



Vantage Multiscreen 2023.1 Release Notes

Date 27th Feb 2023

About This Release

This release is a ComponentPac release for Vantage that includes new features, improvements, and bug fixes. The release build is: # **2023.1.0.250**

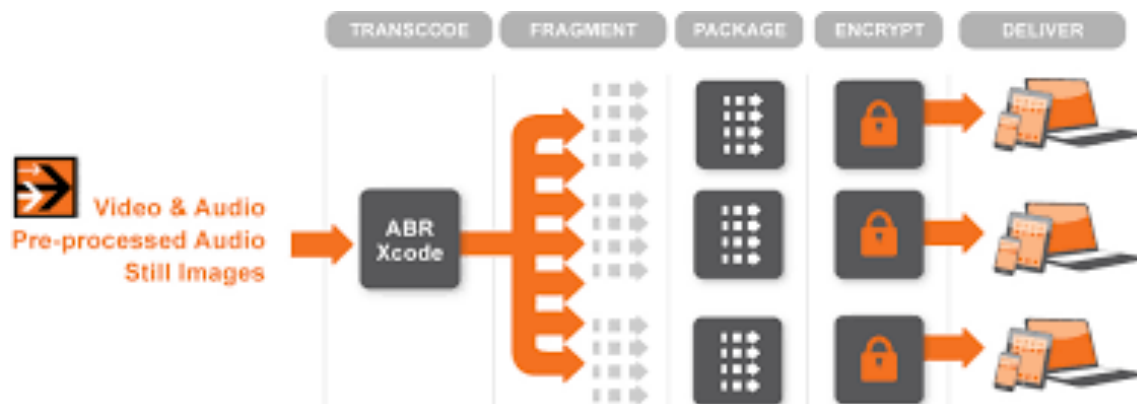
These release notes are applicable to the Multiscreen option for Vantage. Please refer to separate Version 8.0 / 8.1 release notes for Vantage Platform and other components of Vantage for additional information.

Note: This release requires Vantage 8.1 or Vantage 8.0 UP4 (or later). Vantage 8.0 UP4 also requires Vantage Patch:

Vantage_8_0_ComponentPac_Upgrade_Patch_Setup (8.0.958.135).exe.

Both Vantage 8.0 UP4 and the patch need to be installed on every Vantage server and every client only machine. If you are using Vantage 8.1, then just Vantage needs to be installed on every Vantage server and every client only machine.

Note: The supported Nvidia Driver for this release is 471.41





New Major Multiscreen Features in this Release

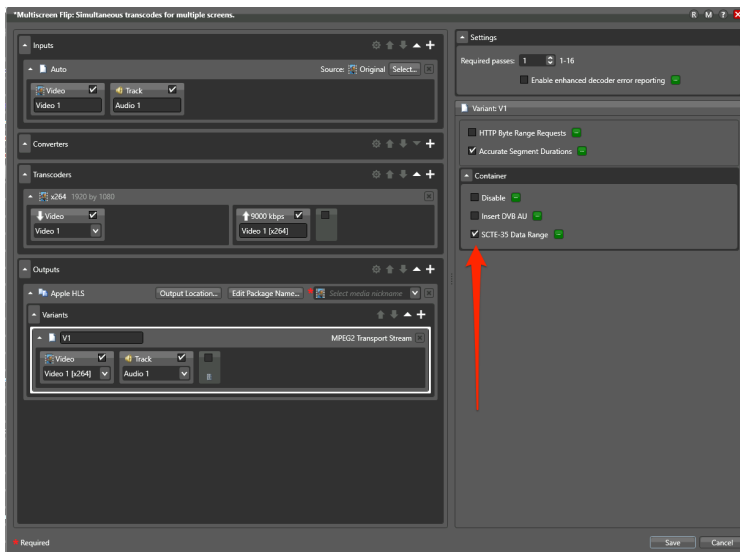
Dynamic Ad-Insertion

SCTE 35 Marker insertion Support and IDR Conditioning for ABR outputs

TXMF-7975 Multiscreen now can insert SCTE-35 Ad insertion markers with their corresponding IDR Frame, previously we only inserted the insertion of SCTE-35 marker to Transport stream files utilizing the ATS packager. Multi-Screen now supports the following package types and DAI insertion methods.

