MXF for Archive & Preservation
AS-07

What is it?
AS-07 is an AMWA specification, based on international MXF standards, for the medium and long term storage of material, including that which has been copied from videotape and other carriers. It also provides a means for the exchange of content between co-operating archives, both now and into the future.

How could this help you?
This specification was developed by the AMWA in a project led by the Library of Congress and the U.S. Federal Agencies Digitization Guidelines Initiative (FADGI) on behalf of archives that maintain audiovisual content for the long term.

In a broadcast environment, AS-07 can also encourage product sales and reversioning, as it enables easy searches of content.

The components of AS-07 that address legacy timecodes, captions, and subtitles make it an especially good fit for the preservation archiving of complex broadcast material.

Also, metadata is employed in a rigorous, standardized manner, with both technical and descriptive metadata carried within the file for security. This enables easy understanding of the content which, in turn, provides reliable long term access and disaster recovery.

Is it in use?
AS-07 reached the AMWA maturity level of Proposed Specification in 2016. Implementation projects are under way.

Is the industry supporting it?
Support is growing from suppliers of content creation and QC products, including AS-07 sample files.

Has interoperability been considered?
AS-07 is standards-based, with SMPTE's MXF at its core. The favored picture encodings feature standardized formats from SMPTE (uncompressed picture) and ISO/IEC (JPEG 2000). A number of implementation elements were carefully selected to maximize commonalities with AS-11, IMF, SMPTE digital cinema standards, and elements from the BBC archive format.
AMWA Application Specification
MXF for Archive & Preservation – AS-07

How could AS-07 help my archive operation?
AS-07 has been developed to support professional archives, especially in national libraries and archives, to ensure that digital video data is sustainable for the very long term. As part of this process, much historically important material, with continuing asset value, must be reformatted from conventional videotapes and other carriers.

Preservation archives seek to produce master files that:
• represent authentic and complete copies of the original recordings, including such components as multiple timecodes, captioning, and soundtracks
• represent very high levels of quality in terms of the reproduction of picture and sound
• support reliable access by future users

In a preservation context, interoperability has current and future dimensions. Today, cooperating archives may exchange master materials and these must be readable by both organizations. More important, however, is temporal interoperability: today's content must be readable by the archive of tomorrow. AS-07’s extensive use of standards-based design supports both types of interoperability.

What is AS-07?
• AS-07 specifies a vendor-neutral subset of the MXF file format for the long-term archiving and preservation of moving image content, including the carriage and labeling of multiple timecodes; the handling of captions, subtitles, and Timed Text; a minimal core metadata set; and embedded content integrity data.

Who should use AS-07?
• Professional archives that retain audiovisual assets for the long term. Core users will be memory institutions like national libraries and archives, but AS-07 will also be valuable for archives in institutions ranging from universities to commercial broadcasters.

What is an Application Specification?
• AMWA Application Specifications define a set of rules that constrain a standard, such as MXF, to suit a particular use.
• An Application Specification can be further constrained to meet the needs of one or more users.
• As industry operations evolve, developments of a published Specification are always considered if a media company has new requirements that extend the Specification and do not disrupt the original operation.

If you would like further information, please visit www.amwa.tv/projects/AS-07.shtml or contact the project owner, Kate Murray, Library of Congress, at kmur@loc.gov.

If you are interested in becoming a member of the AMWA, please visit www.amwa.tv/join.shtml or contact Neil Dunstan, Director, Membership & Marketing at Neil.Dunstan@AMWA.tv

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