

Packaging and Delivery

Best Practices

1. Scope

This best practice defines terms used in IMF workflows.

2. Status of this Document

This Best Practice is published by the IMF User Group¹. It may be updated, replaced or obsoleted by other documents at any time. Readers are encouraged to consult the following for a list of current issues, to which they are invited to contribute.

<https://github.com/imfug/002-pkg-and-delivery>

This work is © 2018 Hollywood Professional Association and licensed under the Creative Commons Attribution-NoDerivatives 4.0 International License².

3. Background

The current nomenclature pertinent to the packaging and delivery requirements of the Interoperable Master Format can lead to misinterpretation, confusion and present a number of challenges for service vendors and content owners who facilitate the mastering and version control of Composition Playlist instances and their respective assets. The recommendations outlined in this document are intended to mitigate such confusion and act as an industry reference for the version control and business-to-business interchange of IMF packages and delivery of their contained and/or newly created Composition Playlist instances.

4. Definitions

Below are some of the most commonly used terms and agreed upon definitions currently in use. There may be slight variances for day-to-day usage, but this list is provided to reduce confusion across multiple varying workflow creators and users.

COMPLETE PACKAGE

An IMF Package that references one or more CPL(s) from its Packing List as well as all track files

referenced by said CPL(s).

COMPONENT-BASED WORKFLOWS

Workflows where the elements of a presentation (audio, video, timed text, etc.) are stored and processed individually, to be assembled just in time to meet the specific needs of each distribution channel.

COMPOSITION

A Composition is a concrete technical manifestation of the work, combining metadata and essence files contained and referenced within a single CPL file. Often a Composition will be referred to as a CPL, however, a CPL is only referring to an XML file.

A Composition is not the same as an IMP, as a Composition only describes how the essences are to be combined to a single experience and does not require an ASSETMAP or PKL.

CONSOLIDATION

A mastering workflow step where the resources of each virtual track within a Composition are merged, and the underlying assets are re-wrapped, such that each Virtual Track of the resulting Composition references a single Resource.

CONSOLIDATED COMPOSITION

A Composition resulting from Consolidation. This term is synonymous to flattened composition.

CONTENT AUTHOR

The person or persons who were responsible for the authorial decisions expressed in the composition, e.g., shot selection, editing, color and sound adjustment, etc. The Content Author may or may not be the rights holder of the composition in any particular context.

FLATTENED COMPOSITION

A flattened composition is a composition where each virtual track consists of a single resource. This term is synonymous to consolidated composition.

FULL PACKAGE

Assumes the same meaning as Complete Package.

SUPPLEMENTAL PACKAGE

An IMF Package that references one or more CPL(s) from its Packing List and missing one or more track files referenced by said CPL(s). The Packing List must not reference any track files not referenced from included CPL(s).

5. Anti-Definitions

The following are definitions of existing terms in use by the industry that should not be adopted by IMF users e.g., the use of certain Digital Cinema terms, such as Original Version (OV). These terms have multiple interpretations depending upon the context and business entity and, as such, do not necessarily fit well within the IMF ecosystem.

BRANCHED ASSEMBLY

Branched assembly is a mastering workflow that uses additional track files, entry points, and durations within the CPL to create a composition that plays back differently when compared to a 'flattened' original version. Often, the purpose of using this method is to add 'insert' shots (textless titles, replacement shots, localized content) in the middle of an already existing contiguous track file asset - whereas the original track file plays, the insert track file(s), and the original track file resume at the temporal point of the CPL after the duration of the insert (removing the overlapped section of the original track file from playback).

A simplified example for demonstration using a single-track file and single branched insert assembly:

- 'Flattened' CPL and playback: Original track file (1-100)
- 'Branched' CPL and playback: Original track file (1-49) > Insert track file (1-10) > Original track file (60-100)

DIFFERENTIAL PACKAGE

Is a synonym of Supplemental Package.

ORIGINAL VERSION

When used in IMF, the term Original Version (OV) can result in multiple interpretations. Four (4) of the main interpretations are as follows.

1. An EIDR Level 2 Description that indicates it is the original cut of the content. To be a true original version, it should also have the original spoken language and original subtitles.
2. A D-Cinema Original Version (i.e., the PKL) containing a CPL that plays a composition representing the content as originally created by the Content Author. This can be referenced by supplemental packages to create additional versions.
3. An IMF Composition representing the content as originally created by the Content Author.
4. An IMP original version (i.e., the PKL) containing a CPL that plays a composition representing the content as originally created by the Content Author. This can be referenced by supplemental packages to create additional versions.

A user should be explicit as to which interpretation represents their intention.

TRANSWRAP

A term used to describe the process of re-wrapping essence from one MXF track file to another without any change occurring to said essence. This term has explicit meaning outside IMF and is therefore discouraged for use within IMF.

¹ <https://www.imfug.com/>

² <http://creativecommons.org/licenses/by-nd/4.0/>