Graphics Plugin User Guide

Version 2.2

Copyright ©2023 Vizrt. All rights reserved.

No part of this software, documentation or publication may be reproduced, transcribed, stored in a retrieval system, translated into any language, computer language, or transmitted in any form or by any means, electronically, mechanically, magnetically, optically, chemically, photocopied, manually, or otherwise, without prior written permission from Vizrt.
Vizrt specifically retains title to all Vizrt software. This software is supplied under a license agreement and may only be installed, used or copied in accordance to that agreement.

Disclaimer

Vizrt provides this publication “as is” without warranty of any kind, either expressed or implied. his publication may contain technical inaccuracies or typographical errors. While every precaution has been taken in the preparation of this document to ensure that it contains accurate and up-to-date information, the publisher and author assume no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from the use of the information contained in this document. Vizrt’s policy is one of continual development, so the content of this document is periodically subject to be modified without notice. These changes will be incorporated in new editions of the publication. Vizrt may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time.
Vizrt may have patents or pending patent applications covering subject matters in this document. The furnishing of this document does not give you any license to these patents.

Antivirus

Vizrt does not recommend or test antivirus systems in combination with Vizrt products, as the use of such systems can potentially lead to performance losses. The decision for the use of antivirus software and thus the risk of impairments of the system is solely at the customer's own risk.

There are general best-practice solutions, these include setting the antivirus software to not scan the systems during operating hours and that the Vizrt components, as well as drives on which clips and data are stored, are excluded from their scans (as previously stated, these measures cannot be guaranteed).

Technical Support

For technical support and the latest news of upgrades, documentation, and related products, visit the Vizrt web site at www.vizrt.com.

Created on

2023/09/14

Contents

1 Introduction 5
1.1 Typical workflow 5
2 Using the Graphics Plugin with Adobe Premiere Pro 6
2.1 Adding the Graphics Plugin 6
2.2 Stop Points 8
3 Using the Graphics Plugin with Avid Media Composer 9
3.1 Adding the Graphics Plugin 9
3.2 Stop Points 10
4 Using the Graphics Plugin with EDIUS 12
4.1 Accessing the Configuration Tool 12
4.2 Adding the Graphics Plugin 12
5 Configuration Tool 15
5.1 Important 16
5.2 Graphics Plugin 17
5.3 Viz Engine 18
5.4 Editor Settings 20
5.4.1 Viz Trio NLE 21
5.4.2 Viz Pilot Edge 23
5.4.3 Graphics Plugin Editor 24
5.4.4 Adobe/Avid/Edius* settings 25
5.4.5 To perform an Object Store image search 25
5.5 Startup Variables 26
5.6 Shared System Settings 26
5.7 Performance Tester 27
6 Graphics Plugin User Interfaces 30
6.1 Viz Trio 30
6.2 Viz Pilot Edge 31
6.3 Viz Pilot 34
6.4 Graphics Plugin Editor 36
6.4.1 Menu Options in Graphics Plugin Editor 37
6.4.2 Information Fields in Graphics Plugin Editor 38
6.4.3 Preview Settings in Graphics Plugin Editor 38

7 Scene Design 39
7.1 Key 39
7.2 Stop Points 39
7.3 Stretching Stop Points 39
7.4 Directors and Stop Points 40
7.5 Sound and Stop Points 40
7.6 Video and Stop Points 40
7.7 Effect Plugins 40
7.8 Transition Logic 40
7.9 Lift and Extract 41

1 Introduction

The Graphics Plugins for Adobe Premiere Pro, Avid and Edius are available in this version. This guide will therefore only concentrate on workflows related to these plugins. For information about other supported Graphics Plugins, please go to the relevant version of the Graphics Plugin Administrator Guide.

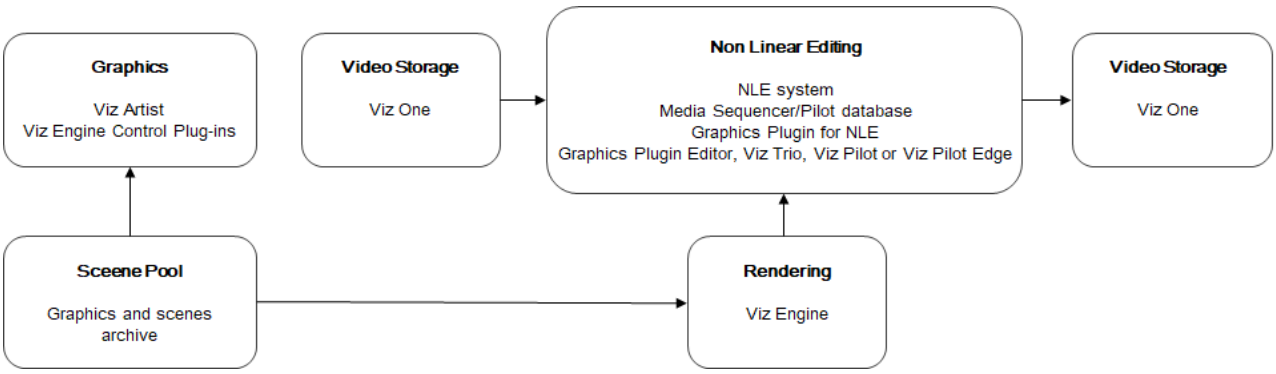
1.1 Typical Workflow

A typical workflow starting with scene and template design, and ending with video rendering and playout consists of the following steps:

1. A graphics designer creates a scene in Viz Artist.
2. The scene is either added as a template to a Viz Trio show or created as a template for use with Viz Pilot in Template Wizard.
3. An editor or a journalist edits a video using an NLE system.
   - Using Vizrt's Graphics Plugin, the user can access and add graphics to the video.
   - Graphics properties can be edited using the graphics templates in either the Graphics Plugin Editor, Viz Trio, Viz Pilot or Viz Pilot Edge.
4. The video clip is rendered and saved to a shared file server or a Media Asset Management (MAM) system, such as Viz One.
5. Once the file is saved or posted to the MAM system, it can also be added to a playlist for playout on Viz Engine.

The basic Graphics Plugin workflow

- Import video -> Import graphic -> Move graphic to video



While third party NLE workstations have different ways of importing and inserting graphics into a video, the Graphics Plugin itself has the same interface across all third-party programs.

For details on how to use the Graphics Plugin in Adobe Premiere Pro, Avid Media Composer and Edius, please see the sections below.

Copyright © 2023 Vizrt

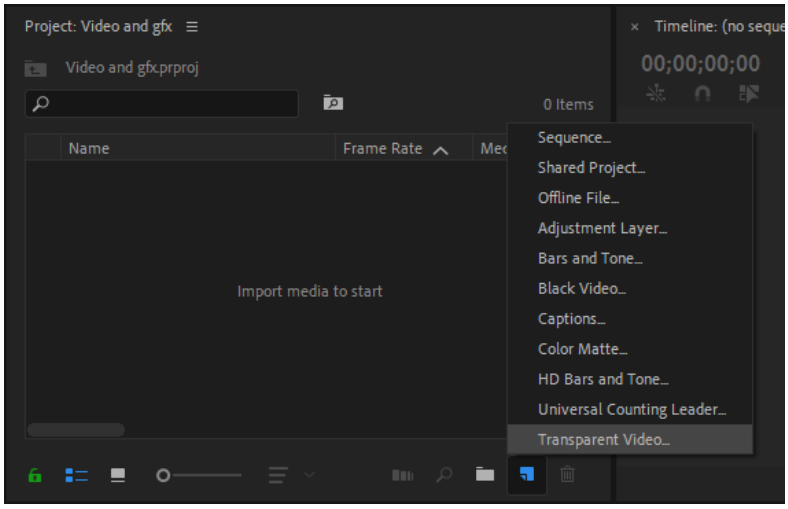
2 Using The Graphics Plugin With Adobe Premiere Pro

This section explains the required steps on how to add Vizrt graphics to the timeline in Adobe Premiere Pro, and how to use stop points.

