

Content Structure Guidelines

DRAFT

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1 SCOPE

Common Metadata (www.movie labs.com/md/md.html) describes a means to express metadata for physical assets. As a general encoding scheme, it is not always obvious how to use some elements. This document serves as guide for encoding content structure within Common Metadata.

This document is in draft form awaiting feedback and requests for additional encoding use cases.

1.1 Content Structure

Content generally has a natural structure, for example, TV episodes are part of seasons, seasons are part of shows; Movies stand alone, or might be part of a series; and music might be a single, or part of an album. Two works are the same except for a particular aspect (e.g., colorized video). Internet distribution has expanded types to include webisodes, clips, mashups and other extractions or compilations.



The Content Structure defined for Common Metadata is designed to accommodate various structures for content. The structure itself includes is designed to be general, which means there are some abstractions that are not immediately obvious or intuitive. However, common cases are easy to define and complex cases are possible to define.

The structure itself is defined in Common Metadata. This document describes how to use the structure for encoding common structures, and some not-so-common structures.

1.2 References

This document assumes knowledge of:

[MLCM] *MovieLabs' Common Metadata*, TR-META-CM and associated materials found here www.movie labs.com/md/md.html.

1.3 Comments

Please send comments to metadata@movie labs.com.

2 TREE STRUCTURE AND IDENTIFICATION

We discuss metadata in the context of diagrams like the following:



Each box (node¹) on the diagram represents a definable entity that can be uniquely identified and described with metadata. As the same node may appear in different contexts, it is important that a unique identifier be defined.

2.1 Content Identifier (CID)

For lack of a better term, we called these nodes ‘content’ and they are identified by a ‘Content Identifier’ or ‘CID’. *Throughout this document, unless otherwise noted, each node has a CID.*

A CID is a string defined in such a way as to be globally unique. It may use a standard identifier, such as ISAN, or it might use an organization-specific identifier.

It is the responsibility of the Publisher to create a CID for each node that is globally unique.

Note that some CIDs identify content that has media associated with it (audio, video, games, etc.), while others refer to collections of media.

2.2 Metadata

Each node has metadata. The metadata in question is defined as Basic Metadata in *Common Metadata*. Regardless of where it is on the tree, certain common elements exist, such as title and summary. Some metadata, such as Release Date, applies only for content with media associated, so not all elements are populated at all levels.

Included in the metadata is the reference to other nodes in the content structure. For example, an episode will reference a season. These relationships are encoded in the “Parent” element. Details on usage are described in the following sections.

¹ Note we are using graph/tree terminology: node, parent, child, leaf, edge, etc.

2.3 Work Type

Work Type shall be enumerated to one of the following (categories are to support the definition, but are not included in the enumeration). The following are allowed WorkType values (from Metadata Specification).

Music related:

- ‘Album’ – A collection of songs
- ‘Song’
- ‘Music Video’ – Music Video, not ‘Performance’
- ‘Ring Tone’
- ‘Other Music’

Film related:

- ‘Feature Film’ – A full length movie.
- ‘Short’ – a film of length shorter than would be considered a feature film.
- ‘Long-Form Non-Feature’ – other works, for example, a documentary.

TV, web and mobile related:

- ‘Series’ – a show that might span one or more seasons or might be a miniseries.
- ‘Season’ – a season of a Series. It will contain one more episodes.
- ‘Episode’ – an episodes of a season or miniseries. A pilot is also an episode. If episode is a ‘webisode’, ‘mobisode’ or other specialized sequence, it should be noted in Keywords.
- ‘Non-episodic Show’ – TV or other show that is non-episodic; for example, TV Movies, sports and news.
- ‘Promotion’ – promotional material associated with media. This includes teasers, trailers, electronic press kits and other materials. Promotion is a special case of ‘Ad’.
- ‘Ad’ – any form of advertisement including TV commercials, informercials, public service announcements and promotions not covered by ‘Promotion’. This does not include movie trailers and teasers even though they might be aired as a TV commercial.

Other:

- ‘Excerpt’ – An asset that consists primarily of portion or portions of another work or works; for example, something having the ‘isclipof’ or ‘iscompositeof’ relationship.
- ‘Supplemental’ – Material designed to supplement another work. For example, and extra associated with a Movie for a DVD.

- ‘Collection’ – A collection of assets not falling into another category. For example, a collection of movies.
- ‘Franchise’ – A collection or combination of other types, for example, a franchise might include multiple TV shows, or TV shows and movies.

