



Viz Engine Release Notes

Version 5.5



Viz Engine



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 - C:\Program Files\[Product Name]
 - C:\ProgramData\[Product Name]
 - Any custom directory where [Product Name] stores data, and any specific process related to [Product Name].
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- **False Positives:** If behavior-based detection flags a false positive, mark that executable as a trusted application.

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Created on

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1 Viz Engine 5.5.1

Release Date: 2026-03-19

These are the release notes for Viz Engine version 5.5.1. This document describes the user-visible changes that have been made to the software since release 5.5.0.

1.1 Installer Notes

See also [Installer Notes 5.5.0](#)

Note: When 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Artist Bundle installer, ensure all runtime dependencies are up-to-date (for example, Viz Engine does not start with an outdated Microsoft Visual C++ 2015-2022 Redistributable (x64) version).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 the installation fails with **error code 1638**, uninstall any existing MS Visual C++ Redistributable (x64) and restart Windows and rerun the bundle installer. 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.

1.2 Fixed Issues

1.2.1 Fixed Issues: General

| Key | Summary |
|--------------|---|
| VIZENG-34804 | Missing scripting rendering updates on color setters (emission, diffuse, ambient, specular) for Viz Scripting |
| VIZENG-34730 | Scroller plugin stopped working - improved initialization of Plugins and Scripts in subscenes |
| VIZENG-34689 | Correct initialization of scripts in Subscenes and Geometries |

3 issues

1.2.2 Fixed Issues: Renderer

| Key | Summary |
|--------------|--|
| VIZENG-34752 | Avoid Regular and Dynamic geometry on the same container |

| Key | Summary |
|--------------|---|
| VIZENG-34751 | Dynamic geometry calculates wrong BoundingBox |
| VIZENG-34750 | Post Process settings can no longer be animated |
| VIZENG-34744 | Empty Text with Dropshadow option can lead to crashes |
| VIZENG-34683 | Viz Engine crashes when Clip Texture Renderer is used inside Transition Logic |

5 issues

1.2.3 Fixed Issues: Video IO

| Key | Summary |
|--------------|---|
| VIZENG-34681 | Rightmost column of pixels has incorrect blended colors when using 10 bit YUVA inputs |
| VIZENG-34654 | Add configuration setting to match field polarity on frame repeat with matrox outputs |

2 issues

1.3 Security Updates

| Key | Summary |
|--------------|--|
| VIZENG-34736 | Update VML version to mitigate security risk |

1 issue

1.4 Changes

See [Changes in 5.5.0](#)

1.5 Known Issues

See [Known Issues in 5.5.0](#)

1.5.1 General

- The final position and size of scaled image channels in DVE mode might change by 1 pixel after fixing rounding issues.
- 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).
- 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-34063 | Add new deformation mode for handling more correct center shift in "Internal Tracking Mode" |
| VIZENG-27515 | AJA IO: Embedded Audio only available if SDI Input enabled |
| VIZENG-33562 | Allow round-trip conversion between dynamic and static geometries |
| VIZENG-34734 | Artist scene tree edit may lead to unexpected engine crash |
| VIZENG-34695 | Can't change DVE delay of live input 1 when Watchdog is activated |
| VIZENG-29680 | Change Audio Backend on EAS |
| VIZENG-32400 | Changing Spline types is not considered in Undo/Redo |
| VIZENG-28452 | Consolidation of logging settings and configuration |
| VIZENG-34733 | Differences between VML and Matrox clip player when setting clip IN and OUT via script |


| Key | Summary |
|--------------|--|
| VIZENG-27866 | Enable individual volume control for tracks |
| VIZENG-34745 | Existing 3.x scene has different directors selected |
| VIZENG-31127 | Experimental: Reduce overall in-to-out delay in Fast Texture Mode |
| VIZENG-28344 | GH Sync: support main/replication setup |
| VIZENG-34640 | Hindi text looks different in VER pipeline |
| VIZENG-30569 | Improve Undo/Redo performance on larger GI scenes |
| VIZENG-24017 | Improve VizEngine startup time |
| VIZENG-34789 | Incorrect handling of 10 bit YUVA inputs - 5.6 merge |
| VIZENG-29589 | Maya 2024 doesn't support Viz Maya plugin |
| VIZENG-31624 | Optimize transform update |
| VIZENG-34767 | Scenes with Alpha behave abnormally in SuperChannels transitions |
| VIZENG-32399 | Stop/Pause/Tags are not considered in Undo/Redo |
| VIZENG-29623 | Text: global config for default font style |
| VIZENG-26964 | Used lens distortion parameters not in sync with main scene |
| VIZENG-34686 | Virtual window renders wrong if inside a GFX channel and the camera is switched |
| VIZENG-34824 | Viz Engine shader performance degrades over time |
| VIZENG-33601 | VizEngine does not always switch back to GH main after main shutdown and startup |

