



Viz Engine Release Notes

Version 5.4



Viz Engine



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 - C:\ProgramData\[Product Name]
 - Any custom directory where [Product Name] stores data, and any specific process related to [Product Name].
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1 Viz Engine 5.4.1

Release Date: 2025-11-19

These are the release notes for Viz Engine version 5.4.1. This document describes the user-visible changes that have been made to the software since release 5.4.0

 **Note:** Viz Artist maintains its release notes in a separate document starting from version 3.12.0.

1.1 Installer Notes

1.1.1 General

The Software ships with a bundle installer containing all necessary components. It is recommended to use the bundle installer when setup needs to be done manually.

- The Setup application (both MSI and Bundle installer) must be run in Administrator mode.
- Visual C++ Redistributable files are no longer part of the *.msi* setup file. These files are now installed with the bundle setup application (VIZENG-13210, VIZENG-12629, VIZENG-12701).
- The bundle setup application installs or upgrades Viz Artist together with its required Visual C++ Redistributable files (VIZENG-12936, VIZENG-13804).
- All files contained in the bundle setup application can be extracted using the `/dump` command line option. This creates a sub-folder where the files are extracted (VIZENG-13020).
- Multiple installations of Viz Engine are not supported.
- The installer automatically upgrades (replaces) any existing Viz Artist/Viz Engine 3.x installation. However, downgrading is currently not supported (VIZENG-7098).
- If Adobe After Effects is installed after Viz Engine, the Viz installer needs to be executed again to install the AE plug-in (VIZENG-7876).
- The user account must have *SeCreateGlobalPrivilege* (SE_CREATE_GLOBAL_NAME) enabled.
- The configuration profiles shipped with Viz Engine guarantee a correct Audio/Video delay, to have a proper lip-sync setup or a correct video wall installation. A manual configuration (for example, number of inputs, clips, etc.) is still required, after applying these profiles (VIZENG-18861).
- To use Global Illumination in Viz Artist/Viz Engine, at least Direct X version 9 is required. (VIZENG-19983).
 - **Download the DirectX End-User Runtimes (June 2010):**
 - Microsoft Download Link: [Download DirectX End-User Runtimes \(June 2010\) from Official Microsoft Download Center](#)
 - **Extract the files:**
 - Run the downloaded *.exe* and select a folder for extraction.
 - After extraction, navigate to that folder and run *DXSETUP.exe*.
 - **Complete the installation:**
 - This installs all missing legacy DLLs, including *d3dx9_43.dll*.
- The Basic, Viz DataPool, Viz PixelFX, Viz Maps, Viz Extension and Viz Socialize plug-ins are released together with Viz Engine, starting with version 4.0.0, and are included in the bundle installer. The basic plug-ins are installed by default.

Note: In case of installing Viz Engine with the individual MSI installer and not the Viz Artist Bundle installer, ensure all runtime dependencies are up-to-date (for example, Viz Engine does not start with an outdated Microsoft Visual C++ 2015-2022 Redistributable (x64) version). The minimum required version is 14.40.33810 (https://aka.ms/vs/17/release/vc_redist.x64.exe). If Microsoft Visual C++ 2015-2022 Redistributable (x64) - 14.40.33810 is already installed and Viz Engine is not starting, the runtime installation could be damaged. Reinstall the runtime redistributable in this case. The related installer is part of the Bundle installer.

Information: In case of upgrading from previously installed versions, and the upgraded version comes with a new CodeMeter version, make sure that all the applications installed using CodeMeter on the same host, are still running.

1.2 Fixed Issues

1.2.1 Fixed Issues: General

Key	Summary
VIZENG-34211	DataManipulate in Viz Engine Renderer causes Viz Engine issues
VIZENG-34088	Viz doesn't start when AudioOn = 1 on certain hardware
VIZENG-34075	Viz Engine 5.4.0 crashes with TL and SUBSCENE workflow (Classic)
VIZENG-34048	Issue retrieving Scene Tree statistics
VIZENG-34025	Audio distorted when playing back multiple audio files
VIZENG-34024	License error messages are only shown once when local Wibu dongle isn't available anymore
VIZENG-33998	Crash in RenderToDiskManager database notification code

7 issues

1.2.2 Fixed Issues: Renderer

Key	Summary
VIZENG-34229	High GPU utilization after initializing scenes
VIZENG-34092	Crash when using TFX plugins with text underline
VIZENG-34080	Text issues with specific Hindi Font

Key	Summary
VIZENG-34075	Viz Engine 5.4.0 crashes with TL and SUBSCENE workflow (Classic)
VIZENG-34048	Issue retrieving Scene Tree statistics
VIZENG-34036	Scene Editor View does not match the scene aspect ratio in VER Scene
VIZENG-34017	Heavy GPU usage when starting Trio and renderengine_version_default = V3
VIZENG-33803	Live input freezes inside the Superchannel A to B switch happens
VIZENG-33770	Garbage mask flickering on the camera switch with delay bigger than 2

9 issues

1.2.3 Fixed Issues: Video IO

Key	Summary
VIZENG-34253	Clip jitters on play
VIZENG-34213	Script command script Clip.Play(fromframe) stops audio if clip is already playing
VIZENG-34095	Audio: OGG and WAV issues with container copy
VIZENG-34079	Texture Renderer clips set to live play are using resources, even they aren't used inside the scene.
VIZENG-34058	Matrox Clip Player skips audio for 10 frames
VIZENG-34055	Engine freezes when receiving a specific character in Closed Caption while CC Extraction is used
VIZENG-34044	HVEC clip doesn't play inside the stage
VIZENG-34030	When using IGMPv3 audio and ancillary data flows don't store the source IP address
VIZENG-33991	Uneven Height Content used in Interlaced Super Channel or Clip Channel cause a crash
VIZENG-33803	Live input freezes inside the Superchannel A to B switch happens

10 issues

1.3 Security Updates

Key	Summary
VIZENG-34214	CVE-2025-23345, CVE-2025-23309, CVE-2025-23352: Update Nvidia driver to 573.76 / vGPU 18.5
VIZENG-34152	CVE-2025-10585: Update Chromium Embedded Framework

2 issues

1.4 Changes

1.4.1 Upcoming Changes

- In the next version of Viz Engine, support for SNMP will be completely removed.

1.4.2 Changes: Renderer

- Viz Engine 5.4.1 added support for custom aspect ratios inside the Scene Editor. Therefore, adaptive scenes might look wrong if the scene is not set to **Format** in Camera Aspect Scene Settings.
 - NVIDIA Kepler GPUs were set as deprecated (NVIDIA isn't supporting Kepler boards in newer driver versions anymore).
 - The final position and size of scaled image channels in DVE mode might change by 1 pixel after fixing rounding issues.
-

1.5 Known Issues

1.5.1 General

- Saving a new scene with references that do not exist anymore fails. Those references need to be removed manually to save the scene.
- Importing HDR images with special characters in its file name from a drive with 8dot3 disabled fails.
- Transition Logic scenes require to have `GeomAutoFree = 1` set in the Viz Config file. With inactive `GeomAutoFree`, system stability is not guaranteed.
- Interactive Applications within a GFX channel only work in DVE mode in Fullscreen or if the GFX channel has an offset in Fullscreen. Scaled GFX channels or plug-ins that rely on screen coordinates (Graffiti) are not supported.
- Bones and Skin live motion data tracking requires Tracking Hub 1.1.2 (released together with Viz Engine 3.11).

- Viz Engine REST interface does not start if a user is Non-Admin (VIZENG-23386).
- On Air output shows wrong field-of-view if AuxRenderer is enabled, PP in scene editor is disabled and Viz Engine is not in On Air mode.
- The Toggle plug-in can not handle the background loading of objects or scenes.
- Oversized snapshot requests (bigger than the configured output resolution) in the Classic Render Pipeline aren't supported. Use the Viz Engine Render Pipeline instead.
- The `clog` command now includes all child processes. Upon abnormal end, all child processes are terminated before a restart is attempted (VIZENG-11361).
- SNMP is deprecated by Microsoft. To use SNMP with Viz Engine 5.4.0, SNMP and VBScript must be manually installed as Windows Components before installing the Viz Engine. See also *Upcoming Changes*.
- Scaling directors down can cause keyframes to be scaled down to 0.0. These values do not recover when scaling directors up again afterwards (VIZENG-31610).

Key	Summary
VIZENG-34277	[MIGRATION] Text fgColor keyframes not preserved when 3.14.5 scene is opened in 5.4
VIZENG-27515	AJA IO: Embedded Audio only available if SDI Input enabled
VIZENG-33562	Allow round-trip conversion between dynamic and static geometries
VIZENG-34094	animation for Sub Scene jumps from one director to another
VIZENG-32623	Assets flicker on video wall system
VIZENG-29680	Change Audio Backend on EAS
VIZENG-32400	Changing Spline types is not considered in Undo/Redo
VIZENG-31745	Consider Gamma Correction in Material Definition Icon Generation
VIZENG-28452	Consolidation of logging settings and configuration
VIZENG-27866	Enable individual volume control for tracks
VIZENG-31127	Experimental: Reduce overall in-to-out delay in Fast Texture Mode
VIZENG-28344	GH Sync: support main/replication setup
VIZENG-33515	Importing multiple AE scenes at the same time fails
VIZENG-30569	Improve Undo/Redo performance on larger GI scenes
VIZENG-24017	Improve VizEngine startup time
VIZENG-29589	Maya 2024 doesn't support Viz Maya plugin

Key	Summary
VIZENG-31624	Optimize transform update
VIZENG-33414	Renderer: DVE placeholder not visible in Front or Back layer
VIZENG-31946	Renderer: opaque materials affects key in overlay sequence
VIZENG-34209	Scene with ezJavascript plugin crashes when used inside a GFX channel
VIZENG-32399	Stop/Pause/Tags are not considered in Undo/Redo
VIZENG-29623	Text: global config for default font style
VIZENG-34267	TNT Project crash in Editor mode after 20-24h
VIZENG-26964	Used lens distortion parameters not in sync with main scene
VIZENG-33601	VizEngine does not always switch back to GH main after main shutdown and startup
VIZENG-34221	Wall engine running with FULLSCREEN 59.94Hz runs at 50Hz in Software I/O mode

26 issues

1.5.2 Installation

- Do not use the C4D Version 15R2 patch file(s) unless you are using this version. Otherwise, it prevents Cinema 4D R16 from starting up.
- When uninstalling Viz Engine, the installer might report that links could not be removed. Please check that none of the *desktop.ini* files of Windows have write protection. For example, Skype seems to change the permissions of some *desktop.ini* files with every update.