Although there is some overlap with Genre, Work Type is not language or culturally specific. Although terms may overlap, the usage does not. For example, the Work Type of ‘Sport’ refers to the capture of a sporting event, where a documentary on sport would have the ‘Non-episodic Show’ work type.

2.4 Sequencing

Some nodes such as episodes and seasons are inherently sequenced. Sometimes, an asset, such as movie will have no sequence, but a sequel is later made and then it becomes part of the sequence. Some sequences are ordered (seasons, episodes, many movies) and some are not (most typically documentaries).

The SequenceInfo element allows definition of the sequence. WorkType defines the context of the sequencing (e.g., season, episode, etc.).

Typically, sequenced assets will have parent objects.

2.5 Relationship

When a node has a parent, it must define the relationship to that parent. These are expressed in the relationshipType attribute that allows the following enumerations (from Metadata Specification):

- ‘isclipof’ – The asset is a subset of the larger body that is a contiguous subset of the parent. It may include unique small amounts of pre- and post-material such as new titles and credits. A typical example is a clip extracted from a larger video.
- ‘isepisodeof’ – The asset is an instance of an ordered sequence (i.e., an episode)
- ‘isseasonof’ – The asset is a season and the parent is a show
- ‘ispartof’ – The asset is one complete segment of a larger body not covered by other definitions here. This may include a movie that is part of a series of movies. A song will be part of an album.
- ‘isderivedfrom’—The asset is a modification of the parent work. Some examples include a colorized version derived from a B&W version, and an edit such as a “Director’s Cut” or “Unrated Edition”.
- ‘iscompositeof’ – Asset includes a subset of the parent, such as may be found in a mashup. This contrasts a clip which is a proper subset otherwise unmodified.
- ‘issupplementto’ – is supplemental material. For example, outtakes and makings-of would be supplements.

-
- ‘ispromotionfor’ – is promotional material, such as a trailer. This is used when the child object has a work type of ‘Promotion’ and it is a promotion for the parent object.

These are not always immediately intuitive, but in with the guidelines in this document, they should be easy to use. Those encoding or interpreting metadata will find them relatively straightforward.

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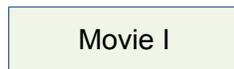
3 COMMON USE CASES

This section describes how common use cases (i.e., most assets) will be encoded.

3.1 Movies

3.1.1 Standalone Movie

The simplest case is a single movie:



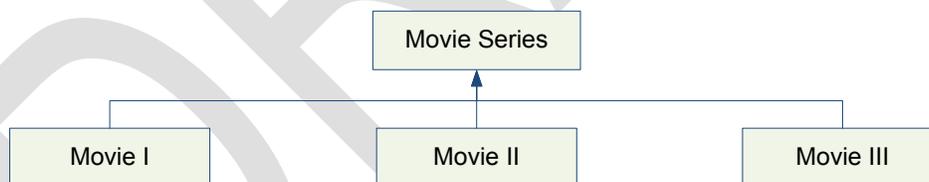
It is not connected to other nodes, so it has no “Parent” element. In this case, the SequenceInfo element would not be present. If the movie later becomes part of a series, SequenceInfo can be added later with a metadata update.

Depending on the work itself, WorkType could be “Feature Film”, “Short”, or “Long-Form Non-Feature”.

3.1.2 Movie as part of a series

Frequently, movies have sequels and therefore are part of a series. The Publisher must create a node for the series, shown here as “Movie Series”. The WorkType for the Movie Series is ‘Collection’.

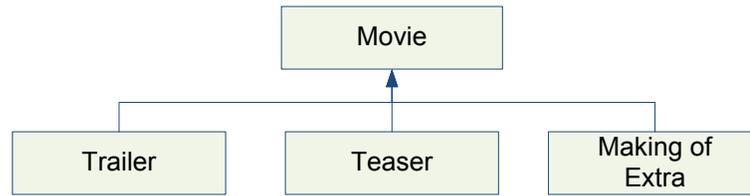
Each Movie references the Movie Series in the Parent element with relationshipType of ‘ispartof’. If the order is relevant, SequenceInfo may be included to indicate where in the work is ordered. SequenceInfo contains the ordinality of the item in Number.



