

## THE UR WORKING LIST: End-User and Manufacturer Requirements

REVISED January 7, 2013; send comments to Carl Fleischhauer [cfle@loc.gov](mailto:cfle@loc.gov)

Item	Actor(s)	Requirement	Comment
UR01	Archive	HIGH LEVEL: AS-07 is extensible over time by means of shims. First published version will include a Core Shim to cover the use case of file-making from "baseband" inputs (i.e., from videotapes and also digital serial inputs, both may be SD or HD).	Core Shim represents the main need by FADGI and other memory institution archives today. Picture essences include uncompressed, JPEG 2000, others (?).
UR02	Archive	HIGH LEVEL: AS-07 future extensions will include shims for wrapping (a) born digital essences (e.g., DV-family, MPEG family), (b) output from film scanning, (c) audio-only essences, and (d) others TBD.	Special emphasis from Library of Congress Packard Campus.
UR03	Archive	AS-07 specifies how multi-element files will include "main essences" (picture, sound) and ancillary data (closed captioning and other SMPTE ST 436 data).	Too obvious to bother with?
UR04	Archive	AS-07 specifies how multi-element files may include multiple picture or audio essences but with a limit to one "playout" definition (one Material Package); these multiple essences will not require dissolves or other editing effects to be added at playout time.	Comments welcome
UR05	Archive	AS-07 specifies how multi-element files may include associated essences (still images, scripts, etc).	Important for Library of Congress Packard Campus. Note overlap with AXF Production note: these elements are likely to be added in "passes" subsequent to initial file creation.
UR06	Archive	AS-07 specifies how multi-element files will include DMS header metadata that may include, among other elements, multiple tagged identifiers, possibly including UMIDs but also including a variety of "local" identifiers that may be important to a given archive.	Multiple "non-UMID" identifiers are important to FADGI members, esp LC and NARA. Stored for "reference" purposes, not to be actionable. Production note: Some of these elements likely to be added in "passes" subsequent to initial file creation.
UR07	Archive	AS-07 specifies how multi-element files may include "text-stream" metadata (or other timed-text essences), e.g., (a) descriptive, (b) technical (instantiation), (c) production process-history metadata, and (d) "other."	Important to FADGI members, especially LC and NARA. Interest in this expressed by BBC. Production note: Some of this metadata may be inherited with source essence, some may be freshly added during the production (or post-production).
UR08	Archive	AS-07 permits an organization to track the history and/or development of a content item in an AS-07 file by providing the capability of embedding successive instances of the "same" (but updated) metadata, stamped with embedding date, identification of the embedder, comment, and other desirable identificatory metadata.	Important to LC and other archives. Part of provenance information for an archived item. Updates may be applied to descriptive, administrative, or technical metadata.

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UR09	Archive	AS-07 permits the embedding of metadata (including and in addition to DMS) that may contain contradictory information, e.g., when a more recent embedded chunk of metadata supplements and earlier expression. To the degree possible, the AS-07 spec ought to provide guidance as to which metadata takes precedence (mainly limited to technical and some administrative metadata); archives will also wish to develop a guideline for precedence, especially for such things as descriptive metadata (title, creator credit, original production information, etc). See also comment at right.	The preceding requirements (UR07 and UR08) indicate how multiple instance of updated metadata may be embedded over time. An archiving group (like FADGI) should draft a practice guideline about this topic.
UR10	Archive	AS-07 specifies how multi-element files may include essences that carry multiple timecodes – potentially an [infinite?] number – of timecodes.	Important to FADGI members, especially LC and NARA.
UR11	Archive	AS-07 specifies how multi-element files may include a potentially [infinite?] number of audio channels.	
UR12	Archive	AS-07 specifies how multi-element files may include a potentially [infinite?] number of metadata “tracks.”	Production note: some of these elements are likely to be added in “passes” subsequent to initial file creation.
UR13	Archive	AS-07 specifies how multi-element files may include a manifest.	Compare to AMWA AS-02.
UR14	Archive	AS-07 specifies how multi-element files may include segmentation.	Compare to AMWA AS-11.
UR15	Archive	Some archives will wish to create files that support partial restores, e.g., to provide customers with segments or portions of longer files. AS-07 elements (like Partitions) should be provided in order to support partial restores.	
UR16	Archive	Nothing about the AS-07 specifications will impair an archive (or other file-makers, -keepers, or -users) from updating or changing essences, associated essences or text-stream metadata in re-production workflows, e.g., when doing a system refresh or data migration.	May go without saying.
UR17	Archive	Archives may have legacy files that resemble AS-07 files, e.g., files created by systems in the marketplace prior to the publication of AS-07. The AS-07 specification, therefore, ought to be drafted in a manner that maximizes the ease and efficiency with which legacy files can be migrated to comply with AS-07, i.e., the AS-07 specification ought not contain elements that present unnecessary difficulties in such a migration.	

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UR18	Mfr	AS-07 provides specifications that permit a manufacturer, without undue or excessive effort, to build a system that produces compliant files.	Derived from AS-10.
UR19	Mfr	AS-07 provides specifications that permit a manufacturer to build a system that offers file-makers the option of a multi-stage production process, e.g., in which "main" essences are captured in an initial stage, and such things as associated essences or text-stream metadata are embedded in subsequent production stages	Derived from FADGI archive end-user requirements. (UR03, UR04, UR05, UR08)
UR20	Mfr	AS-07 provides specifications that permit a manufacturer to build a system that offers file-makers the option of updating or changing essences, associated essences or text-stream metadata in re-production workflows, e.g., when doing a system refresh or data migration.	Derived from FADGI archive end-user requirements. (UR11)
UR21	Mfr	The <i>checkas</i> tool (AS-07 implementation) will process an AS-07 candidate file as playback so that initial application processing can be validated, in order to be sure that the tool meets this end-user requirement.	Derived from AS-10.
UR22	Mfr	The <i>checkas</i> tool (AS-07 implementation) will read an AS-07 candidate file and process the file for descriptor and duration then dump them so that descriptors and duration are processed for future validation, in order to be sure that the tool meets this end-user requirement.	Derived from AS-10.
UR23	Mfr	The <i>checkas</i> tool (AS-07 implementation) will read an AS-07 candidate file and process the file for timecode and dump timecode info so that timecode info is processed for future validation.	Derived from AS-10.
UR24	Mfr	The <i>wrapas</i> (AS-07 implementation) source code has been published by AMWA for use by system developers and end-users.	Derived from AS-10.
UR25	Mfr	Sample [bronze? silver? gold?] files have been published by AMWA for use by system developers and end-users.	
UR26	Mfr	The <i>checkas</i> (AS-07 implementation) source code has been published by AMWA for use by system developers and end-users.	Derived from AS-10.
UR27	Mfr	AMWA provides a method for vendors to obtain a "Formal Statement of AS-07 Compliance" for use in marketing.	Derived from AS-10.