

Vantage Multiscreen 2022.1 Release Notes

2022.1.0.318407

About This Release

These release notes are applicable to the Vantage Multiscreen option. Please refer to separate release notes for Vantage Platform (Version 8.0 and above) and other ComponentPacs release's for additional information.

This release is a ComponentPac release for Vantage Multiscreen which includes new features, improvements, and bug fixes. **This ComponentPac requires, as a prerequisite, Vantage 8.0 UP5 or later.**

The release build number is: **2022.1.0.318407**

Note: When installing this ComponentPac, the Vantage Management Console will give a popup warning saying that this ComponentPac is designed for a future version of Vantage. This warning is triggered by the new versioning Telestream is using and will not cause issues. This warning has been removed in Vantage 8.1 UP1.

Note: Testing for this release was performed using Nvidia Driver version 471.41.

Highlights and Major New Features

- **TXMF-7176 New Nvidia NVENC SDK Implementation**, enabling B-frame support and more granular control of NVENC Codec for generation of H264 and HEVC (H265)
 - Up to 10 x performance increase for H265 at similar quality level to x265 at medium quality pre-set and up to 4 x faster for H264 at similar Quality level to x264 at medium pre-set.
 - **Note:** Capability of the NVENC encoder is dependent upon the Lightspeed server version that is being used.
 - **H264** – B-frame support is available on Lightspeed Models G5-G6-G7-G8 & G10
 - **H265** – B-Frame support is ONLY available on Lightspeed Models G7,G8 & G10
 - **Interlacing support** -is ONLY available on Lightspeed models G5-G6

- **TXMF-7215 / TXMF-7042 New Dynamic Ad Insertion capabilities** to include SCTE 35 Insertion to adaptive Transport Stream (ATS) and CMAF package types. This new capability enables users to utilize Mpeg Dash Mpd / XML Schema's, enabling I-frame and EBP insertion on the same frame as the SCTE Marker is inserted. SCTE35 passthrough is also available using the "Metadata Processing media" filter
 - For more information on DAI SCTE35 insertion, please refer to Implementation guide. "SCTE35 Dash Implementation Guide _V2.2.PDF"
- **TXMF-5841 Dolby Vision (Profile 5) Support** in X265 in MP4 & ATS Packager *(Requires additional Licenses)*
- **TXMF-7391 FrameFormer standards conversion implementation V 8.3 SDK** *(Requires additional Licenses)*
- **TXMF-7182 Re-Factoring of the New Colorspace filter**, enabling significant performance increases.
- **TXMF-7025 Added capability for Constrained CRF Rate Control** type to x264 & x265.
 - Enabling dynamic scene-based rate control. (Higher quality, smaller files!)
- **TXMF-7032 / TXMF-7105 Added capability for Dolby Atmos** signaling to HLS, CMAF, ATS and Mpeg DASH
- **TXMF-6982 Added capability for Dolby Atmos EAC3+ JOC Encoder**

Added Cloud Port capabilities

- **TXMF-7089 CML Lite support in Cloud Port**
 - Note: Only compatible with Vantage 8.1 and above.

Additional Improvements

- TXMF-7259** Adjustments to the Adaptive Transport Stream (ATS) Packager, fixing PTS alignment errors when delivering to a Velocix Origin Server.
- TXMF-7203** Improvement to the MP4 packager, enabling the user to set the encode type as “hev1” (HEVC only).
- TXMF-7136** Changes to HLS Packager, enabling version numbers in the m3u8 manifest to be compatible with Akamai stream validator.
- TXMF-7036** Added Three Letter Language Code Support to Multiscreen CMAF and DASH profiles.
- TXMF-6934** NexGuard JWT filter UI change, allowing the configuration to be saved if the Watermark License String for Cloud Deployment box is checked but no license string is entered.

Resolved Issues in this Release.

