HOME THEATER DELIVERABLES ONE SHEET

Revision 11-15-22 by Brian Vessa

Sessions are 48.00 kHz, 24 bit, 23.976 fps unless source material is 96K.
If source material is 96K, keep all sessions at 96.00 kHz, 24 bit, 23.976 fps.
If doing Atmos, since DAMF files can only be 48K, record Atmos stems and PM at 96.00 kHz, SRC just before RMU.

See SPE home theater printmaster specifications for specifics on creating mixes and M&E's.

For each session in reels below, all reels for a given element can be in the same session, hour = reel#. For stems and edit sessions ONLY, all stem types for each reel can be in the same session, hour = reel#

All sessions are to be delivered complete with all audio files referenced by the session rendered as needed and placed in the audio files folder for that session by doing a "save copy in".

All sessions except edit sessions are to be consolidated and flattened prior to delivery-however, edit sessions still require all audio files referenced by the session to be included per above.

DELIVER FOR ALL NEW RELEASE TITLES:

(The below may be in reels or long form. If in reels, all reels can be in the same session, hour = reel#

1. 5.1 printmaster (PM) session
2. Lt-Rt printmaster (PM) session
3. 5.1 fully-filled M&E supersession (MESP). This contains a 5.1 M&E with dialog guide and one or more 5.0 multichannel optionals. LAYOUT IS IDENTICAL TO THE THEATRICAL MESP, BUT DOES NOT INCLUDE THE DIALOG STEM THAT IS OFTEN PUT IN THE THEATRICAL MESP
4. LtRt fully-filled ME supersession (MESP). This contains LtRt M&E with two mono optionals and mono dialog guide session (mono optionals are a crash down of multichannel optionals. Mixer to determine best way to combine the multichannel optionals to two mono optionals on a per-title basis.)
5. 5.1 "wide" home theater stems session (SMSP) (same stem types as theatrical)
6. 5.1 "wide" music and effects stems session (MESMSP) (same ME stem types as theatrical, same layout as PM stems but Dx stem is replaced by Fill M&E Stem.) Note that some M&E stems will have different content than PM stems (for example, due to content being pulled to an optional or additional foley added to a foley stem.)
7. 5.1 fully-filled effects stem (FFXSM). The fully-filled effects stem is a combined effects stem consisting of Backgrounds, Foley and Effects, plus the production effects and fill from the Fill M&E stem. Adding music to the FFX stem equals the fully-filled M&E. The fully-filled effects stem is in its own ProTools session. It is not in the same session with the M&E and Optionals (MESP).
8. 5.1 Home Theater Edit sessions (EDT). These contain the source elements and automation to get from the theatrical mix to the home theater mix. (For example, theatrical stems with mix automation.) Edit sessions must be rendered so the audio files are self-contained.

The below edit sessions must be delivered. They can be combined to a single session, or any combo of multiple sessions, depending on mixer preference. It is suggested that sessions be combined for ease in delivery.

- One common approach is one session with the printmasters and stems and another with the M&E's and M&E stems. In this case, the first session is rendered with the 5.1, LtRt printmaster and 5.1 stem audio files, and the second session is rendered with the 5.1 M&E, 5.0 optionals, LtRt M&E, mono optionals, dialog guide and 5.1 M&E stems audio files.
- If other soundfield configurations are being delivered (e.g. Atmos), can nest similar edit sessions together. See "Nesting" in the Atmos section
  - I. Home Theater 5.1 Printmaster edit session
  - II. Home Theater LtRt Printmaster edit session
  - III. Home Theater 5.1 Stems edit session
  - IV. Home Theater 5.1 MESP edit session
  - V. Home Theater LtRt MESP edit session
  - VI. Home Theater 5.1 M&E stems edit session

FOR TITLES THAT ALSO HAVE 7.1, the below are added:

(The below may be in reels or long form. If in reels, all reels can be in the same session, hour = reel#

