SMPTE RDD 48
EVS SAMPLE FILES DESCRIPTION

24-Jan-2019/4.2

SAMPLE FILES DESCRIPTION 4.2
INTRODUCTION

This chapter describes the changes done in the sample files.

Only golden files have been generated (JPEG 2000 and uncompressed). A PAL format has also been generated using the NTSC sources.

The files include the content integrity feature.

FILE CHANGES

The following changes apply to all golden files:

> Update UL for MICCarriage_SystemItem
> Update UL for MICCarriage
> Fix duration on as07_sample13-gf-unc

FILE NAME

Sample name	File name
SAMPLE #1 – UNCOMPRESSED – NTSC	as07_sample11-gf-unc-4.2.mxf
SAMPLE #2 – JPEG 2000 – NTSC	as07_sample12-gf-jpeg2000-4.2.mxf
SAMPLE #1 – UNCOMPRESSED – PAL	as07_sample13-gf-unc-4.2.mxf
SAMPLE #2 – JPEG 2000 – PAL	as07_sample14-gf-jpeg2000-4.2.mxf

SAMPLE FILES DESCRIPTION 4.1
INTRODUCTION

This chapter describes the changes done in the sample files.

Only golden files have been generated (JPEG 2000 and uncompressed). A PAL format has also been generated using the NTSC sources.

The files include the content integrity feature.

FILE CHANGES

The following changes apply to all golden files:

> Apply castagnoli CRC32 for integrity instead of classical CRC32
> Fix SourceEssenceContainer UL to JPEG 2000 I2 value
> Update MICCarriage UL to the new specified one
> Fix wrong track order for MXF file with ancillary track

FILE NAME

Sample name	File name
SAMPLE #1 – UNCOMPRESSED – NTSC	as07_sample11-gf-unc-4.1.mxf
SAMPLE #2 – JPEG 2000 – NTSC	as07_sample12-gf-jpeg2000-4.1.mxf
SAMPLE #1 – UNCOMPRESSED – PAL	as07_sample13-gf-unc-4.1.mxf
SAMPLE #2 – JPEG 2000 – PAL	as07_sample14-gf-jpeg2000-4.1.mxf

SAMPLE FILES DESCRIPTION 4.0
INTRODUCTION

This chapter describes the changes done in the sample files.

Only golden files have been generated (JPEG 2000 and uncompressed). A PAL format has also been generated using the NTSC sources.

The files include the content integrity feature.

FILE CHANGES

The following changes apply to all golden files:

> Content integrity has been added:
>> In system item
>> Defined in cryptographic track, framework and context set.
> Update UL's according to new specification

FILE NAME

Sample name	File name
SAMPLE #1 – UNCOMPRESSED – NTSC	as07_sample11-gf-unc-4.0.mxf
SAMPLE #2 – JPEG 2000 – NTSC	as07_sample12-gf-jpeg2000-4.0.mxf
SAMPLE #1 – UNCOMPRESSED – PAL	as07_sample13-gf-unc-4.0.mxf
SAMPLE #2 – JPEG 2000 – PAL	as07_sample14-gf-jpeg2000-4.0.mxf

SAMPLE FILES DESCRIPTION 3.1
INTRODUCTION

Some issues and remarks have been addressed in this bunch of sample files. This chapter describes the changes done in the sample files.

FILE CHANGES

The following changes apply to all files:

> The optional metadata "DateTimeDropFrame" of the "DateTimeDescriptor" (SMPTE ST 385) has been added.
> The missing "DateTimeEssenceTrackId" of the Timecode Header label SubDescriptor (AS-07) has been added (1 for master timecode, 0 for historical source timecode).
> The "PictureFormat" of the AS-07 Core Metadata has been changed from *Forbidden* to "486i 4:3 29.97fps".
> The value of the "DateTimeEmbedded" flag of the "DateTimeDescriptor" value has been modified to "0".

SAMPLE FILES DESCRIPTION 3.0
INTRODUCTION

Some issues has been raised on the sample provided in 2016. This chapter describes the changes done in the sample files.