- TXMF-7469** Resolved issue when using the “Lightspeed GPU H264 / H265” encoders. This fix enables users to specify which GPU is used for a specific encode job. The “Device Index range” can now be set to 0-15 (0 is default).
- 0 = GPU 1
1 = GPU 2
- For Lightspeed servers with one GPU (G5 or G7) users should only specify “0”.
- If using Lightspeed server with 2 GPUs (G6, G8 or G10) use “0” and “1” settings depending on which GPU you want the encode to run.
- Note:** that users can choose different “GPU Device Index’s” for each Transcode Variant, enabling load balancing of GPU’s if the Lightspeed Server Support this.

TXMF-7426	Resolved UI display issue with the Lightspeed GPU H264 encoder, where the bitrate of the transcode is not shown in the interface.
TXMF-7394	Resolved issue when using “Media to keep” with CMAF package type “Template Index”. Segment calculation error.
TXMF-7378	Resolved Issues where there is a misspelled word in the Constant Rate Factor U/I.
TXMF-7311	Resolved issue when utilizing the Lightspeed GPU encoder H.264 & H265 Lossless Tuning fails
TXMF-7189	Resolved Issue in the Dolby Atmos Encoder UI, the bitrate of the output now shows the correct bitrate for output.
TXMF-7051	Added ability to add language tags to HLS manifest files for Audio only Variants.
TXMF-4476	Resolved issue when decoding Dolby E with 2 x 2.0 tracks to PCM which resulted in silent output.
TXMF-3559	Resolved issue when using the Lightspeed GPU H.265 encoder where the encoder does not mandate the Lightspeed "Run On Rule"
TXMF-7207	Resolved issue in the Microsoft Smooth Streaming packager where Multiscreen is incorrectly outputting Audio Tracks.
TXMF-7392	Resolved issue when encoding to X265, where the output stutters on Panasonic TV & IOS devices.
TXMF-7318	Added ability to insert Audio Language Tags to MPD Manifests in CMAF Packager.
TXMF-7223	Resolved issue when creating Smooth Stream packages, where the track ID is set to '1' for all tracks.
TXMF-7028	Resolved issue when upgrading the Multiscreen action, which fails when having resizing filter enabled.
TXMF-5820	MP4 mpeg audio missing codec parameters
TXMF-3599	Resolved issue with block artifacts appearing in content when applying Media Trim filter.

- TXMF-7357** Added capability in the HLS packager, enabling “Add Non-Standard Codec to Media” and “Segments Rounding Mode” bindable in the UI.
- TXMF-6603** Added capability in the MP4 packager, enabling 'Trim audio to video duration' checkbox.

Known Issues in This Release

The following are known issues in this release, which may be fixed in a future Vantage or Vantage component release.

- **Garbled Output when using P3-P7 presets in NVENC H264 codec (Lightspeed GPU H264)**

When creating Interlaced outputs and setting **Tuning** to "High Quality" and **Presets** are set to "P3" to "P7" the outputs will have jittery interlacing artifacts.
If **Frame Type** Max B-frames is set to 0 the jittery interlacing artifacts disappear

- **WebM Output Can Cause Playback Issues in This Release**

Customers needing WebM containers/encoding should continue to use previous ComponentPac versions under Secure Version Control until this issue is addressed.

- **Media Expansion Converter and Discontinuous Timecode**

There may be cases where use of the Media Expansion Converter will produce discontinuous timecode due to inserted media. In the future there may be more options to control this behavior.

- **Using Multi-Pass Encoding with x265**

Multi-pass encoding in x265 is currently limited to two passes. Attempting more passes will result in an error.

- **Two Pass Encoding and Open Workflows**

When two pass encoding is enabled Vantage actions may not be used in Open Workflows. An action in the Open Workflow mode which attempts two pass encoding will hang and does not provide an error that two pass encoding is currently unsupported with Open Workflows.

- **NexGuard Filter hangs when generating multiple outputs**

When utilizing the Nexguard filter, generating multiple outputs can cause a hang at 99%, which eventually results in an error.

- **Upgrading of Multiscreen actions with LightSpeed GPU H264 and H265 codecs**

As we have implemented a new Nvidia SDK with many more features, it is not possible to upgrade actions from older ComponentPacs which use the Lightspeed GPU H264 or H265 codecs. It is advised that Multiscreen actions requiring this codec are generated from scratch.