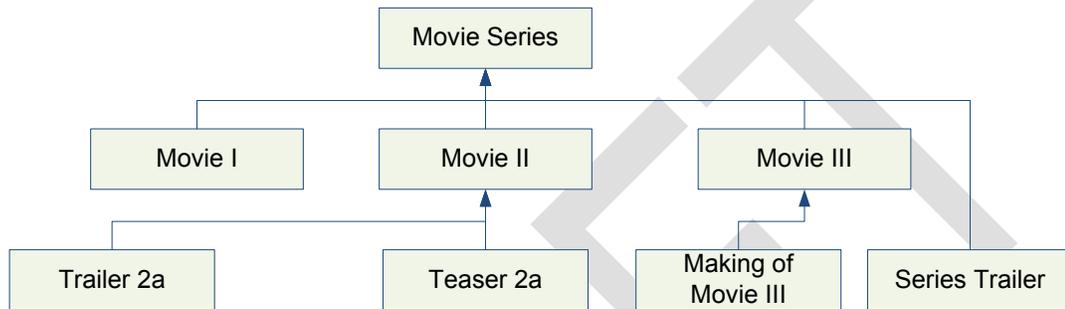
3.1.3 Trailers, Teasers, Making-of

Most movies have various forms of associated advertisements. From a metadata standpoint, each movie node has WorkType of “Promotion” (not “Advert”). These nodes reference the Movie or Movie Series through the Parent relationshipType of ‘ispromotionfor’. A making-of has a relationship of ‘issupplementto’, but the WorkType is “Supplemental”.

The following is an example comparable to a DVD or Blu-ray. There is a Movie, a trailer, a teaser and a Making-of extra.



In the following example, Movie 2 has a Trailer and a Teaser. There is also a Series Trailer and a Making-of documentary



3.2 Television

Television is relatively hard-coded into the metadata structure. In particular, the relationshipType's of 'isepisodeof' and 'isseasonof' makes it straightforward to define a typical show. WorkType is "Series", "Season", "Episode" or "Non-episodic Show". A non-episodic show might, for example, be a series documentary where order is irrelevant. It is still legal to encode Sequence in non-episodic material to retain HouseSequence.

In the following illustration, each box (the Show, each Season and each Episode) has a unique CID. Episodes referencing seasons use the relationshipType 'isepisodeof' and seasons use the relationshipType of 'isseasonof' to reference shows.

Within the SequenceInfo element, the Number element is the airing number. HouseSequence element contains a Producer-internal sequence number.

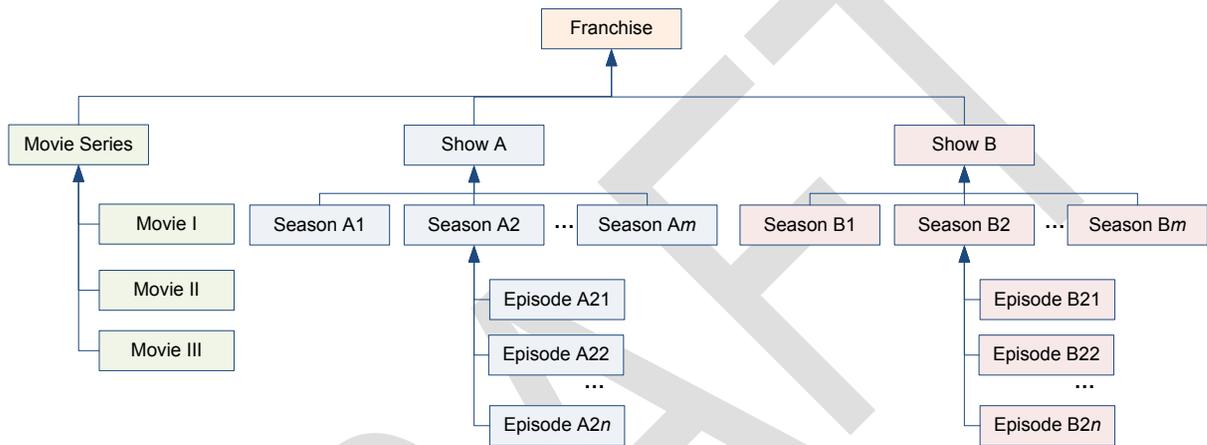


Within the SequenceInfo element, episodes are sequenced using Sequenceinfo.