26 issues

2 Viz Engine 5.5.0

Release Date: 2026-02-12

These are the release notes for Viz Engine version 5.5.0. This document describes the user-visible changes that have been made to the software since release 5.4.1.

 **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. (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, DataPool, 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 New Features

2.2.1 Key Features

| Key | Summary |
|-----|---------|
|-----|---------|

No issues found

2.2.2 New Features: General

| Key | Summary |
|-----|---------|
|-----|---------|

No issues found

2.2.3 New Features: Renderer

| Key | Summary |
|-----|---------|
|-----|---------|

No issues found

2.2.4 New Features: Video IO

| Key | Summary |
|-----|---------|
|-----|---------|

No issues found

2.3 Fixed Issues

2.3.1 Fixed Issues: General

| Key | Summary |
|--------------|---|
| VIZENG-34804 | Missing scripting rendering updates on color setters (emission, diffuse, ambient, specular) for Viz Scripting |
| VIZENG-34730 | Scroller plugin stopped working - improved initialization of Plugins and Scripts in subscenes |
| VIZENG-34689 | Correct initialization of scripts in Subscenes and Geometries |

3 issues

2.3.2 Fixed Issues: Renderer

| Key | Summary |
|--------------|---|
| VIZENG-34752 | Avoid Regular and Dynamic geometry on the same container |
| VIZENG-34751 | Dynamic geometry calculates wrong BoundingBox |
| VIZENG-34750 | Post Process settings can no longer be animated |
| VIZENG-34744 | Empty Text with Dropshadow option can lead to crashes |
| VIZENG-34730 | Scroller plugin stopped working - improved initialization of Plugins and Scripts in subscenes |
| VIZENG-34689 | Correct initialization of scripts in Subscenes and Geometries |
| VIZENG-34683 | Viz Engine crashes when Clip Texture Renderer is used inside Transition Logic |

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2.3.3 Fixed Issues: Video IO

| Key | Summary |
|--------------|---|
| VIZENG-34681 | Rightmost column of pixels has incorrect blended colors when using 10 bit YUVA inputs |
| VIZENG-34654 | Add configuration setting to match field polarity on frame repeat with matrox outputs |

2 issues

2.4 Security Updates

| Key | Summary |
|--------------|--|
| VIZENG-34736 | Update VML version to mitigate security risk |

1 issue

2.5 Changes

See [Changes in 5.5.0](#)

2.6 Known Issues

See [Known Issues in 5.5.0](#)

2.6.1 General

- The final position and size of scaled image channels in DVE mode might change by 1 pixel after fixing rounding issues.
- 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).
- 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).

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| VIZENG-29589 | Maya 2024 doesn't support Viz Maya plugin |
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| VIZENG-34767 | Scenes with Alpha behave abnormally in SuperChannels transitions |
| VIZENG-32399 | Stop/Pause/Tags are not considered in Undo/Redo |


| Key | Summary |
|--------------|--|
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| VIZENG-26964 | Used lens distortion parameters not in sync with main scene |
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| VIZENG-34824 | Viz Engine shader performance degrades over time |
| VIZENG-33601 | VizEngine does not always switch back to GH main after main shutdown and startup |

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3 Viz Engine 5.5.0

Release Date: 2026-02-12

These are the release notes for Viz Engine version 5.5.0. This document describes the user-visible changes that have been made to the software since release 5.4.1.

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

3.1 Installer Notes

3.1.1 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).
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- 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).
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- **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, DataPool, 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.

3.1.2 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*

3.1.3 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).

3.1.4 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).

