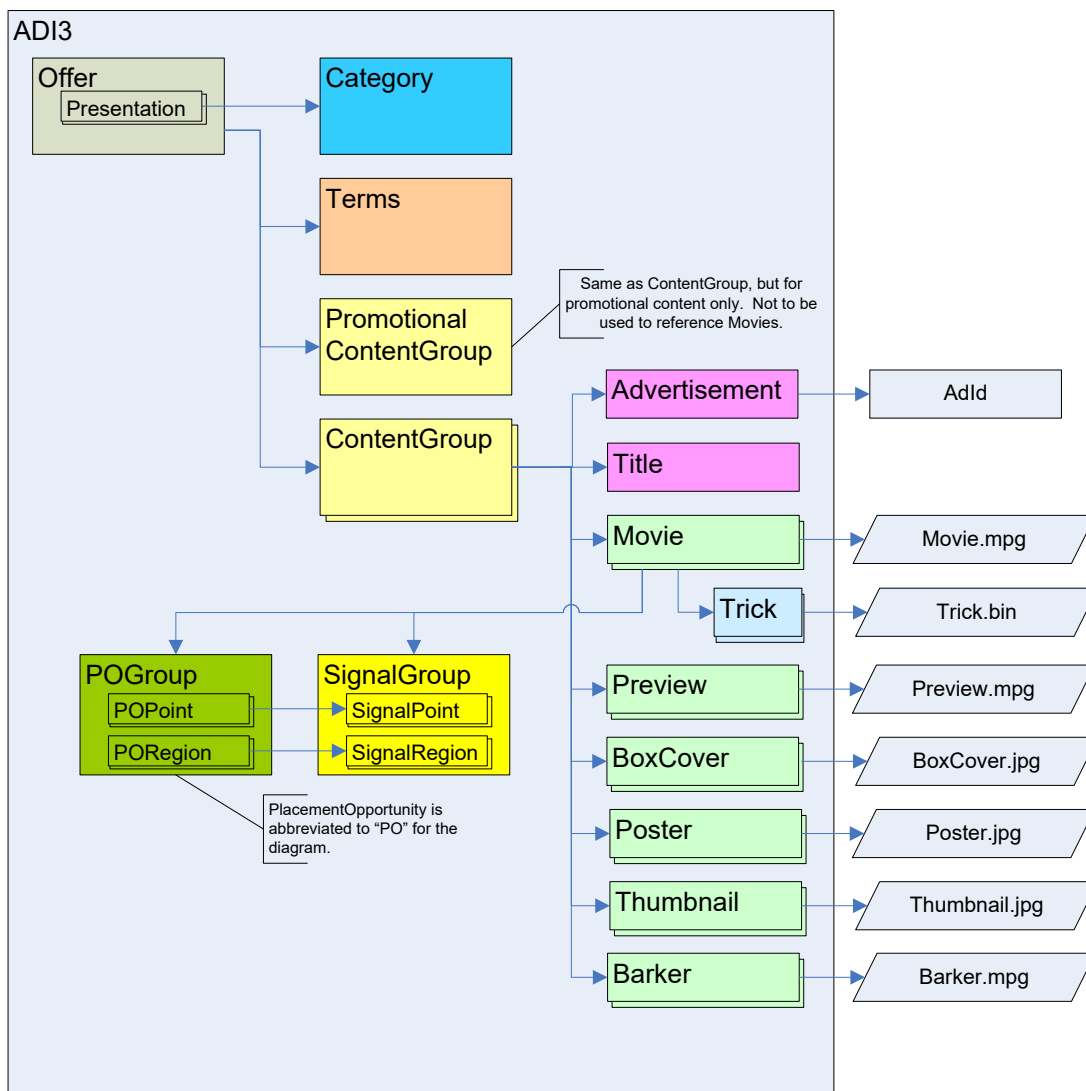
Metadata	Descriptive data included in an Asset or Content Asset.. It <i>may</i> vary in depth from merely identifying the asset or information to populate an EPG to providing a complex index of different scenes in a movie or providing business rules detailing how the content <i>may</i> be displayed, copied or sold. Separate uses for metadata have originated from the studios, distribution networks (Cable, Satellite), down to the CPE (STBs, PVRs).
Provider	A Party responsible for allocating asset identifiers.
eXtensible Markup Language (XML)	A markup language defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. The reader is referred to the normative XML references for additional background and definitions.

## 6. Overview

This specification defines the metadata content assets that are used to distribute a content metadata from a Provider to a number of cable operators.

### 6.1. Data Model

The essential conceptual object in the SCTE 236 data model is an Asset. An asset represents the basic amount of information that all other metadata types *should* contain.



**Figure 1 - Asset Relationships**

**6.1.1. Offer**

An Offer is the structure used to assemble related content, title information, and terms for presentation to a customer. It will include all of the necessary information to sell content to a customer. This *may* include a single movie, a grouping of television programs, trilogies, or combinations of any sort. This model *may* be extended in the future to define offerings of mixed media.

An offer will include one or more content groups plus a single promotional content group. The promotional content group refers to content (title, previews, images, etc.) that *may* be used to present and sell the offer to a customer. Sometimes the promotional content for a combination (e.g., movie trilogy, TV season) will be different than for any single movie or program content group. In a simple case, the promotional content and included content will reference the same content group.

### **6.1.2. Terms**

Pricing, content restrictions, and royalty information are bundled together to create a set of Terms. These terms represent the business agreements that accompany an offer and *may* be reused in more than one offer. The terms apply to all of the content included with the offer.

### **6.1.3. Category**

A Category defines a set of category paths that are used for presentation in a VOD menu system.

### **6.1.4. ContentGroup**

A ContentGroup is a combination of all of the related content (movies, previews, images, etc.) with its Title metadata. A Title is presumed to always be included and at least one form of content. Groupings of content *may* be reused by combining them with terms to create different offers.

A ContentGroup *may* contain multiple types of content or multiple versions of the same content. For example, a content group could contain metadata for both the standard and HD version of the same movie, if the two are interchangeable and can be represented by the same set of terms in the referencing offer.

### **6.1.5. Title**

The Title defines the descriptive metadata for a movie or set of movies (or programs). This *may* be information that is used for actual display on the user's screen (e.g., Name of the movie, Actors), or *may* be used in the VOD system for classification or display constraints (e.g., Rating). Titles *may* be shared between different content groups, but only one title will be associated with a given content group.

### **6.1.6. ContentAsset**

ContentAsset is the metadata asset that represents the actual content files distributed to the end system.

#### **6.1.6.1. AudioVideo ContentAsset**

This category of ContentAsset includes Movies, Previews, and Barkers. A Movie is the actual audio video content that's being offered to the user and is subject to the terms referenced in the offer. A Preview is an audio video promotion for the same movie but is assumed to not be subject to the price expressed in the terms unless otherwise agreed. Note that a Movie can actually be any type of audio video content where the terms apply (e.g., TV program, pre-recorded event, etc.).

A Barker is a form of promotional content that is typically played in a continuous loop. It is usually not associated with a single Movie but is provided in a separate content group for a particular category of content.

#### **6.1.6.2. StillImage ContentAsset**

The Still Image ContentAsset category includes Posters, BoxCovers, and Thumbnails that *may* be used to promote a Movie. It is often used as part of a user-selection screen in a VOD menu or EPG.

#### **6.1.6.3. Trick ContentAsset**

A Trick is a special type of ContentAsset that is associated with a Movie or Preview and includes pre-processed images to display during fast forward or rewind operations.