ITEM 1.1: WRONG JPEG 2000 WRAPPING

REPORTED ISSUE

> The file uses a JPEG 2000 essence container wrapping that is forbidden in the RDD 48 baseband shim. The baseband shim allows the JPEG 2000 Wrapping "P1" (progressive) and "I2" (interlaced).
> The wrapping I2 uses two fields in one KLV element for one content package. The Golden File uses one KLV element per field for one content package. This conforms to the SMPTE ST0422-2013 Wrapping "I1".
> All property values in the CDCI descriptor that depend on the frame wrapping (Frame Layout, Edit Rate, Index Rate, Aspect Ratio) are only compliant with the rules for "I1" wrapping.
> *Jörg is correct: the file uses I1 wrapping. It should be I2. High Priority.*

EVS' FEEDBACK

We changed JPEG2000 wrapping mode from I1 to I2 in sample files containing JPEG 2000 essence according to the specification.

Please note, that the SMPTE ST 422:2014 Table A.1 – MXF Header Metadata Pro defines the frame layout metadata in this mode to FULL FRAME. The document itself in the Annex A, specifies that FULL FRAME is defined when using progressive frame, this is also stated in the SMPTE ST 377:2011. The frame layout definition shall be consistent with the definition of other metadata of the descriptor like the signal standard, field dominance… We suspect an error in the definition of the frame layout in the SMPTE ST 422:2014.
As this lead to having a descriptor that defines the stream as progressive when it is interlaced, we decided to follow a more common/classic implementation, and defines the layout as SEPARATE_FIELD.

ITEM 1.2: LABEL FOR THE JPEG 2000 ESSENCE CONTAINER IS NOT VALID

REPORTED ISSUE

> The label for the JPEG 2000 Essence Container is not a label from ST0422-2013. The Golden File uses "urn:smpte:ul:060e2b34.04010107.0d010301.020c0300".
> The correct value for I1 Wrapping is "urn:smpte:ul:060e2b34.0401010d.0d010301.020c0300" and for I2 "urn:smpte:ul:060e2b34.0401010d.0d010301.020c0400".
> *Oliver identified two issues in this label. Byte 8 is incorrect for both I1 and I2 wrappings. Byte 15 will change when a fresh sample is made using the I2 wrapping.*

EVS' FEEDBACK

We fixed the invalid 8th byte on JPEG2000 picture compression UL in sample files containing JPEG 2000 essence.

OTHERS CHANGES

Fix incorrect manifest description for 'Graphics/image' in sample #1, sample #4 and sample #7.

SAMPLE FILES DESCRIPTION 2.4

GLOBAL CHANGES

Fix invalid slice offset in index entries in samples using uncompressed essence.
Fix wrong duration on SMPTE TT track in samples using SMPTE TT xml essence.

SAMPLE FILES DESCRIPTION 2.3

GLOBAL CHANGES

Fix invalid system item content located after edit unit 10 in all samples that have historical timecode tracks.

SAMPLE FILES DESCRIPTION 2.2

The sample files v4.2 are based on the AS-07 draft specification of September 8, 2017. and our teleconf of July 17th 2016. The next chapter describes the sample files produced.

GLOBAL CHANGES

Fix typos in all samples:
> AS_07_DMS_IdentifierRole, change *MAIN* to *Main*
> DateTimeSymbol, change *Sys 0* to *Sys_0*
> AS_07_GSP_DMS_DataDescription, change *Supplementary Metadata* to *SupplementaryMetadata*

Change Master Start timecode from 08:07:06;05 to 01:00:00;00:
> All samples

Remove invalid TimeCodeLabelSubdescriptor entry (with symbol *Sys 0*) for SMPTE TT Data Track:
> Golden file sample 1
> Copper file sample 4
> Lead file sample 7

SAMPLE FILES DESCRIPTION 2.1

The sample files v2.1 are based on the AS-07 draft specification of June 2016. The next chapters describe the sample files produced.