Streaming Method / Multiplexer	Profile / format / Variants	UI option	Manifest includes SCTE-35 markers	SCTE-35 carried in container	Note	Issue Observed
MPEG DASH	MPEG2 Simple profile	SCTE-35 Binary Trigger / SCTE-35 XML Trigger	No	Yes (ts)	Currently when inserting SCTE-35 with Transport stream based packages, the SCTE-35 markers are always inserted to the Transport stream container, not the manifest file.	
	MPEG-4 On-demand profile		Yes	NA (mp4)		presentationTime and ptsTime in mpd does not match.
	MPEG-4 Main profile		Yes	NA (mp4)		
	MPEG-4 Live profile		Yes	NA (mp4)		
Apple HLS	Mpeg2 Transport Stream	SCTE-35 Data Range	Yes	Yes (ts)	Currently when inserting SCTE-35 with Transport stream based packages, the SCTE-35 markers are inserted in both Transport stream container and manifest file.	scte-35 markers in ts file are not as expected
	Fragmented mpeg-4		Yes	NA (mp4)	The SCTE-35 Date Range is the recommended approach as per spec. There are two more ways to carry SCTE-35 markers which we do not support 1) SCTE-35 can be carried in TS as timed metadata in ID3 format. 2) EXT-X-SCTE35 tag in m3u8. (Legacy approach)	
CMAF	Segmented mp4	SCTE-35 Binary Trigger / SCTE-35 XML Trigger and SCTE-35 Data Range	Yes (both mpd and m3u8)	NA (mp4)		
ATS	Mpeg2 Transport Stream	NA	No	Yes (ts)	Creates only Dash manifest. No UI option to add the SCTE markers to manifest	
Syntactic	Mpeg2 Transport Stream	NA	NA	Yes (ts)		

Note: when inserting SCTE-35 markers into HLS packages, using the below setting in the HLS package type, we currently see an issue with the SCTE-35 positioning. This will be addressed soon.





[TXMF-8245](#)

New DAI - SCTE-35 - UI option (check box) Which allows users to consider the "ptsAdjustment" parameter in an .mpd. If the checkbox is un-ticked then the pts Adjustment parameter will be ignored.

This would be used if the target device (Phone / set top box etc) required a Presentation time stamp (PTS) Adjustment, most modern devices do not require this setting. Normally as per the mpd specification, the creator of a cueing message will place a zero value into this field.

[TXMF-8004](#)

New Implementation of Intelligent Source Management, enabling users to setup complex actions which can adopt to different number of Audio and Subtitle / Caption tracks. This new feature can significantly reduce workflow complexity, specifically when driving Vantage workflows via API.

This feature had been previously implemented in IPTV VOD and now has been replicated in Multiscreen.

Please note there are two types of "Intelligent Source Management".

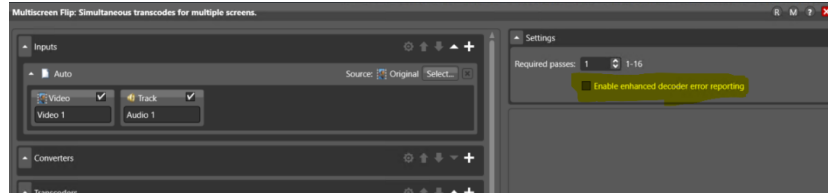
1. For Transport-stream files that contains Track metadata, which include audio layout, language code and Audio Codec information. Multiscreen can use this information to dynamically adjust the output based on the source.
2. For Files with PCM Audio and external Subtitle of Caption files. As PCM Audio does not have the concept of Tracks or Metadata defining language Tags, this information must be derived via external metadata, utilizing variables. Normally when using PCM Audio a MAM or Automation system would drive Vantage via API and dynamically adjust Audio Mapping and decide if Audio tracks are outputted from the Multiscreen Action.



New Features

[TXMF-8124](#)
&
[TXMF-8039](#)

New Capability that enables enhanced decoder error reporting, this setting is bindable to a variable. Available in the “Auto” Decoder. This parameter can be bindable via a “True/False” variable.



With enhanced decoder error reporting, unrecognized input media types will cause Multiscreen transcodes to fail. When disabled, errors that may lead to corrupted output, other errors, or no output at all are ignored in favour of potentially creating an output file.