- Adding the Graphics Plugin
- Stop Points

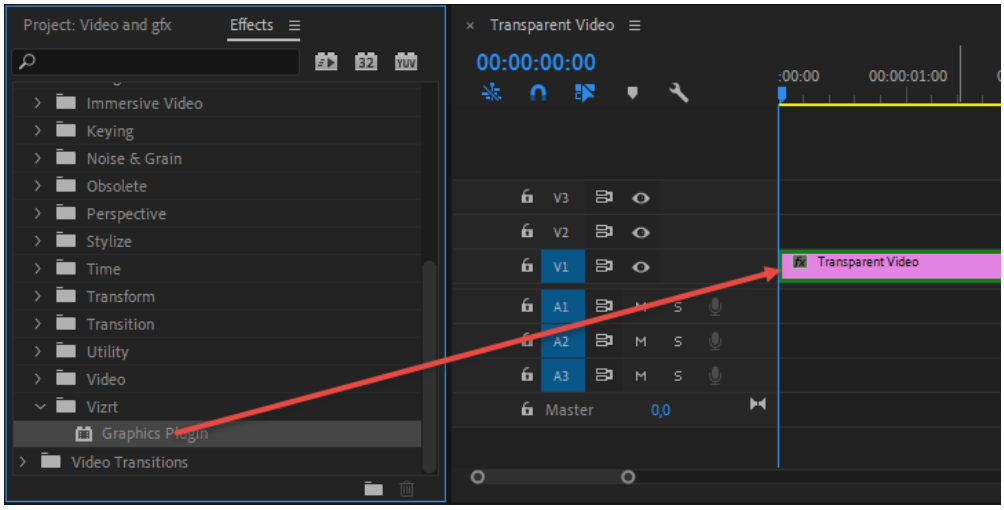
2.1 Adding The Graphics Plugin

1. Create a new project or open an existing project in Adobe Premiere Pro.
2. Add a *Transparent Video* clip to the project:
   - In the Project panel, make sure that the Project tab is selected, and click the **New Item** button in the lower right corner.
   - In the menu that appears, click **Transparent Video...**



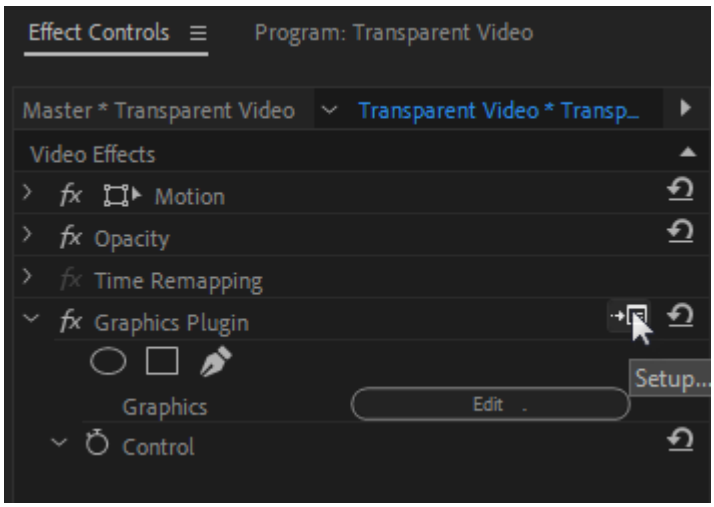
   - In the New Transparent Video dialog box that opens, select your Video Settings and click **OK**.
   - Drag the new transparent video clip to the Timeline.
3. Add the Graphics Plugin to the project:
   - In the Project panel, click the **Effects** tab. (If the tab is not visible, select it from the **Window** drop-down menu bar).
   - Navigate to **Video Effects > Vizrt > Graphics Plugin**.
   - Drag the plugin onto the transparent video clip in the Timeline.

Copyright © 2023 Vizrt



4. Select the transparent video clip that holds the plugin.
5. Click the **Effect Controls** tab. (If the tab is not visible, select it from the **Window** drop-down menu bar).
6. Expand the **Graphics Plugin** option in the **Video Effects** list.
7. Click the **Edit** button to access the specified (done in the Configuration Tool) Graphics Plugin User Interface (Viz Trio, Viz Pilot Edge, Viz Pilot or Graphics Plugin Editor (Mac)) and to use Vizrt graphics.
8. Click the **Setup...** button (see image below) to access the Configuration Tool where you can, among many things, select your preferred Graphics Plugin User Interface. Go to the Configuration Tool section for more details.

> **Note:**
>
> The NLE application will freeze when the Configuration Tool or the User Interface is open.



9. Back in Adobe Premiere Pro, a graphics element has now been added to the transparent video clip.

Copyright © 2023 Vizrt

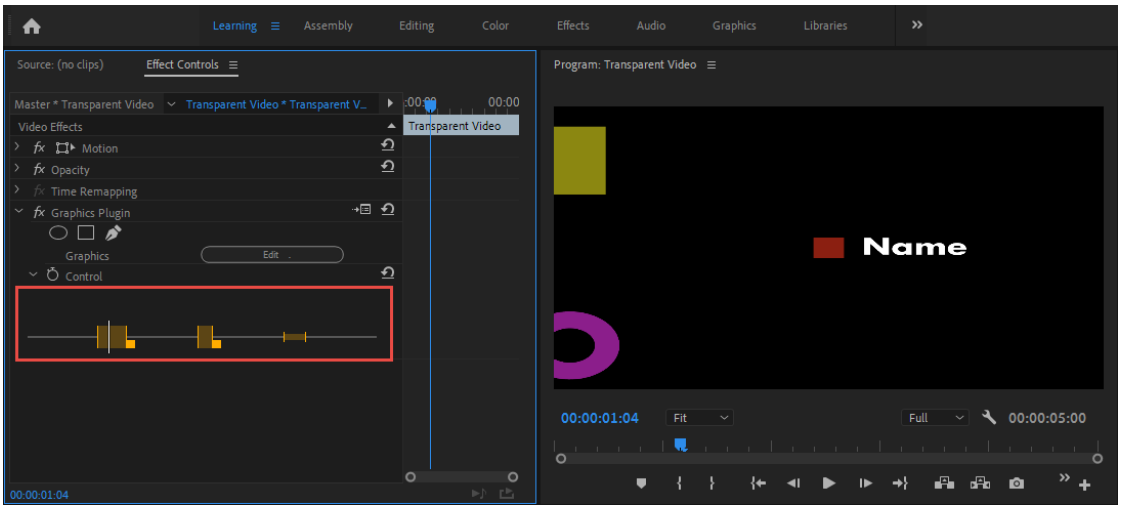
10. Create another Transparent Video with graphics plugin and drag it to the timeline to have multiple graphics.

2.2 Stop Points

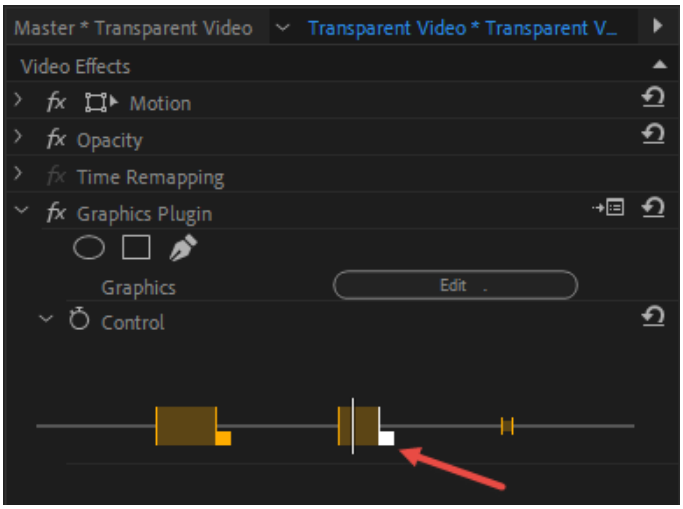
Stop points are added to a graphics scene to control the playout of the animation.

Adding a graphic using the Graphics Plugin there is a stop point editor that allows you to adjust the length of the stop points.

The stop point editor is located in the **Effect Controls** tab > **Graphics Plugin** > **Control**:



Click and drag the small square next to the stop point you want to adjust:



Copyright © 2023 Vizrt

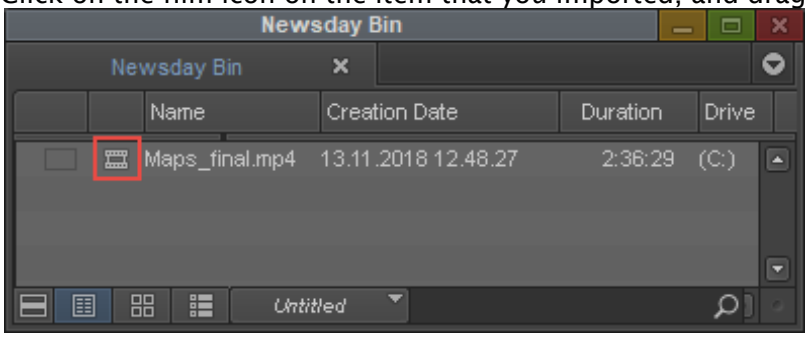
3 Using The Graphics Plugin With Avid Media Composer

This section explains the required steps on how to add Vizrt graphics to the timeline in Avid Media Composer, and how to use stop points.