#### 6.1.6.4. Extending the model with new ContentAssets

The ContentGroup *may* be extended to include new types of content that are not currently anticipated in this specification.

#### 6.1.7. Advertisement

An Advertisement is a specialized form of a Title asset that includes a reference to the Ad-ID schema for expressing metadata specific to ads. An Advertisement *may* be used in place of a Title in the ContentGroup if the corresponding content is indeed an ad.

#### 6.1.8. SignalGroup

A SignalGroup is a collection of SignalPoints and/or SignalRegions. Signals are points or regions, constrained by 2 points of interest, and are essentially identified time indexes related to a video asset.

Signal metadata *may* contain additional information about how it was acquired from a corresponding in-band signal. Signal point positions within an asset *may* be based on a fixed time index and/or contain data to support association with an in-band signal.

#### 6.1.9. PlacementOpportunityGroup

A PlacementOpportunityGroup is a collection of PlacementOpportunityPoints and PlacementOpportunityRegions along with an expression of various rules regarding the placement opportunity. The points and regions will typically correspond with Signal points and regions associated with the video content.

### 6.2. Specification Components

This specification consists of the following elements:

1. This specification document, which is normative except as otherwise noted.
2. The associated XML schema files are listed in the table below and are normative.

**Table 1 – 202x Normative Schema Files<sup>1</sup>**

Schema File Name and Version	Namespace
SCTE_236_AD_20200720.xsd Version=20200720	<a href="http://www.scte.org/schemas/236/2017/ad">http://www.scte.org/schemas/236/2017/ad</a>
SCTE_236_CONTENT_20200720.xsd Version=20200720	<a href="http://www.scte.org/schemas/236/2017/content">http://www.scte.org/schemas/236/2017/content</a>
SCTE_236_CORE_20200720.xsd Version=20200720	<a href="http://www.scte.org/schemas/236/2017/core">http://www.scte.org/schemas/236/2017/core</a>
SCTE_236_OFFER_20200720.xsd Version=20200720	<a href="http://www.scte.org/schemas/236/2017/offer">http://www.scte.org/schemas/236/2017/offer</a>
SCTE_236_PLACEMENTOPPORTUNITY_20200720.xsd Version=20200720	<a href="http://www.scte.org/schemas/236/2017/placementopportunity">http://www.scte.org/schemas/236/2017/placementopportunity</a>
SCTE_236_SIGNALING_20200720.xsd Version=20200720	<a href="http://www.scte.org/schemas/236/2017/signaling">http://www.scte.org/schemas/236/2017/signaling</a>
SCTE_236_TERMS_20200720.xsd Version=20200720	<a href="http://www.scte.org/schemas/236/2017/terms">http://www.scte.org/schemas/236/2017/terms</a>
SCTE_236_TITLE_20200720.xsd Version=20200720	<a href="http://www.scte.org/schemas/236/2017/title">http://www.scte.org/schemas/236/2017/title</a>

<sup>1</sup> While this specification has a ratified year of 202x, the XML schema/XSD namespace has a year of 2017, which is the year the XSD and this specification's syntax was initially ratified. All subsequent changes have been backwards compatible and thus, the namespace has not changed.

## 7. XML Conventions

This document relies heavily on normative XML schemas to complete this 3.0 specification. Several common conventions are employed in the creation of the schemas and definition of the data model.

### 7.1. Normative XML Schemas

The messages, elements, and attributes that make up this specification are not explicitly defined in this document. The normative XML schemas, available on the SCTE website, comprise the full normative specification.

No messages representing the interfaces defined in the schema are considered conformant unless they are valid according to the schema documents. In the case where the written normative specification and the normative schema document conflict, the XML schema documents *shall* take precedence. Furthermore, there are additional requirements described in the schema annotations that are not enforceable by schema validation mechanisms. These requirements *shall* also be strictly observed.

The inclusion of a normative XML schema document does not require or imply the specific use of the schema nor a requirement that a message be validated.

### 7.2. XML Namespaces

Each of the schemas included with this specification has a unique namespace. Table 2 lists the namespaces, recommended prefixes, and a description along with the major types defined.

**Table 2 - XML Namespace Declarations**

Prefix	Namespace	Description
ad	<a href="http://www.scte.org/schemas/236/2017/ad">http://www.scte.org/schemas/236/2017/ad</a>	
content	<a href="http://www.scte.org/schemas/236/2017/content">http://www.scte.org/schemas/236/2017/content</a>	Provides all of the known content types
core	<a href="http://www.scte.org/schemas/236/2017/core">http://www.scte.org/schemas/236/2017/core</a>	Provides the base AssetType and AssetRefType
offer	<a href="http://www.scte.org/schemas/236/2017/offer">http://www.scte.org/schemas/236/2017/offer</a>	Provides OfferType, CategoryType and ContentGroupType
placement opportunity	<a href="http://www.scte.org/schemas/236/2017/placementopportunity">http://www.scte.org/schemas/236/2017/placementopportunity</a>	
signaling	<a href="http://www.scte.org/schemas/236/2017/signalling">http://www.scte.org/schemas/236/2017/signalling</a>	
terms	<a href="http://www.scte.org/schemas/236/2017/terms">http://www.scte.org/schemas/236/2017/terms</a>	Provides TermsType
title	<a href="http://www.scte.org/schemas/236/2017/title">http://www.scte.org/schemas/236/2017/title</a>	Provides TitleType
xml	<a href="http://www.w3.org/XML/1998/namespace">http://www.w3.org/XML/1998/namespace</a>	Used for xml:lang attribute
xsd	<a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>	XML foundation. See [XML SchemaP1], [XML SchemaP2]
xsi	<a href="http://www.w3.org/2001/XMLSchema-instance">http://www.w3.org/2001/XMLSchema-instance</a>	

### 7.3. Unknown/Unrecognized/Unsupported XML Elements and Attributes

Generally, unknown, unrecognized, or unsupported XML elements and attributes contained within Core Metadata messages and elements *should* be ignored during message processing. Specifically, these are elements or attributes that the implementation does not understand or expect.

## 7.4. Element Order

Element order is constrained by the schema and *shall* be preserved throughout processing of the XML document. In particular, the order of elements affects the end result of the processing. Consequently, an implementation failing to preserve the order *may* cause incorrect processing results. Subsequently, the process of producing an abstract XML Information Set (InfoSet) from a concrete XML document, e.g., by parsing it, *shall* always result in the same abstract InfoSet, with the same element order per XML InfoSet (see [XML InfoSet] for additional information). Any intermediary processing *may* enhance the XML document, but it *shall not* alter the abstract InfoSet element order (i.e., the XML elements comprising the document *shall* stay in document order).