1. 7.1 printmaster (PM) session
2. 7.1 fully-filled M&E supersession (MESP). This contains a 7.1 M&E with dialog guide and one or more 7.0 multichannel optionals. LAYOUT IS IDENTICAL TO THE THEATRICAL MESP, BUT DOES NOT INCLUDE THE DIALOG STEM THAT IS OFTEN PUT IN THE THEATRICAL MESP
3. 7.1 "wide" home theater stems session (SMSP) (same stem types as theatrical)
4. 7.1 "wide" music and effects stems session (MESMSP) (same ME stem types as theatrical, same layout as PM stems but Dx stem is replaced by Fill M&E Stem.) Note that some M&E stems will have different content than PM stems (for example, due to content being pulled to an optional or additional foley added to a foley stem.)
5. 7.1 fully-filled effects stem (FFXSM). The fully-filled effects stem is a combined effects stem consisting of Backgrounds, Foley and Effects, plus the production effects and fill from the Fill M&E stem. Adding music to the FFX stem equals the fully-filled M&E. The fully-filled effects stem is in its own ProTools session. It is not in the same session with the M&E and Optionals (MESP).
6. 7.1 Home Theater Edit sessions (EDT). These contain the source elements and automation to get from the theatrical mix to the home theater mix. (For example, theatrical stems with mix automation.) Edit sessions must be rendered so the audio files are self-contained.

The below edit sessions must be delivered. They can be combined to a single session, or any combo of multiple sessions, depending on mixer preference. It is suggested that sessions be combined for ease in delivery.

- One common approach is one session with the printmaster and stems and another with the M&E's and M&E stems. In this case, the first session is rendered with the 7.1 printmaster and stem audio files, and the second session is rendered with the 7.1 M&E, 7.0 optionals, dialog guide and 7.1 M&E stems audio files.
- Can nest these with the 5.1 edit sessions. If other soundfield configurations are being delivered (e.g. Atmos), can nest similar edit sessions together. See "Nesting" in the Atmos section.
    I. Home Theater 7.1 Printmaster edit session
    II. Home Theater 7.1 Stems edit session
    III. Home Theater 7.1 MESP edit session
    IV. Home Theater 7.1 M&E stems edit session

FOR TITLES THAT HAVE ATMOS, the below are added:

- See page 4 for formatting to **long form picture and for procedure in creating an exact file start of 00:59:30:00**.
- **After recording the first 15 seconds of the DAMF file and stopping, verify the .atmos file offset is 3570 seconds by opening it in a text editor. It can also be viewed in a RMU menu. This corresponds to 59.5 minutes x 60 sec/min. If it is not exactly 3570, the file must be created again prior to proceeding with the record.**

  - NOTE: For Atmos, the stems session is to contain all stem beds and all objects. If the Atmos mix was created with only objects and no stem beds, or if there is only an LFE track in the stem beds, the stem bed tracks can be empty and are named MOS in addition to the bed channel name. In addition, a "read me" is put into the session folder explaining the layout of the stems session.
  - NOTE: For Atmos, the printmaster session is to contain the composite printmaster bed and all objects. If the Atmos mix was created with only objects and no bed channels, or if there is only an LFE track in the bed channels, the bed tracks can be empty and are named MOS in addition to the bed channel name. In addition, a "read me" is put into the session folder explaining the layout of the session.
  - NOTE: For Atmos, if the stems and printmasters are recorded simultaneously, **they must be split up into two sessions** after the fact per the above. **Both will contain all objects**.

(**The below are long form and are conformed to the IMF proxy picture with 10 second head pop and 20 second tail pop**)

1. Atmos printmaster (PM) session. **This contains the printmaster composite bed and all objects.**
2. Atmos DAMF file (Note, this is actually a folder or zip with 3 files). This may be done on the mix stage or offline.
3. IAB (Immersive Audio Bitstream) file. This is exported from the DAMF file in the RMU or Dolby Conversion Tool. This is done offline from the mix stage.
4. ADM (ADM-BWF) (Audio Definition Model Broadcast Wave) file. This is exported from the DAMF file in the RMU or Dolby Conversion Tool. This is done offline from the mix stage.
5. Atmos fully-filled M&E (MESP) with all M&E bed channels and objects, layout matching the printmaster. Any optional material that is present in the 5.1 M&E must also be appropriately presented in the Atmos M&E. If any of the optional material was part of the OV Atmos mix, it is also to be in the Atmos M&E.

