

IMF User Group Workshop

October 25, 2019 - Burbank, CA

	TITLE	TIME	PRESENTER
	Registration	8:30am	Coffee
1	Welcome, scope and goals of the workshop	9:30am	Pierre Lemieux (Chair IMF User Group)
2	IMF Introduction	9:45am	Bruce Devlin (Mr. MXF)
3	ACES (Academy Color Encoding System)	10:00am	Annie Chang (NBCU)
4	Introductions to IMF App 4 & App 5	10:15am	Hans-Nikolas Locher (CST) / Wolfgang Ruppel (RheinMain University)
5	Archiving UHD contents and necessity for high quality preservation	10:30am	Hiromi Gonda (NHK)
	Break	11:00am	
6	Use-case presentation and panel discussion	11:30am	Bruce Devlin (Mr. MXF)
	Lunch	1:00pm	
7	Archiving HDR and Immersive Audio Masters - Dolby Use Case	2:00pm	Raymond Yeung (Dolby)
8	IMF and AXF: Complements to One Another	2:15pm	David Deelo (Sony Pictures Entertainment)
9	Audiovisual Content Preservation: SMPTE RDD48 and IMF	2:30pm	James Snyder (Library of Congress)
10	Recap from IMF UG Workshop Amsterdam	2:45pm	Siegfried Foessel (Fraunhofer IIS)
11	From media asset to media components management: get the best from your archive	3:00pm	Eric Carson (Dalet)
12	Above it All: IMF Architecture Promotes Generational Thinking	3:15pm	John Hurst (Cinecert)
	Break	3:30pm	
13	Recap & moderated discussion	4pm - 5pm	Pierre Lemieux, Florian Schleich

ACES (Academy Color Encoding System)	Annie Chang (NBCU)
<p>Ever wonder what ACES really is and the problems it is solving? This presentation will cover the basics of the ACES and a brief overview of the ACES roadmap.</p>	

Archiving UHD contents and necessity for high quality preservation	NHK
<p>In Japan, NHK and commercial broadcasters started practical satellite UHD broadcasting channels last December. We will explain the current state of UHD production and archiving at NHK and raise some issues for the dissemination of IMF in the Japanese broadcasting industry.</p>	

Archiving HDR and Immersive Audio Masters - Dolby Use Case	Raymond Yeung (Dolby)
<p>Dolby HDR imaging and immersive audio technologies are supported in IMF applications. Taking advantage of the interoperability between the standardized IMF applications as well as the SMPTE Digital Cinema Packages, IMF can be a unified archival framework for Production Masters with Dolby technologies servicing both the home and cinema. This presentation examines the enabling requirements in the context of IMF Applications.</p>	

IMF and AXF: Complements to One Another	David Deelo (Sony Pictures Entertainment)
<p>IMF is a standardized interoperable format for content interchange. IMF provides means for mastering content components into final compositions that are targeted to specific presentations.</p> <p>AXF is a standardized interoperable format for content and metadata preservation. It is not limited to storage of media content but rather can store and relate all kinds of data, of any type – whether media or not – of any size and of any quantity. It is designed with long-term preservation a key characteristic, as well as inclusion of metadata and provenance information.</p> <p>IMF has certain capabilities that are intended to help preserve media content in an archival environment. Those capabilities are necessary – but not sufficient – for archiving of IMF packages, serving to limit the range of content formats and thereby enable recovery with a set of standardized tools. Moreover, the IMF capabilities that aid archiving make no provisions for storing, identifying, or providing metadata related to other data that must be stored with the archived IMF-based content to make it meaningful and to preserve its full context. As will be shown, the necessary archiving functions not provided by IMF are provided by AXF.</p>	

Audiovisual Content Preservation: SMPTE RDD48 and IMF	James Snyder (Library of Congress)
<p>SMPTE <i>RDD 48</i> specifies a vendor-neutral feature subset of the Material Exchange Format (MXF) file format for the long-term archiving and preservation of moving image and other audiovisual content, including all forms of ancillary data, metadata and associated materials. Among other features, RDD 48 defines a means for the carriage and labeling of multiple timecodes and audio tracks; the handling of captions, subtitles, and Timed Text; a minimal core metadata set; program segmentation metadata; and embedded content integrity data. The overall RDD is written broadly, to cover a wide range of audiovisual content typically found in memory institutions with older obsolescing analog and digital videotapes in their collections, especially complicated commercially produced broadcast and motion picture materials. These organizations seek to archive the highest possible quality of image and sound with the goal of maintaining the program content in the same form for decades or centuries. In addition to retaining extra information beyond the basic picture and sound such as essential source data and metadata that support authentication and management of the content for the long term. RDD 48's constrained subtypes focus on common essences for digitized video, specifically uncompressed streams and JPEG2000, but implementation is not limited to these. The RDD 48 development project is led by the Library of Congress and other members of the Federal Agencies Digital Guidelines Initiative (FADGI), the cooperative organization of Federal agencies that hold audiovisual collections and must maintain them for decades to centuries based on statutory, cultural policy or operational requirements. At various times, the project team included representatives of the Library, the US National Archives, EVS, Cube-Tec, AVP, the CBC, George Blood Audio/Video, and Metaglue Corporation. In order to facilitate awareness and adoption in the cultural heritage community, RDD 48 carries a Creative Commons Attribution-Share Alike 4.0 International License (CC BY-SA 4.0).</p> <p>James Snyder, Senior Media Facilities Engineer for the Library of Congress' National Audio Visual Conservation Center (NAVCC), will talk about the requirements that led to the RDD48 effort, and how it may share common or complementary goals with the IMF community's efforts.</p>	

Above it All: IMF Architecture Promotes Generational Thinking	John Hurst (Cinecert)
<p>Far from being a mere exchange format, IMF provides an architectural basis for the long-term, multi-generation evolution of motion picture libraries and archives. IMF is comprehensive, extensible, vendor neutral, and free for use in commercial and non-commercial applications. Discover how IMF supports not just interoperable media, but also interoperable workflow, and learn how IMF's extensibility features support the continuous adaptation required for digital motion picture archives.</p>	

From media asset to media components management: get the best from your archive

Eric Carson (Dalet)

Leveraging component-based workflows to streamline the distribution of highly versioned titles and using IMF as the standardized intermediate format at its core is making its way in the professional media industry.

Cost reductions in transport, compute and storage, as well as the ability to automate processes are the driving factors for this on-going transition to IMF.

There is no reason why the concept of component-based workflows could not enable similar gains in other functional areas. Archiving & preservation is one of them, where managing the life cycle of a title at the component level opens new means to get the best of an archive.

Having an asset management system which allows independent life cycles for components and understands their relationships while abstracting the complexity to users is the enabler.