GLOBAL CHANGES

The following UL's have been updated according to the AS-07 draft specifiction of June 2016:

Item Name	Item UL
TimecodeLabel Subdescriptor	060e2b34.027f0101.0d0e0101.07040100
DateTime Symbol	060e2b34.01010101.0d0e0101.07040101
DateTime ChannelID	060e2b34.01010101.0d0e0101.07040103
DateTime Essence Track Id	060e2b34.01010101.0d0e0101.07040102
DateTime Description	060e2b34.01010101.0d0e0101.07040104
DMS_AS_07_GSP_DMS_Framework	060e2b34.04010101.0d010701.07020100
AS_07_DMS_IdentifierRole	060e2b34.01010101.0d0e0101.07010303
AS_07_DMS_IdentifierType	060e2b34.01010101.0d0e0101.07010304
AS_07_Core_DMS_Device	060e2b34.027f0101.0d0e0101.07010200
AS_07_DMS_Identifier	060e2b34.027f0101.0d0e0101.07010300

The timecode track number has been changed:
> Master timecode track number is 1
> Historical timecode track number is 0

The AS_07_GSP_DMS_Object has been implemented as a TextBasedObject and is linked to the DMS Framework as a StrongRef object. The RP2057 TextBasedObject table 7 and 9 properties have been added in AS_07_GSP_DMS_Object.

Few metadatas type have been updated to reflect RP2057 ones (the update have been done with Oliver and is present in the XML. The latest AS-07 specification we get does not yet reflect the update):
> AS_07_GSP_DMS_MIMEMediaType changes to UTF16-String
> AS_07_GSP_TD_DMS_PrimaryRFC5646LanguageCode changes to UTF16-String
> AS_07_GSP_TD_DMS_SecondaryRFC5646LanguageCode changes to UTF16-String
The type of the metadata AS_07_GSP_DMS_Note has been fixed (was ISO-7, change to UTF16-String)

The MIME media type definition for the 95-ak-30-excerpt-CollectionManagementMetadata.html collection file was invalid in the following samples (was text/xml, changes to text/html):
> Golden file sample 1
> Copper file sample 4
> Lead file sample 7

OPENED POINTS

The TimecodeLabelSubdescriptor, AS_07_Core_DMS_Framework, AS_07_Core_DMS_Device, AS_07_DMS_Identifier, AS_07_GSP_DMS_Object, AS_07_GSP_BD_DMS_Framework, AS_07_GSP_TD_DMS_Framework, and AS_07_Segmentation_DMS_Framework are using a value of 0x7F for byte 6. According to the ST 377 specification, this should be defined for *Abstract Descriptive Metadata Groups* (see chapter 9.8.4 and table 24).
These samples are using the value 0x53 which looks more adapted (and used by other frameworks).

As the AS_07_GSP_DMS_Object implements table 7 of the RP2057 TextBasedObject, the AS_07_GSP_DMS_Object inherit the *Text Mime Media Type* metadata that is a required one. The sample file have an empty value for binary GSP ; what should be the attended value in this case ?

NOTE

The « AS-07 Shim parameters and Constraints » section of the AS-07 specification of June 2016 have a typo on the track number definition for timecode track.

GOLDEN FILES
SAMPLE #1 - UNCOMPRESSED

REQUEST

The characteristics for the file #1 are below.

1. Source item has:

1.1. VITC with no problems

1.2. Closed captions on line 21 (CEA-608)

1.3. Box has handwritten notes on the back, organization scans, has scan available to embed

1.4. Collections management database record exists, output as XML

1.5. Transferred on SAMMA, XML file with process metadata exists

1.6. Organization provides data for the manifest

2. File should have:

2.1. Uncompressed picture essence:
   - 2.1.1. Raster: NTSC (720*486i59.94).
   - 2.1.2. Codec: Uncompressed YCbYCr 8-bit.
   - 2.1.3. Wrapping: SMPTE ST384.

2.2. Audio essence:
   - 2.2.1. 8 audio tracks (speakers in different language), Mono track, 24bits, 48 000Hz.
   - 2.2.2. Wrapping: ST382 – Broadcast Wave.
   - 2.2.3. The property "AS_07_Core_DMS_AudioTrackLayout" in "AS_07_Core_DMS" shall be present.

2.3. Master timecode:
   - 2.3.1. Present in Material Package, Top Level Source Package, GC System Item
   - 2.3.2. Labelling Timecode in Header Metadata shall be present (including DateTimeDescriptor and subdescriptor).