1.5.3 Windows 10

- Right-clicking on the Taskbar icon of Viz Engine starts a new instance. Starting an additional VizGui process is prevented on Windows 10.
- Error message "Windows Media Player Rich Preview Handler has stopped working while opening specific clips with Softclip x64". To fix, open **Windows Explorer > Tools > Folder options > View tab**, and deselect *Show preview handlers* in the preview pane.

1.5.4 Videowall

- It might happen that Viz Engine is running at half speed on videowall, but goes back to full speed if another window comes into focus. If so, start `viz.exe -y -w`, instead of the regular videowall mode `viz.exe -n -w`.

- GFX channels with Alpha != 100% decrease render performance. On video wall setup, `gfx_channels_antialiased = 0` should be turned off in the Viz Configuration section **RENDER_OPTIONS**.
- Windows scaling can lead to unwanted side effects.
- The maximum resolution on videowall setups is limited to 16392px by 16392px.
- Enabling video output for Video Wall setups is not recommended for performance reasons. It is recommended to grab the audio from one of the HDMI/DP outputs of the NVIDIA GPU and use an Audio embedder instead.

1.5.5 Configuration

- Specifying a path in the configuration file including the # character is not supported. Such paths are cut before the # character.

1.5.6 Viz Engine Render Pipeline

- Existing Scenes using Global Illumination might need a precompute again to enable debug views.
- Background loading of external images (filesystem, network locations, etc.) is not supported. Images from Graphic Hub should be used.
- Flexbox labels in Scene Editor do not support Unicode characters.

1.5.7 Classic Render Pipeline

- Scene Transitions within GFX channels or Superchannels are not supported.
- Soft Shadow intensity is currently not working together with Global Illumination.
- We recommend using a warmup scene showing all needed assets once. Under certain circumstances, video and clip surfaces can show up red the first time being used.
- Playing Audio clips on systems with no physical audio hardware available stops the renderer. You need to turn off audio in the configuration file.
- On some systems with hybrid graphics, like laptops, the dynamic swapping must be disabled in the BIOS and the stronger GPU must be assigned as default.
- Stencil-based shadows (Caster/Receiver) do not work on rotated geometry.
- When changing `CurAuthUnsafe = 1`, Viz One Browser does not work anymore.
- VGA Fullscreen Output is only active if offscreen rendering is turned off. Setting `offscreen=0` in section **RENDER_OPTIONS** enables fullscreen output.
- Blending cubemapped images are not supported.
- Cubemapping with Browser plug-in is not supported.
- Fonts need to be re-imported to use new Pathrendering or Razor fonts technology.
- Masks are not supported on Path rendered Fonts (VIZENG-13737).
- Do not send other commands than `IS_RENDERER_READY` and database connection commands before this command returns `1`, otherwise the renderer and video output might not be initialized.
- If you encounter stability issues with an NVIDIA driver or issues during driver installation, uninstall the old NVIDIA driver completely, delete the folder `C:\Program Files\NVIDIA Corporation\Installer2`, install the new

driver and select **Custom installation**, then check-mark the perform clean installation option and finish the installation.

- Enabling background loading might decrease the render performance by up to 15 frames per second. This is due to OpenGL requirements.
- M-Zone keyer only works with HD when rendering with full frames.
- Decreased render performance in HD since Viz Engine 3.5.0 when the ringing filter is activated. Before Viz Engine version 3.5.1 there was no ringing filter for HD. Turn off the ringing filter via configuration or scene-setting to get the same performance.
- Sporadic NVIDIA driver error The NVIDIA OpenGL driver lost connection with the display driver and is unable to continue. which in turn causes Viz Engine to freeze. Make sure that the driver profile **Workstation App > Dynamic Streaming** is selected. Always use the recommended NVIDIA driver for your GPU.
- Possible performance problems with scenes imported from Viz Engine 2.x. Check the following settings (applies to old 2.x scenes only):
 - Image Combining should be set to Multi Texturing in the Render options in the configuration (or flag `combine_with_multitex = 1` in the configuration file) to avoid inefficient image combining.
 - Set Key Render Mode to Single Pass in the rendering options in the configuration. The Key Render Mode can also be set on scene level. Available options are:
 - Config (inherit the setting from the configuration).
 - Single Pass (fill and key are rendered in a single pass).
 - Double Pass (fill and key are rendered in separate rendering passes).
 Key rendering results differ between these options for compatibility reasons.
- Use Single Pass scenes imported from Viz Engine 2.x and Double Pass for Viz Engine 3.x scenes.
- The configuration flag `exec_all_animations` in the section RENDER_OPTIONS should be set to `0` if it is not necessary to execute hidden animations.
- Turn off the VGA preview in On Air mode to avoid performance drops due to multiple rendering of the scene (applies only to video version of Viz Engine).
- Hide containers that are not required for the current animation.
- Re-import fonts directly with the Viz Engine.
- Grid picking currently only works for Cube and Cylinder geometry.
- The behavior of scripts with cyclic dependencies to other scripts is undefined. Avoid cyclic dependencies.
- Bad performance when using multiple dynamic scenes, even if they are set inactive. To avoid unnecessary updates, change the **Update mode** in **Dynamic Scenes** to *Auto* instead of *Always*.
- `CLR LOAD` command can crash Viz if not used correctly. Required function signature: `static int pwzMethodName(String pwzArgument)`.
- Alpha setting for DVEs is not correctly supported when a scene is used nested using a GFX channel (VIZENG-10212).
- Glow plug-in drops performance when used on multiple containers and rendered within a GFX channel or viewport tile (Classic pipeline) (VIZENG-11342).
- Scene transitions do not work when dynamic images from different folders are involved. Dynamic images always need to be stored directly in the root folder *dynamic* and references must point there. Dynamic images in a subfolder of the dynamic folder or any other folder are not found.
- Font option "lighted" has no effect on fonts rendered with type "vector" (VIZENG-18941)
- 16-bit PNG images are not rendered properly when imported with compression.

1.5.8 Unreal Integration

Note: It is not advisable to utilize the Unreal integration in production environments outside of Game Mode. For instructions on how to initiate Unreal in Game Mode, please consult the Viz Artist User Guide Chapter Third Party Integrations.

- Unreal Engine 5.x with Temporal Super Resolution (TSR) enabled can lead to flicker issues when used in combination with NVIDIA Driver 528.89. Changing to FXAA solves the issue.
- Unreal Engine 5.5 with DLSS enabled can lead to memory issues.
- Due to a technical limitation in Unreal Engine 5.6, this version is not yet supported by Vizrt Media Plugin.

1.5.9 Post Renderer

- Because of performance issues rendering fullscreen sequences in UHD is not supported.
- Ghosting effect in post-rendered interlaced video: Make sure that the Flicker Filter is set to 0 in the post-rendering options of the Video Render plug-in.
- Post-rendering does not work properly if `onair_no_videoout_flag = 1` (Videowall mode).
- Post-rendering does not work properly if TriCaster integration is active and the output format is set to User Defined or Fullscreen.
- DVCPRO expects 720x480 in NTSC resolution. Please set the correct output width in AVIRenderer.
- The alpha channel cannot be rendered with Intel Indeo 5.10 codec. This codec is not supported.
- Viz Engine might crash if certain Vfw codecs are used on non-Matrox installations in Post Render Mode.

1.5.10 Matrox

- Enable Hardware DVE/(Fast Texture Mode) is only available for two instances.
- The configuration `ClipIn[n].UseV210` and `ClipIn1.ContainsAlpha` are mutually exclusive and should not be enabled at the same time.
- The overall delay is one field higher than in previous versions using IO3 This is caused by the required A/B buffer of IO 4.
- A program output channel needs to be defined. Pure preview or Cleanfeed is not supported.
- HDR output on UHD 2SI requires at least a Quadro P6000 GPU.
- Large Canvas setups require a RTX5000 Ada or higher.
- Mixing different frame rates with clips processed by a M.264 board is not supported and causes jittering.
- Upgrading the FPGA can cause a PCI error during the boot process on certain systems. Unattended upgrading of the FPGA is not recommended.
- Watchdog is only supported in 50/60M and 60Hz frequencies.
- When using 3G formats (1080p/UHD) or the Zero-Frame-Delay Mixer, auto-sensing of the sync signal is not supported due to incompatible H-/V-phases, that are set in the process.
- Instead, either Tri-Level or Blackburst must be used together with correct H-/V-Phase. This might result in a missing key signal (VIZENG-11708).
- For dual channel systems, please perform the following steps after enabling the watchdog to ensure the correct state is written to the Matrox Board:
 - a. Start Channel 1.

