



Post Production Branded Delivery Specifications

Welcome

Below GEM partners will find delivery specifications required by GEM; however, some of these specifications may not apply to your production. Please refer to your GEM Delivery Requirements List or your GEM Representative to verify which assets apply to your delivery.

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General Asset Requirements

- No exceptions unless approved by GEM Representative.
- Source material must be uncensored.
- Content delivered as long-play single asset (splitting not accepted).
- PSE Compliance testing required for all animated content, per ITU-R BT.1702-1.

IMF Specifications

- Deliveries must comply with SMPTE ST 2067-21:2016/2020/2023 IMF Application #2E.
- Immersive sound must comply with SMPTE ST 2067-201:2019 Immersive Audio Bitstream Level 0 Plug-in.
- Use color timeline or intermediate mezzanine assets, delivering HD or UHD resolution.
- Intermediate mezzanine assets recommended as uncompressed 16-bit TIFF for HDR or 10/16-bit DPX for SDR.
- Final IMF package includes Asset Map XML, Packing List XML, Composition Playlist(s) per audio language.
- For Atmos titles, include image virtual track, IAB virtual track, optional surround and stereo tracks.
- 5.1 surround titles include image virtual track and surround audio virtual track.
- All MXF track files referenced must be delivered.
- For 29.97 or 59.94 IMF CPL segments, ensure total frames divisible by 5; trim if necessary.
- Timed text essence track files not supported.

Video

- Delivered at native capture/edit frame rate without 3:2 Pulldown flags.
- Delivered in original aspect ratio only.
- Full program with 1 second black and silence head/tail.
- Supplemental IMPs for redeliveries can include video inserts or full track replacements.
- Video must exclude commercial blacks, bars, ads, slates, ratings, warnings, branding/overlays except URLs in end credits.
- Video must be non-subtitled except titles or creative text; no burnt-in subtitles.

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- Dolby Vision mastered tracks require embedded L1 dynamic metadata for color volume transform per frame.
- HDR10-only material unsupported.

UHD Video Specs

- Resolution: 3840 x 2160
- Color: RGB 4:4:4 full range
- Frame rates up to 30fps: 4k IMF Single Tile Lossy Profile Mainlevel 6 Sublevel 3 (max 800 Mbps)
- Above 30fps: Mainlevel 7 Sublevel 4 (max 1600 Mbps)
- Pixel Depth: 12-bit (HDR) / 10-bit (SDR)

HD Video Specs

- Resolution: 1920 x 1080
- Color: RGB 4:4:4 full range
- Frame rates up to 30fps: 2k IMF Single Tile Lossy Profile Mainlevel 4 Sublevel 2 (max 400 Mbps)
- Above 30fps: Mainlevel 5 Sublevel 3 (max 800 Mbps)
- Pixel Depth: 12-bit (HDR) / 10-bit (SDR)

Audio

- Immersive Audio (Atmos®): 48 kHz, 24-bit
- Beds and objects separated and labeled per GEM guidelines (Dialog, Narration, Group ADR, Music, Backgrounds, Foley, Effects).
- Surround Audio (5.1): 48 kHz, 24-bit; channel mapping L, R, C, LFE, Ls, Rs.
- Stereo Audio (2.0): 48 kHz, 24-bit; channel mapping Left, Right.

Textless Version IMF Packaging

- Delivered after texted IMF approval.
- Supplemental IMF package based on approved texted version.
- Textless background or full video track replacement for shots with on-screen graphic text.
- Identical image properties and Dolby Vision metadata as texted version.

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- Cut to cut inserts only; no changes in audio or transitions.
- Graphic overlays considered texted elements.

Audio Mastering & Archive

- Discrete audio required; exceptions include muxed audio in IMF or interleaved secondary audio WAVs.
- Sample rates and bit depths followed GEM standards (48k/24b for Original Language/M&E).
- Audio synced with final picture including standard leaders/pops.
- 5.1 required, 2.0 optional. Mono duplicated on channels 1&2 if no stereo exists.

Audio Mix Requirements

- Near Field Atmos® Mix: minimum 7.1.4 room, Dolby Certification not required, follow GEM loudness and peak specs.
- Near Field 5.1 Surround Mix: 79 or 82 dB SPL, -27 LKFS \pm 2 LU dialog-gated, peak limit at -2 dBFS.
- Near Field 2.0 Stereo Mix: same loudness, mono compatible, special downmixing rules for fold-down.

Music & Effects (M&E) Mix

- Near Field Atmos® M&E Mix: mix in 7.1.4 room, true-peak limiter at -2.3 dBFS or lower, optional tracks as needed, printmaster conforms to Atmos printmaster.
- Near Field 5.1 Surround M&E Mix: fully filled 5.1 submix Music & Effects only, ambiences/foley included, optional tracks required.

VFX Archival Specifications

- Final assets used for creating delivered images must be archived, including shot directories and dependencies.

VFX Production Assets

- Lidar & photogrammetry of key environments (processed, no raw point clouds).
- Cyberscans named clearly, with folder hierarchy and scan info.

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- No zipped files accepted.

VFX Post Production Assets

- Plates in 16-bit EXR (ACES or camera linear), 16-bit DPX (camera log), or 10-bit DPX (primary 10-bit log capture).
- No LOG EXRs accepted.

VFX Shots

- Same file formats as plates; meet GEM shot & version naming standards.
- Provide proxy video (QT baked color) and mattes embedded or separate.

VFX Wrap Assets

- 3D models, proxies, named and organized with maps, rigs, etc.
- No zipped packages.

VFX Document Specifications

- Shot/Asset Status reports with cost summaries (template provided).
- Financial reports per vendor/episode.
- Production reports for exposure and budget contexts.

VFX Appendix

- Proxy Video Format: MP4/MOV containers; H.264 (Closed GOP), ProRes 422/HQ, DNxHD; resolution 640x480 to 4096x2160; Rec.709 color.
- Imaging/Object File Types evolving; approved extensions include JPEG, PNG, TIFF, PSD, EXR, DPX, OBJ, MB, MA, HIP, etc.

Language Codes

- GEM supports extensive language codes; contact GEM Representative about your specific language.

(This overview adapts GEM's branded delivery specifications from official partner help content.)