2.4. Historical source timecode:
   - 2.4.1. Present in Top Level Source Package, Low Level Source Package, GC System Item.
   - 2.4.2. Labelling Timecode in Header Metadata shall be present (including DateTimeDescriptor and subdescriptor).

2.5. Captions still in line 21

2.6. Captions at CEA-608 in ANC packets
   - 2.6.1. Wrapping: SMPTE ST436 with appropriate essence descriptor.

2.7. Captions converted to Timed Text
   - 2.7.1. Stored according to the SMPTE ST429-5 (File marked as OP1b).

2.8. TIFF image of box
   - 2.8.1. Wrapped in GSP as binary data.
   - 2.8.2. An instance of "AS-07 GSP Binary Data Descriptive Metadata" for non-essence binary data shall be present.

2.9. Collections management XML record:
   - 2.9.1. Wrapped in GSP as text-based data (SMPTE RP2057).
   - 2.9.2. Instance of "AS-07 GSP Text-based Data Descriptive Metadata" for non-essence text-based data.

2.10. Manifest embedded:
   - 2.10.1. Wrapped in GSP as text-based data (SMPTE RP2057).
   - 2.10.2. Instance of "AS-07 GSP Text-based Data Descriptive Metadata" for non-essence text-based data.

SOURCE FILES

The following table describes the source files used to create the sample file #1.

Sources / Video (with CC in line 21) / Audio	"SourceMediaSamples\nara_AVI_with_Captions\95-ak-30-excerpt.avi"
CEA608	Shall be created from line21. Done.
TIFF image (box)	"SourceMediaSamples\nara_AVI_with_Captions\1_in_open_reel_box.tiff"
TimedText	"SourceMediaSamples\nara_AVI_with_Captions\SMPTETT.xml"
Collections management XML	"SourceMediaSamples\nara_AVI_with_Captions\95-ak-30-excerpt-

	CollectionManagementMetadata.html"
Manifest.xml	Created by EVS.

FILE DESCRIPTION

This section contains the description of the file #1 (as07_sample1-gf-unc-2.0.mxf).

GENERAL

> OP-1b frame wrapped.
> The HMD (Header Metadata) is closed & complete.
> An 8K filler is present after the HMD.
> The RIP is present.
> The KAG size is 1.
> The essence is present in a single body partition.
> > The 2014 baseband shim required that all the essence is in a single partition. The new document requires a partitioning at 10 seconds or 1 minute. Could you confirm that the partitioning is required?
> The full index table is present in a body partition before the essence.
> A SMPTE ST436 ancillary data track is present with CEA-608 in CDP (extracted from the line 21 of the video essence).

VIDEO

> Raster: NTSC (720*486i59.94)
> Codec: Uncompressed YCbYCr 8-bit
> Wrapping: ST384
> > A CDCI descriptor is present.

AUDIO

> 8 audio tracks (speakers in different language):
> > Mono track
> > 24bits
> > 48000Hz
> Wrapping: ST382 – Broadcast Wave

ANCILLARY

> Wrapping: ST436 – ancillary data packets
> > The "ANC Packets Descriptor" is present

TIMECODE

> Master timecode: MP (Material Package), TLSP (Top Level Source Package) of the video, audio and ancillary package, System Item, LLSP (Low Level Source Package).
> VITC historical source timecode in the TLSP of the video, audio and ancillary package, System Item and LLSP.
> Track number are set according to the AS-07 specification (In TLSP, the track number for the master timecode track is 1, track number for historical timecode track is 0)
> The DateTimeDescriptor is present.
> > The "essence container" property is set to "00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00".
> The TimecodeLabelSubDescriptor are presents in the sample file.
> > DateTime Symbol: we use "Master", "Historical", "Sys 1", "Sys 0".
> > The essence trackID is not present in the Appendix C.4 but is mentioned in chapters 6.4.3.2.1.1 and 6.4.3.2.1.2.
> > Using the ULs now defined in the AS-07 specification of June 2016:

Item Name	Item UL

TimecodeLabel Subdescriptor	060e2b34.027f0101.0d0e0101.07040100
DateTime Symbol	060e2b34.01010101.0d0e0101.07040101
DateTime ChannelID	060e2b34.01010101.0d0e0101.07040103
DateTime Essence Track Id	060e2b34.01010101.0d0e0101.07040102
DateTime Description	060e2b34.01010101.0d0e0101.07040104

DMS-1 AS-07 CORE FRAMEWORK

> An "AS_07_GSP_DMS_Object" is present.
> "AS_07_GSP_DMS_Object", "AS_07_DMS_Identifier" and "AS_07_Core_DMS_Device" are using the ULs defined in the AS-07 specification of June 2016.

Item Name	Item UL
DMS_AS_07_GSP_DMS_Framework	060e2b34.04010101.0d010701.07020100
AS_07_DMS_IdentifierRole	060e2b34.01010101.0d0e0101.07010303
AS_07_DMS_IdentifierType	060e2b34.01010101.0d0e0101.07010304
AS_07_Core_DMS_Device	060e2b34.027f0101.0d0e0101.07010200
AS_07_DMS_Identifier	060e2b34.027f0101.0d0e0101.07010300

> The required properties of "AS_07_Core_DMS" are presents.
> The property "AS_07_Core_DMS_AudioTrackLayout" is set to the 'AS07_AUDIO_LAYOUT_UNKNOWN' UL.
> AS_07_Core_DMS_PictureFormat is defined to "forbidden"
> AS_07_Core_DMS_ShimName is defined to "SD Baseband shim".

SMPTE TT

> Wrapped in a data essence track based on ST 429-5.
  > It is own top level source package is present.
  > The TimedTextDescriptor is present.
  > Timed text essence container label used as well as timed text essence element used.

TIFF

> Wrapped in a GSP based on SMPTE ST 410.
> "AS_07_GSP_BD_DMS_Framework" framework present in the file.
> AS_07_DMS_IdentifierValue for Generic Stream Partition is defined with the Generic Stream Partition streamID value.
> The property TextMIMEMediaType of the AS_07_GSP_DMS_Object (from table 7 of the RP 2057:2011) is defined to empty string.

COLLECTION MANAGEMENT XML

> Wrapped in a GSP as non-essence text based.
> "AS_07_GSP_TD_DMS_Framework" framework present in the file.
> AS_07_DMS_IdentifierValue for Generic Stream Partition is defined with the Generic Stream Partition streamID value.

MANIFEST

> Wrapped in a GSP as non-essence text based.
> "AS_07_GSP_TD_DMS_Framework" framework present in the file.
> AS_07_DMS_IdentifierValue for Generic Stream Partition is defined with the Generic Stream Partition streamID value.

SAMPLE #2 – JPEG 2000

REQUEST

The characteristics requested for the file #2 are below.

1. Source item has:
1.1. VITC with no problems
1.2. Intermittent LTC
1.3. Collections management database record exists, output as XML
1.4. Transferred on SAMMA, XML file with process metadata exists
1.5. Organization provides data for the manifest