- b. Wait until channel has started up and topology has been written.
 - c. Start Channel 2.
 - d. Wait until channel has started up and topology has been written.
 - e. Exit channel 2.
 - f. Exit channel 1.
 - g. Start channel 1.
 - h. Wait until channel has started up and topology has been written.
 - i. Start channel 2.
- ClipOut channel does not work when Matrox0.VideoOut1.FrameBufferDelay is set to zero (VIZENG-16373).
 - UHD Clip Playback with M264 S1/S2/S3 *alone* requires color conversion on the shader level. (VIZENG-20700).
 - Two Sample Interleave (2SI) clips played as DVE are not supported.
 - Cutting of Audio tracks should not be done at all, as this results in a crackling noise. Always use a cross-fade to change audio sources.
 - Monitoring live, clip and genlock status via SNMP is not supported (SNMP was deprecated and is no longer supported by Microsoft).
 - Certain M4V clips may cause Viz Engine to lock and flood the console with errors when being played in a loop.
 - Running interlaced AVC-Intra 100 clips on M.264 boards may lead to instabilities when played non-stop over several hours.
 - Always verify the Destination Connector when changing/adding configurations of output channels.

1.5.11 X.mio3 Boards

- If the Viz instance is closed unexpectedly, the X.mio3 topology might become unusable. To reset the topology, enable ResetTopology in the config file, restart Viz, close it and start Viz again.
- Turning on the Cleanfeed Feature increases the delay by one frame.
- It is not recommended to change the frame group of any input signal while Viz Engine is running.
- Only two DVE UHD inputs are supported at 50Hz. For 60M formats, only two texture inputs are supported.
- Animating UHD DVE scaling might result in jittering. You need to increase the VideoDelayDVE setting to 2.
- Texture delay with PAL/NTSC, and Enable Hardware DVE is five fields instead of four fields. (VIZENG-16955).
- When using watchdog together with a clean feed, the watchdog triggers on the clean feed connector rather than the program output (VIZENG-16589).

1.5.12 X.mio5 Boards

- Standard Definition (PAL and NTSC) resolutions are not supported by X.mio5 IP boards according to the SMPTE ST 2110 standard.
- Streampunk ledger RDS does not list the Matrox X.mio5 nodes. This is due to some old NMOS APIs that are partially deprecated.
- Riedel Explorer fails listing the X.mio5 nodes. Riedel Explorer automatically selects NMOS API Version 1.3 instead of 1.2. It is possible to select the used API version manually if you switch to static mode and/or enable version downgrade in the Riedel Explorer.

The X.mio5 board has been tested to support up to 12 Inputs (1080i 50 and 60M) on a 10GbE network.

1.5.13 DSX.core

After the installation of the DSX-core client version of the driver perform the following steps:

1. Unregister *mvfDsxCore.dll*.
 - a. Click **Start > Run** (or use the Windows command line: **Search > CMD >** (Right click) **Run as Administrator**)
 - b. Type `REGSVR32 /U "C:\Program Files\Matrox DSX-TopologyUtils\System64\mvfDsxCore.dll"` and press **ENTER**.
2. Shut down <http://X.info> in the task manager (*mveXinfo.exe*).
3. Delete *mvfDsxCore.dll* from the folder `C:\Program Files\Matrox DSX-TopologyUtils\System64\`.
4. Start <http://X.info> (*mveXinfo.exe*).

1.5.14 Other Video Boards

- When Viz Engine is in On Air mode, there might be audio distortions using Bluefish cards (VIZENG-8853).
- Bluefish Supernova S+ cards can only be used in a Virtual Set Environment if the board is synced to Blackburst/Trilevel.

1.5.15 NDI

Security Updates **Windows 11 – KB5063878** and **Windows 10 – KB5063709** can lead to [traffic drops](#) in NDI output.

1.5.16 NVIDIA

- When the computer is running out of virtual page size and the user keeps ignoring the low memory warnings in the console, the NVIDIA driver may cause Viz Engine to crash.
- The NVIDIA driver doesn't recognize other GPUs under certain circumstances in combination with video wall mosaic installations. Remove and reinstall the driver.

1.5.17 Graphic Hub

- Communication with the Graphic Hub Server might fail if virtual network adapters are active. Please disable all virtual adapters or increase the timeout.
- If the connection to the naming server fails, please verify the communication port in the config file (Port `19396`).

1.5.18 Adaptive Scene Design

- WindowMask plug-in prevents Flexbox labels from being picked.

1.5.19 Audio


- Unplugging a USB microphone from the machine while EAS is enabled freezes Viz Engine without the possibility to recover (VIZENG-29571).

1.6 Supported Hardware and Software

This software has been tested to run on:

- Windows 11 (LTSC 2402)
- Windows 10 (LTSC 21H2) & (LTSC 1809)⁽¹⁾
- Windows Server 2025, Windows Server 2022

⁽¹⁾ Unreal Engine requires a newer Windows 10 version than 1809. UE Integration was successfully tested with 21H2

 **Note:** Only English language Operating System(s) are supported.

1.6.1 Supported Systems

System
Lenovo P3 Ultra
Lenovo P620
Lenovo SR655 V3
DELL R7920
HP Z8 G5 Fury
HP Z8 G4
HP Z4 Rack G5
HP Z4 G4
HP ZCentral 4R

1.6.2 Supported GPUs

Ada Lovelace GPUs	Ampere GPUs	Turing GPUs	Volta GPUs	Pascal GPUs	Maxwell GPUs	Kepler GPUs ⁽¹⁾
RTX 6000 Ada	RTX A6000	RTX 6000	GV100	Quadro P6000	Quadro M6000	Quadro K6000
RTX 5000 Ada	RTX A5500	RTX 5000		Quadro P5200	Quadro M4000	Quadro K5000
RTX 4500 Ada	RTX A5000	RTX 4000		Quadro P4200	Quadro M2000	Quadro K5200
RTX 4000 Ada SFF	RTX A4500	RTX 3000		Quadro P4000		Quadro K4000
RTX 2000 Ada	RTX A4000	T1000		Quadro P3200		Quadro K4200
	RTX A2000			Quadro P2200		Quadro K2000
	RTX A3000 (mobile)			Quadro P2000		Quadro K2200
	RTX A2000 (mobile)			Quadro P1000		
	RTX A1000 (mobile)					

1.6.3 Supported Video Boards

Video Board	Configuration
<i>Matrox Electronic Systems Ltd</i>	


Video Board	Configuration
Matrox X.mio5/X2 SDI	Up to four 12G SDI input with up to four SDI 12G SDI outputs variable configuration from 12in0out to 0in12out
Matrox X.mio5/8 SDI	Up to four 12G SDI input with up to four SDI 12G SDI outputs variable configuration from 8in0out to 0in8out
Matrox X.mio5 IP	Up to 32 ST 2110 inputs and 32 ST 2110 outputs depending on used SFPs and resolution
Matrox X.mio3 Full Height	Various input/output configurations from 48 to 84
Matrox X.mio3 12G	Two 12G inputs, two 12G outputs
Matrox M.264 S1/S2/S3/S4	H.264 Encoder/Decoder board
Matrox DSX LE 5L /4	Various input/output configurations from 04 to 40, all in 12G
Matrox DSX LE 4 /8	Various input/output configurations from 08 to 80
Matrox DSX LE 4 /4	Various input/output configurations from 04 to 40
Matrox DSX LE 4 IP	Various input/output configurations from 04 to 40
<i>BlueFish Technologies</i>	
Bluefish Epoch Neutron	Two video inputs, two video outputs (fill & key)
Bluefish Epoch 4K Supernova	Two video inputs, two video outputs (fill & key)
Bluefish Epoch Supernova S+	Two video inputs, two video outputs (fill & key)
Bluefish Kronos K8	Four video inputs, two video outputs (fill & key)
<i>AJA Video Systems, Inc.</i>	
AJA IO4K Plus	Two video inputs, two video outputs (fill & key)
AJA Kona 4	Two video inputs, two video outputs (fill & key)

Please refer to the [Viz Engine Administrator Guide](#) for which drivers and driver settings to use.

2 Viz Engine 5.4.0

Release Date: 2025-08-28

These are the release notes for Viz Engine version 5.4.0. This document describes the user-visible changes that have been made to the software since release 5.3.

 **Note:** Viz Artist maintains its release notes in a separate document starting from version 3.12.0.

2.1 Installer Notes

2.1.1 General

The Software ships with a bundle installer containing all necessary components. It is recommended to use the bundle installer when setup needs to be done manually.

- The Setup application (both MSI and Bundle installer) must be run in Administrator mode.
- Visual C++ Redistributable files are no longer part of the `.msi` setup file. These files are now installed with the bundle setup application (VIZENG-13210, VIZENG-12629, VIZENG-12701).
- The bundle setup application installs or upgrades Viz Artist together with its required Visual C++ Redistributable files (VIZENG-12936, VIZENG-13804).
- All files contained in the bundle setup application can be extracted using the `/dump` command line option. This creates a sub-folder where the files are extracted (VIZENG-13020).
- Multiple installations of Viz Engine are not supported.
- The installer automatically upgrades (replaces) any existing Viz Artist/Viz Engine 3.x installation. However, downgrading is currently not supported (VIZENG-7098).
- If Adobe After Effects is installed after Viz Engine, the Viz installer needs to be executed again to install the AE plug-in (VIZENG-7876).
- The user account must have `SeCreateGlobalPrivilege` (SE_CREATE_GLOBAL_NAME) enabled.
- The configuration profiles shipped with Viz Engine guarantee a correct Audio/Video delay, to have a proper lip-sync setup or a correct video wall installation. A manual configuration (for example, number of inputs, clips, etc.) is still required, after applying these profiles (VIZENG-18861).
- To use Global Illumination in Viz Artist/Viz Engine, at least Direct X version 9 is required. An installer can be found at <https://www.microsoft.com/en-us/download/details.aspx?id=8109> (VIZENG-19983).
- **Download the DirectX End-User Runtimes (June 2010):**
 - Microsoft Download Link: <https://www.microsoft.com/en-us/download/details.aspx?id=8109&msocid=0b138cc1ab106ecb24db9a58a...>
- **Extract the files:**
 - Run the downloaded `.exe` and select a folder for extraction.
 - After extraction, navigate to that folder and run `DXSETUP.exe`.
- **Complete the installation:**
 - This installs all missing legacy DLLs, including `d3dx9_43.dll`.