3.2 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 | 573.76 |
| NVIDIA Kepler GPUs | 473.47 (419.17 for older boards) |
| Matrox Topology based boards | 11.2.101.2608 (LTS) |
| Bluefish | 6.6.1.4 |
| Bluefish Supernova Firmware | 162 |
| AJA | 16.1.0.3 (Firmware 2021/06/23) |
| Codemeter Runtime Kit | 8.40a |
| AV PCL/PCI Plura Timecode Reader | 5.34 |


3.2.1 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 [573.76](#) is recommended for GPUs with Blackwell, Ada Lovelace Technology. Ampere, Turing, Volta, Pascal or Maxwell Technology cards have been tested with [573.76](#) 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.

3.2.2 Matrox Drivers

- For Matrox video cards, driver version [11.2.101.2608](#) (LTS) 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.

3.2.3 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)

3.3 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.
- 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.

3.3.1 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.

3.3.2 Other Upgrade Notes

- NVIDIA Tesla Grid K2 Support was removed because no up-to-date drivers are available 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

3.4 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 | <ul style="list-style-type: none"> ✓ ✓ ✓ | <ul style="list-style-type: none"> ✓ |
| Microsoft Azure ⁽¹⁾ | | |
| <ul style="list-style-type: none"> • Standard_NCv3 Series • Standard_NV Series | <ul style="list-style-type: none"> ✓ ✓ | <ul style="list-style-type: none"> ✓ |
| fra.me/nutanix ⁽¹⁾ | not tested | ✓ |
| VMWare ESXi (6.0 ⁽¹⁾ , 6.50 ⁽¹⁾ , 7.02, 8.0.2) | ✓ | ✓ |
| Alibaba Cloud ⁽¹⁾ | not tested | ✓ |

| | Viz Engine Render Pipeline | Classic Render Pipeline |
|-----------------------------------|----------------------------|-------------------------|
| (1) Tested with Engine 5.0.0 only | | |

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

3.5 New Features

3.5.1 Key Features

| Key | Summary |
|--------------|---|
| VIZENG-34281 | VizEngine-5.5.0 - Renderer Improvements |
| VIZENG-33974 | Viz Engine 5.5.0 - HDR Improvements |

[2 issues](#)

3.5.2 New Features: General

| Key | Summary |
|--------------|---|
| VIZENG-34169 | Add command to simulate picking and retrieve container id(s) at specific position |
| VIZENG-34518 | Applying trash matte to Live/clip texture before sharing over SMURF |
| VIZENG-32284 | Custom icons for script plugins |
| VIZENG-34254 | HDR: support automatic colorspace conversion in shader plugins |
| VIZENG-31955 | Improve messages when reading/writing the config file in the console |
| VIZENG-34631 | Interactivity support for web channels in texture mode |
| VIZENG-34250 | Introduce commands to get the process id, instance and gpu |
| VIZENG-33618 | LayerPlugin: add and remove by name commands |
| VIZENG-30048 | Make Tracking Hub adapter active by default |
| VIZENG-34354 | Move control channels of a subscene in a specific location of the main scene |

| Key | Summary |
|--------------|--|
| VIZENG-33571 | Reintegrate Shared Texture feature for Webchannels and Browser Plugin |
| VIZENG-34268 | Renderer: texture color read script api |
| VIZENG-34553 | Renderer: texture readback should honor automatic color conversion (HDR) |
| VIZENG-33620 | Web Channel / Browser Plugin to embed audio |

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3.5.3 New Features: Renderer

| Key | Summary |
|--------------|--|
| VIZENG-33779 | Add tessellation to the Extrusion Modifier |
| VIZENG-34120 | Add Volumetric-Light as feature to the renderer |
| VIZENG-34033 | Allow disabling Ligatures from Text in VER |
| VIZENG-34143 | Built-in text drop shadow effect |
| VIZENG-31745 | Consider Gamma Correction in Material Definition Icon Generation |
| VIZENG-34426 | Create snapshot in the configured color space |
| VIZENG-32261 | Extend information in clog |
| VIZENG-33712 | GFX channel should behave as Clip/Live for colorimetry conversions |
| VIZENG-34245 | HDR: support automatic colorspace conversion in runtime shader |
| VIZENG-34254 | HDR: support automatic colorspace conversion in shader plugins |
| VIZENG-33807 | Improve Text behavior when there is no content entered |
| VIZENG-30048 | Make Tracking Hub adapter active by default |
| VIZENG-34246 | Renderer: add textureslot support to runtime shaders |
| VIZENG-34268 | Renderer: texture color read script api |
| VIZENG-34553 | Renderer: texture readback should honor automatic color conversion (HDR) |