3.3 Franchise

A *franchise* is a collection of multiple shows, movie series, or combinations. Without stating specific examples², there are numerous cases where a theme is sufficiently popular that multiple moves are made, one or more TV series are made (perhaps live and animated), and perhaps games are produced.

Franchises are not specifically encoded as such, but are a use case that must be handled by the metadata structure. The following illustrates a franchise with a series of movies and two TV shows. Note that this is not fully enumerated, but the full content tree with all nodes would be too large to illustrate.



Everything for the movies and shows are encoded as exactly as described above, but with the addition of Parent elements for “Movie Series”, “Show A” and “Show B”; and if desired, SequenceInfo elements to show the order of “Show A” and “Show B”. “Movie Series”, “Show A” and “Show B” include “Franchise” as the Parent, with relationshipType of ‘ispartof’.

The WorkType for Franchise is “Franchise”.

² Let’s say hypothetically, there was a science fiction body of work that started with a television show, but later grew to include multiple movies, follow-on TV shows, books games, music compilations CDs, etc. Graphic novels sometimes spawn franchises.

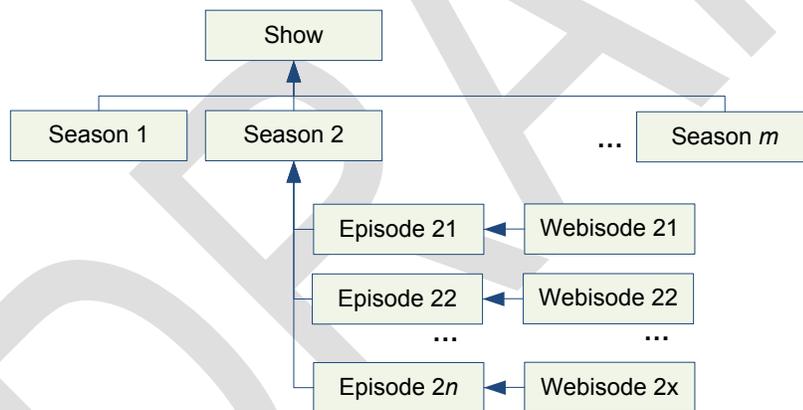
4 ADDITIONAL USE CASES

4.1 Clips, selected scenes and shortened versions

These are all subsets of the parent work. The following illustrates an entity “Selected Scenes” that are portion of Episode 1. “Selected Scenes” would reference Episode 1 with the relationshipType of “iscompositeof”. It would have a WorkType of ‘Excerpt’.



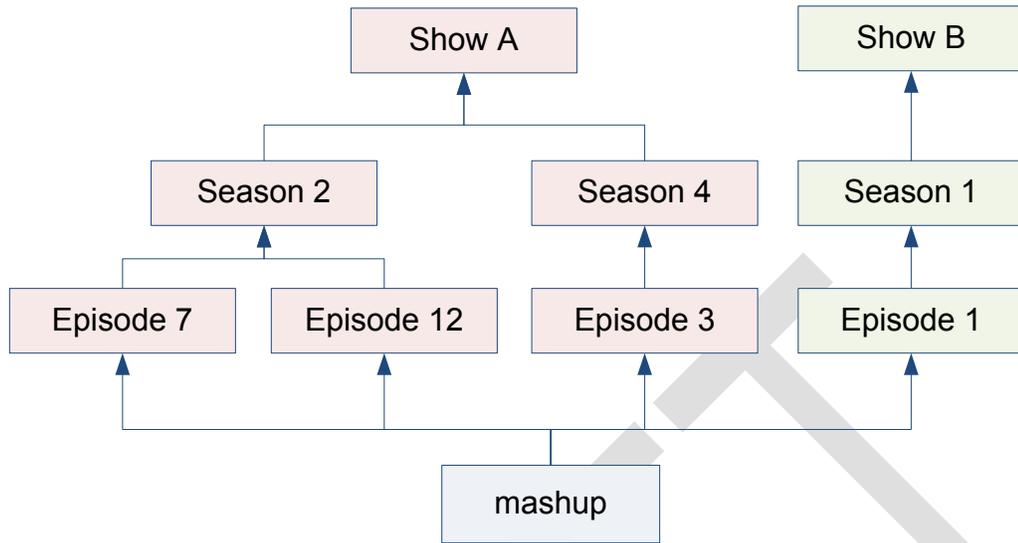
Some shows have derived works such as webisodes (in this context shortened versions of the original). The following structure maintains this linkage:



4.2 Mashups

Mashups are collections from more than one source. Audio and video might be from different sources. From the metadata standpoint, it is desired to indicate the original works.