- The Basic, Viz DataPool, Viz PixelFX, Viz Maps, Viz Extension and Viz Socialize plug-ins are released together with Viz Engine, starting with version 4.0.0, and are included in the bundle installer. The basic plug-ins are installed by default.

Note: In case of installing Viz Engine with the individual MSI installer and not the Viz Artist Bundle installer, ensure all runtime dependencies are up-to-date (for example, Viz Engine does not start with an outdated Microsoft Visual C++ 2015-2022 Redistributable (x64) version). The minimum required version is 14.40.33810 (https://aka.ms/vs/17/release/vc_redist.x64.exe). If Microsoft Visual C++ 2015-2022 Redistributable (x64) - 14.40.33810 is already installed and Viz Engine is not starting, the runtime installation could be damaged. Reinstall the runtime redistributable in this case. The related installer is part of the Bundle installer.

Information: In case of upgrading from previously installed versions, and the upgraded version comes with a new CodeMeter version, make sure that all the applications installed using CodeMeter on the same host, are still running.

2.1.2 Windows

- This software was tested to run on Windows 11 (LTSC 24H2), Windows 10 (LTSC 1809, 21H2) and Server 2019 and Server 2022.
- Windows transparency effects should be turned off (former known as Aero). In Windows 10 set **Show transparency in Windows** to **Off** in **Settings > Display** and **Transparency effects** to **Off** in **Settings > Personalization > Colors > More options**.
- Power management and hibernation mode must be turned off under Windows. You can execute `powercfg -h off` to remove `hiberfil.sys` from the hard disk.
- It is recommended to install the latest Windows Security Updates and Patches, except NVIDIA updates.
- Installations on Windows 10 are only supported on their respective supported hardware (see [Supported Systems](#)).
- .NET framework 4.5 or higher is required (VIZENG-6036).
- The minimum Windows Installer version is now 5.0.0 (VIZENG-10146).

To run Viz Engine without Administrator privileges, you need to grant the following permissions:

- `SeIncreaseBasePriorityPrivilege`
- `SeCreateGlobalPrivilege`
- `SeCreatePagefilePrivilege`
- `SeIncreaseWorkingSetPrivilege`

2.1.3 UAC

- Viz Engine is UAC aware. Configuration files, profiles, log files, and additional files are stored in `%VIZ_PROGRAMDATA%`, which defaults to `%ProgramData%\Vizrt\VizEngine`. Temporary data is stored in `%VIZ_TEMPDATA%` which defaults to `%TMP%\Vizrt\VizEngine`. The default value can be changed in the command line of `viz.exe`.
- Existing Lens files are copied from `%ProgramFiles%` install folder to the new UAC aware `%ProgramData%` folder during installation (VIZENG-8757).

- Existing Viz configuration files are copied from *%ProgramFiles%* install folder to the new UAC aware *%ProgramData%* folder during installation (VIZENG-7472).

2.1.4 Cinema 4D

- Cinema 4D LiveLink Installation: The installer searches the following location first: *%ProgramFiles%\MAXON\CINEMA 4D R16\plugins* (VIZENG-7965).
- Cinema 4D LiveLink package can be installed any time later by using Viz Artist Installer in Repair mode. Its installation folder is not selectable anymore (VIZENG-8996).
- Cinema 4D R23 or newer: LiveLink plug-in is available at *%ProgramFiles%\Vizrt\VizEngine\CINEMA 4D LiveLink\R23* (VIZENG-25344).

2.2 Driver Versions

These are the recommended driver versions for various hardware components:

Vendor	Driver Version
NVIDIA Blackwell, Ada Lovelace, Ampere, Turing, Volta, Pascal and Maxwell GPUs	572.83
NVIDIA Kepler GPUs	473.47 (419.17 for older boards)
Matrox Topology based boards	11.1.101.2163
Bluefish	6.5.1.22
Bluefish Supernova Firmware	162
AJA	16.1.0.3 (Firmware 2021/06/23)
Codometer Runtime Kit	8.30a
AV PCL/PCI Plura Timecode Reader	5.34

2.2.1 NVIDIA Drivers


Information: Please refer to https://nvidia.custhelp.com/app/answers/detail/a_id/4777/~nvidia-dch/standard-display-drivers-for-windows-10-faq for information about the DCH and Standard driver versions and how to install a missing NVIDIA control panel.

NVIDIA driver 572.83 is recommended for GPUs with Blackwell, Ada Lovelace Technology. Ampere, Turing, Volta, Pascal or Maxwell Technology cards have been tested with 572.83 only. A driver upgrade is not recommended in

general. Kepler GPUs are not recommended anymore, however they might still work using older driver version [473.47](#). Boards that do not support this version of the driver should use rev. 419.17.

NVIDIA Driver Configuration (Manage 3D Settings):

Setting	
Vertical sync	Force Off (except Videowall and systems without video hardware).
Unified Back Buffer	Off
Power management mode	Prefer maximum performance
Antialiasing mode	Enhance the application setting
Antialiasing setting	4x (4xMS)
Profile	Workstation App - Dynamic Streaming profile (for systems with video hardware) 3D App - Video Editing (for systems without video hardware)

 **Important:** Viz Engine will not start if an outdated driver is used.

2.2.2 Matrox Drivers

- For Matrox video cards, driver version [11.1.101.2163](#) is required. This version is mandatory. Pre-release versions are not supported.
- Uninstall previous versions of Matrox DSXUtils prior to installing this driver.
- Install drivers (*DSX-TopologyUtils.exe*) only from a local drive.
- Reboot between uninstall and install of drivers, and another time after the installation has finished.
- The VfW codecs are included in this driver, so uninstall previous versions of the Matrox VfW codecs and do not install any Matrox VfW codecs over the regular driver installation.

2.2.3 Other Drivers

- The latest firmware for Supernova and Supernova S+ is 162.
- The latest firmware for Neutron is 1i2o 35. There is no longer 1in1out firmware.
- The recommended firmware for AJA IO4K+ devices is 2021/06/23.
- The recommended driver version for Plura AV timecode reader cards is [5.34](#).

Please refer to the [Viz Engine Administrator Guide](#) for which drivers and driver settings to use.

Given that a supported Matrox device is installed, the following codecs are supported for post-rendering with MatroxFileWriter and the ClipOut channels:

- RLE (animation), playback only

- H.264
- Apple ProRes
- HDV
- XDCam
- DVCPro
- DNxHD (4849)
- XAVC (UHD requires M264 board)

2.3 Upgrade Notes

- All plug-in installers are installed per-machine starting with 5.2.0. Uninstalling all previous per-user plug-in installations before upgrading is recommended to avoid duplicated installer entries.
- Existing Viz 3 configuration files, Genlock and IP configuration settings are migrated automatically by Viz Engine.
- The old Shared Memory output is not supported on the Viz Engine Pipeline.
- Due to changes in the video IO part, ring buffer size for interlaced virtual studio setups might require a higher ring buffer setting. Existing configuration file(s) might need to be adapted.
- Scenes using the BrowserCEF plug-in automatically migrate to use the new Browser plug-in.
- The command interface is not locale-aware. Special regional settings like a semicolon within float numbers do not work. You need to use a regular "."

Information: Viz Engine is not forward-compatible. Opening scenes created in this version of Viz Engine might drop warnings when opening in previous versions. A scene saved with this version might look different if you open it in a previous version. This affects scenes containing more than four streaming channels.

2.3.1 Licensing Model

- The CodeMeter Runtime (installed with the bundle installer) is required to use the WIBU license system. Details can be found in the manual in section "WIBU-based Licensing System". Please refer to the [Vizrt Licensing documentation](#) on how to apply a license container.
- Cloud-based installations require a license server; standalone cloud installations are not supported.

2.3.2 Other Upgrade Notes

- NVIDIA Tesla Grid K2 Support was removed because no up-to-date drivers are available anymore.
- Viz Engine does not support half-height rendering anymore.
- Lens distortion uses a slightly different norm since revision 54263. If you need older lens files, please use `use_lens_compatibility_mode = 1` in the config file.
- Viz Artist is now being started by the Viz Engine process and not by command file anymore. If you start `viz.exe` and `VizGui.exe` independently, the **Restart Current** option fails.

A 64-bit version of each codec must be installed to work with Softclip64. Most codecs come with an installation manual on how to install them correctly.

Softclip64 has been tested to work with the following 64-bit codecs:

- HuvYuff Version 2.1.1
- Lagarith Version 1.3.27
- Newtek SpeedHQ

2.4 Virtual Environments

The following GPUs have been tested in virtualized environments, the listed driver version is the one being used. The following GPUs are currently supported (Kepler are only supported in the Classic Render Pipeline):

Model	Driver	Platform
NVIDIA L4	573.07	AWS (g6 instances, gr6 instances)
NVIDIA A10G	573.07	AWS (g5 instances)
NVIDIA T4 Tensor Core	573.07	AWS (g4dn instances)
<i>NVIDIA Tesla V100</i>	<i>431.79 GRID9.1</i>	<i>AWS (p3 instances) ⁽¹⁾</i>
NVIDIA A40 ⁽²⁾	572.60	vSphere 7.0 and 8.0
NVIDIA RTX6000	572.60	vSphere 7.0 and 8.0

⁽¹⁾ Instance not supported on Windows Server 2025 or higher (legacy uefi boot).