| Key | Summary |
|--------------|---|
| VIZENG-34427 | Screenspace UVs for textureslot |
| VIZENG-34119 | UE Integration: Disable subsystems when not in use |
| VIZENG-34416 | Update Web Channel Texture via Pixel Buffer |
| VIZENG-34128 | Viz Engine Renderer Image Background Loading Support |
| VIZENG-34385 | VSL color structs should support values > 1.0 for HDR (Phong Materials) |
| VIZENG-33620 | Web Channel / Browser Plugin to embed audio |

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3.5.4 New Features: Video IO

| Key | Summary |
|--------------|---|
| VIZENG-34633 | Page Navigation for Webchannels |
| VIZENG-34573 | Allow Fill+Key output in large canvas mode |
| VIZENG-34438 | Allow 0.0.0.0 as source address in source specific multicasting |
| VIZENG-34304 | Add flood protection to NDI input performance warnings |
| VIZENG-34272 | Parallel output: allow more than 2 program outputs |
| VIZENG-34258 | Parallel output: common StillPreview interface |
| VIZENG-34062 | Colorimetry handling in VML and Matrox Clip Player |
| VIZENG-34032 | Support HDR in SMURF inputs and outputs |
| VIZENG-33622 | Upgrade Bluefish driver to latest version (6.6.1.4) |
| VIZENG-33200 | Config flag to suppress NDI messages |
| VIZENG-32269 | VML Player in VizOne workflow |

11 issues

3.6 Fixed Issues

3.6.1 Fixed Issues: General

| Key | Summary |
|--------------|--|
| VIZENG-34519 | Update compute shader sample plugin for instancing |
| VIZENG-34504 | TextBG does not work if geometry is replaced |
| VIZENG-34487 | Audio Clips looped in the stage are played only once |
| VIZENG-34462 | Artist does not display the tree of specific scene (empty names on cnt) |
| VIZENG-34412 | PreProcessingTextureRenderer: Can not handle images from Filesystem |
| VIZENG-34386 | Containers/Values clear out if scripts are not compiled |
| VIZENG-34350 | Significant increase in scene loading time |
| VIZENG-34294 | VSL: Possible memory corruption in URLDecode() |
| VIZENG-34221 | Wall engine running with FULLSCREEN 59.94Hz runs at 50Hz in Software I/O mode |
| VIZENG-34209 | Scene with ezJavascript plugin crashes when used inside a GFX channel |
| VIZENG-34123 | Specific GLB file fails to import |
| VIZENG-34094 | Subscene director cannot be moved |
| VIZENG-34093 | IMAGE SET fails for some textures |
| VIZENG-33625 | 3 x Cefwebchannelprocess.exe processes start when starting viz.exe with "-C" |
| VIZENG-33470 | V-Sync is broken inside Browser and WebChannel |
| VIZENG-33414 | Renderer: DVE placeholder not visible in Front or Back layer |
| VIZENG-32808 | Precision Keyer Aux output not working without Matrox board |
| VIZENG-32630 | Super Channels Output Resolution is not saved and always use Engine output Resolutio |
| VIZENG-32623 | Assets flicker on video wall system |
| VIZENG-31959 | Events don't work in WebRTC when in no-UI mode |