## 7.5. XML Encoding

When generating a new XML Document to this specification, a standard encoding *shall* be properly expressed in the XML declaration. The actual encoding *should* be “ISO-8859-1” to provide the best compatibility with existing systems. However, the XML document *may* use any well-known encoding, provided targeted downstream components have been properly tested. The following example shows the XML declaration:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
```

## 7.6. Language Identification

In document processing, it is often useful to identify the natural or formal language in which the content is written. A special attribute named xml:lang *may* be inserted in documents to specify the language used in the contents and attribute values of any element in an XML document. See [XML] for the allowed values. Typically, the xml:lang attribute is utilized with an xsd:string type.

## 7.7. Deprecated Elements

There are several cases where elements are defined in the schemas that are intended to be deprecated. These elements are provided for easy backward compatibility with [Content1.1]. In these cases, the element is defined with a required Boolean **deprecated** attribute, which *shall* always be present and always be set to *true*. The following example illustrates a deprecated element in an instance document:

```
<Provider deprecated="true">CableLabs</Provider>
```

The deprecated attribute is reserved and *shall not* be used for any other purpose in any extension to this specification. Also, it is not necessary and highly discouraged to include the deprecated attribute on an element when the value is false (not deprecated).

## 7.8. Extensibility

The base asset type defined in the Core namespace includes an Ext element, which allows any content (elements or attributes) from any namespace to be included. This makes it easy to extend or customize an asset in a predictable manner while enabling filters or transforms to be applied. Any consumer of XML documents following this specification can safely ignore contents of the Ext element unless they otherwise have an agreement with the XML document producer. There is no requirement by this specification that the contents of the Ext element be validated, regardless of whether a namespace is provided. The following example illustrates how the Ext element is used:

```
<Ext isAwesome="true" meaningOfLife="42">
  <!-- Could refer to a remote namespace -->
  <Color xmlns=https://www.awesome-provider.com/colors/>Red</Color>
  <!-- Could also look like an ADI 1.1 trial use field -->
  <App_Data app="MOD" name="color" value="blue" />
</Ext>
```

```
</Ext>
```

Information routinely added to the Ext element could provide the groundwork for future permanent additions to this specification. However, new elements or attributes defined by future revisions to this specification will not be placed within the Ext element.

## 7.9. Enumerated Values

Enumerations are defined as XML schema enumerations only in cases where the set of possible values is strongly believed to be fixed. In several cases, enumerations are actually defined as an XML schema pattern, which provides a set of known standard values and allows private extensibility. To extend this type of enumeration, the value *shall* be prefixed with the string “private”, indicating that this is a non-standard value and *may* be ignored or handled in a different way. An example of both a standard and non-standard enumerated value is:

```
<Audience>Children</Audience>
```

```
<Audience>private:Toddler</Audience>
```

## 7.10. Required Elements

There are several elements that are not explicitly required by the XML schemas but are nevertheless required to be provided for any conformant document that originated as per this specification. These elements are optional to allow conversion from Content 1.1 documents but *shall* be provided for all new documents. These cases are annotated appropriately in the XML schema.

## 7.11. Qualified Values

There are several cases in the specification where the value of an element requires additional context to define the set of possible values. In these cases, it is required to provide the scheme from which the value is provided. The attributes described in this section are accompanied with a preliminary list of schemes. The value of the attribute is not confined to the list, but it *should* be well understood by all parties consuming the XML.

### 7.11.1. identifierSystem Attribute

- **VOD1.1** - To preserve compatibility with [\[Content 1.1\]](#) documents, an alternate identifier is provided to deterministically map to the Content 1.1 Provider\_ID / Asset\_ID. It *shall* be provided in the following format: vod://{Provider\_ID}/{Asset\_ID} and follow all the rules for Provider ID and Asset ID set forth in [\[Content 1.1\]](#).
- **EIDR** – an AlternateId using this identifierSystem *shall* be a valid identifier as specified at [\[EIDR\]](#).
- **ISAN** - an AlternateId using this identifierSystem *shall* be a valid identifier as specified at [\[ISAN\]](#).
- **Ad-ID** - an AlternateId using this identifierSystem *shall* be a valid identifier as specified at [\[Ad-ID\]](#).
- **ISCI** – Deprecated: Identifiers using this system *shall* be recognizable as an Industry Standard Commercial Identifier.
- **ISRC** - an AlternateId using this identifierSystem *shall* be a valid identifier as specified at [\[ISRC\]](#).

### 7.11.2. ratingSystem Attribute

- **MPAA** - Includes ratings from [\[MPAA\]](#).
- **TV** - Includes ratings from [\[TV\]](#). See guidelines for this rating system in [Appendix I.4](#).



- **MSO** - Includes ratings specific to the target MSO. There is no predefined set or format for MSO ratings. They *should* be customized by the metadata creator to the expectations of the target MSO.

### 7.12. UriId Asset Identifier

The uriId is a globally unique identifier for an asset and is the concatenation of ProviderId and AssetId as follows:

{ProviderId}/{AssetId}

The {ProviderId} is a string that is a registered Internet domain name (e.g., contentOnDemand.com or serviceprovider.com) or a sub-domain of a registered Internet domain name (e.g., abc.cp.com or xyz.sp.com) as defined in section 3.5 of [RFC 1034]. There is no required relationship between the {ProviderId} portion of uriId and the Content 1.1 Provider\_ID value.

The {AssetId} is equivalent to the path component of a URI as defined in section 3.3 of [RFC 3986]. {AssetId} is assigned by the provider (as identified by the ProviderId) and *shall* be unique within the realm of the provider. There is no required relationship between the {AssetId} portion on a uriId and the Content 1.1 Asset\_ID value.

Note that the uriId pattern used in the informative examples in Appendix I and in the XSL transforms follows a restricted form of the uriId pattern as follows:

{Provider\_ID}/{AssetDiscriminator}/{Asset\_ID}

For this restricted form, the {ProviderId} portion of the uriId corresponds to the Provider\_ID value, and the {AssetId} portion of the uriId corresponds to the concatenation of the {AssetDiscriminator} (a literal value determined by the type of Asset, e.g., “Offer”), a literal “/”, and the Asset\_ID value. This specific form is recommended when backward-compatibility with [Content1.1] is required.

### 7.13. ProviderId Bucket Identifier

The ProviderId is a globally unique identifier for a Bucket, which is a logical container for assets. Each Bucket is associated with a {ProviderId}, and all Assets are managed within the Bucket indicated by the {ProviderId} portion of the Asset UriId. Buckets are created, updated, listed, retrieved and deleted separately from Assets. Bucket metadata.

The {ProviderId} is a string that is a registered Internet domain name (e.g., contentOnDemand.com or serviceprovider.com) or a sub-domain of a registered Internet domain name (e.g., abc.cp.com or xyz.sp.com) as defined in section 3.5 of [RFC 1034]. There is no required relationship between the {ProviderId} portion of uriId and the Provider\_ID value.

## 8. Conversions between Content1.1 and SCTE 236 (Informative)

In earlier documents, CableLabs defined the Content1.1 metadata specifications, which has been used worldwide to support the distribution of video-on-demand content. This standard (SCTE 236) is intended to supersede the specification and provide for more functionality and flexibility. This new flexibility supports the addition of new on-demand products beyond video-on-demand, additional capabilities to existing on demand services (such as advertising) and the addition of namespaces that *may* be required for advanced features.

SCTE 236 is designed to be able to support lossless translations of Content1.1 packages into SCTE236 Offers. It will also support predictable translation of SCTE 236 offers into Content1.1 packages for backward compatibility, but it is *vital* that the recommendations in Sections 8.1 and 8.2 be followed

exactly as stated. The informative XSL transforms that have been provided are to assist in these conversions. In this way, the industry will be able to use systems supporting both the old and new standards going forward.

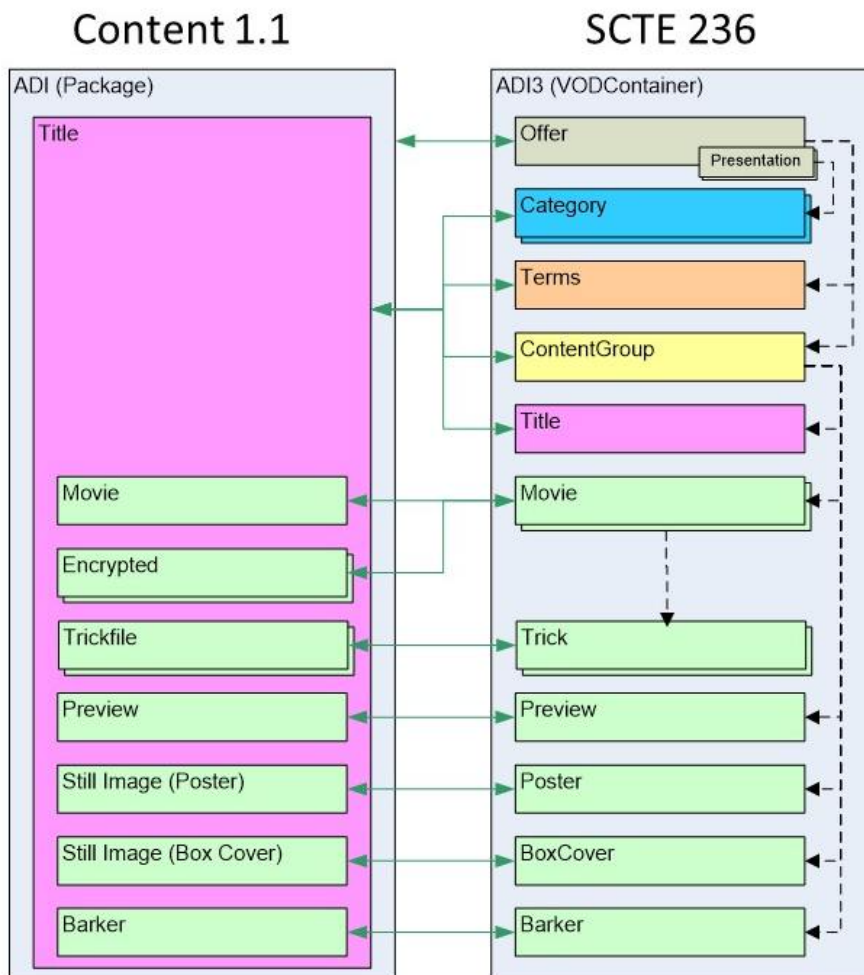
SCTE 236 assets break up Content1.1 assets into assets that have more focused functions than previously. The SCTE 236 assets correspond to Content1.1 assets approximately as follows:

**Table 3 - Comparison of SCTE 236, Content1.1 Assets**

SCTE 236 Assets	Content 1.1 Assets	Comments
Offer	Package	This is what is needed to present a Title and associated content for sale to a customer using a specified set of Terms.
ContentGroup	Package	This is a grouping of Title and associated content.
Title	Title	Only the “facts” about a movie (actor, title, etc.).
Terms	Title	Business requirements for use of the Offer.
Content Types (Movie, Preview, etc.)	Content	Actual content file locations.

XSL Transforms are provided along with this specification as a reference for converting Content1.1 to SCTE 236 and vice versa. The individual mappings of standard values expressed in the XSL Transforms *should* be considered normative, while some aspects (e.g., ordering of Content1.1 elements, handling of trial use fields, etc.) could be altered to fit a particular implementation. The XSL Transform *may* also be configured to normalize existing inconsistencies in Content1.1 metadata that do not meet the specification.

## 8.1. Converting Content 1.1 to SCTE 236



**Figure 2 - High level Content1.1 ↔ SCTE 236 Mapping**

A major design goal of this specification is to allow [Content1.1] messages to be deterministically converted to SCTE 236 without loss of information. This is considered essential to industry adoption and smooth migration to this standard. There are some constraints, however, that *should* be observed when considering a Content 1.1 message for conversion.

- The AMS elements *should not* include the Verb attribute with a value of “DELETE”. There is no equivalent message in this standard to communicate this directive. Assets with a Verb attribute of “DELETE” *should* be ignored when translating to SCTE 236.
- Packages that have an “SVOD” app type *should* also have “SVOD” in the Product attribute of the package’s AMS element to preserve this value in SCTE 236.

Additional artifacts of conversion:

- App Data values named “Type” are ignored when they conflict with the Asset\_Class.
- DateTime values that do not include a time component are modified after translation to include the time. End date values, such as Licensing\_Window\_End, are assumed to be the last moment of the day (23:59:59), while most other values are assumed to be the beginning of the day

(00:00:00). Converting from Content1.1 to SCTE 236 and back to Content1.1 *may* not preserve the exact string value in the original datetime.

- The order of elements and attributes are not preserved through conversion to SCTE 236 and back to Content1.1.
- The Content1.1 title asset is mapped to several SCTE 236 asset elements (see Figure 2) - including Title, Offer, ContentGroup, Terms and Category.
- The Content1.1 encrypted asset is mapped to a SCTE 236 Movie asset with an EncryptionInfo element.
- All Content1.1 trial-use fields (that is, fields not indicated in the specification for that asset type) are mapped to the Ext element of the corresponding SCTE 236 asset.
- The Licensing\_Window\_Start and Licensing\_Window\_End App Data values map to the startDateTime and endDateTime attributes respectively of every SCTE 236 asset.
- The EIDR App Data value maps to an AlternateId element with an identifierSystem of “EIDR”.
- The ISAN App Data value maps to an AlternateId element with an identifierSystem of “ISAN”.
- The values for Provider\_ID and Asset\_ID map to an AlternateId element with an identifierSystem of “VOD 1.1” and a format of vod://{ProviderId}/{AssetId}. This deterministic mapping ensures that these values can be recovered when converting back from SCTE 236 to Content1.1.

## 8.2. Converting SCTE 236 to Content 1.1

The full set of features available in this specification cannot be represented using Content1.1. However, observing the following constraints will allow the message to be successfully converted. It is *vital* that the following constraints be applied:

- The SCTE 236 container contain exactly one Offer element. There is no support in Content1.1 for representing multiple offers in a single message.
- The Offer reference one Terms, exactly one ContentGroup, and one or more Categories. The referenced elements be present in the same message as the Offer. There are no constraints on the PromotionalContentGroup, but it is ignored when converting to Content1.1.
- The ContentGroup referenced by the Offer reference a Title that is present in the same message. The ContentGroup also reference at least one content type that is present in the same message. The content types *may* be a Movie, Preview, Barker, BoxCover, or Poster. Other content types will be ignored.
- Multiple Presentation elements within the Offer have identical values for the DisplayAsNew and DisplayAsLastChance elements.
- The one LocalizableTitle element be in English (xml:lang=”en”). Content1.1 does not provide support for multiple languages.
- All asset types contain an AlternateId with an identifierSystem of “VOD1.1”., The value is in the format of vod://{ProviderId}/{AssetId} with ProviderId being no more than 19 characters and AssetId following the Content1.1 rule of four alpha characters followed by 16 numeric digits.

## Appendix I Examples (informative)

### I.1 VOD Movie

The following example includes a VOD movie along with associated preview, box cover and encrypted assets.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<ADI3 xmlns="http://www.scte.org/schemas/236/2017/core"
  xmlns:content="http://www.scte.org/schemas/236/2017/content"
  xmlns:core="http://www.scte.org/schemas/236/2017/core"
  xmlns:offer="http://www.scte.org/schemas/236/2017/offer"
  xmlns:terms="http://www.scte.org/schemas/236/2017/terms"
  xmlns:title="http://www.scte.org/schemas/236/2017/title"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.scte.org/schemas/236/2017/content
SCTE_236_CONTENT_20200720.xsd
  http://www.scte.org/schemas/236/2017/core SCTE_236_CORE_20200720.xsd
  http://www.scte.org/schemas/236/2017/offer SCTE_236_OFFER_20200720.xsd
  http://www.scte.org/schemas/236/2017/terms SCTE_236_TERMS_20200720.xsd
  http://www.scte.org/schemas/236/2017/title SCTE_236_TITLE_20200720.xsd">
  <Asset xsi:type="offer:OfferType" uriId="indemand.com/Offer/UNVA2001081701004000"
  providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
  startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004000</core:AlternateId>
    <core:AssetName deprecated="true">The_Titanic</core:AssetName>
    <core:Product deprecated="true">First-Run</core:Product>
    <core:Provider>InDemand</core:Provider>
    <core:Description deprecated="true">The Titanic asset package</core:Description>
    <core:Ext/>
    <offer:Presentation>
      <offer:CategoryRef uriId="indemand.com/Category/InDemand/Movies A-Z"/>
      <offer:DisplayAsNew>P7D</offer:DisplayAsNew>
      <offer:DisplayAsLastChance>P7D</offer:DisplayAsLastChance>
    </offer:Presentation>
    <offer:PromotionalContentGroupRef uriId="indemand.com/ContentGroup/UNVA2001081701004001"/>
    <offer:ProviderContentTier>InDemand1</offer:ProviderContentTier>
    <offer:BillingId>56789</offer:BillingId>
    <offer:TermsRef uriId="indemand.com/Terms/UNVA2001081701004001"/>
    <offer:ContentGroupRef uriId="indemand.com/ContentGroup/UNVA2001081701004001"/>
  </Asset>
  <Asset xsi:type="title:TitleType" uriId="indemand.com/Title/UNVA2001081701004001"
  providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
  startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004001</core:AlternateId>
```

