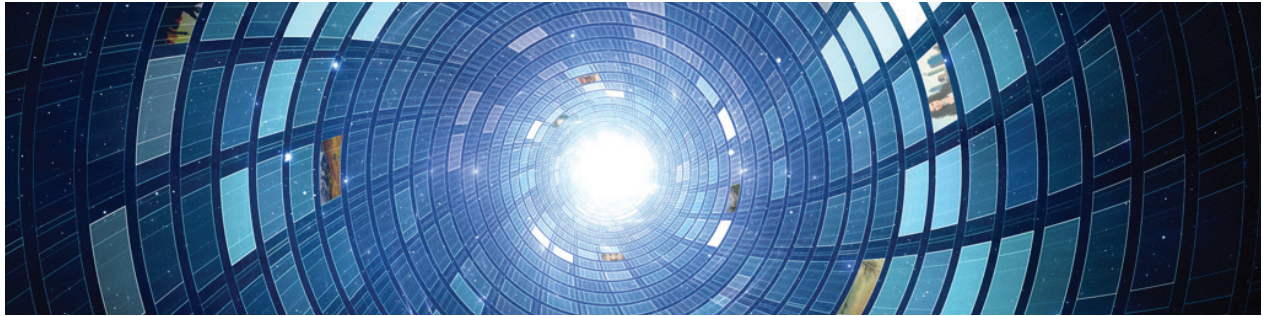


Post Producer

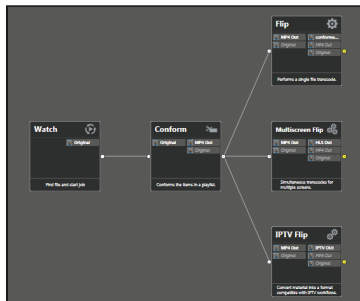
Product Sheet



Automate production tasks

Increase content value with faster turnaround and lower costs

Post Producer™ is the only system that fully automates production processes by assembling multi-layered video deliverables from content sources and masters.



Post Producer and Vantage transcode products integrate directly



Post Producer can import FCP7-XML directly from Adobe Premiere CC and Apple Final Cut Pro 7, and Simple AAF from Avid Media Composer 7/8

With Post Producer you can construct finished, branded assets to automatically repurpose media for today's multi-language, multi-platform distribution.

Ideal For:

- Frame accurate clipping and montage assembly of video sources
- Dynamic assembly of composition visuals from video and graphics sources and creation of titles
- Selecting, mapping and combining audio channels to match output requirements
- Inserting ancillary metadata for closed captions, subtitles, Vchip and dynamic advertising

Reduce Production Costs

By eliminating the need for “tag-and-bag” editing, Post Producer removes the need for costly editors to perform repetitive tasks. Content producers can spend more time creating high-quality creative material while Post Producer automates the repetitive production work required for final distribution.

Service More Distribution Channels

The automation of routine tasks provides cost-effective scaling of your production environment. Post Producer runs on one or more servers, working 24/7 to generate as many versions of each asset as necessary to meet your distribution needs. Post Producer is a workhorse that will allow you to scale up your distribution capacity without requiring additional manpower or edit bays.

Speed Up Production, Increase Content Value

For time sensitive material, Post Producer automates the assembly of final assets for worldwide distribution. Post Producer makes it easy to create a few or many iterations, with custom titles, audio tracks, graphics and other elements, with no editing required.



Content can originate as files or a live Pipeline ingest, and integrated Vantage transcoding and delivery ensures that the asset is repurposed, transformed and delivered with lighting speed.

How It Works

Post Producer runs on the Vantage media processing platform. It is an automated content assembly system that produces content iterations based on a template that can be created in Adobe Premiere Pro CC or Apple Final Cut Pro 7. It uses integrated variables in the NLE timeline to replace selected elements with alternative clips as the iterations are created. Since Post Producer is built on Vantage, it is compatible with any Vantage transcoding product, enabling simultaneous transcoding to virtually any video file format.

Automated Editing and Composition

At the heart of Post Producer is the Vantage Conform Action, which takes in template files that are a specialized XML format called CML (Content Markup Language), and uses the commands in those files to produce multi-layer video compositions with transitions and image effects, graphics overlays, conformed audio and titles - directly producing output media files in high-quality formats that can be distributed or transcoded to an available Vantage format.

CML/XML templates are either created in a supported NLE application (like Adobe Premiere Pro), or by developing files that interface to the Post Producer SDK to drive custom automation applications.