20 issues

3.6.2 Fixed Issues: Renderer

| Key | Summary |
|--------------|--|
| VIZENG-34559 | Shadow Rendering causes differences in VER after upgrade |
| VIZENG-34478 | Superchannel has wrong transition shader on save/reload under specific circumstances |
| VIZENG-34424 | Bits per channel has affect on Classic scenes inside VER preset scene |
| VIZENG-34402 | DynamicGeometry: node animation channels appear twice in director |
| VIZENG-34367 | Renderer: disabling color limits breaks colors |
| VIZENG-34308 | Frame glitches occur when switching cameras in an XR application using Unreal and -RenderOffscreen |
| VIZENG-34277 | [MIGRATION] Text fgColor keyframes not preserved when 3.14.5 scene is opened in 5.4 |
| VIZENG-34261 | TextFX get cropped out when used with Razor draw as texture option |
| VIZENG-34230 | TextBG plugin does not work on DynamicGeometry |
| VIZENG-34200 | Various text color update issues |
| VIZENG-34122 | Non-vizrt project settings not saving with UEMedia plugin active |
| VIZENG-34091 | Text underline not getting blurred along with Razor text |
| VIZENG-33846 | Videowall shows flipped image when panned 180 degrees |
| VIZENG-33684 | Trio Cursor is 1 character off |
| VIZENG-33212 | Unreal: Control plugins have wrong VDF structure / types |
| VIZENG-31946 | Renderer: opaque materials affects key in overlay sequence |

16 issues

3.6.3 Fixed Issues: Video IO

| Key | Summary |
|--------------|--|
| VIZENG-34632 | ST 2110 audio and ancillary data connectors are allocated even when not configured (5.5) |
| VIZENG-34525 | UHD output with x.mio3 in 4in/8out configuration |
| VIZENG-34520 | Bad audio quality in 2110 setups when Live channel aux audio is passed to SMURF channel |
| VIZENG-34295 | No audio output when using clip channel with Bluefish |
| VIZENG-34035 | When using IGMPv3 audio and ancillary data flows don't store the source IP address |
| VIZENG-31669 | Errors printed while playing HEVC clip |

6 issues

3.7 Security Updates

| Key | Summary |
|--------------|---|
| VIZENG-34334 | Update Browser CEF plug-in due to zero-day exploit (CVE-2025-13223) |

1 issue

3.8 Changes

3.8.1 Upcoming Changes

- NVIDIA has announced that drivers 580.xx are the latest ones to support Maxwell and Pascal architectures.
- Support for Windows 10 LTSC 1809 will be dropped.

3.8.2 Changes: General

- NVIDIA Tesla M60 VGPU support has been removed.
- Windows Server 2019 VGPU support has been removed.
- *ChromaFX* license has been renamed to *Precision Keyer*.

3.8.3 Changes: Renderer

- Using Tracking Hub is now enabled by default in Configuration.
- NVIDIA Kepler GPUs were set as deprecated (NVIDIA isn't supporting Kepler boards in newer driver versions anymore).

3.8.4 Changes: VideoIO

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

3.9 Known Issues

3.9.1 General

- The final position and size of scaled image channels in DVE mode might change by 1 pixel after fixing rounding issues.
- 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).
- 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-34063 | Add new deformation mode for handling more correct center shift in "Internal Tracking Mode" |

| Key | Summary |
|--------------|--|
| VIZENG-27515 | AJA IO: Embedded Audio only available if SDI Input enabled |
| VIZENG-33562 | Allow round-trip conversion between dynamic and static geometries |
| VIZENG-34734 | Artist scene tree edit may lead to unexpected engine crash |
| VIZENG-34695 | Can't change DVE delay of live input 1 when Watchdog is activated |
| VIZENG-29680 | Change Audio Backend on EAS |
| VIZENG-32400 | Changing Spline types is not considered in Undo/Redo |
| VIZENG-28452 | Consolidation of logging settings and configuration |
| VIZENG-34733 | Differences between VML and Matrox clip player when setting clip IN and OUT via script |
| VIZENG-27866 | Enable individual volume control for tracks |
| VIZENG-34745 | Existing 3.x scene has different directors selected |
| VIZENG-31127 | Experimental: Reduce overall in-to-out delay in Fast Texture Mode |
| VIZENG-28344 | GH Sync: support main/replication setup |
| VIZENG-34640 | Hindi text looks different in VER pipeline |
| VIZENG-30569 | Improve Undo/Redo performance on larger GI scenes |
| VIZENG-24017 | Improve VizEngine startup time |
| VIZENG-34789 | Incorrect handling of 10 bit YUVA inputs - 5.6 merge |
| VIZENG-29589 | Maya 2024 doesn't support Viz Maya plugin |
| VIZENG-31624 | Optimize transform update |
| VIZENG-34767 | Scenes with Alpha behave abnormally in SuperChannels transitions |
| VIZENG-32399 | Stop/Pause/Tags are not considered in Undo/Redo |
| VIZENG-29623 | Text: global config for default font style |
| VIZENG-26964 | Used lens distortion parameters not in sync with main scene |
| VIZENG-34686 | Virtual window renders wrong if inside a GFX channel and the camera is switched |