2. File should have:
2.1. Lossless JPEG 2000 picture essence
    2.1.1. Raster: NTSC (720*486i59.94).
    2.1.2. Codec: JPEG 2000 Broadcast Profile Multi tile reversible 7 in Lossless.
    2.1.3. Wrapping: SMPTE ST422 – I1.
2.2. Audio essence
    2.2.1. 8 audio tracks (speakers in different language), Mono track, 24bits, 48 000Hz.
    2.2.2. Wrapping: ST382 – Broadcast Wave.
    2.2.3. The property "AS_07_Core_DMS_AudioTrackLayout" in "AS_07_Core_DMS" shall be present.
2.3. Master timecode:
    2.3.1. Present in Material Package, Top Level Source Package, GC System Item.
    2.3.2. Labelling Timecode in Header Metadata shall be present (including DateTimeDescriptor and subdescriptor).
2.4. Historical source timecode VITC
    2.4.1. Present in Top Level Source Package, Low Level Source Package, GC System Item.
    2.4.2. Labelling Timecode in Header Metadata shall be present (including DateTimeDescriptor and subdescriptor).
2.5. Historical source timecode LTC:
    2.5.1. Present in Top Level Source Package, Low Level Source Package, GC System Item.
    2.5.2. Labelling Timecode in Header Metadata shall be present (including DateTimeDescriptor and subdescriptor).
2.6. Historical source timecode LTC in discontinuities:
    2.6.1. The source file does not contain any discontinuities, we will create some manually.
    2.6.2. Present in Top Level Source Package, Low Level Source Package, GC System Item.
    2.6.3. Labelling Timecode in Header Metadata shall be present (including DateTimeDescriptor and subdescriptor).
2.7. Collections management XML record:
    2.7.1. Wrapped in GSP as text-based data (SMPTE RP2057).
    2.7.2. Instance of "AS-07 GSP Text-based Data Descriptive Metadata" for non-essence text-based data.
2.8. SAMMA XML record:
    2.8.1. Wrapped in GSP as text-based data (SMPTE RP2057).
    2.8.2. Instance of "AS-07 GSP Text-based Data Descriptive Metadata" for non-essence text-based data.
2.9. Manifest embedded:
    2.9.1. Wrapped in GSP as text-based data (SMPTE RP2057).
    2.9.2. Instance of "AS-07 GSP Text-based Data Descriptive Metadata" for non-essence text-based data.

SOURCE FILES

The following table describes the source files used to create the sample file #2.

Sources Video / Audio	"SourceMediaSamples\LC Complete record\419637.mxf"
Timecode discontinuities	Timecode discontinuities will be created manually.
Collections management XML	"SourceMediaSamples\1899xxx_MAVIS_redacted.xml"
SAMMA XML	"SourceMediaSamples\419638_SAMMAdata_redacted.xml"
Manifest.xml	Created by EVS.

FILE DESCRIPTION

This section contains the description of the file #2 (as07_sample2-gf-jpeg2000-2.0.mxf).

GENERAL

> OP-1a frame wrapped.
> The HMD (Header Metadata) is closed & complete.
> An 8K filler is present after the HMD.
> The RIP is present.
> The KAG size is 1.
> The essence is present in a single body partition.
>> The 2014 baseband shim required that all the essence is in a single partition. The new document requires a partitioning at 10 seconds or 1 minute. Could you confirm that the partitioning is required?
> The full index table is present in a body partition before the essence.

VIDEO

> Raster: NTSC (720*486i59.94)
> Codec: JPEG 2000 Broadcast Profile Multi tile reversible 7 in Lossless
> Wrapping: ST422 – I1

AUDIO

> 8 audio tracks (speakers in different language):
>> Mono track
>> 24bits
>> 48000Hz
> Wrapping: ST382 – Broadcast Wave

TIMECODE

> Master timecode: MP (Material Package), TLSP (Top Level Source Package) of the video and audio package, System Item, LLSP (Low Level Source Package).
> VITC historical source timecode with discontinuities in the TLSP of the video and audio package, System Item and LLSP.
> LTC historical source timecode with discontinuities in the TLSP of the video and audio package, System Item and LLSP.
> Track number are set according to the AS-07 specification.
> The DateTimeDescriptor is present.
>> The "essence container" property is set to "00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00".
> The TimecodeLabelSubDescriptor are presents in the sample file.
>> DateTime Symbol: we use "Master", "Historical", "Sys 1", "Sys 0".
>> The essence trackID is not present in the Appendix C.4 but is mentioned in chapters 6.4.3.2.1.1 and 6.4.3.2.1.2.
>> Using the ULs now defined in the AS-07 specification of June 2016:

Item Name	Item UL
TimecodeLabel Subdescriptor	060e2b34.027f0101.0d0e0101.07040100
DateTime Symbol	060e2b34.01010101.0d0e0101.07040101
DateTime ChannelID	060e2b34.01010101.0d0e0101.07040103
DateTime Essence Track Id	060e2b34.01010101.0d0e0101.07040102
DateTime Description	060e2b34.01010101.0d0e0101.07040104

DMS-1 AS-07 CORE FRAMEWORK

> An "AS_07_GSP_DMS_Object" is present.
> "AS_07_GSP_DMS_Object", "AS_07_DMS_Identifier" and "AS_07_Core_DMS_Device" are using the ULs defined in the AS-07 specification of June 2016.