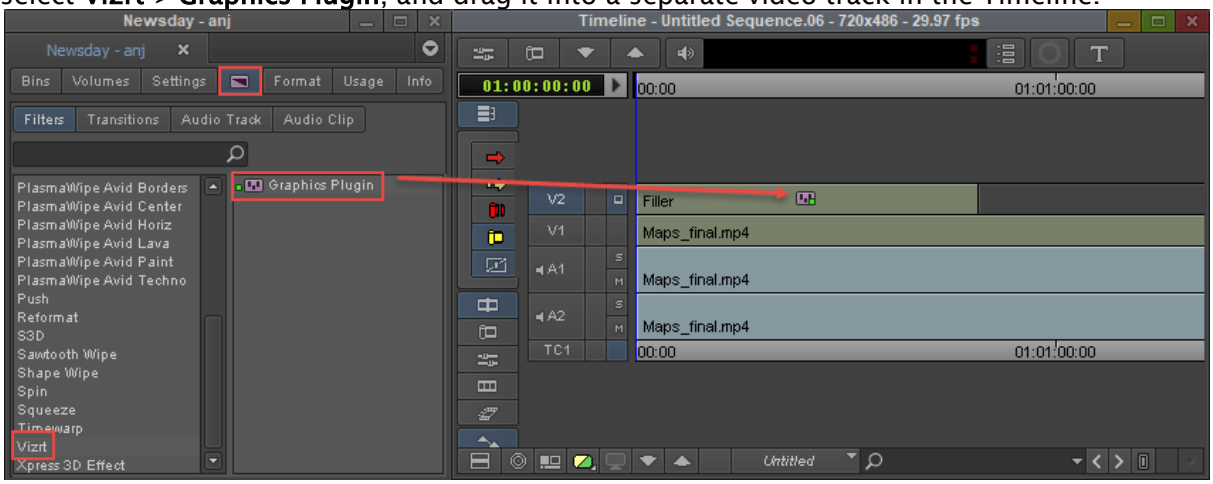
- Adding the Graphics Plugin
- Stop Points

3.1 Adding The Graphics Plugin

1. In Avid Media Composer, create a new project.
2. Import a video through the **Source Browser** window.
3. Click on the film icon on the item that you imported, and drag it into the **Timeline** window.



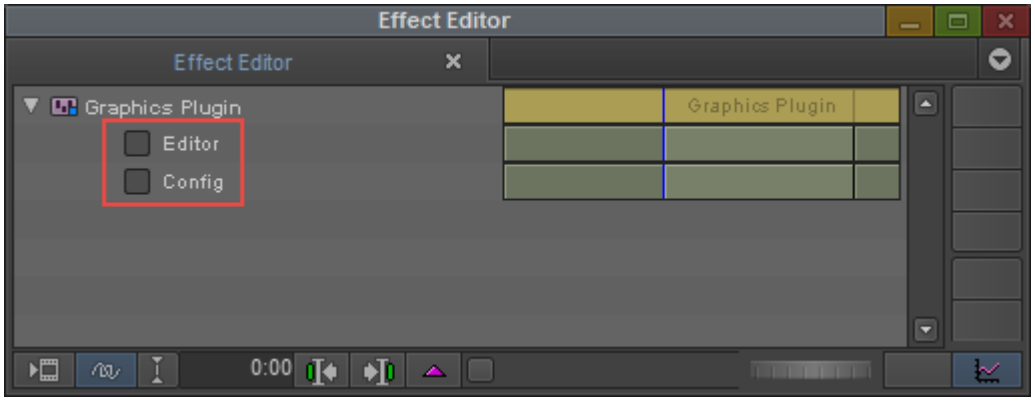
4. In the Project window, click on the **Effect Palette** tab (represented by a square purple icon), select **Vizrt** > **Graphics Plugin**, and drag it into a separate video track in the Timeline.



5. Open the **Effect Editor** by going to **Tools** > **Effect Editor**.
6. In the Effect Editor window, under the Graphics Plugin, click on **Editor** to start importing graphics into Avid Media Composer. Viz Trio, Viz Pilot Edge, Viz Pilot or the Graphics Plugin Editor (Mac) will start depending on specified Graphics Plugin User Interface in the Configuration Tool.
7. Click on **Config** to access the Configuration Tool.

Copyright © 2023 Vizrt

> **Note:**
>
> The NLE application will freeze when the Configuration Tool or the User Interface is open.



8. Check that you are in **Effect** mode in order to see graphics animations in the Preview windows.

9. Play the video clip or scrub the timeline to see the new effect.

3.2 Stop Points

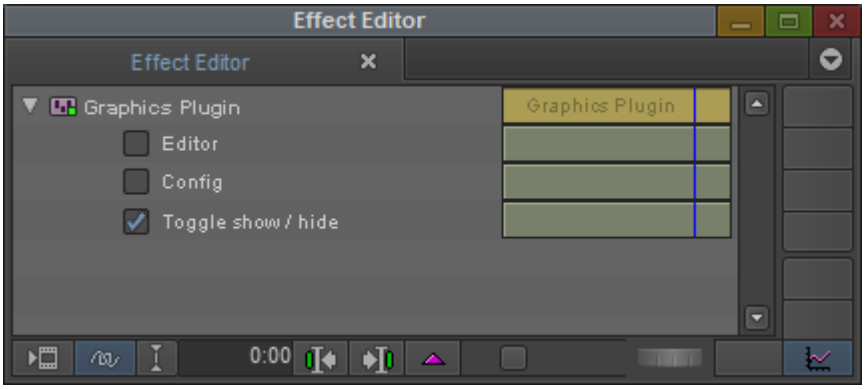
Stop points are added to a graphics scene to control the playout of the animation.

Adding a graphic using the Graphics Plugin there is a stop point editor that allows you to adjust the length of the stop points.

To access the stop point editor open the **Effect Editor**:

- Go to **Tools** from the top menu and select **Effect Editor** in the drop-down list.

Under the **Graphics Plugin**, select the **Toggle show/hide** option.



Enabling this option a stop point editor will appear at the bottom of the preview window:

Click the small square next to the stop point and drag to adjust it.

Copyright © 2023 Vizrt

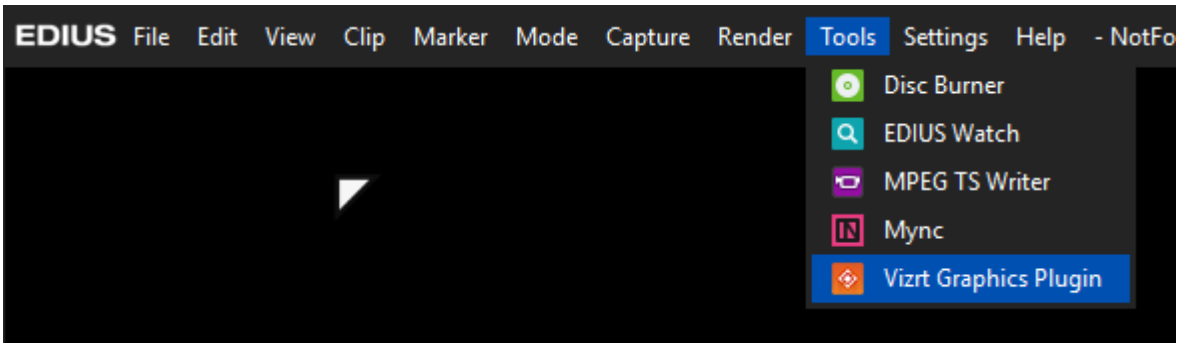
4 Using The Graphics Plugin With EDIUS

This section explains the required steps on how to add Vizrt graphics to the timeline in EDIUS.