This is structured similarly to clips, selected scenes and shortened versions, except that there are multiple parents. In the following example, “mashup” has four parents. Each one is referenced with the relationshipType of ‘iscompositeof’. The mashup asset has a WorkType of “Excerpt”.

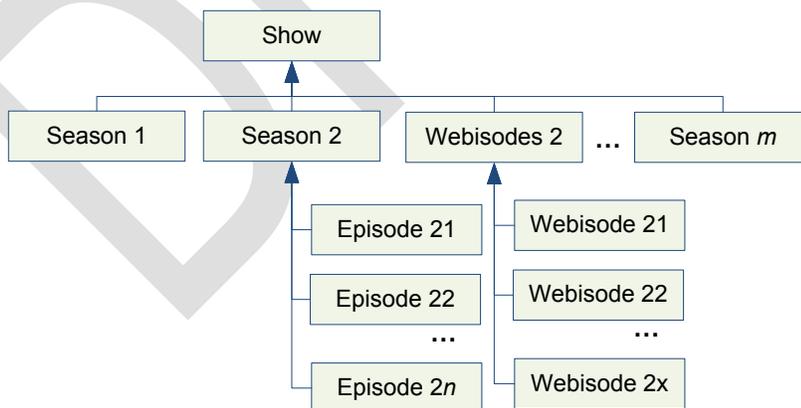


4.3 Short episodes, not derived from other episodes

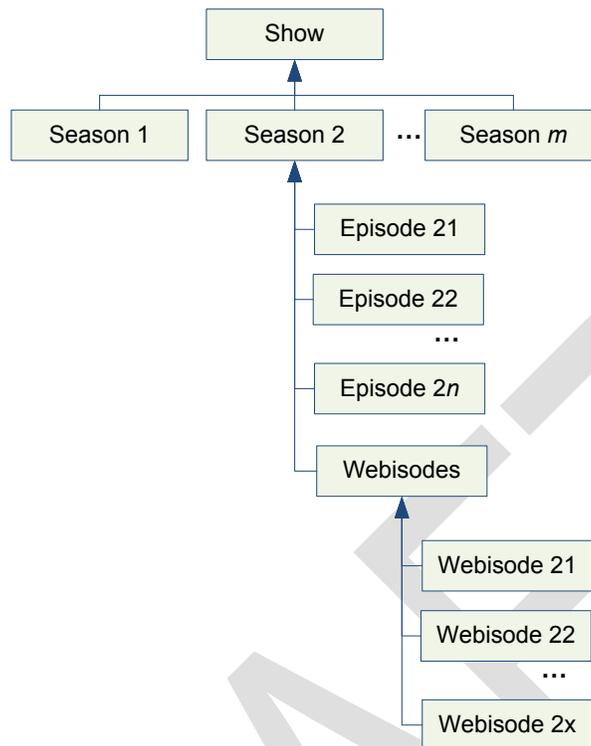
In an earlier section webisodes were discussed as excerpts. Alternatively, webisodes, mobisodes and like can be generated as original material. The metadata structure depends on the intent of the asset, and two potential models are presented here as examples.

Note that the User Interface would typically follow the structure of the metadata, so the structure should reflect the intent of the publisher with respect to how the assets are presented to the consumer. This could be used to accommodate esthetic, marketing or other concerns relating to presentation.

In the first example, the webisodes are tied loosely to the season but are actually independent:



The next example integrates the webisodes into the season.



A third alternative, not illustrated, interleaves webisodes and episodes. This is not recommended because it is not accommodated in the metadata sequence numbering system.

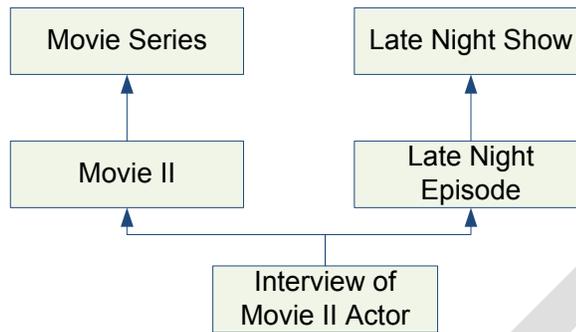
4.4 Interviews and reviews (multiple parents)

This assumes a video containing a review of a show. For example, it might be an interview of a lead actor on a late night show.