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```
<core:AlternateId identifierSystem="ISAN">1881-66C7-3420-000-7-9F3A-02450-
U</core:AlternateId>
<core:ProviderQAContact>John Doe, JDoe@InDemand.com</core:ProviderQAContact>
<core:AssetName deprecated="true">The_Titanic_Title</core:AssetName>
<core:Product deprecated="true">First-Run</core:Product>
<core:Provider>InDemand</core:Provider>
<core:Description deprecated="true">The Titanic title metadata</core:Description>
<core:Ext>
  <App_Data App="MOD" Name="Producer" Value="Cameron,James"/>
</core:Ext>
<title:LocalizableTitle>
  <title:TitleSortName>Titanic, The</title:TitleSortName>
  <title:TitleBrief>The Titanic</title:TitleBrief>
  <title:TitleMedium>The Titanic</title:TitleMedium>
  <title:TitleLong>The Titanic</title:TitleLong>
  <title:SummaryShort>Fictional romantic tale of a rich girl and poor boy who meet on the
ill-fated voyage of the 'unsinkable' ship</title:SummaryShort>
  <title:SummaryMedium>Fictional romantic tale of rich girl and poor boy who meet on the ill-
fated voyage of the 'unsinkable' ship</title:SummaryMedium>
  <title:SummaryLong>Fictional romantic tale of a rich girl and poor boy who meet on the ill-
fated voyage of the 'unsinkable' ship</title:SummaryLong>
  <title:ActorDisplay>Kate Winslet,Leonardo DiCaprio, Billy Zane</title:ActorDisplay>
  <title:Actor fullName="Kate Winslet" firstName="Kate" lastName="Winslet"
sortableName="Winslet,Kate"/>
  <title:Actor fullName="Leonardo DiCaprio" firstName="Leonardo" lastName="DiCaprio"
sortableName="DiCaprio,Leonardo"/>
  <title:Actor fullName="Billy Zane" firstName="Billy" lastName="Zane"
sortableName="Zane,Billy"/>
  <title:WriterDisplay>James Cameron</title:WriterDisplay>
  <title:Director fullName="James Cameron" firstName="James" lastName="Cameron"
sortableName="Cameron,James"/>
  <title:StudioDisplay>Paramount</title:StudioDisplay>
  <title:RecordingArtist>Celine Dion</title:RecordingArtist>
  <title:SongTitle>My Heart Will Go On</title:SongTitle>
  <title:EpisodeName>Collision With destiny</title:EpisodeName>
  <title:EpisodeID>The only one</title:EpisodeID>
  <title:Chapter heading="Opening Scene" timeCode="00:00:02:00"/>
  <title:Chapter heading="They Meet" timeCode="00:15:12:00"/>
  <title:Chapter heading="The Collision" timeCode="02:03:06:00"/>
  <title:Chapter heading="She Goes Under" timeCode="02:55:15:00"/>
  <title:Chapter heading="Final Scene" timeCode="03:02:09:00"/>
</title:LocalizableTitle>
<title:Rating ratingSystem="MPAA">R</title:Rating>
<title:Advisory>AL</title:Advisory>
<title:Advisory>N</title:Advisory>
<title:IsClosedCaptioning>false</title:IsClosedCaptioning>
```

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```
<title:DisplayRunTime>03:14</title:DisplayRunTime>
<title:Year>1997</title:Year>
<title:CountryOfOrigin>US</title:CountryOfOrigin>
<title:Genre>Drama</title:Genre>
<title:Genre>Romance</title:Genre>
<title>ShowType>Movie</title>ShowType>
<title:IsSeasonPremiere>>false</title:IsSeasonPremiere>
<title:IsSeasonFinale>>false</title:IsSeasonFinale>
<title:IsEncryptionRequired>>true</title:IsEncryptionRequired>
<title:BoxOffice>1835000000</title:BoxOffice>
<title:ProgrammerCallLetters>IND</title:ProgrammerCallLetters>
</Asset>
<Asset xsi:type="offer:ContentGroupType" uriId="indemand.com/ContentGroup/UNVA2001081701004001"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004001</core:AlternateId>
  <offer:TitleRef uriId="indemand.com/Title/UNVA2001081701004001"/>
  <offer:MovieRef uriId="indemand.com/Asset/UNVA2001081701004002"/>
  <offer:PreviewRef uriId="indemand.com/Asset/UNVA2001081701004003"/>
  <offer:BoxCoverRef uriId="indemand.com/Asset/UNVA2001081701004004"/>
  <offer:MovieRef uriId="indemand.com/Asset/UNVA2001081701004005"/>
</Asset>
<Asset xsi:type="terms:TermsType" uriId="indemand.com/Terms/UNVA2001081701004001"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004001</core:AlternateId>
  <terms:ContractName>InDemand</terms:ContractName>
  <terms:BillingGracePeriod>PT300S</terms:BillingGracePeriod>
  <terms:UsagePeriod>P00DT24H00M</terms:UsagePeriod>
  <terms:HomeVideoWindow>P1000D</terms:HomeVideoWindow>
  <terms:SubscriberViewLimit startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-02-
28T23:59:59Z" maximumViews="5"/>
  <terms:SubscriberViewLimit startDateTime="2002-03-01T00:00:00Z" endDateTime="2002-03-
31T23:59:59Z" maximumViews="5"/>
  <terms:SuggestedPrice>5.95</terms:SuggestedPrice>
  <terms:DistributorRoyaltyInfo>
    <terms:OrganizationName>InDemand</terms:OrganizationName>
    <terms:RoyaltyPercent>52.5</terms:RoyaltyPercent>
    <terms:RoyaltyMinimum>3.124</terms:RoyaltyMinimum>
    <terms:RoyaltyFlatRate>3.155</terms:RoyaltyFlatRate>
  </terms:DistributorRoyaltyInfo>
  <terms:StudioRoyaltyInfo>
    <terms:OrganizationName>Paramount</terms:OrganizationName>
    <terms:OrganizationCode>PAR</terms:OrganizationCode>
```