- Accessing the Configuration Tool
- Adding the Graphics Plugin

4.1 Accessing The Configuration Tool

To open the Graphics Plugin Configuration Tool in EDIUS, go to **Tools > Vizrt Graphics Plugin**:



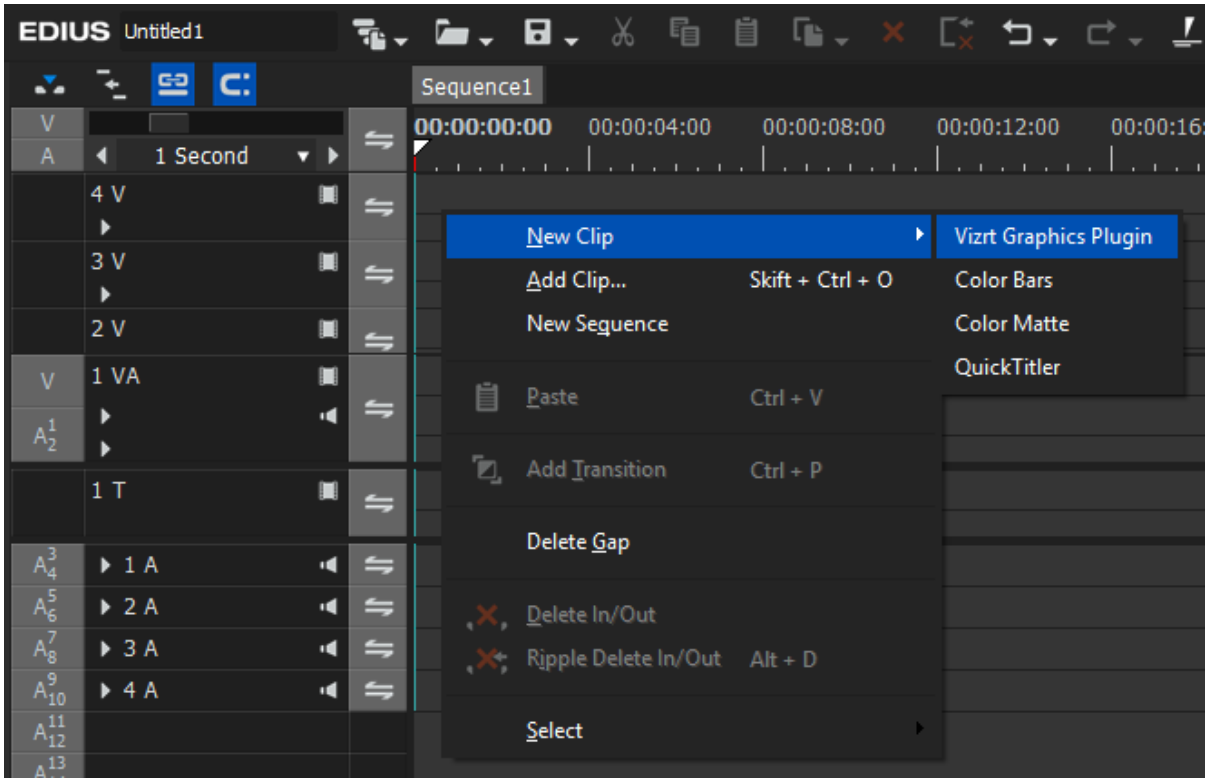
The Configuration Tool opens in a separate window where you can among other things select your preferred Graphics Plugin User Interface. Go to the Configuration Tool for more details.

4.2 Adding The Graphics Plugin

Before you can use Vizrt graphics, you have to add the Graphics Plugin to your project:

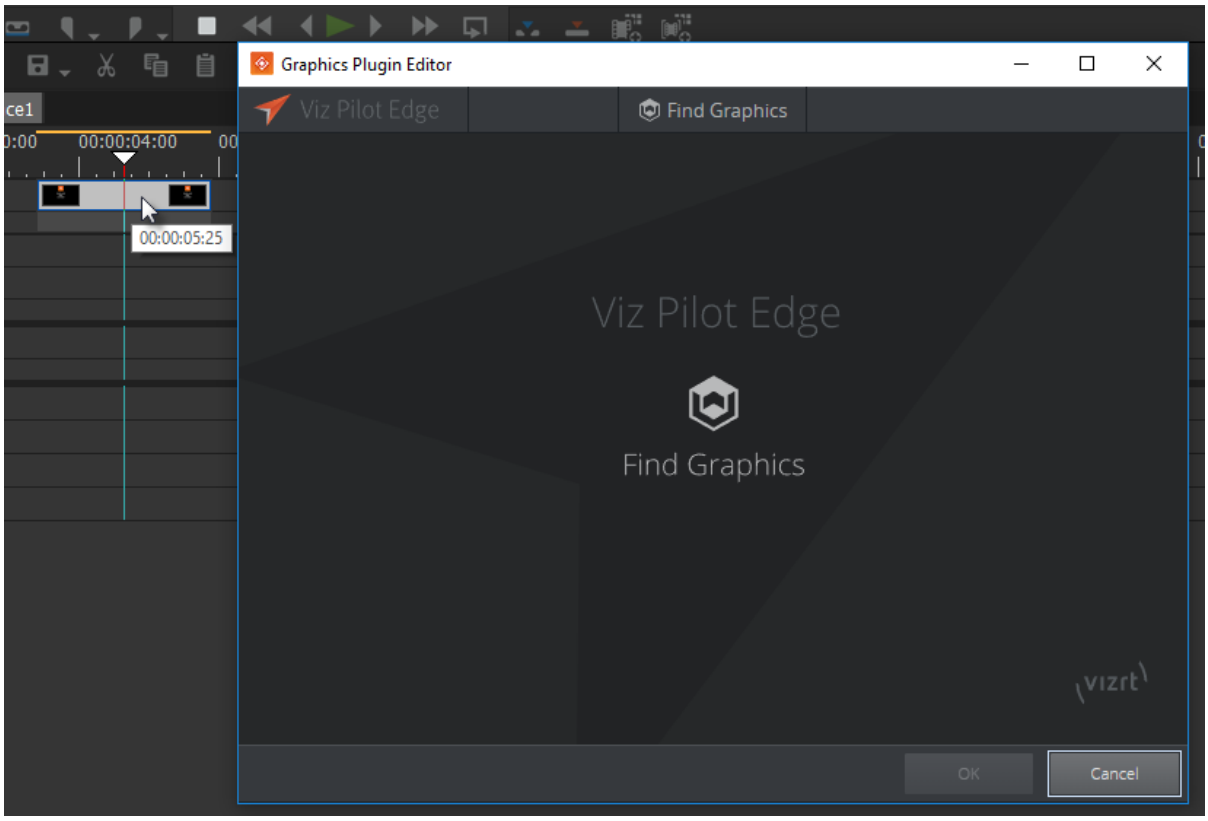
1. Create a new project or open an existing project in EDIUS.
2. Right-click on a video track on the timeline and select **New Clip > Vizrt Graphics Plugin**:

Copyright © 2023 Vizrt



3. A graphics element appears on the timeline at the same time as the Graphics Plugin Editor opens in another window.

Copyright © 2023 Vizrt



4. After closing the Graphics Plugin Editor, you can double-click the graphics element on the timeline to open it again to change or edit the graphics.

> **Note:**
>
> For information about the graphics, right-click it on the timeline and select **Properties...**.