Import Other Playlist Formats

The Vantage Compose action transforms other playlist formats into Vantage CML format for easy migration of existing automation integrations. Anystream .an2 and Telestream TSEDL are converted and conformed by Post Producer.

Mix All Vantage Source Formats on the Timeline

Post Producer decodes and normalizes source content to match output requirements. Sources with different resolutions, aspect ratios, frame rates, and GOP structures, with incompatible audio track layouts, can be combined on-the-fly to create the desired output.

Post Producer decodes a wide variety of audio and video essence and container types (see format charts on next page). For additional source format support, Vantage will conform hundreds of essence and container formats for use in Post Producer editing.

Predictable Results

The creative editors define the look and feel of the output. Customers and distribution partners define the technical requirements of the assets. Template files capture both and are used to collect and process the source media to produce consistent results for promos, broadcast to VOD conversions, assembled playlists with interstitials and other commonly used content deliverables. In all cases, the decisions of the creative professionals are preserved in the templates and are reusable.

Convert to Any Vantage Output Format

Post Producer generates high resolution editorial and mezzanine essences that can be used as distribution formats or can be transcoded to any other Vantage distribution format supported by Vantage.

Workflow Automation Examples

Cable, IPTV, airline and taxi VOD production – Fully automate the editing process to remove or replace advertisements, add promos and rebrand on-air or cable broadcast content and transcode for all distribution partners.

Automated news – Edit on-air broadcasts into segments, create lower third titles with dynamically updated reporter name and story title by-line and format for television, broadband and mobile distribution.

Automated Weather updates – Assemble on-screen reporter audio, video, image sequences and overlays to create weather updates for hundreds of cities and regions with no manual intervention required.

International localization – Produce all of the versions for international distribution as a single job submission. If you need IMF Package Rendering, Post Producer can input complex IMF packages (CPL) and produce rendered outputs with subtitles. Templates define the various permutations of deliverables – for segment ordering, language dubs, frame rate conversion, localized captioning and subtitling, and audio track mapping – and then submit them with the mastered promo. Vantage Post Producer will conform each regional deliverable to specifications.

Promo assembly and insertion – Automate credit squeeze back and speed up, and superimpose promo video and audio to build promo segments on-the-fly.

Advertisement and promo insertion – Reorder video segments, remove ad black, insert interstitial video and audio, or add SCTE 35 or Black Arrow ad markets to monetize VOD assets.

Input & Output Formats

Input Formats

VIDEO INPUT

| Container Type | DV ¹ | IMX | MPEG2 ² | ProRes & ProRes 4:4:4:4 | DNxHD | JP2K | H.264 | AVCI | QT Animation |
|-----------------------|-----------------|-----|--------------------|-------------------------|-------|------|-------|------|--------------|
| TIFO | ■ | ■ | ■ | ■ | ■ | | | | |
| AVI | ■ | | | | | | | | |
| MOV ⁴ | ■ | ■ | ■ | ■ | ■ | | | | ■ |
| MP4 | | | | | | | ■ | | |
| GXF | ■ | ■ | ■ | | ■ | ■ | | | |
| LXF | | | ■ | | | | | | |
| MPEG PS | | | ■ | | | | | | |
| MPEG2 TS | | | ■ | | | ■ | | | |
| MXF OP1a | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | |
| MXF AS02 ³ | ■ | ■ | ■ | | ■ | | ■ | | |
| MXF AS11 | | | | | | | ■ | | |

Graphic File Input:
BMP, EMF, EXIF, GIF, GUID, ICON, JPEG, Memory BMP, PNG, TIFF, TGA, DPX Image Sequences, & WMF
Alpha Channel supported

AUDIO INPUT

| Container Type | PCM | MPEG | 302M | 331M | AAc | AC3 ⁵ | Dolby E |
|-----------------------|-----|------|------|------|-----|------------------|---------|
| TIFO | ■ | | | | | ■ | ■ |
| AC3 | | | | | | ■ | |
| AVI | ■ | | | | | | |
| LXF | ■ | | | | | | |
| MOV | ■ | | | | ■ | | ■ |
| MP4 | ■ | | | | ■ | | ■ |
| GXF | ■ | | | | | | ■ |
| MPEG2 PS | | ■ | | | | | |
| MPEG2 TS | ■ | ■ | ■ | | ■ | ■ | ■ |
| MXF OP-1a | ■ | | | ■ | | | ■ |
| MXF AS02 ² | ■ | | | | | | ■ |
| MXF XDCAM HD | ■ | | | | | | |
| MXF AS11 | ■ | | | | | ■ | ■ |
| WAVE | ■ | | | | | | ■ |

¹ DV includes DV25, DVCPRO25, DV50/DVCPRO50, and DVCPROHD.