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```
<terms:RoyaltyPercent>47.5</terms:RoyaltyPercent>
<terms:RoyaltyMinimum>2.826</terms:RoyaltyMinimum>
<terms:RoyaltyFlatRate>2.795</terms:RoyaltyFlatRate>
</terms:StudioRoyaltyInfo>
</Asset>
<Asset xsi:type="offer:CategoryType" uriId="indemand.com/Category/InDemand/Movies A-Z"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004001</core:AlternateId>
  <offer:CategoryPath>InDemand/Movies A-Z</offer:CategoryPath>
</Asset>
<Asset xsi:type="content:MovieType" uriId="indemand.com/Asset/UNVA2001081701004002"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004002</core:AlternateId>
  <core:AssetName deprecated="true">The_Titanic.mpg</core:AssetName>
  <core:Product deprecated="true">First-Run</core:Product>
  <core:Provider>InDemand</core:Provider>
  <core:Description deprecated="true">The Titanic Movie</core:Description>
  <core:Ext/>
  <content:SourceUrl>The_Titanic.mpg</content:SourceUrl>
  <content:ContentSize>3907840625</content:ContentSize>
  <content:ContentChecksum>12558D3269D25852BD26548DC2654CA2</content:ContentChecksum>
  <content:PropagationPriority>1</content:PropagationPriority>
  <content:AudioType>Dolby Digital</content:AudioType>
  <content:ScreenFormat>Widescreen</content:ScreenFormat>
  <content:Duration>PT03H14M00S</content:Duration>
  <content:Language>en</content:Language>
  <content:SubtitleLanguage>es</content:SubtitleLanguage>
  <content:DubbedLanguage>es</content:DubbedLanguage>
  <content:Rating ratingSystem="MPAA">R</content:Rating>
  <content:CopyControlInfo>
    <content:IsCopyProtection>>false</content:IsCopyProtection>
  </content:CopyControlInfo>
</Asset>
<Asset xsi:type="content:PreviewType" uriId="indemand.com/Asset/UNVA2001081701004003"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004003</core:AlternateId>
  <core:AssetName deprecated="true">The_Titanic_Preview.mpg</core:AssetName>
  <core:Product deprecated="true">First-Run</core:Product>
  <core:Provider>InDemand</core:Provider>
  <core:Description deprecated="true">The Titanic Preview</core:Description>
  <core:Ext/>
```



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```
<content:SourceUrl>The_Titanic_Preview.mpg</content:SourceUrl>
<content:ContentSize>25284375</content:ContentSize>
<content:ContentChecksum>A1258D3269D25852BD26548DC2654C12</content:ContentChecksum>
<content:PropagationPriority>1</content:PropagationPriority>
<content:AudioType>Dolby Digital</content:AudioType>
<content:ScreenFormat>Widescreen</content:ScreenFormat>
<content:Duration>PT00H00M45S</content:Duration>
<content:Language>en</content:Language>
<content:SubtitleLanguage>es</content:SubtitleLanguage>
<content:DubbedLanguage>es</content:DubbedLanguage>
<content:Rating ratingSystem="MPAA">G</content:Rating>
</Asset>
<Asset xsi:type="content:BoxCoverType" uriId="indemand.com/Asset/UNVA2001081701004004"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004004</core:AlternateId>
  <core:AssetName deprecated="true">The_Titanic_Box_Cover.bmp</core:AssetName>
  <core:Product deprecated="true">First-Run</core:Product>
  <core:Provider>InDemand</core:Provider>
  <core:Description deprecated="true">The Titanic Box Cover</core:Description>
  <core:Ext/>
  <content:SourceUrl>The_Titanic_Box_Cover.bmp</content:SourceUrl>
  <content:ContentSize>15235</content:ContentSize>
  <content:ContentChecksum>B3258D3269D25852BD26548DC2654CD2</content:ContentChecksum>
  <content:PropagationPriority>1</content:PropagationPriority>
  <content:X_Resolution>320</content:X_Resolution>
  <content:Y_Resolution>240</content:Y_Resolution>
</Asset>
<Asset xsi:type="content:MovieType" uriId="indemand.com/Asset/UNVA2001081701004005"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004005</core:AlternateId>
  <core:AssetName deprecated="true">The_Titanic_Encrypted.mpg</core:AssetName>
  <core:Product deprecated="true">First-Run</core:Product>
  <core:Provider>InDemand</core:Provider>
  <core:Description deprecated="true">The Titanic Movie Encrypted</core:Description>
  <core:Ext/>
  <core:MasterSourceRef uriId="indemand.com/Asset/UNVA2001081701004002"/>
  <content:SourceUrl>The_Titanic_Encrypted.mpg</content:SourceUrl>
  <content:ContentSize>3907840625</content:ContentSize>
  <content:ContentChecksum>DC2654CA12558D3269D25852BD265482</content:ContentChecksum>
  <content:PropagationPriority>1</content:PropagationPriority>
  <content:AudioType>Dolby Digital</content:AudioType>
```

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```
<content:ScreenFormat>Widescreen</content:ScreenFormat>
<content:Duration>PT03H14M00S</content:Duration>
<content:Language>en</content:Language>
<content:SubtitleLanguage>es</content:SubtitleLanguage>
<content:DubbedLanguage>es</content:DubbedLanguage>
<content:Rating ratingSystem="MPAA">R</content:Rating>
<content:EncryptionInfo>
  <content:ReceiverType>SomeReceiverType</content:ReceiverType>
</content:EncryptionInfo>
</Asset>
</ADI3>
```

## I.2 Subscription-VOD TV Show

The following example is for a TV Show.