In the following example there is a show “Late Night Show” with an episode of that show “Late Night Episode”. As discussed under Television, the Late Night Episode refers to “Late Night Show” it its Parent element with the ‘isepisodeof’ relationshipType attribute.

“Interview of Movie II Actor” is a portion of “Late Night Episode”, and references it with a Parent element and a relationshipType of ‘isclipof’ and the WorkType is “Excerpt”.

The interview may have a second Parent element referencing “Movie II” with relationshipType attribute of ‘isclipof’. The fact that there is some overlap is inconsequential.



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5 COMPOUND OBJECTS AND SPECIAL OFFERINGS

The structures defined above are intended to be static for works created and allow new works to be added. Once metadata and structure is established, this should not change.

However, offerings can be created that also reference content in these static structures. This section describes the means to define that structure in what are called Compound Objects.

Where metadata described above points up to parent objects, Compound Objects point downward to child objects. The following should illustrate Compound Objects and define how they should be encoded.

Compound Objects are designed to be simple when encoding simple groupings, yet offer the robustness to define complex arbitrary groupings.

The Compound Object is defined with the `md:CompObj`-type and a slight variant `md:CompObjData`-type.

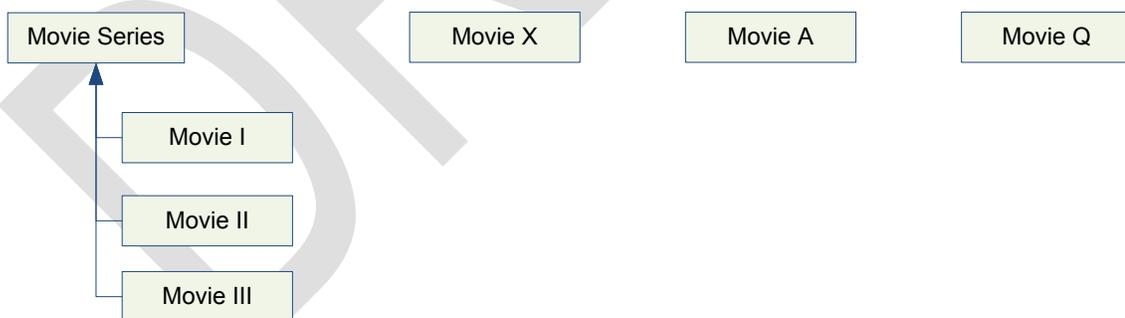
5.1 Collections (grouping)

Compound Objects allow arbitrary groupings of assets.

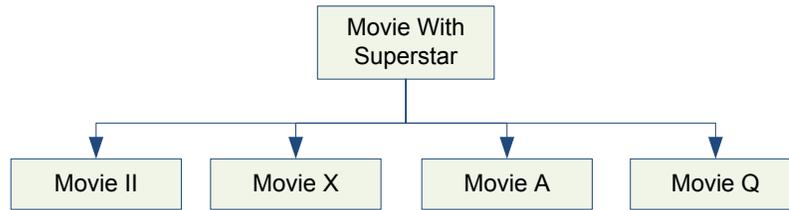
5.1.1 Movie collection

While a movie a sequence of movies (Xyz 1, Xyz 2, etc.) are logically grouped, there are other groupings that may be relevant. For example, there might be a collection of movies that include a particular actor, or movies made a given year. This structure would not appear in the basic metadata but are still important.

The following illustrates an unassociated collection of movies, some of which include an actor named Superstar.



Superstar is in Movie II, X, A, and Q. The following would be a Compound Object that includes those movies.



This diagram shows one new object (“Movie With Superstar”) and other objects that have already been defined as part of the normal movie structure. Each existing box references the metadata via the CID. New boxes may include metadata. They use the BasicMetadata structure so it is fully internationalized and fields are compatible with user interfaces and other systems.