² MPEG2 includes long GOP, I-Frame, XDCAM, XDCAM HD

³ Files produced by Omneon Media Subsystem (6.1) and Amberfin ICR (7.8) were tested

⁴ QuickTime formats include alpha channel support

⁵ AC3 includes Dolby Digital and Dolby Digital Plus (E-AC3)

Note: Vantage Transcoders can make additional input formats compatible with Vantage Post Producer.

Output Formats

VIDEO OUTPUT

| Container Type | ProRes | DNxHD | JP2K | MP2 | x264 | Uncompressed | XDCAM/HD |
|----------------|----------------|-------|------|-----|------|--------------|----------|
| TIFO | ■ ¹ | ■ | ■ | ■ | ■ | ■ | ■ |
| MP4 | ■ ¹ | ■ | ■ | ■ | ■ | ■ | ■ |
| MOV | ■ ¹ | ■ | ■ | ■ | ■ | ■ | ■ |

¹ output can be used with any Vantage encoder to produce any Vantage output

AUDIO OUTPUT

| Container Type | PCM | AC3 | AAC |
|----------------|-----|-----|-----|
| TIFO | | ■ | ■ |
| MP4 | | ■ | ■ |
| MOV | | ■ | ■ |

Automate the Creation of Rich, Animated Titles in Post Producer

Post Producer Titler Engine powered by NewBlueFX

Telestream and NewBlue, Inc— makers of production-proven video effects, transitions and titling tools— have jointly created the “Post Producer Titler Engine powered by NewBlueFX.” This important new Post Producer option leverages the power of NewBlue’s titling technology underlying its flagship offering, Titler Pro 3.

Titler Pro 3 integrates as a plugin into major NLEs, including Adobe Premiere Pro / AfterEffects and Avid Media Composer, and empowers editors to easily create high-quality title sequences. Now, as part of Post Producer’s automated content assembly process, the Post Producer Titler Engine introduces sophisticated 2D/3D animated title sequences with dynamic replacement of text, images, and more.

For more information on NewBlue Titler Pro and its affiliated titling tools, visit: <https://www.newbluefx.com/titling>

Solutions for Managing Content for Dynamic Advertising and VOD Workflows

Post Producer provides the content marking for Telestream’s Dynamic Advertising (DAI) and Video On Demand (VOD) products. For more information on VOD Producer and VOD Producer DAI, visit:

<http://www.telestream.net/vantage/VOD-Producer-DAI/overview.htm>

NLE Feature Support

| Editor | Version Supported | Export Format | Supports Variables? | Supports NLE Title Tool? | Transitions Supported A/V | Layers Supported | Supports Mixed Format Content |
|---------------------------------|---|---------------------|---------------------------|---|-----------------------------|------------------|---|
| Adobe Premiere for Mac OS | Premiere Pro CC Premiere Pro CC 2014 | FCP7-XML (XMEML) | Yes, via “Rename Clip” | Yes with Post Producer Titler Engine Option | Cuts, Fades, Cross Fades | 10 | All formats supported by Post Producer |
| Adobe Premiere for Windows | Premiere Pro CC Premiere Pro CC 2014 | FCP7-XML (XMEML) | Yes, via “Rename Clip” | Yes with Post Producer Titler Engine Option | Cuts, Fades, Cross Fades | 10 | All formats supported by Post Producer |
| Apple Final Cut Pro | Final Cut Pro 7 | FCP7-XML (XMEML) | Yes, via “Rename Clip” | No | Cuts, Fades, Cross Fades | 10 | All formats supported by Post Producer |
| Avid Media Composer for Mac OS | Version 7 and 8 | “Simple” AAF | Limited support | No | Cuts | 1 | No |
| Avid Media Composer for Windows | Version 7 and 8 | “Simple” AAF | Limited support | No | Cuts | 1 | No |

Features & Functions

Post Producer
Product Sheet

Post Producer Features

EDITING

| | |
|---|--|
| Source Trimming | Time, DF, NDF Time code |
| Montage assembly | Frame accurate edit assembly |
| Mixed source format decoding, normalize, assemble | Combine SD, HD, any frame rate into normalized output |
| Image sequence assembly | Video from image sequences at specified frame rates |
| Slate creation from image file | Set duration and frame rate of image file |
| Back timed edits | Set start and end timing from the end of clips |
| Dynamic content fill to edit point | Automatically aligns length of all layers to match the longest element |
| Direct convert (rewrap) source frames | Pass unchanged frames through the output container where possible |
| Separate audio and video sources | Combine audio and video from different sources |
| Frame rate conversion | Convert for regional requirements or to change display rates |