Viz Engine has been tested to run in the following virtual environments:

	Viz Engine Render Pipeline	Classic Render Pipeline
Amazon Cloud (AWS)		
<ul style="list-style-type: none"> • Amazon EC2 G5 Instances • Amazon EC2 G4dn Instances • Amazon EC2 G3 Instances 	<p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p>
Microsoft Azure ⁽¹⁾		
<ul style="list-style-type: none"> • Standard_NCv3 Series • Standard_NV Series 	<p>✓</p> <p>✓</p>	<p>✓</p>
fra.me/nutanix ⁽¹⁾	not tested	✓

	Viz Engine Render Pipeline	Classic Render Pipeline
VMWare ESXi (6.0 ⁽¹⁾ , 6.50 ⁽¹⁾ , 7.02, 8.0.2)	✓	✓
Alibaba Cloud ⁽¹⁾	not tested	✓
(1) Tested with Engine 5.0.0 only		

Note: Backup and Restore on Azure systems are currently not supported.

2.5 New Features

2.5.1 Key Features

Key	Summary
VIZPL-2077	VizEngine-5.4.0 - Support Maxar Geospatial Platform (MGP) Pro in Atlas Plugin
VIZENG-33564	VizEngine-5.4.0 - Renderer Improvements
VIZENG-32805	VizEngine-5.4.0 - Stylesheets
VIZENG-32601	VizEngine-5.4.0 - Security efforts
VIZENG-32440	VizEngine-5.4.0 - I/O Features and Improvements
VIZENG-32373	VizEngine-5.4.0 - Particle Systems to emit Geometries
VIZENG-32368	VizEngine-5.4.0 - Move to Online Documentation
VIZENG-32367	VizEngine-5.4.0 - Parallel Outputs Scene Support
VIZENG-32362	VizEngine-5.4.0 - Flowics / HTML Media Asset
VIZENG-32337	VizEngine-5.4.0 - NDI 6.2 Support
VIZENG-32328	VizEngine-5.4.0 - Adaptive Support for TL
VIZENG-31986	VizEngine-5.4.0 - WebRTC Improvements
VIZENG-31796	VizEngine-5.4.0 - Clip Player Improvements and Fixes

Key	Summary
VIZENG-31563	VizEngine-5.4.0 - Viz Engine Renderer Extrusions
VIZENG-31520	VizEngine-5.4.0 - Viz Engine Renderer Sports Sequences - Stage 3 / Complete Libero Workflow
VIZENG-31519	VizEngine-5.4.0 - Full HDR pipeline
VIZENG-31257	VizEngine-5.4.0 - Videowall Large Canvas Support
VIZENG-31184	VizEngine-5.4.0 - Artist for Learners Support Preparation
VIZENG-31181	VizEngine-5.4.0 - Turn off Classic Pipeline configuration
VIZENG-28795	VizEngine-5.4.0 - Adaptive Storytelling Additions

20 issues

2.5.2 New Features: General

Key	Summary
VIZENG-32355	Adaptive Graphics GFX Channel Flexbox Support
VIZENG-31750	Add "ImportTask" support for images
VIZENG-33824	Add assign colorspace and linearize/apply_tf to texture_image_compat
VIZENG-32683	Add event handling for WebChannels in DVE mode
VIZENG-32806	Add stylesheet functionality
VIZENG-33723	Add support for RTX 2000 Ada
VIZENG-33401	Add white level to HDR settings
VIZENG-33759	Allow webchannels to be used within superchannels
VIZENG-32682	Disable classic pipeline for Artist for Learners
VIZENG-33537	Ensure stable fps for Video Wall setups with the renderer always in front
VIZENG-32700	Expose priority of Function Plugins to user, let them rearrange manually
VIZENG-30817	Handle <uuid>*NAME GET command, without loading the object

Key	Summary
VIZENG-33773	Image colorimetry attribute
VIZENG-31297	Increase the zoom out inside the stage
VIZENG-33839	OnAirFormat needs to be considered while setting scene on RENDERER.
VIZENG-31854	One of the horizontal bar in Stage is almost invisible
VIZENG-33667	PERFORMANCE SET_VALUES add styling values
VIZENG-33749	RTX PRO 6000 Blackwell Support
VIZENG-32794	Searching for Particle Systems returns wrong result
VIZENG-32728	Show Main Axis and Cross Axis direction in the bounding box of Flexbox
VIZENG-33333	Stylesheet: add per format style selection support
VIZENG-33619	Stylesheet: investigate and fix issues exposed in VIZART-5340
VIZENG-32329	Support BoxTransformation/Flexbox in Toggle Plugin
VIZENG-31272	Support for GET GH Name info via REST
VIZENG-32330	Toggle Plugin: Support formats

25 issues

2.5.3 New Features: Renderer

Key	Summary
VIZENG-32516	Add "browser" channel type
VIZENG-31750	Add "ImportTask" support for images
VIZENG-32541	Add animation support to DynamicGeometry and its nodes
VIZENG-32774	Add AuxDepth support to Multilayer External VS sequence.
VIZENG-33675	Add ColorEncoding to SceneGlobals for better Artist integration
VIZENG-32648	Add DVE support to Webchannel

Key	Summary
VIZENG-32644	Add DynamicGeometry node addition and removal
VIZENG-31547	Add FBX Blend Shape support on dynamic geometries
VIZENG-33278	Add HDR setting to Viz Engine Renderer scenes
VIZENG-32263	Add instancing Plugin API support for the instancing producer
VIZENG-32806	Add stylesheet functionality
VIZENG-32178	Add support for BGR and BGRA image scaling
VIZENG-33370	Add support for LUTs to convert between colorspaces
VIZENG-32576	Add support for whitespace paths on Viz Engine's Unreal project directories
VIZENG-32582	Add UI support for DynamicGeometryNode
VIZENG-33401	Add white level to HDR settings
VIZENG-33639	Alembic support in Viz Engine Renderer
VIZENG-32381	Alternative light falloff option
VIZENG-33164	Browser Plugin / Web Media Asset video playback support
VIZENG-33402	Convert assets (images) according to different HDR settings (colorspace, transferfunction, whitelevel)
VIZENG-32701	DynamicGeometry: Create a Plugin node
VIZENG-33471	DynamicGeometry: Make BlendShape node a generator
VIZENG-33616	HDR: convert HDR to scRGB when presenting
VIZENG-33838	HDR: load and dynamic range convert images from disk via texture image
VIZENG-33713	HDR: LookupTable conversion on non-keyed areas
VIZENG-33714	HDR: snapshot rendering in 16bit
VIZENG-33817	HDR: support automatic colorspace conversion on TEXTURE_IMAGE
VIZENG-32557	Implement a DynamicGeometryNode for calculating normals
VIZENG-32482	Implement a GPU DynamicGeometryNode

Key	Summary
VIZENG-32550	Implement BlendShapes on a compute shader
VIZENG-32316	Implement GeometryModifier
VIZENG-33560	Implement Tetrahedral Interpolation for LUTs
VIZENG-33410	Improve DynamicGeometry Twist node
VIZENG-33392	Improve text extrusion and effect performance and behavior
VIZENG-33628	lensDistortion texture is not available for multilayer sequences
VIZENG-32580	Make AbstractGeometry publicly available for artist
VIZENG-32288	Make particle system compatible with instancing Plugin API
VIZENG-31493	Modify FBX importer to create static geometries by default
VIZENG-33388	Preliminary Clipping planes functionality on Unreal
VIZENG-32305	Proper support of Unreal in HDR workflow
VIZENG-33281	Reduce Unreal Engine Plugin size after Reality Connect additions
VIZENG-32441	Renderer: disable attachments that are not needed
VIZENG-33702	Renderer: replace isSRGB with linearizeMethod in TextureSlot
VIZENG-32818	Renderer: support composition for AI Keyer use case
VIZENG-31909	Renderer: support hot-reloading materials when GH changes
VIZENG-33669	Renderer: support Khronos PBR neutral tonemapper
VIZENG-31156	Renderer: support lens distortion
VIZENG-32325	Support "Magnifier" in Viz Engine Renderer
VIZENG-33412	Support copying DynamicGeometry animations
VIZENG-32890	Support DynamicGeometryPluginNode animations
VIZENG-28969	Support Fill&Key in the Libero render sequence
VIZENG-28973	Support Glow in the new Viz Engine renderer

Key	Summary
VIZENG-33586	Support HDR inputs in classic scenes
VIZENG-28968	Support SplineStrip Plugin in Viz Engine Renderer
VIZENG-31405	Texture Desaturation
VIZENG-32533	Trash Matte does not affect to the container with Talent Shadows
VIZENG-32273	Unreal Engine 5.5 Support
VIZENG-33208	Unreal: ControllImage does not load images from URLs
VIZENG-31401	Update DLSS to 3.7.20
VIZENG-31229	Use glm in indexed_mesh

60 issues

2.5.4 New Features: Video IO

Key	Summary
VIZENG-33907	Move plura card timecodes to more consistent TC index
VIZENG-33834	HDR: support hdr engine mode independently from installed / used video board
VIZENG-33531	Integrate newly exposed license API into VizEngine
VIZENG-33530	Integrate the new VCP into VizEngine build
VIZENG-33528	Clip player flag to force the player only to use Matrox
VIZENG-33525	Enable Matrox SDI/IP video output from GFX channels
VIZENG-33480	New parallel output configuration requires new config preset
VIZENG-33407	Add support for reading metadata from audio files
VIZENG-33405	FFmpeg 7.1.1 zlib/openssl/curl Fixes
VIZENG-33378	Update curl
VIZENG-33377	Update xerces