[TXMF-8113](#)

New Multiscreen now supports the Main Concept H264 transcoder on Telestream Cloud Port.

[TXMF-8003](#)

New Capability in Intelligent Source Management: - allowing "Disable Processing" for DTS-HD Transcoder

[TXMF-7936](#)

New cloud port capability allowing Dolby Vision HDR to SDR filter to be used in Cloud mode.

[TXMF-7729](#)

New filters in the LS GPU H264 codec, enabling.

1. “Time code Processing Filter”
2. “Timecode Burn-in Filter”

[TXMF-7494](#)

New Capability for intelligent source Management, Adding Audio Codec Validation to ATS / HLS and Dash package types

[TXMF-6693](#)

New Capability for intelligent source Management, Enabling "Ignore Missing stream" (previously called “Always create output”)

Previously this capability only worked with CMAF package types, this now works will all package type Multiscreen supports.



Resolved Issues

[TXMF-8165](#)

Resolved issue where HLS Segments did not start with an IDR frame.

[TXMF-8159](#)

Resolved issue where ATS Outputs did not have the correct AVC Video Descriptor in the Program Map Table (PMT).

[TXMF-8156](#)

Resolved issue where an A/V duration mismatch was identified, when utilizing a HLS output. This resulted in output media with a duration that is less than or equal to 32ms.

[TXMF-8089](#)

Resolved issue when Multiscreen fails when decoding XAVCi / AVCi source.

[TXMF-7994](#)

Resolved issue where the new Keyframe encoder inside multiscreen is not correctly licensed using the following license SKU: V-XCODE-MULTI-SW. The Keyframe encoder Is now included in this license type.

[TXMF-7941](#)

Resolved issue where there was a media duration difference between video and audio segments in CMAF. The output led to audio breaks. This issue is now resolved.

[TXMF-7932](#)

Resolved issue in the HDR to SDR conversion filter, the HDR format metadata was not getting changed for the output file.

[TXMF-7921](#)

Resolved issue where a GPU performance degradation was seen in comparison to older versions of multiscreen (7.1.6).

This was most evident when doing 1 job at a time. Performance is now better than seen previously.

Note: Nvidia Driver version 471.41 was used for qualification.

[TXMF-7444](#)

Resolved issue with Numa utilization & job performance. This was a result of Jobs not being distributed correctly over multiple NUMA's. Please note that this only effects servers with >64cores, mandating more than 1 Numa.

Note: This fix requires an update to the OpenCL drivers 18.1 which can be downloaded from the intel site at:

http://registrationcenter-download.intel.com/akdlm/irc_nas/vcp/13794/opencl_runtime_18.1_x64_setup.msi

To re-iterate, this only needs to be installed on machine that have more than 1 x Numa (>64 cores)



[TXMF-7433](#)

Resolved issue when customers were seeing an A/V duration mismatch for HLS outputs



Known Issues.

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

The capabilities of Nvidia NVENC “Lightspeed GPU” are different depending upon the Lightspeed Model you are using. (TXMF-6440)

G7,G8,G10 Lightspeed - Utilizing the RTX4000 GPU- Interlacing mode is not possible on these server, however B-frame support is available for both H264 and H265 which significantly increases Quality

G5, G6 Lightspeed – Utilizing P4 or P4000 GPU – Interlace mode is possible utilizing H264, however B-frame support is only possible in H264, which significantly increases quality. B-frame support is not possible in HEVC

Note:- If you try and run an interlaced job on a G7, G8, G10 server you will receive the error message “Error creating GPU compressor: device does not exist” In a future release this error message will be made more clear ([TXMF-7440](#))

Note:- Quality issues have been experienced when using P3 and above presets, when in NVENC interlaced mode. To alleviate this, it is recommended to use the following command line setting “--useBframeAsRef=0”. This command turns off B-frame referencing.

- Garbled Output when using P3-P7 preset’s in NVENC H264 codec (Lightspeed GPU H264)

When creating Interlaced outputs and setting Tuning to "High Quality" and Preset’s 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.

- **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 these codecs are generated from scratch.

- **SCTE-35 Insertion filter**

It is not possible to use SCTE-35 insertion from DASH file in combination with SCTE-35 from the source (Passthrough). Please use either insertion or Passthrough.