```
<?xml version="1.0" encoding="ISO-8859-1"??>
<ADI3 xmlns="http://www.scte.org/schemas/236/2017/core"
  xmlns:content="http://www.scte.org/schemas/236/2017/content"
  xmlns:core="http://www.scte.org/schemas/236/2017/core"
  xmlns:offer="http://www.scte.org/schemas/236/2017/offer"
  xmlns:terms="http://www.scte.org/schemas/236/2017/terms"
  xmlns:title="http://www.scte.org/schemas/236/2017/title"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.scte.org/schemas/236/2017/content
SCTE_236_CONTENT_20200720.xsd
  http://www.scte.org/schemas/236/2017/core SCTE_236_CORE_20200720.xsd
  http://www.scte.org/schemas/236/2017/offer SCTE_236_OFFER_20200720.xsd
  http://www.scte.org/schemas/236/2017/terms SCTE_236_TERMS_20200720.xsd
  http://www.scte.org/schemas/236/2017/title SCTE_236_TITLE_20200720.xsd">
  <Asset xsi:type="offer:OfferType" uriId="indemand.com/Offer/UNVA2001081701006000"
    providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
    startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:AlternateId
      identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006000</core:AlternateId>
    <core:AssetName deprecated="true">Arli$$_35</core:AssetName>
    <core:Product deprecated="true">HOD</core:Product>
    <core:Provider>HBO</core:Provider>
    <core:Description deprecated="true">Arli$$_35 asset package</core:Description>
    <core:Ext/>
    <offer:Presentation>
      <offer:CategoryRef uriId="indemand.com/Category/HBO/HBO Series/Arli$$"/>
    </offer:Presentation>
    <offer:PromotionalContentGroupRef uriId="indemand.com/ContentGroup/UNVA2001081701006001"/>
    <offer:ProviderContentTier>HBO1</offer:ProviderContentTier>
```

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```
<offer:BillingId>01429</offer:BillingId>
<offer:TermsRef uriId="indemand.com/Terms/UNVA2001081701006001"/>
<offer:ContentGroupRef uriId="indemand.com/ContentGroup/UNVA2001081701006001"/>
</Asset>
<Asset xsi:type="title:TitleType" uriId="indemand.com/Title/UNVA2001081701006001"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006001</core:AlternateId>
  <core:AssetName deprecated="true">Arli$$_35_Title</core:AssetName>
  <core:Product deprecated="true">HOD</core:Product>
  <core:Provider>HBO</core:Provider>
  <core:Description deprecated="true">Arli$$_35 title metadata</core:Description>
  <core:Ext/>
  <title:LocalizableTitle>
    <title:TitleSortName>Arli$$ 35</title:TitleSortName>
    <title:TitleBrief>Arli$$ 35</title:TitleBrief>
    <title:TitleMedium>Arli$$ 35</title:TitleMedium>
    <title:TitleLong>Arli$$ 35</title:TitleLong>
    <title:SummaryShort>'Cause and Effect.' Arliss has a health scare while Kirby tries to
'assist' an old lady with her baseball memorabilia.</title:SummaryShort>
    <title:Actor fullName="Robert Wuhl" firstName="Robert" lastName="Wuhl"
sortableName="Wuhl,Robert"/>
    <title:Actor fullName="Jim Turner" firstName="Jim" lastName="Turner"
sortableName="Turner,Jim"/>
    <title:Actor fullName="Sandra Oh" firstName="Sandra" lastName="Oh"
sortableName="Oh,Sandra"/>
    <title:Actor fullName="Michael Boatman" firstName="Michael" lastName="Boatman"
sortableName="Boatman,Michael"/>
    <title:RecordingArtist>Dusty Springfield</title:RecordingArtist>
    <title:SongTitle>I Only Want To Be With You</title:SongTitle>
  </title:LocalizableTitle>
  <title:Rating ratingSystem="TV">TV-MA</title:Rating>
  <title:Advisory>AL</title:Advisory>
  <title:DisplayRunTime>00:29</title:DisplayRunTime>
  <title:Year>1999</title:Year>
  <title:Genre>Comedy</title:Genre>
  <title>ShowType>private:UNKNOWN</title>ShowType>
  <title:IsEncryptionRequired>>false</title:IsEncryptionRequired>
  <title:ProgrammerCallLetters>HBO</title:ProgrammerCallLetters>
</Asset>
<Asset xsi:type="offer:ContentGroupType" uriId="indemand.com/ContentGroup/UNVA2001081701006001"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006001</core:AlternateId>
  <offer:TitleRef uriId="indemand.com/Title/UNVA2001081701006001"/>
```

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```
<offer:MovieRef uriId="indemand.com/Asset/UNVA2001081701006002"/>
<offer:PreviewRef uriId="indemand.com/Asset/UNVA2001081701006003"/>
<offer:BoxCoverRef uriId="indemand.com/Asset/UNVA2001081701006004"/>
</Asset>
<Asset xsi:type="terms:TermsType" uriId="indemand.com/Terms/UNVA2001081701006001"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006001</core:AlternateId>
  <terms:SubscriberViewLimit startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-02-
28T23:59:59Z" maximumViews="5"/>
  <terms:SubscriberViewLimit startDateTime="2002-03-01T00:00:00Z" endDateTime="2002-03-
31T23:59:59Z" maximumViews="6"/>
  <terms:SuggestedPrice>0.00</terms:SuggestedPrice>
</Asset>
<Asset xsi:type="offer:CategoryType" uriId="indemand.com/Category/HBO/HBO Series/Arli$$"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006001</core:AlternateId>
  <offer:CategoryPath>HBO/HBO Series/Arli$$</offer:CategoryPath>
</Asset>
<Asset xsi:type="content:MovieType" uriId="indemand.com/Asset/UNVA2001081701006002"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006002</core:AlternateId>
  <core:AssetName deprecated="true">Arli$$_35.mpg</core:AssetName>
  <core:Product deprecated="true">HOD</core:Product>
  <core:Provider>HBO</core:Provider>
  <core:Description deprecated="true">Arli$$_35 Movie</core:Description>
  <core:Ext/>
  <content:SourceUrl>Arli_35.mpg</content:SourceUrl>
  <content:ContentSize>3907840625</content:ContentSize>
  <content:ContentChecksum>12558D3269D25852BD26548DC2654CA2</content:ContentChecksum>
  <content:AudioType>Dolby Digital</content:AudioType>
  <content:Duration>PT00H29M29S</content:Duration>
  <content:Rating ratingSystem="TV">TV-MA</content:Rating>
</Asset>
<Asset xsi:type="content:PreviewType" uriId="indemand.com/Asset/UNVA2001081701006003"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
  identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006003</core:AlternateId>
  <core:AssetName deprecated="true">Arli$$_35_Preview.mpg</core:AssetName>
  <core:Product deprecated="true">HOD</core:Product>
  <core:Provider>HBO</core:Provider>
  <core:Description deprecated="true">Arli$$_35 Preview</core:Description>
```

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```
<core:Ext/>
<content:SourceUrl>Arli_35_Preview.mpg</content:SourceUrl>
<content:ContentFileSize>25284375</content:ContentFileSize>
<content:ContentChecksum>A1258D3269D25852BD26548DC2654C12</content:ContentChecksum>
<content:AudioType>Dolby Digital</content:AudioType>
<content:Duration>PT00H01M00S</content:Duration>
<content:Rating ratingSystem="TV">TV-MA</content:Rating>
</Asset>
<Asset xsi:type="content:BoxCoverType" uriId="indemand.com/Asset/UNVA2001081701006004"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006004</core:AlternateId>
  <core:AssetName deprecated="true">Arli$$_35_Box_Cover.bmp</core:AssetName>
  <core:Product deprecated="true">HOD</core:Product>
  <core:Provider>HBO</core:Provider>
  <core:Description deprecated="true">Arli$$_35 Box Cover</core:Description>
  <core:Ext/>
  <content:SourceUrl>Arli_35_Box_Cover.bmp</content:SourceUrl>
  <content:ContentFileSize>15235</content:ContentFileSize>
  <content:ContentChecksum>B3258D3269D25852BD26548DC2654CD2</content:ContentChecksum>
  <content:X_Resolution>320</content:X_Resolution>
  <content:Y_Resolution>240</content:Y_Resolution>
</Asset>
</ADI3>
```