Key	Summary
VIZENG-33347	Implement Shot Clock data extraction from VANC data
VIZENG-33341	Support Type III LUTs
VIZENG-33284	Frame Rate Derivation in Compound Input and avformat:
VIZENG-33282	Sync Colorspace Definitions with ffmpeg 7.1.1
VIZENG-33271	Cleanup Use of AVPacket
VIZENG-33240	Integrate FFMpeg 7.1.1 into clip player
VIZENG-33164	Browser Plugin / Web Media Asset video playback support
VIZENG-32906	Decouple MapToVizChannel from Matrox configuration
VIZENG-32792	Add 8K and 8K+ resolution licenses
VIZENG-32695	Enable UHD2 resolutions for VizEngine
VIZENG-32693	Integrate DSX LE6 D100
VIZENG-32689	Multiplay transition not working with VML clip player
VIZENG-32538	Align parameter order of Matrox config pages between Artist and Engine
VIZENG-32487	Matrox Clip Player optimizations for clip frame accurate playback
VIZENG-32313	NVDEC support for Clip Texture Renderer
VIZENG-31615	Upgrade OpenSSL version in VML Clip Player to 3.5.0
VIZENG-31148	Allow multiple outputs from a large canvas
VIZENG-30876	Alpha support for WEBM with VP8/VP9 and MKV with VP8/VP9

29 issues

2.6 Fixed Issues

2.6.1 Fixed Issues: General

Key	Summary
VIZENG-33947	Control SoftClip isn't added inside the Control Objects
VIZENG-33833	get_renderoption_force_sleep has no effect
VIZENG-33798	True becomes False in VSL
VIZENG-33516	Viz Engine crash related to format dependent animations
VIZENG-33479	Engine crash related to ArrayIndex error in script
VIZENG-33453	DVE size does not match the size of the tracked container
VIZENG-33255	Superchannel XY center doesn't apply to a tracked object
VIZENG-33251	DVE placeholder isn't visible when scene is loaded in the Front or Back layer
VIZENG-33238	Clip gets flushed after GoTo Trio command
VIZENG-33228	Control channel Move command doesn't work as argument
VIZENG-33153	GET_PEER_INFO still shows clients which aren't connected to the Viz Engine anymore
VIZENG-32940	Reconnection of a Viz Engine to the GH in case of a cluster failover takes up to two minutes
VIZENG-32899	ESC key or CTRL + BACKSPACE doesn't work in conjunction with Navigator and/or 3DLineTracer Plugins
VIZENG-32796	Alpha gets ignored when importing .tiff image with alpha
VIZENG-32772	Custom shader Plugin isn't merged under the same geometry director inside stage
VIZENG-32681	Loading objects from UNC path switches "\" to "/" which causes a failure
VIZENG-32639	Text Kerning can lead to issues in animation
VIZENG-32628	Engine REST - POST commands return "Parse Error: The response has a duplicate "Content-Length" header
VIZENG-32617	Script function OnGeometryChanged doesn't work properly in Viz Engine Renderer

Key	Summary
VIZENG-32606	Scripting function This.Geometry.Orientation doesn't work in Viz Engine Renderer
VIZENG-32571	Ability to select font family + variant without text
VIZENG-32438	Wrong command format for SYSTEM*MEMORY_ADVANCE GET
VIZENG-31969	Wrong distortion in the Unreal Engine Composite mesh with Stype distortion mode
VIZENG-31867	Internal image editor wrongly scale RGBA image
VIZENG-31610	Scaling a parent director ruins child directors with offsets (time displace)

25 issues

2.6.2 Fixed Issues: Renderer

Key	Summary
VIZENG-33900	HDR: external ar double-lutted when color_lut_enabled is set to 1
VIZENG-33871	HDR: hlg composition wrong with alpha
VIZENG-33505	Center Shift doesn't affect Unreal Engine Planar Reflection
VIZENG-33455	Nvidia TDR error with VER scenes in wall setup - MERGE 5.3.2
VIZENG-33396	Mixing Depth Buffers doesn't work in Multi-Layer Virtual Studio render sequence
VIZENG-33340	Preview Engine Crash : Nvidia OpenGL Driver TDR has been detected. Error Code 7
VIZENG-33301	Viz Engine crashes when selecting light probes inside Global Illumination
VIZENG-33274	Transition Logic broken, Animations not copied properly
VIZENG-33264	The Degree ° symbol Passed to Unreal through VizControlText is coming with wrong coding.

Key	Summary
VIZENG-33261	TransitionLogic scene not working with TransitionLogicUseMergedGeometries = 0
VIZENG-33202	Issue with invalid data passed to Enlighten
VIZENG-33192	Enable/disable the Expert Plugin
VIZENG-33187	Unreal: ControllImage does not load images from URLs
VIZENG-32976	CallFunc_GetCompositeWorldData_ReturnValUnreal Engine error messages in Unreal Engine Editor when project is started with "selected viewport"
VIZENG-32969	Nvidia TDR error with VER scenes in wall setup
VIZENG-32816	EUBP_CompositorActorHelpers error inside Unreal
VIZENG-32738	Font flickers if Classic material is on the same container
VIZENG-32670	Unreal VDB doesn't work with Composite Mesh
VIZENG-32662	Layer Plugin loses its settings when merge/split into a geometry
VIZENG-32656	Center shift doesn't affect Unreal Engine planar reflection (UE5.5)
VIZENG-32617	Script function OnGeometryChanged doesn't work properly in Viz Engine Renderer
VIZENG-32616	Text overlapping when using Razor text in texture mode
VIZENG-32606	Scripting function This.Geometry.Orientation doesn't work in Viz Engine Renderer
VIZENG-32593	Vertex Colors not working with Complex Polygon
VIZENG-32474	OPENGL error when loading a scene in SHM Out mode

Key	Summary
VIZENG-32415	Render Scale affects to the Background AUX from Unreal Engine with Composite mesh.
VIZENG-32266	Material Shininess wrong in sample scene after Scene Conversion
VIZENG-32015	Dynamic Scene Plugin with Viz World scene - Abnormal behavior
VIZENG-31969	Wrong distortion in the Unreal Engine Composite mesh with Stype distortion mode

29 issues

2.6.3 Fixed Issues: Video IO

Key	Summary
VIZENG-33693	Closed Caption extraction is shared via the GraphicHub
VIZENG-33546	Captioning issues on DVE passthrough
VIZENG-33522	Matrox Clip Player crashes with ProRes clip and frame converter
VIZENG-33498	Matrox Clip Player crashes with ProRes clip
VIZENG-33483	Xmio3 Clip player play after stop shows black frames
VIZENG-33408	Matrox clipplayer skips 1 frame on continue
VIZENG-33287	Clips randomly loop if the wrong clip player receives the loop command
VIZENG-33258	Matrox: Artifacts during DVE animations on X.mio5
VIZENG-33238	Clip gets flushed after GoTo Trio command
VIZENG-32841	Clip channel with alpha enabled causes pink strip inside the clip
VIZENG-32821	Engine does not extract special characters in Closed Caption workflow
VIZENG-32646	Matrox Output not fitting the card number for Xmio 5/8/
VIZENG-32596	Prevent input delay of 0 frames
VIZENG-32474	OPENGL error when loading a scene in SHM Out mode

Key	Summary
VIZENG-32278	Matrox: Video Cue and Playback issue with specific OP1a video
VIZENG-31795	Clip inside the stage can only be played once with Matrox clip player
VIZENG-31191	Short freeze on Matrox output

17 issues

2.7 Changes

2.7.1 Upcoming Changes


- In the next version of Viz Engine, an upgrade to VGPU 17 is planned. Therefore:
 - NVIDIA Tesla M60 VGPU support will be removed.
 - Windows Server 2019 VGPU support will be removed.
- In the next version of Viz Engine, support for SNMP will be completely removed.


2.7.2 Changes: Renderer

- NVIDIA Kepler GPUs were set as deprecated (NVIDIA isn't supporting Kepler boards in newer driver versions anymore).
- The final position and size of scaled image channels in DVE mode might change by 1 pixel after fixing rounding issues.

2.7.3 Changes: VideoIO

- Improvements in the IO sequence made GPU direct obsolete. The setting was removed.
- Support for SMPTE ST 2022-6 was removed in previous versions.

 **Note:** X.mio3 IP is no longer supported. Matrox dropped the support in the latest 11.x driver versions.

 **Note:** The Matrox channel mapping format has been updated in the configuration file. Old config files are migrated automatically during startup.

2.8 Known Issues

2.8.1 General

- Saving a new scene with references that do not exist anymore fails. Those references need to be removed manually to save the scene.
- Importing HDR images with special characters in its file name from a drive with 8dot3 disabled fails.
- Transition Logic scenes require to have `GeomAutoFree = 1` set in the Viz Config file. With inactive `GeomAutoFree`, system stability is not guaranteed.
- Interactive Applications within a GFX channel only work in DVE mode in Fullscreen or if the GFX channel has an offset in Fullscreen. Scaled GFX channels or plug-ins that rely on screen coordinates (Graffiti) are not supported.
- Bones and Skin live motion data tracking requires Tracking Hub 1.1.2 (released together with Viz Engine 3.11).
- Viz Engine REST interface does not start if a user is Non-Admin (VIZENG-23386).
- On Air output shows wrong field-of-view if `AuxRenderer` is enabled, PP in scene editor is disabled and Viz Engine is not in On Air mode.
- Viz One Browser clip preview might fail on Viz One Versions ≥ 7.0
- The Toggle plug-in can not handle the background loading of objects or scenes.
- Oversized snapshot requests (bigger than the configured output resolution) in the Classic Render Pipeline aren't supported. Use the Viz Engine Render Pipeline instead.
- The `clog` command now includes all child processes. Upon abnormal end, all child processes are terminated before a restart is attempted (VIZENG-11361).
- SNMP is deprecated by Microsoft. To use SNMP with Viz Engine 5.4.0, SNMP and VBScript must be manually installed as Windows Components before installing the Viz Engine. See also *Upcoming Changes*.
- Scaling directors down can cause keyframes to be scaled down to 0.0. These values do not recover when scaling directors up again afterwards (VIZENG-31610).