Item Name	Item UL
DMS_AS_07_GSP_DMS_Framework	060e2b34.04010101.0d010701.07020100
AS_07_DMS_IdentifierRole	060e2b34.01010101.0d0e0101.07010303
AS_07_DMS_IdentifierType	060e2b34.01010101.0d0e0101.07010304
AS_07_Core_DMS_Device	060e2b34.027f0101.0d0e0101.07010200
AS_07_DMS_Identifier	060e2b34.027f0101.0d0e0101.07010300

> The required properties of "AS_07_Core_DMS" are presents.
> The property "AS_07_Core_DMS_AudioTrackLayout" is set to the 'AS07_AUDIO_LAYOUT_UNKNOWN' UL.
> AS_07_Core_DMS_PictureFormat is defined to "forbidden"
> AS_07_Core_DMS_ShimName is defined to "SD Baseband shim".

SAMMA XML

> Wrapped in a GSP as non-essence text based.
> "AS_07_GSP_TD_DMS_Framework" framework present in the file.
> AS_07_DMS_IdentifierValue for Generic Stream Partition is defined with the Generic Stream Partition streamID value.

COLLECTION MANAGEMENT XML

> Wrapped in a GSP as non-essence text based.
> "AS_07_GSP_TD_DMS_Framework" framework present in the file.
> AS_07_DMS_IdentifierValue for Generic Stream Partition is defined with the Generic Stream Partition streamID value.

MANIFEST

> Wrapped in a GSP as non-essence text based.
> "AS_07_GSP_TD_DMS_Framework" framework present in the file.
> AS_07_DMS_IdentifierValue for Generic Stream Partition is defined with the Generic Stream Partition streamID value.

SILVER FILES

SAMPLE #3 – JPEG 2000 PROFILE 2

REQUEST
> Based on the golden JPEG 2000 file #2
> ISO 15444-1:2004 JPEG 2000 instead of ISO 15444-1:2004/AMD3

FILE DESCRIPTION
The file #3 (as07_sample3-sf-jpeg2000-2.0.mxf) has the same description as the golden file #2 except it contains Profile 2 JPEG 2000 coding (The picture essence coding in the CDCI descriptor is different than the golden file #2).

COPPER FILES

SAMPLE #4 – NO MANIFEST

REQUEST

> Based on the golden Uncompressed file #1
> No manifest file

FILE DESCRIPTION

The file #4 (as07_sample4-cf-unc-2.0.mxf) has the same description as the golden file #1 except it does not contain the manifest: there is no GSP present to store the manifest as well as the associate descriptive static track in this file.

SAMPLE #5 - INVALID PARTITIONNING

REQUEST

> Based on the golden JPEG 2000 file #2
> Essence in the header partition and the Index table in the footer

FILE DESCRIPTION

Here are the differences between the sample #2 and the sample #5 (as07_sample5-cf-jpeg2000-2.0.mxf):

> Essences are in the header partition
> The essence is not partitioned over multiple partitions.
> The complete index table is in the footer partition (Index Table Segments that compose one Complete Index Table follow Essence Container Segments that they index).

LEAD FILES

SAMPLE #6 – INVALID TIMECODE

REQUEST
> Based on the golden JPEG 2000 file #2
> Typical timecode implementations (without RDD 48 constraints: only 1 timecode in MP, in SP and one occurrence in the system item).
> ST385 system item

FILE DESCRIPTION
Here are the differences between the sample #2 and the sample #6 (as07_sample6-lf-jpeg2000-2.0.mxf):
> The Master Package, Top Level Source Package and Low Level source package only contains one timecode track.
> The track number of each timecode track is set to 0.
> SMPTE ST 385 system items are present.

SAMPLE # 7 – NO RIP

REQUEST
> Based on the golden Uncompressed file #1
> No RIP

FILE DESCRIPTION
The file #7 (as07_sample7-lf-unc-2.0.mxf) has the same description as the golden file #1 except it does not contain the random index pack (RIP) at the end of the file.