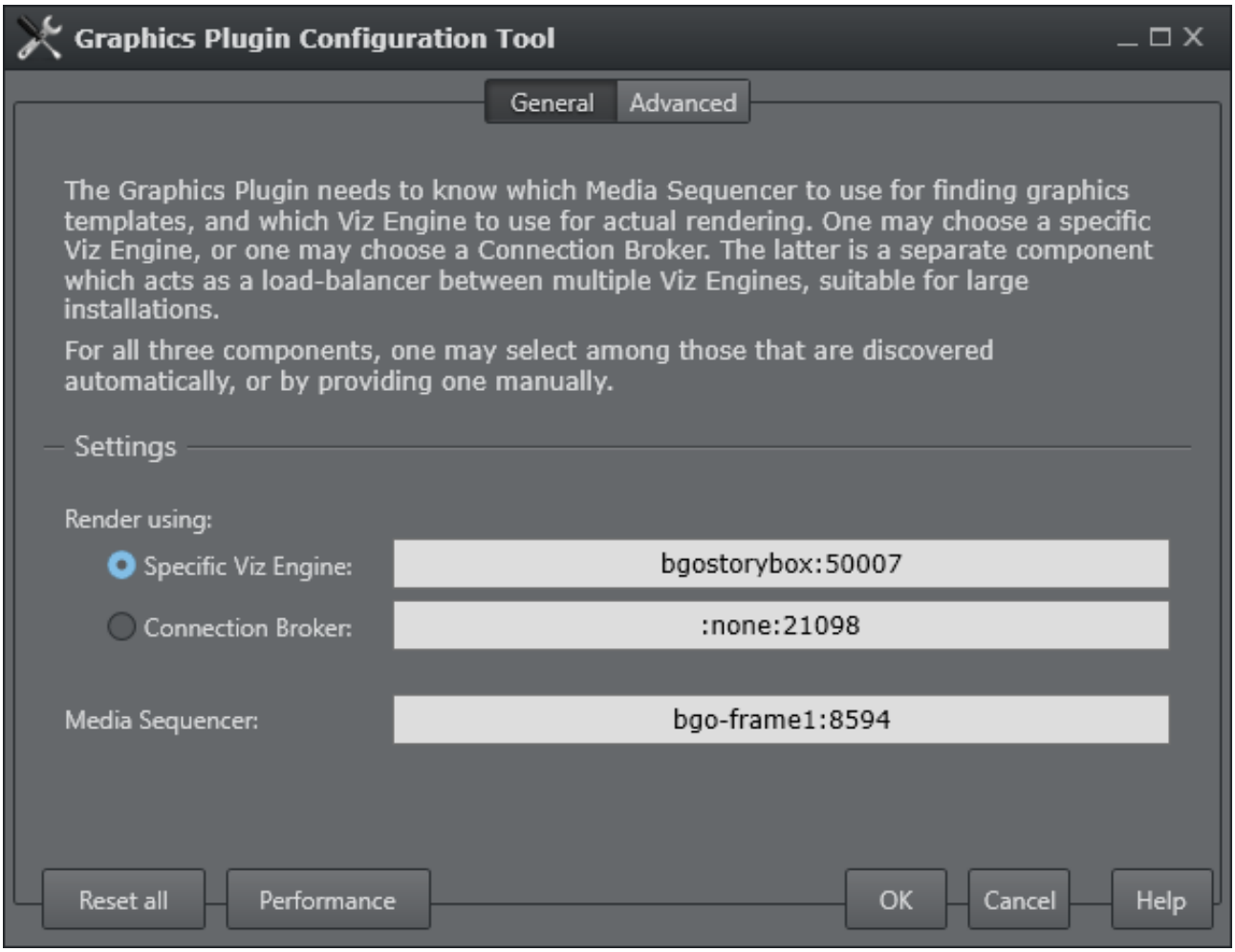
Copyright © 2023 Vizrt

5 Configuration Tool

The Configuration Tool is identical independent of the application it is opened from. This section describes the Configuration Tool user interface and its options.

- **Reset All:** Resets all settings to default (factory settings).
- **Performance**: Opens the Performance Tester for Tuning the System.
- **OK:** Saves the current configuration.
- **Cancel:** Cancels all changes and closes the Configuration Tool.
- **Help:** Opens the Graphics Plugin user guide.

> ⚠ The **Help** button is not available in the configuration tool for Mac users. To access the documentation go to **help** in the menu bar.



Opening the Configuration Tool the **General** tab will be selected by default with the following settings:

- **Select render:**
  - **Specific VizEngine**, or **Connection Broker:** Specify whether you are using a Viz Engine or Connection Broker as render.

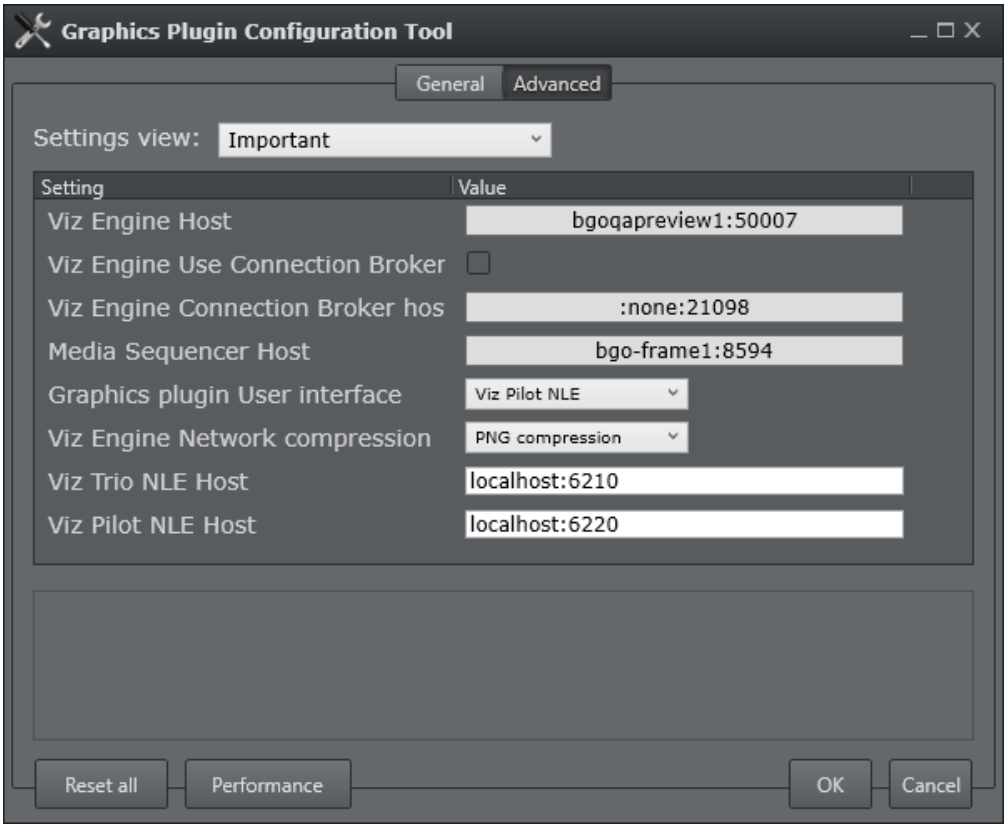
- **Media Sequencer:** Specify the Media Sequencer.

The following sections describe the user-configurable settings under the **Advanced** tab and are divided based on the selected **Settings view**:

- Important
- Graphics Plugin
- Viz Engine
- Editor Settings
- Startup Variables
- Shared System Settings

5.1 Important

The **Important** Settings view displays the most important settings needed in order to run the Graphics Plugin.



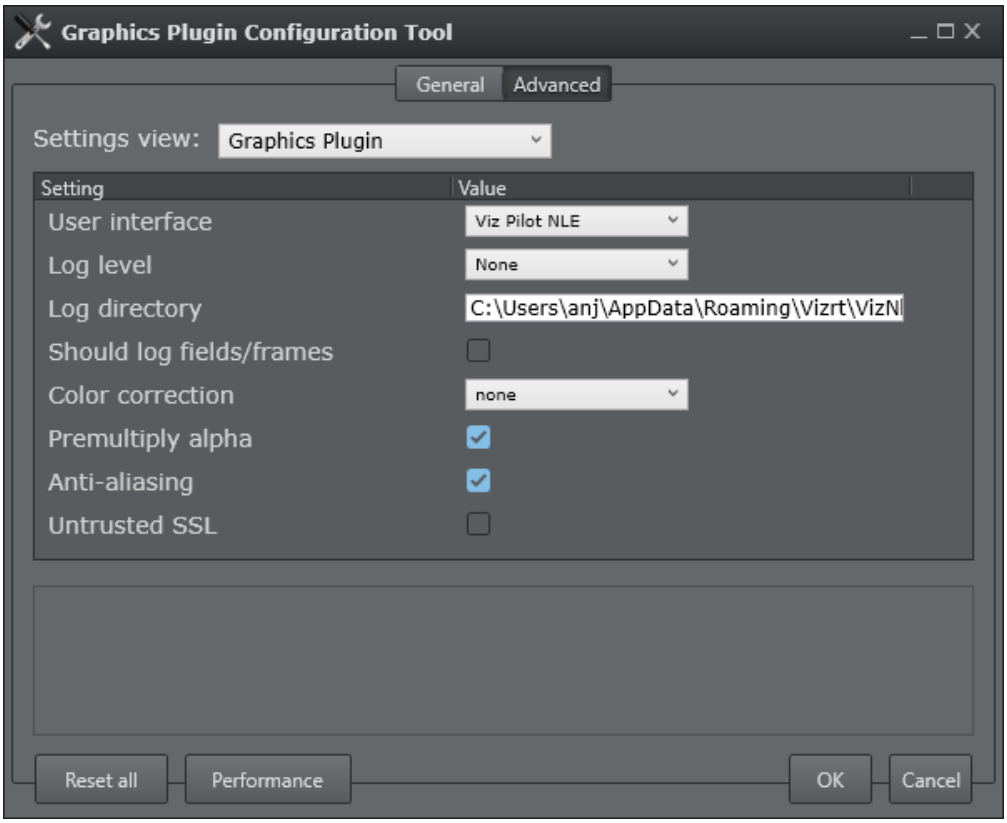
- **Viz Engine Host:** Sets the hostname or IP address of the Viz Engine renderer.
- **Viz Engine Use Connection Broker:** Enables use of the Connection Broker, see Connection Broker.
- **Viz Engine Connection Broker host:** Sets the host of the computer running the Connection Broker, see Connection Broker.
- **Media Sequencer Host:** Sets the host of the computer running the Media Sequencer service.

Copyright © 2023 Vizrt

- **Graphics plugin User Interface:** See User Interface.
- **Viz Engine Network compression:** See Network compression.
- **Viz Trio NLE Host:** Defines the hostname of the machine running the Viz Trio NLE. Typically, this hostname is *localhost*.
- **Viz Pilot NLE Host:** Defines the hostname of the machine running the Viz Pilot NLE. Typically, this hostname is *localhost*.