Key	Summary
VIZENG-34277	[MIGRATION] Text fgColor keyframes not preserved when 3.14.5 scene is opened in 5.4
VIZENG-27515	AJA IO: Embedded Audio only available if SDI Input enabled
VIZENG-33562	Allow round-trip conversion between dynamic and static geometries
VIZENG-34094	animation for Sub Scene jumps from one director to another
VIZENG-32623	Assets flicker on video wall system
VIZENG-29680	Change Audio Backend on EAS
VIZENG-32400	Changing Spline types is not considered in Undo/Redo

Key	Summary
VIZENG-31745	Consider Gamma Correction in Material Definition Icon Generation
VIZENG-28452	Consolidation of logging settings and configuration
VIZENG-27866	Enable individual volume control for tracks
VIZENG-31127	Experimental: Reduce overall in-to-out delay in Fast Texture Mode
VIZENG-28344	GH Sync: support main/replication setup
VIZENG-33515	Importing multiple AE scenes at the same time fails
VIZENG-30569	Improve Undo/Redo performance on larger GI scenes
VIZENG-24017	Improve VizEngine startup time
VIZENG-29589	Maya 2024 doesn't support Viz Maya plugin
VIZENG-31624	Optimize transform update
VIZENG-33414	Renderer: DVE placeholder not visible in Front or Back layer
VIZENG-31946	Renderer: opaque materials affects key in overlay sequence
VIZENG-34209	Scene with ezJavascript plugin crashes when used inside a GFX channel
VIZENG-32399	Stop/Pause/Tags are not considered in Undo/Redo
VIZENG-29623	Text: global config for default font style
VIZENG-34267	TNT Project crash in Editor mode after 20-24h
VIZENG-26964	Used lens distortion parameters not in sync with main scene
VIZENG-33601	VizEngine does not always switch back to GH main after main shutdown and startup
VIZENG-34221	Wall engine running with FULLSCREEN 59.94Hz runs at 50Hz in Software I/O mode

26 issues

2.8.2 Installation

- Do not use the C4D Version 15R2 patch file(s) unless you are using this version. Otherwise, it prevents Cinema 4D R16 from starting up.

- When uninstalling Viz Engine, the installer might report that links could not be removed. Please check that none of the *desktop.ini* files of Windows have write protection. For example, Skype seems to change the permissions of some *desktop.ini* files with every update.

2.8.3 Windows 10

- Right-clicking on the Taskbar icon of Viz Engine starts a new instance. Starting an additional VizGui process is prevented on Windows 10.
- Error message "Windows Media Player Rich Preview Handler has stopped working while opening specific clips with Softclip x64". To fix open **Windows Explorer > Tools > Folder options > View tab**, and deselect *Show preview handlers* in the preview pane.

2.8.4 Videowall

- It might happen that Viz Engine is running at half speed on videowall, but goes back to full speed if another window comes into focus. If so, start `viz.exe -y -w`, instead of the regular videowall mode `viz.exe -n -w`.
- GFX channels with Alpha != 100% decrease render performance. On video wall setup, `gfx_channels_antialiased = 0` should be turned off in the Viz Configuration section **RENDER_OPTIONS**.
- Windows scaling can lead to unwanted side effects.
- The maximum resolution on videowall setups is limited to 16392px by 16392px.
- Enabling video output for audio setups is not recommended for performance reasons. It is recommended to grab the audio from one of the HDMI/DP outputs of the NVIDIA GPU and use an Audio embedder instead.

2.8.5 Configuration

- Specifying a path in the configuration file including the # character is not supported. Such paths are cut before the # character.

2.8.6 Viz Engine Render Pipeline

- Existing Scenes using Global Illumination might need a precompute again to enable debug views.
- Background loading of external images (filesystem, network locations, etc.) is not supported. Images from Graphic Hub should be used.
- Flexbox labels in Scene Editor do not support Unicode characters.

2.8.7 Classic Render Pipeline

- Scene Transitions within GFX channels or Superchannels are not supported.
- Soft Shadow intensity is currently not working together with Global Illumination.
- We recommend using a warmup scene showing all needed assets once. Under certain circumstances, video and clip surfaces can show up red the first time being used.

- Playing Audio clips on systems with no physical audio hardware available stops the renderer. You need to turn off audio in the configuration file.
- On some systems with hybrid graphics, like laptops, the dynamic swapping must be disabled in the BIOS and the stronger GPU must be assigned as default.
- Stencil-based shadows (Caster/Receiver) do not work on rotated geometry.
- When changing `CurlAuthUnsafe = 1`, Viz One Browser does not work anymore.
- VGA Fullscreen Output is only active if offscreen rendering is turned off. Setting `offscreen=0` in section `RENDER_OPTIONS` enables fullscreen output.
- Blending cubemapped images are not supported.
- Cubemapping with Browser plug-in is not supported.
- Fonts need to be re-imported to use new Pathrendering or Razor fonts technology.
- Masks are not supported on Path rendered Fonts (VIZENG-13737).
- Do not send other commands than `IS_RENDERER_READY` and database connection commands before this command returns `1`, otherwise the renderer and video output might not be initialized.
- If you encounter stability issues with an NVIDIA driver or issues during driver installation, uninstall the old NVIDIA driver completely, delete the folder `C:\Program Files\NVIDIA Corporation\Installer2`, install the new driver and select **Custom installation**, then check-mark the perform clean installation option and finish the installation.
- Enabling background loading might decrease the render performance by up to 15 frames per second. This is due to OpenGL requirements.
- M-Zone keyer only works with HD when rendering with full frames.
- Decreased render performance in HD since Viz Engine 3.5.0 when the ringing filter is activated. Before Viz Engine version 3.5.1 there was no ringing filter for HD. Turn off the ringing filter via configuration or scene-setting to get the same performance.
- Sporadic NVIDIA driver error The NVIDIA OpenGL driver lost connection with the display driver and is unable to continue. which in turn causes Viz Engine to freeze. Make sure that the driver profile **Workstation App > Dynamic Streaming** is selected. Always use the recommended NVIDIA driver for your GPU.
- Possible performance problems with scenes imported from Viz Engine 2.x. Check the following settings (applies to old 2.x scenes only):
 - Image Combining should be set to Multi Texturing in the Render options in the configuration (or flag `combine_with_multitex = 1` in the configuration file) to avoid inefficient image combining.
 - Set Key Render Mode to Single Pass in the rendering options in the configuration. The Key Render Mode can also be set on scene level. Available options are:
 - Config (inherit the setting from the configuration).
 - Single Pass (fill and key are rendered in a single pass).
 - Double Pass (fill and key are rendered in separate rendering passes).
 Key rendering results differ between these options for compatibility reasons.
 - Use Single Pass scenes imported from Viz Engine 2.x and Double Pass for Viz Engine 3.x scenes.
 - The configuration flag `exec_all_animations` in the section `RENDER_OPTIONS` should be set to `0` if it is not necessary to execute hidden animations.
 - Turn off the VGA preview in On Air mode to avoid performance drops due to multiple rendering of the scene (applies only to video version of Viz Engine).
 - Hide containers that are not required for the current animation.

- Re-import fonts directly with the Viz Engine.
- Grid picking currently only works for Cube and Cylinder geometry.
- The behavior of scripts with cyclic dependencies to other scripts is undefined. Avoid cyclic dependencies.
- Bad performance when using multiple dynamic scenes, even if they are set inactive. To avoid unnecessary updates, change the **Update mode** in **Dynamic Scenes** to *Auto* instead of *Always*.
- `CLR LOAD` command can crash Viz if not used correctly. Required function signature: static int pwzMethodName(String pwzArgument).
- Alpha setting for DVEs is not correctly supported when a scene is used nested using a GFX channel (VIZENG-10212).
- Glow plug-in drops performance when used on multiple containers and rendered within a GFX channel or viewport tile (Classic pipeline) (VIZENG-11342).
- Scene transitions do not work when dynamic images from different folders are involved. Dynamic images always need to be stored directly in the root folder *dynamic* and references must point there. Dynamic images in a subfolder of the dynamic folder or any other folder are not found.
- Font option "lighted" has no effect on fonts rendered with type "vector" (VIZENG-18941)
- 16-bit PNG images are not rendered properly when imported with compression.

2.8.8 Unreal Integration

- Unreal Engine 5.x with Temporal Super Resolution (TSR) enabled can lead to flicker issues when used in combination with NVIDIA Driver 528.89. Changing to FXAA solves the issue.
- Due to a technical limitation in Unreal Engine 5.6, this version is not yet supported by Vizrt Media Plugin.

2.8.9 Post Renderer

- Because of performance issues rendering fullscreen sequences in UHD is not supported.
- Ghosting effect in post-rendered interlaced video: Make sure that the Flicker Filter is set to `0` in the post-rendering options of the Video Render plug-in.
- Post-rendering does not work properly if `onair_no_videoout flag = 1` (Videowall mode).
- Post-rendering does not work properly if TriCaster integration is active and the output format is set to User Defined or Fullscreen.
- DVCPRO expects 720x480 in NTSC resolution. Please set the correct output width in AVIRenderer.
- The alpha channel cannot be rendered with Intel Indeo 5.10 codec. This codec is not supported.
- Viz Engine might crash if certain Vfw codecs are used on non-Matrox installations in Post Render Mode.

2.8.10 Matrox

- Enable Hardware DVE/(Fast Texture Mode) is only available for two instances.
- The configuration `ClipIn[n].UseV210` and `ClipIn1.ContainsAlpha` are mutually exclusive and should not be enabled at the same time.
- The overall delay is one field higher than in previous versions using IO3 This is caused by the required A/B buffer of IO 4.
- A program output channel needs to be defined. Pure preview or Cleanfeed is not supported.
- HDR output on UHD 2SI requires at least a Quadro P6000 GPU.