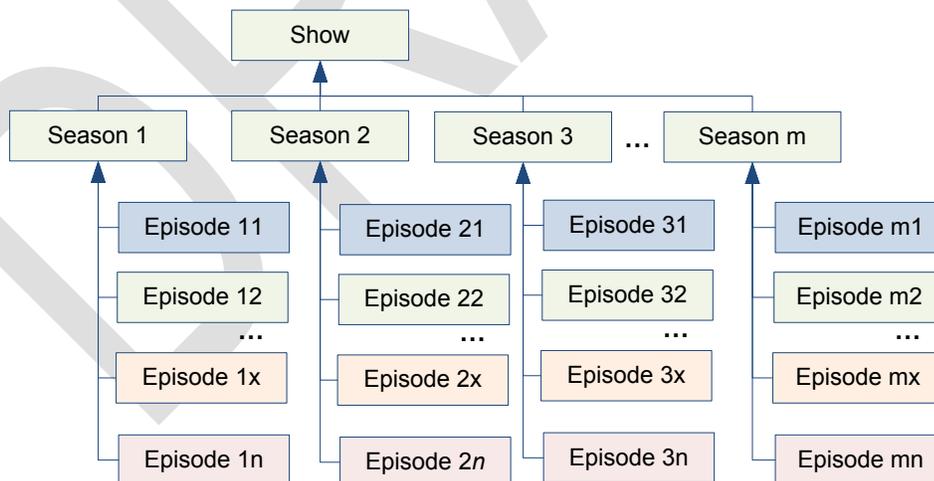
Although the boxes exist, the Compound Object introduces the links that point in the opposite direction of metadata described above. That is, rather than saying the movie is part of a series, it says “Movie With Superstar” is composed of these movies. This distinction is necessary given that there is only one “natural” ordering for metadata, but there are unlimited collections that need to be represented as Compound Objects.

5.2 Selections (subset)

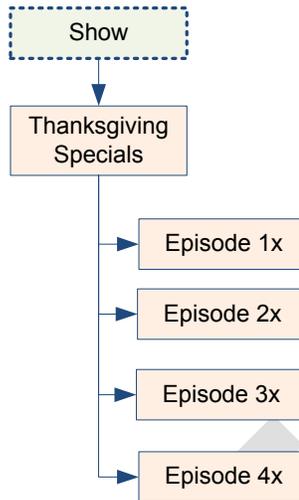
5.2.1 Selected episodes

Not infrequently, an offering is a collection of special episodes. In the example shown here is holiday episodes.

It starts with a conventional structure as described above:



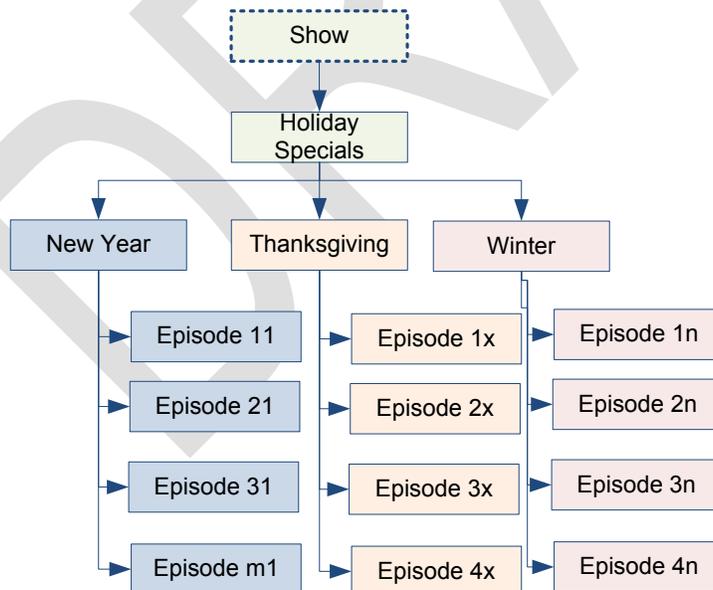
The Compound Object will include selected episodes as shown in the following illustration.



This diagram shows one new object (“Thanksgiving Specials”) and other objects that have already been defined as part of the normal show/season/episode structure. Like the movie example above, each existing box references the metadata via the CID and new boxes may include metadata.

The reverse links, rather than saying an episode is part of a season, it says “Thanksgiving Specials” is composed of these episodes. This distinguishes between the natural position and order of episodes and a collection as expressed in a Compound Object.

The following illustrates a more complex example.



In this example, there are 4 new objects: “Holiday Specials”, “New Years”, “Thanksgiving” and “Winter”. The Compound Object definition allows the full structure to be represented and communicated.

The Compound Object encoding is a nested tree structure corresponding to the boxes above. Boxes that refer to existing metadata simply contain a CID. Boxes that are new (e.g, “New Year”) may contain metadata.

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