(**The below are in reels or long form)**

6. Atmos "wide" stems session (SMSP). **This contains all stem beds and all objects.** (Can be in reels or long form. If in reels, all stem types for each reel in same session, hour=reel#)
7. (For new titles only) Atmos "wide" music and effects stems session (MESMSP)(same layout as PM stems but Dx stem is replaced by Fill M&E Stem.) Note that some M&E stems will have different content than PM stems (for example, due to content being pulled to an optional or additional foley added to a foley stem.)
8. Atmos fully-filled effects stem (FFXSM). The fully-filled effects stem is a combined effects stem consisting of Backgrounds, Foley and Effects, plus the production effects and fill from the Fill M&E stem. Adding music to the FFX stem equals the fully-filled M&E. The fully-filled effects stem is in its own ProTools session. It is not in the same session with the M&E and Optionals (MESP), and contains a FFX stem bed and objects that are pertinent to the FFX stem (not all objects).
9. Atmos Edit Sessions (EDT). These contain the source elements and automation to get from the theatrical mix to the home theater mix. For example, theatrical stems with mix automation.
   - For example, if this is an upmix, the edit session is elements, stems, objects and mix automation. If this is a home mix of a theatrical Atmos, this is the Atmos theatrical stems session with objects and mix automation.

The below edit sessions must be delivered. They can be combined to a single session, or any combo of multiple sessions, depending on mixer preference. It is suggested that sessions be combined for ease in delivery.

- One common approach is one session with the printmaster and stems and another with the M&E's and M&E stems. In this case, the first session is rendered with the Atmos printmaster and stem audio files, and the second session is rendered with the Atmos M&E, optionals, dialog guide and M&E stems audio files.
- **Nesting**: It is recommended to self-contain just once for ATM + 7.1+ 5.1 + LtRT PM and Stems, placing these in a folder that includes separate sessions inside; and just once for ATM + 7.1+ 5.1 + LtRt M&E and M&E stems, placing these in a folder that includes separate sessions inside. These two EDT assets will cover all the formats.
  I. Home Theater Atmos Printmaster edit session
  II. Home Theater Atmos Stems edit session
  III. Home Theater Atmos MESP edit session
  IV. Home Theater Atmos M&E stems edit session

NOTE ON LIBRARY TITLE ATMOS UPMIXES

Deliveries 1-3 are the same as above. Delivery 4 is the same stem layout the library title originally had, and can include additional stems for added sound design if appropriate. Delivery 5, 6 and Delivery 7 IV are optional and depend on the nature of the available material on the title.

Table 1: Head Format: Long Form Audio Files

MASTER TC REFERENCE (Time code is 29.98)	ITEM DESCRIPTION	NOTES
00:59:30:00	Beginning of file (must be exact)	For DAMF files, since the RMU needs preroll, temporarily offset the source session to start at 59:15 and set RMU to have record start at exactly 59:30. Play and record up to 59:45 and stop. This will create the proper file start. Reset source session start to 59:30. Check .ATMOS file by opening in a text editor to make sure file offset is 3570 seconds. This corresponds to 59.5 minutes x 60 sec/min. This can also be viewed in a RMU menu. If it is not exactly 3570, the file must be created again prior to proceeding with the record. Play and punch DAMF before 59:45, be sure to catch pop at 59:50.
00:59:30:00 - 00:59:33:23	Slate	No audio
00:59:34:00 - 00:59:36:23	Black	No audio
00:59:37:00 - 00:59:46:23	BARS, Charts & 1kHz Tone	1K at -20dBFS over bars

MASTER TC REFERENCE (Time code is 29.98)	ITEM DESCRIPTION	NOTES
00:59:47:00 - 00:59:49:23	Black	
00:59:50:00 - 00:59:50:00	10-pop	1 frame of 1K tone at -40 dBFS on each channel
00:59:50:01 - 00:59:59:23	Black	
01:00:00:00 - 01:00:00:00	First Frame Of Picture (FFOP)	

Table 2: Tail Format: Long Form Audio Files

MXF TRACK FILE	DURATION	ITEM DESCRIPTION
LFOP + 00:00:00:01 - LFOP + 00:00:19:23	20 sec	No audio
LFOP + 00:00:20:00 - LFOP + 00:00:20:00	1 frame	Tail sync pop (20 sec after LFOP)
LFOP + 00:00:20:01 - LFOP + 00:00:25:01	5 sec	No audio