- Large Canvas setups require a RTX5000 Ada or higher.
- Mixing different frame rates with clips processed by a M.264 board is not supported and causes jittering.
- Upgrading the FPGA can cause a PCI error during the boot process on certain systems. Unattended upgrading of the FPGA is not recommended.
- Watchdog is only supported in 50/60M and 60Hz frequencies.
- When using 3G formats (1080p/UHD) or the Zero-Frame-Delay Mixer, auto-sensing of the sync signal is not supported due to incompatible H-/V-phases, that are set in the process.
- Instead, either Tri-Level or Blackburst must be used together with correct H-/V-Phase. This might result in a missing key signal (VIZENG-11708).
- For dual channel systems, please perform the following steps after enabling the watchdog to ensure the correct state is written to the Matrox Board:
 - a. Start Channel 1.
 - b. Wait until channel has started up and topology has been written.
 - c. Start Channel 2.
 - d. Wait until channel has started up and topology has been written.
 - e. Exit channel 2.
 - f. Exit channel 1.
 - g. Start channel 1.
 - h. Wait until channel has started up and topology has been written.
 - i. Start channel 2.
- ClipOut channel does not work when Matrox0.VideoOut1.FrameBufferDelay is set to zero (VIZENG-16373).
- UHD Clip Playback with M264 S1/S2/S3 *alone* requires color conversion on the shader level. (VIZENG-20700).
- Two Sample Interleave (2SI) clips played as DVE are not supported.
- Cutting of Audio tracks should not be done at all, as this results in a crackling noise. Always use a cross-fade to change audio sources.
- Monitoring live, clip and genlock status via SNMP is not supported (SNMP was deprecated and is no longer supported by Microsoft).
- Certain M4V clips may cause Viz Engine to lock and flood the console with errors when being played in a loop.
- Running interlaced AVC-Intra 100 clips on M.264 boards may lead to instabilities when played non-stop over several hours.
- Always verify the Destination Connector when changing/adding configurations of output channels.

2.8.11 X.mio3 Boards

- If the Viz instance is closed unexpectedly, the X.mio3 topology might become unusable. To reset the topology, enable ResetTopology in the config file, restart Viz, close it and start Viz again.
- Turning on the Cleanfeed Feature increases the delay by one frame.
- It is not recommended to change the frame group of any input signal while Viz Engine is running.
- Only two DVE UHD inputs are supported at 50Hz. For 60M formats, only two texture inputs are supported.
- Animating UHD DVE scaling might result in jittering. You need to increase the VideoDelayDVE setting to 2 .
- Texture delay with PAL/NTSC, and Enable Hardware DVE is five fields instead of four fields. (VIZENG-16955).
- When using watchdog together with a clean feed, the watchdog triggers on the clean feed connector rather than the program output (VIZENG-16589).

2.8.12 X.mio5 Boards

- Standard Definition (PAL and NTSC) resolutions are not supported by X.mio5 IP boards according to the SMPTE ST 2110 standard.
- Streampunk ledger RDS does not list the Matrox X.mio5 nodes. This is due to some old NMOS APIs that are partially deprecated.
- Riedel Explorer fails listing the X.mio5 nodes. Riedel Explorer automatically selects NMOS API Version 1.3 instead of 1.2. It is possible to select the used API version manually if you switch to static mode and/or enable version downgrade in the Riedel Explorer.

The X.mio5 board has been tested to support up to 12 Inputs (1080i 50 and 60M) on a 10GbE network.

2.8.13 DSX.core

After the installation of the DSX-core client version of the driver perform the following steps:

1. Unregister *mvfDsxCore.dll*.
 - a. Click **Start > Run** (or use the Windows command line: **Search > CMD >** (Right click) **Run as Administrator**)
 - b. Type `REGSVR32 /U "C:\Program Files\Matrox DSX-TopologyUtils\System64\mvfDsxCore.dll"` and press **ENTER**.
2. Shut down <http://X.info> in the task manager (*mveXinfo.exe*).
3. Delete *mvfDsxCore.dll* from the folder `C:\Program Files\Matrox DSX-TopologyUtils\System64\`.
4. Start <http://X.info> (*mveXinfo.exe*).

2.8.14 Other Video Boards

- When Viz Engine is in On Air mode, there might be audio distortions using Bluefish cards (VIZENG-8853).
- Bluefish Supernova S+ cards can only be used in a Virtual Set Environment if the board is synced to Blackburst/Trilevel.

2.8.15 NDI

Security Updates **Windows 11 – KB5063878** and **Windows 10 – KB5063709** can lead to [traffic drops](#) in NDI output.

2.8.16 NVIDIA

- When the computer is running out of virtual page size and the user keeps ignoring the low memory warnings in the console, the NVIDIA driver may cause Viz Engine to crash.
- The NVIDIA driver doesn't recognize other GPUs under certain circumstances in combination with video wall mosaic installations. Remove and reinstall the driver.

2.8.17 Graphic Hub

- Communication with the Graphic Hub Server might fail if virtual network adapters are active. Please disable all virtual adapters or increase the timeout.

- If the connection to the naming server fails, please verify the communication port in the config file (Port 19396).

2.8.18 Adaptive Scene Design

- WindowMask plug-in prevents Flexbox labels from being picked.

2.8.19 Audio


- Unplugging a USB microphone from the machine while EAS is enabled freezes Viz Engine without the possibility to recover (VIZENG-29571).

2.9 Supported Hardware and Software

This software has been tested to run on:

- Windows 11 (LTSC 2402)
- Windows 10 (LTSC 21H2) & (LTSC 1809)⁽¹⁾
- Windows Server 2022, Windows Server 2019

⁽¹⁾ Unreal Engine requires a newer Windows 10 version than 1809. UE Integration was successfully tested with 21H2

 **Note:** Only English language Operating System(s) are supported.

2.9.1 Supported Systems

System
Lenovo P3 Ultra
Lenovo P620
Lenovo SR655 V3
DELL R7920
HP Z8 G5 Fury
HP Z8 G4
HP Z4 Rack G5

System
HP Z4 G4
HP ZCentral 4R

2.9.2 Supported GPUs

Blackwell GPUs	Ada Lovelace GPUs	Ampere GPUs	Turing GPUs	Volta GPUs	Pascal GPUs	Maxwell GPUs	Kepler GPUs ⁽¹⁾
	RTX 6000 Ada	RTX A6000	RTX 6000	GV100	Quadro P6000	Quadro M6000	Quadro K6000
	RTX 5000 Ada	RTX A5500	RTX 5000		Quadro P5200	Quadro M4000	Quadro K5000
	RTX 4500 Ada	RTX A5000	RTX 4000		Quadro P4200	Quadro M2000	Quadro K5200
	RTX 4000 Ada SFF	RTX A4500	RTX 3000		Quadro P4000		Quadro K4000
	RTX 2000 Ada	RTX A4000	T1000		Quadro P3200		Quadro K4200
		RTX A2000			Quadro P2200		Quadro K2000
		RTX A3000 (mobile)			Quadro P2000		Quadro K2200
		RTX A2000 (mobile)			Quadro P1000		
		RTX A1000 (mobile)					

Orange entries are recommended for rendering photo-realistic graphics on the Viz Engine Pipeline.

⁽¹⁾ Kepler GPUs require an older driver version (473.47). Supported on the Classic Render Pipeline for backward compatibility only.

2.9.3 Supported Video Boards

Video Board	Configuration
<i>Matrox Electronic Systems Ltd</i>	
Matrox X.mio5/X2 SDI	Up to four 12G SDI input with up to four SDI 12G SDI outputs variable configuration from 12in0out to 0in12out
Matrox X.mio5/8 SDI	Up to four 12G SDI input with up to four SDI 12G SDI outputs variable configuration from 8in0out to 0in8out
Matrox X.mio5 IP	Up to 32 ST 2110 inputs and 32 ST 2110 outputs depending on used SFPs and resolution
Matrox X.mio3 Full Height	Various input/output configurations from 48 to 84
Matrox X.mio3 12G	Two 12G inputs, two 12G outputs
Matrox M.264 S1/S2/S3/S4	H.264 Encoder/Decoder board
Matrox DSX LE 5L /4	Various input/output configurations from 04 to 40, all in 12G
Matrox DSX LE 4 /8	Various input/output configurations from 08 to 80
Matrox DSX LE 4 /4	Various input/output configurations from 04 to 40
Matrox DSX LE 4 IP	Various input/output configurations from 04 to 40
<i>BlueFish Technologies</i>	
Bluefish Epoch Neutron	Two video inputs, two video outputs (fill & key)
Bluefish Epoch 4K Supernova	Two video inputs, two video outputs (fill & key)
Bluefish Epoch Supernova S+	Two video inputs, two video outputs (fill & key)
Bluefish Kronos K8	Four video inputs, two video outputs (fill & key)

Video Board	Configuration
<i>AJA Video Systems, Inc.</i>	
AJA IO4K Plus	Two video inputs, two video outputs (fill & key)
AJA Kona 4	Two video inputs, two video outputs (fill & key)


Please refer to the [Viz Engine Administrator Guide](#) for which drivers and driver settings to use.

2.10 Build Information

Platform Toolset: Visual Studio 2022 (v143)

Windows SDK Version: 10.0.22621

3 Documentation

 **Info:** Starting with Viz Artist/Viz Engine 5.4.0, the installer no longer installs an offline documentation.

Documentation for Viz Engine, Viz Artist and Viz Plugins is available online on the Vizrt Documentation Center:

- [Viz Artist User Guide](#)
- [Viz Engine Administrator Guide](#)
- [Viz Plugins User Guide](#)

4 Installation and Support

4.1 Installation

The installation wizard guides you through the installation process. Make sure to close any running Viz application prior to the installation. In order to run Viz Artist or Viz Engine independent of a database server, you need to install the Viz Graphic Hub database software locally.

4.2 Support

Support is available at the [Vizrt Support Portal](#).