5.2 Graphics Plugin

⚠ **Settings view** contains all settings that are separate and only apply the Graphics Plugin. These settings are not application specific settings such as those that apply Viz Engine and Graphics Plugin Editor.



- **User Interface:** Sets the interface to use for selecting graphics templates.
  Templates using the same scene but opened from Viz Trio, Viz Pilot or Viz Pilot Edge are different entities. Once an editor is set and used to add a graphic effect to the timeline the

Copyright © 2023 Vizrt

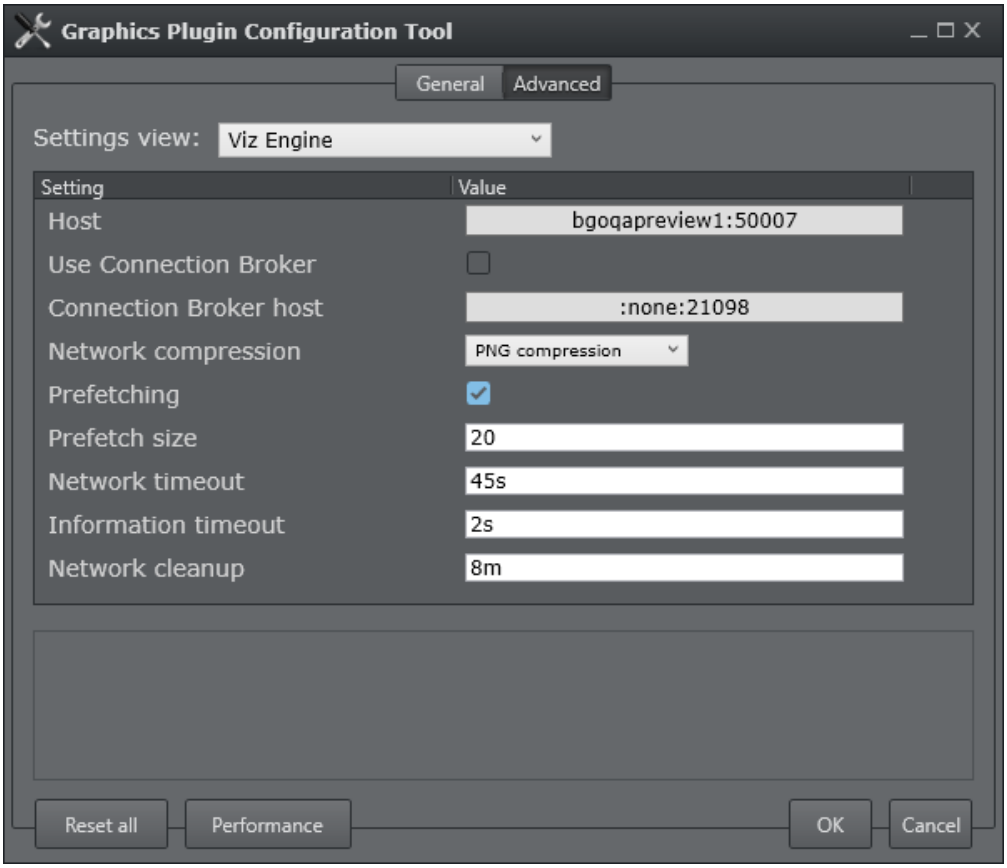
effect is also bound to that editor. To create an effect with a template from another editor the old effect must first be deleted, a new editor configured, and then a new effect created.

- **Log level:** Set the log level in order to provide an error report to Vizrt. Only use it when it is specifically needed to make a report as it will slow the effect of the plugin. See the Log Files section in the *Graphics Plugin Admin Guide* for more information on log file locations.
  If set to **None**, the plugin will only log errors, which is the default behavior.
  If set to **Report**, the plugin will generate dated log files. It will in almost all cases include enough information in the log files to let Vizrt figure out the cause of problems.
  If set to **Extreme**, the plugin will generate a very large amount of logging information.
- **Log directory:** Use this setting to override the default logging directory. See the Log Files section in the Graphics Plugin Admin Guide.
- for more information on logging.
- **Should log fields/frames:** Enables the plugin to dump all frames and fields it renders to the file system allowing the user and Vizrt support to identify issues related to the graphics. Files are dumped in a sub-directory of the **Log directory**.
- **Color correction:** Enables broadcast-safe colors. Set cap-601 to cap high and low values directly to get 16-235. Set linear-cap-601 to perform a linear recalculation of the data to 16-235. The default value is **None**.
- **Premultiply alpha:** Configures whether the plugin will pre-multiply alpha or not when rendering. In some cases, the Viz Engine has already multiplied the color channels with the alpha channel.
- **Anti-aliasing:** Determines whether requests for small frame sizes should be anti-aliased on the Viz Engine.
- **Untrusted SSL:** Determines whether HTTPS servers with self-signed certificates should be trusted.

5.3 Viz Engine

The Viz Engine **Settings view** is shown below:

Copyright © 2023 Vizrt



- **Host:** Sets the hostname or IP address of the Viz Engine renderer.
- **Use Connection Broker:** Enables the Graphics Plugin to connect to the Connection Broker for graphics rendering.
- **Connection Broker host:** Sets the hostname or IP address of the Connection Broker (see Connection Broker).
- **Network compression:** Sets the compression level. It is recommended to use no compression on gigabit networks, and compressed formats on slower networks (e.g. 100mbit). The default value is **RLE**.
  No Compression for gigabit networks will send all frames across the network uncompressed.
  PNG (Portable Network Graphics) is a lossless compression format.
  RLE (Run-length Encoding) is a lossless compression format. RLE is only supported by Viz Engine 3.2.2. and later versions (see the Software Requirements section).
- **Prefetching:** Prefetching, also known as caching, greatly increases the rendering speed when using a start to stop rendering, like Pinnacle's yellow slices, or Avid's pre-render effect mode.
  Failsafe mode is **off**.
  Default value is **on**.
- **Prefetch size:** Use this setting to indicate how many frames or fields the plugin should pre-fetch. A higher number improves start to stop rendering (pre-render) performance but reduces the scrub performance.
  Note that this option is only available if pre-fetching is enabled. Prefetch values above 50 are

Copyright © 2023 Vizrt

ignored.
Default value is **20**.

- **Network timeout:** Sets the time for how long Viz Engine connections should wait for replies. Unless network measurements for the Viz Engine have been performed, this setting should not be changed. Default value is **45 sec**.
- **Information timeout:** Sets the time for how long Viz Engine should wait for reply for initial information.
  Unless network measurements for the Viz Engine have been performed, this setting should not be changed.
- **Network cleanup:** Sets the time for how long the plugin should wait after last use before considering tidying up loose connections to the Viz Engine.
  Unless the actual use of the plugin has been measured, this should not be changed. Default value is **8 mins**.

> ⚠ **Host port number restrictions when previewing templates on Editor** Viz engine port 50007 or 50107 must be used in order to preview templates on Graphics Plugin Editor, Viz Trio, Viz Pilot or Viz Pilot Edge. These ports connect to preview ports 50008 and 50108, respectively. See Network Requirements for port numbering information.

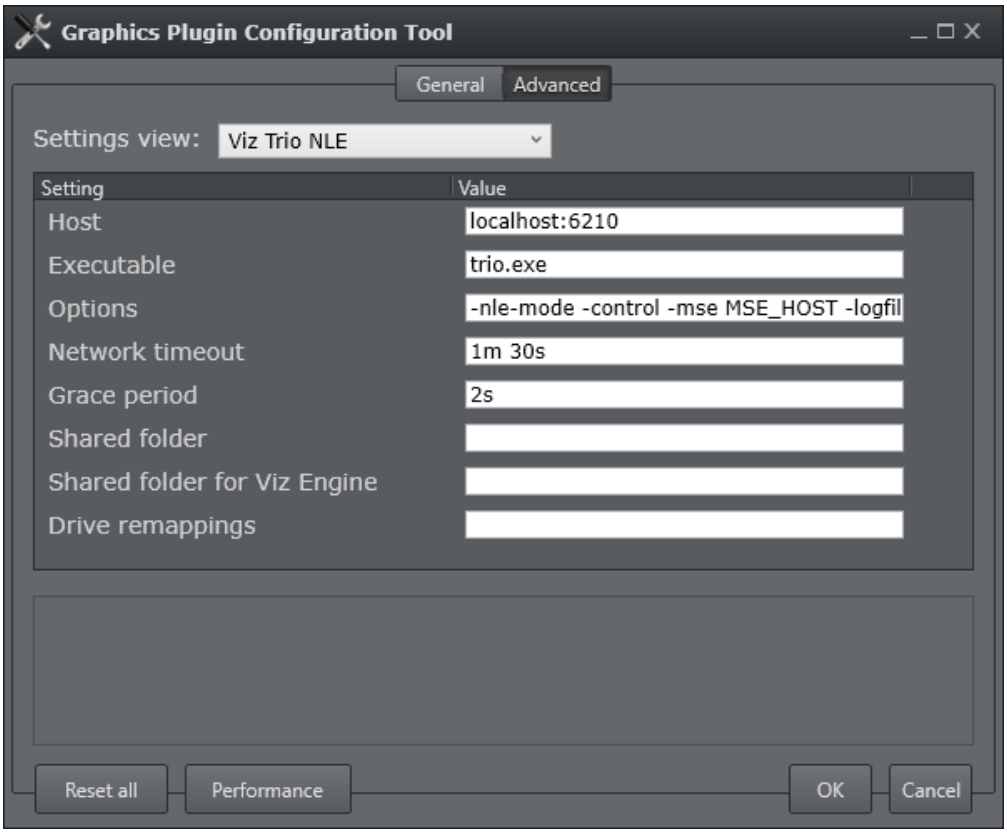
5.4 Editor Settings

Toggle **settings view** to display settings for either the Graphics Plugin Editor, Viz Trio, Viz Pilot or Viz Pilot Edge. Common settings will be presented first, followed by editor-specific settings:

- **Host/URL:** Sets the hostname or IP address (URL for Viz Pilot Edge app) of the machine running the Graphics Plugin Editor, Viz Trio or Viz Pilot.
- **Network timeout:** Sets the time for how long connections to Graphics Plugin Editor should wait for replies.
  Unless network data for the Graphics Plugin Editor has been measured this should not be changed.
  Default value is **90s**.
- **Grace period:** Sets the time for how long the Graphics Plugin should give the editor to start everything without interruptions.
  Default time is **2s**.

Copyright © 2023 Vizrt

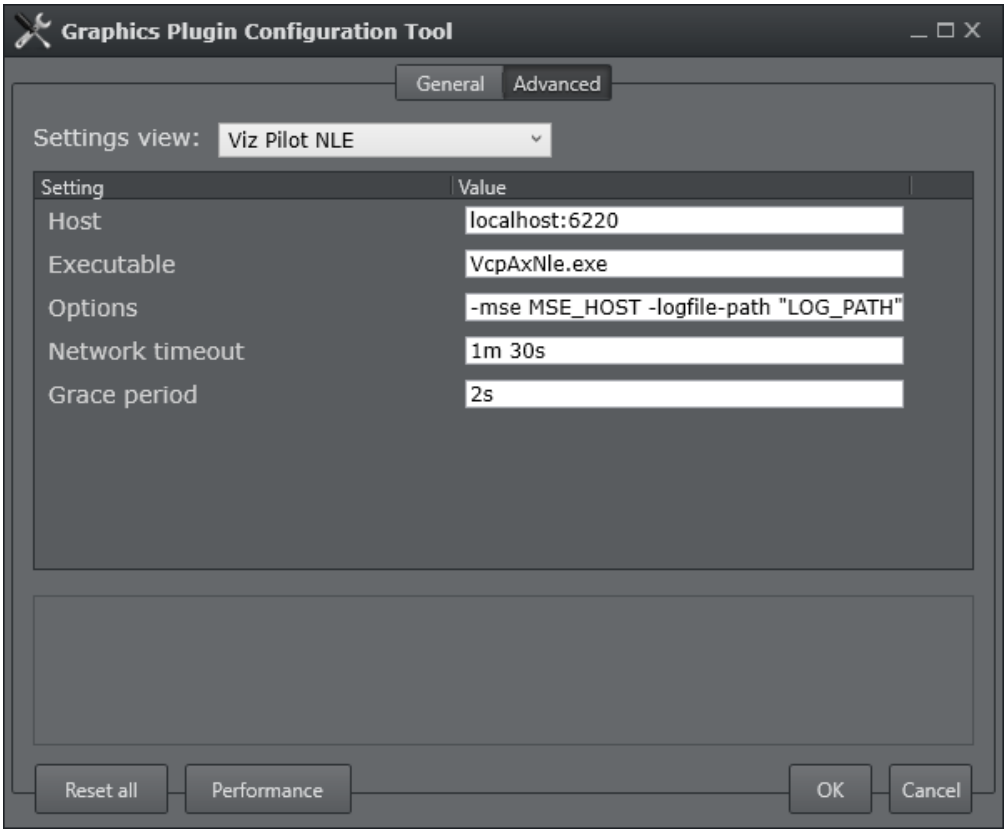
5.4.1 Viz Trio NLE



- **Executable:** Name of the editor's executable file. Can be changed in case another filename is in use than the usual.
  Default value is *trionle.exe.*
- **Options:** The exact command line options string that should be passed to the editor's process at startup.
  For more information on command line options, see the Startup Variables section.
- **Shared folder:** Shared path used for temporary files during import of Viz Trio shows. Both the Graphics Plugin and the external Viz Engine should have full access to this folder.
- **Shared folder for Viz Engine:** Shared path as seen from the Viz Engine machine, must refer to the previous setting. Only needed if the external Viz Engine uses a different path (e.g mapped network drive) for the same folder.
- **Drive remappings:** Semicolon-separated list of drive remappings used during import of Viz Trio shows. These will cause associated files of the specified file types to be unpacked to a different drive letter than stored in the *.trioshow file. Each mapping is on the form wildcard=driveletter.

Viz Pilot NLE

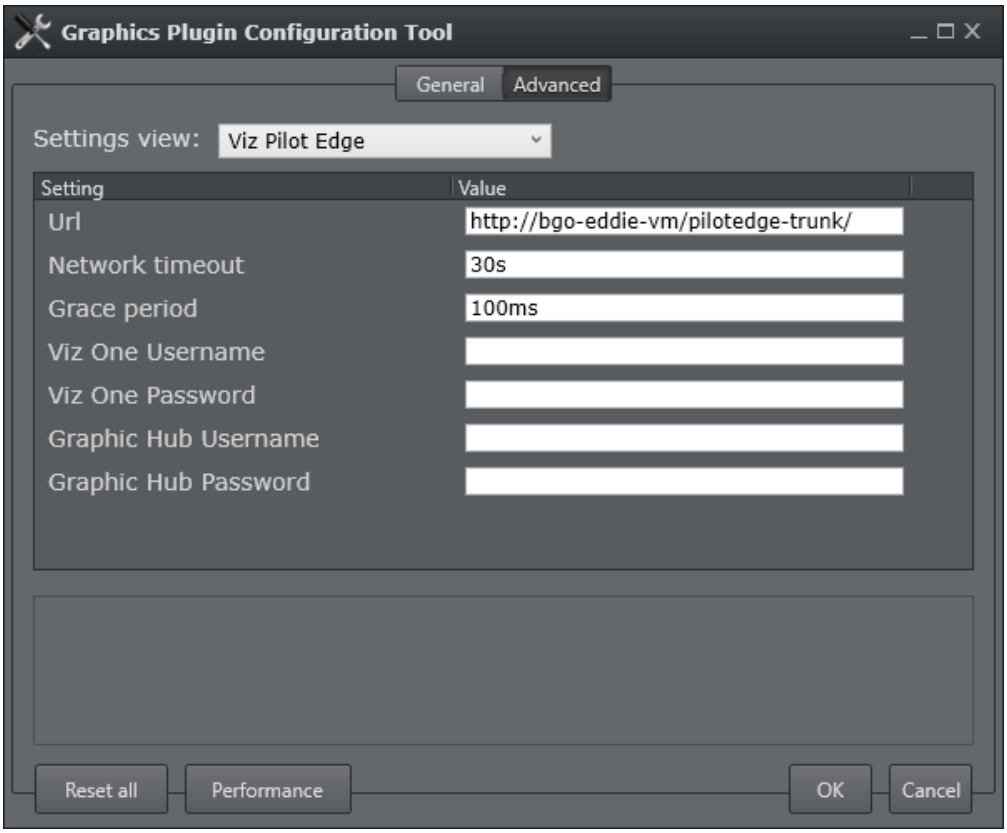
Copyright © 2023 Vizrt



- **Executable:** Name of the editor's executable file. Can be changed in case another filename is in use than the usual.
  Default value is *VcpAxNle.exe*.
- **Options:** The exact command line option(s) string that should be passed to the editor's process at startup. For more information on command line options, see the Startup Variables section.