| Key | Summary |
|--------------|--|
| VIZENG-34824 | Viz Engine shader performance degrades over time |
| VIZENG-33601 | VizEngine does not always switch back to GH main after main shutdown and startup |

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3.9.2 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.

3.9.3 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.

3.9.4 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.

3.9.5 Configuration

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

3.9.6 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.

3.9.7 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.

3.9.8 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.

3.9.9 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.

3.9.10 Matrox

✘ Important: When upgrading from 10.4 to 11.x Matrox driver, follow these mandatory steps:

- Uninstall old Matrox driver
- Cold Boot (Turn off computer for at least 20 seconds)
- Switch Computer on
- Continue installation of new driver

- 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.
- 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.

3.9.11 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).

3.9.12 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.

3.9.13 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*).

3.9.14 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.

3.9.15 NDI

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

3.9.16 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.

3.9.17 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`).

3.9.18 Adaptive Scene Design

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

3.9.19 Audio

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

3.10 Supported Hardware and Software


This software has been tested to run on:

- Windows 11 (LTSC 2402)

- Windows 10 (LTSC 21H2) & (LTSC 1809)⁽¹⁾⁽²⁾
- Windows Server 2025, Windows Server 2022

⁽¹⁾ Future Versions of Viz Engine will no longer provide support for Windows 10 LTSC 1809.

⁽²⁾ 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.

3.10.1 Supported Systems

| System |
|--|
| Lenovo P3 Ultra / Lenovo P3 Ultra Gen2 |
| Lenovo P620 |
| Lenovo SR655 V3 |
| DELL R7920 |
| HP Z8 G5 Fury |
| HP Z8 G4 |
| HP Z4 G5 (Rack and Tower) |
| HP Z4 G4 |
| HP ZCentral 4R |

3.10.2 Supported GPUs

| Blackwell GPUs | Ada Lovelace GPUs | Ampere GPUs | Turing GPUs | Volta GPUs | Pascal GPUs | Maxwell GPUs |
|---|-------------------|-------------|-------------|------------|-----------------|-----------------|
| Blackwell 6000 Max Q Blackwell 5000 | RTX 6000 Ada | RTX A6000 | RTX 6000 | GV100 | Quadro P6000 | Quadro M6000 |

| Blackwell GPUs | Ada Lovelace GPUs | Ampere GPUs | Turing GPUs | Volta GPUs | Pascal GPUs | Maxwell GPUs |
|----------------|-------------------|--------------------|-------------|------------|--------------|--------------|
| | RTX 5000 Ada | RTX A5500 | RTX 5000 | | Quadro P5200 | Quadro M4000 |
| | RTX 4500 Ada | RTX A5000 | RTX 4000 | | Quadro P4200 | Quadro M2000 |
| | RTX 4000 Ada SFF | RTX A4500 | RTX 3000 | | Quadro P4000 | |
| | RTX 2000 Ada | RTX A4000 | T1000 | | Quadro P3200 | |
| | | RTX A2000 | | | Quadro P2200 | |
| | | RTX A3000 (mobile) | | | Quadro P2000 | |
| | | RTX A2000 (mobile) | | | Quadro P1000 | |
| | | RTX A1000 (mobile) | | | | |

3.10.3 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 |


| Video Board | Configuration |
|---------------------------------------|---|
| 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.

3.11 Build Information

Platform Toolset: Visual Studio 2022 (v143)
Windows SDK Version: 10.0.22621

4 Documentation

 **Info:** Starting with Viz Artist/Viz Engine 5.4.0, the installer no longer installs the Viz Artist User Guide, Viz Engine Administrator Guide or Viz Plugins User Guide as 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](#)

5 Installation and Support

5.1 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.

5.2 Support

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