### I.3 Barker

The following example is for a barker.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<ADI3 xmlns="http://www.scte.org/schemas/236/2017/core"
  xmlns:content="http://www.scte.org/schemas/236/2017/content"
  xmlns:core="http://www.scte.org/schemas/236/2017/core"
  xmlns:offer="http://www.scte.org/schemas/236/2017/offer"
  xmlns:terms="http://www.scte.org/schemas/236/2017/terms"
  xmlns:title="http://www.scte.org/schemas/236/2017/title"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.scte.org/schemas/236/2017/content
SCTE_236_CONTENT_20200720.xsd
  http://www.scte.org/schemas/236/2017/core SCTE_236_CORE_20200720.xsd
  http://www.scte.org/schemas/236/2017/offer SCTE_236_OFFER_20200720.xsd
  http://www.scte.org/schemas/236/2017/terms SCTE_236_TERMS_20200720.xsd
  http://www.scte.org/schemas/236/2017/title SCTE_236_TITLE_20200720.xsd">
  <Asset xsi:type="offer:OfferType" uriId="tvn.com/Offer/TVN55583PKG000000000"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2004-06-13T00:00:00Z"
startDateTime="2004-06-13T00:00:00Z" endDateTime="2004-07-31T23:59:59Z">
```

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```
<core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583PKG000000000</core:AlternateId>
  <core:AssetName deprecated="true">ComcastBarTVGuidConc2_55583_Package</core:AssetName>
  <core:Product deprecated="true">MOD</core:Product>
  <core:Provider>150</core:Provider>
  <core:Description deprecated="true">ComcastBarTVGuid/Conc2 Package</core:Description>
  <core:Ext/>
  <offer:Presentation>
    <offer:CategoryRef uriId="tvn.com/Category/$ROOT"/>
  </offer:Presentation>
  <offer:PromotionalContentGroupRef uriId="tvn.com/ContentGroup/TVN55583TIT000000000"/>
  <offer:BillingId>00000</offer:BillingId>
  <offer:TermsRef uriId="tvn.com/Terms/TVN55583TIT000000000"/>
  <offer:ContentGroupRef uriId="tvn.com/ContentGroup/TVN55583TIT000000000"/>
</Asset>
  <Asset xsi:type="title:TitleType" uriId="tvn.com/Title/TVN55583TIT000000000"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2004-06-13T00:00:00Z"
startDateTime="2004-06-13T00:00:00Z" endDateTime="2004-07-31T23:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583TIT000000000</core:AlternateId>
  <core:AssetName deprecated="true">ComcastBarTVGuidConc2_55583_Title</core:AssetName>
  <core:Product deprecated="true">MOD</core:Product>
  <core:Provider>150</core:Provider>
  <core:Description deprecated="true">ComcastBarTVGuid/Conc2 Metadata</core:Description>
  <core:Ext/>
  <title:LocalizableTitle>
    <title:TitleBrief>Comcast Barker TVGu</title:TitleBrief>
    <title:TitleMedium>Comcast Barker TVGuide Concurrent/M</title:TitleMedium>
    <title:TitleLong>Comcast Barker TVGuide Concurrent/Moto2</title:TitleLong>
    <title:SummaryShort>Video On Demand offers you so many choices of entertainment, where
you're in control. Check out what's available right now!</title:SummaryShort>
    <title:StudioDisplay>TVN Entertainment</title:StudioDisplay>
  </title:LocalizableTitle>
  <title:Rating ratingSystem="TV">TVG</title:Rating>
  <title:DisplayRunTime>00:07</title:DisplayRunTime>
  <title:Year>2004</title:Year>
  <title:Genre>private:UNKNOWN</title:Genre>
  <title>ShowType>private:UNKNOWN</title>ShowType>
</Asset>
  <Asset xsi:type="offer:ContentGroupType" uriId="tvn.com/ContentGroup/TVN55583TIT000000000"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2004-06-13T00:00:00Z"
startDateTime="2004-06-13T00:00:00Z" endDateTime="2004-07-31T23:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583TIT000000000</core:AlternateId>
  <offer:TitleRef uriId="tvn.com/Title/TVN55583TIT000000000"/>
  <offer:BarkerRef uriId="tvn.com/Asset/TVN55583BAR000000000"/>
```

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```

</Asset>

<Asset xsi:type="terms:TermsType" uriId="tvn.com/Terms/TVN55583TIT000000000"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2004-06-13T00:00:00Z"
startDateTime="2004-06-13T00:00:00Z" endDateTime="2004-07-31T23:59:59Z">

  <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583TIT000000000</core:AlternateId>

  <terms:SuggestedPrice>0.00</terms:SuggestedPrice>

</Asset>

<Asset xsi:type="offer:CategoryType" uriId="tvn.com/Category/$ROOT" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2004-06-13T00:00:00Z" startDateTime="2004-06-
13T00:00:00Z" endDateTime="2004-07-31T23:59:59Z">

  <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583TIT000000000</core:AlternateId>

  <offer:CategoryPath>$ROOT</offer:CategoryPath>

</Asset>

<Asset xsi:type="content:BarkerType" uriId="tvn.com/Asset/TVN55583BAR000000000"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2004-06-13T00:00:00Z"
startDateTime="2004-06-13T00:00:00Z" endDateTime="2004-07-31T23:59:59Z">

  <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583BAR000000000</core:AlternateId>

  <core:AssetName deprecated="true">ComcastBarTVGuidConc2_55583_Feature</core:AssetName>
  <core:Product deprecated="true">MOD</core:Product>
  <core:Provider>150</core:Provider>
  <core:Description deprecated="true">ComcastBarTVGuid/Conc2 Feature</core:Description>
  <core:Ext/>
  <content:SourceUrl>TVNX5558300000000000_barker.mpg</content:SourceUrl>
  <content:ContentSize>173529324</content:ContentSize>
  <content:ContentChecksum>7d65bb15b26a7a470079d616fac2d462</content:ContentChecksum>
  <content:AudioType>Dolby Digital</content:AudioType>
  <content:Duration>PT00H06M53S</content:Duration>
  <content:Language>en</content:Language>
  <content:SubtitleLanguage>en</content:SubtitleLanguage>
  <content:DubbedLanguage>en</content:DubbedLanguage>
  <content:Rating ratingSystem="TV">TVG</content:Rating>

</Asset>
</ADI3>

```

### I.4 US TV Ratings

US TV Ratings [TV] are composed of an Audience and one or more optional Content Labels. There are 44 possible combinations of the Audience and Content Labels (see Table 4). If Content Labels are used, there *shall* be a space as a delimiter between the Audience and the first Content Label; additional Content Labels be delimited by either a comma, or a comma and a space. Additional information on US TV Ratings can be found at <http://www.tvguidelines.org>.

**Table 4 - Valid TV Rating and Content Label Combinations**

TV-Y	TV-Y7	TV-G	TV-PG	TV-14	TV-MA
TV-Y	TV-Y7	TV-G	TV-PG D, L, S, V	TV-14 D, L, S, V	TV-MA L, S, V

<b>TV-Y</b>	<b>TV-Y7</b>	<b>TV-G</b>	<b>TV-PG</b>	<b>TV-14</b>	<b>TV-MA</b>
	TV-Y7-FV		TV-PG D, L, S	TV-14 D, L, S	TV-MA L, S
			TV-PG D, L, V	TV-14 D, L, V	TV-MA L, V
			TV-PG D, S, V	TV-14 D, S, V	TV-MA S, V
			TV-PG L, S, V	TV-14 L, S, V	TV-MA L
			TV-PG D, L	TV-14 D, L	TV-MA S
			TV-PG D, S	TV-14 D, S	TV-MA V
			TV-PG D, V	TV-14 D, V	TV-MA
			TV-PG L, S	TV-14 L, S	
			TV-PG L, V	TV-14 L, V	
			TV-PG S, V	TV-14 S, V	
			TV-PG D	TV-14 D	
			TV-PG L	TV-14 L	
			TV-PG S	TV-14 S	
			TV-PG V	TV-14 V	
			TV-PG	TV-14	