COMPOSITING

| | |
|----------------------------|--|
| Video layers | Virtually unlimited layers at HD resolution, resizing, location, opacity. 4K layer support may be limited depending on hardware. |
| Graphic overlays & control | Unlimited layers, BMP, EMF, EXIF, GIF, GUID, ICO, JPEG, Memory BMP, PNG, TIF, WMF, PSD (single layer) |
| Content advisory graphic | US TV |
| Dynamic text rendering | Font, size, color, bold, italic, underline, opacity from XML source text |

VIDEO EFFECTS

| | |
|--------------------------------|------------------------------------|
| Dissolve | Timed duration |
| Fade to color | Timed duration |
| Video scaling/resize | Timed duration |
| SD to HD resize with curtains | Stretch, crop, curtains, letterbox |
| HD to SD resize with letterbox | Stretch, crop, curtains, letterbox |
| Video cropping | Top, bottom, left, right |
| Mask insertion | Top, bottom, left, right, color |
| Resize and retime | Credit roll for promo creation |
| Color space conversion | RGB/601/709 |

AUDIO

| | |
|---|---|
| Track and Channel Remapping | Select specific audio tracks from multi-track mezzanine sources |
| Source mixing | Mix and combine multichannel audio tracks to form required output |
| Mono, stereo, 5.1, 7, 1 ² | Dolby Digital, AAC and uncompressed standards for multichannel audio tracks |
| Dolby E decoding and remapping ¹ | Decode Dolby E sources and map compressed tracks. Supports 5.1, 5.1+2, 2+2+2+2, 7.1 |
| Dolby E pass through | Pass through of Dolby E sources as 20-bit PCM |
| Track silencing | Create silent tracks |
| Phase shifting | Shift phases by 90, 180 and 270 degrees |

METADATA

| | |
|---------------------------------------|---|
| Closed Caption Pass Through | Pass through of embedded caption data |
| Closed Caption synthesis ¹ | EIA-608 and EIA 708 |
| Vchp encoding | US TV, MPAA, CELR, CFLR |
| SCTE 35 ad markers | Transport stream advertisement insertion distribution format |
| BlackArrow GOP structure and metadata | Conform output to Comcast ad insertion distribution format |
| CGMS-A copy protection | Content protection Copy freely, copy once, copy no more, copy never |
| Aspect Ratio Flag Setting | 16x9 and 4x3 for SD, HD and SD anamorphic content |
| AFD flag setting | Active format display |
| Nielsen C3 Watermarking ¹ | Viewership measurement |

COMPOSING AND TRANSFORMING PLAYLISTS

| | |
|-------|--------------------------------------|
| .an2 | Anystream Agility |
| TSEDL | Telestream FlipFactory and Vantage |
| EDL | Velocity Editor EDL |
| CPL | Composition Playlist for complex IMF |

TRANSCODING¹

| | |
|---|--|
| Input formats and wrappers | See list |
| Output to Mezzanine formats and wrappers | DNxHD, ProRes, JPEG2000, MP2 MP2, H.264, Uncompressed |
| Output to all Vantage formats ¹ | Mezzanine to any Vantage transcoder |
| Transcode of growing conformed media files ¹ | Realtime transcoding of the growing conformed video file |
| VPL per segment definition | Define video preprocessing parameters for individual segments ¹ |

¹ Requires additional Vantage transcoding options to process output

² Only supported in output formats that support 5.1 and 7.1 audio

FCP7-XML, SIMPLE AAF, AND QT-REF SUPPORT

| | |
|-----------------|---|
| Supported NLE's | Adobe Premiere Pro CC (Windows [®] , Mac via FCP7-XML), Apple Final Cut Pro v7 (via FCP7-XML), Avid Media Composer v7 / 8 (via "Simple AAF") |
|-----------------|---|

Features Supported in FCP7-XML Cuts, Clip Metadata, Volume Settings, Alternate Media Collecting, Scale of some elements, Processing of some sequences

Note: most effects will need to be rendered as a file and used by Post Producer during the assembly process

| | |
|-----------------------------|---|
| Simple AAF Support | Direct convert of Avid XDCAMHD from AAF source (via Compose Action) Simple AAF instructs Avid to render out the effects and provide those rendered files as media references in the CML, which are then processed by Post Producer. Supports single layer and non-mixed format content. |
| QuickTime Reference Support | Supports most Avid-produced QT-REF files exported to a Compose Action, which builds a CML file for downstream Conform processing. |

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