Copyright © 2023 Vizrt

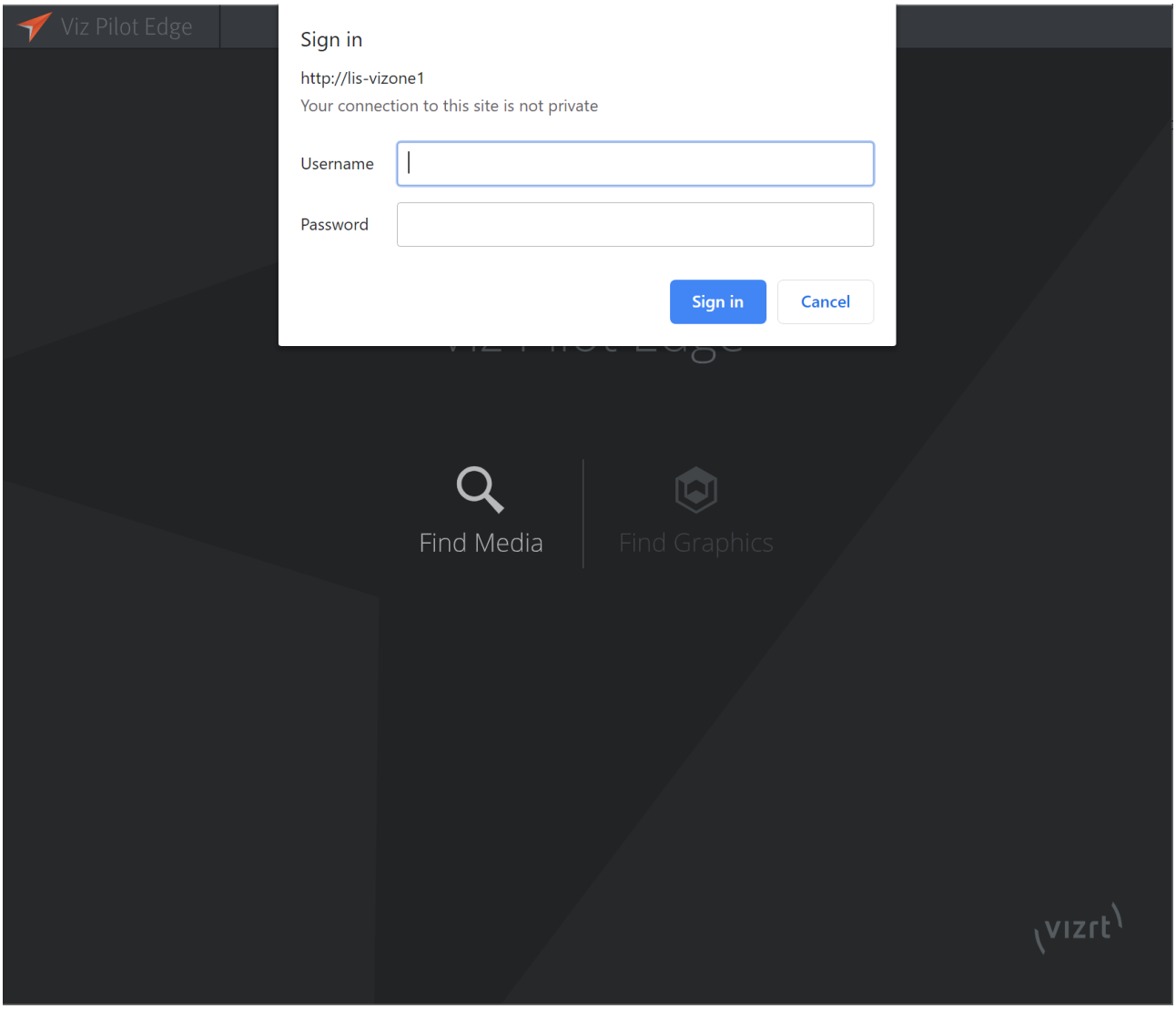
5.4.2 Viz Pilot Edge



- **Viz One Username:** The username to log in to Viz One.
- **Viz One Password:** The password to log in to Viz One.
- **Graphic Hub Username:** The username to log in to Graphic Hub.
- **Graphic Hub Password:** The password to log in to Graphic Hub.

When using Pilot Edge in a regular browser (Chrome/Firefox/IE): If Pilot Data Server is configured to use a Viz One server, or the user has manually specified a Viz One server via URL parameters (by appending "?vizone=hostname" to the end of the URL), but no default password has been configured in Pilot Data Server settings, the popup below will appear. If the username and password are not entered, the server's media will be unavailable for the duration of the session and will not be visible while browsing Pilot Edge.

Copyright © 2023 Vizrt



⚠ **Pop-ups are not shown when Pilot Edge is used via the NLE Editor**. Any authentication request will therefore always fail silently. This can be remedied by filling in the **Username** and **Password** fields. If the server requests additional authentication for either Viz One or Graphic Hub, the above fields will be used. However, if the server does not request Viz One / Graphic Hub credentials, either because valid credentials already exist server side, or because no Viz One / Graphic Hub is configured, these fields will be silently ignored.

5.4.3 Graphics Plugin Editor

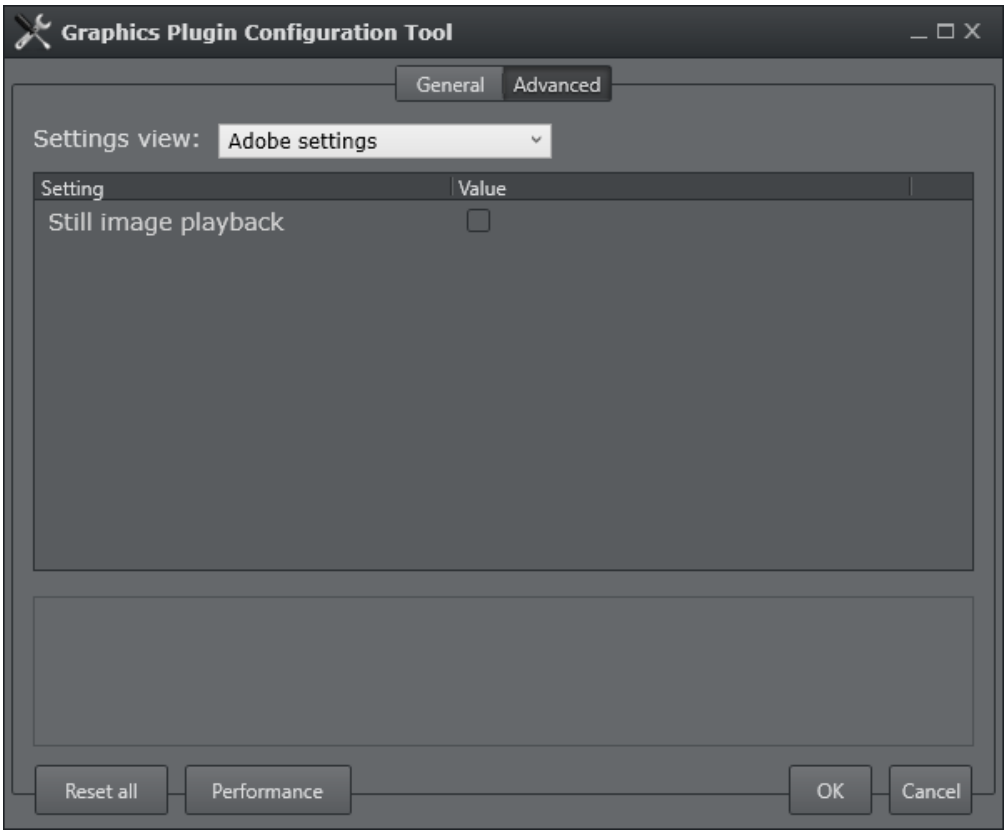
- **VOS image search:** URI template for image search from Object Store, a component of Viz Pilot. This requires the Viz Pilot Data Server. Being a URI template means there should be a placeholder in the text you enter, indicated by curly-brackets, which gets replaced by

Copyright © 2023 Vizrt

specific search terms, as in this example: `http://vcpserver.example:8177/vos/search?q=\{query}`.

5.4.4 Adobe/Avid/Edius* settings

* depending on your NLE application.



- **Still image playback:** Only render still images to increase performance when low-quality frames are requested. This will affect scrubbing and playback. A high-quality frame will eventually be rendered upon scrubbing, which will show the correct representation of the graphics after rendering.

5.4.5 To perform an Object Store image search

1. Create a sequence.
2. Add a clip to the sequence.
3. Drag the Graphics Plugin effect to the sequence.
4. Double-click the effect, and select the **Controls** tab at the top of the screen.
5. From the **Controls** panel, click **Graphics Plugin Config**.
6. In the **Graphics Plugin Configuration Tool** window that opens, click the **Advanced** tab.
7. From the **Settings view** list, click **All settings**.
8. Locate the **VOS image search**, and set the path to your Object Store.
9. Click **OK**.
10. Back in the **Controls** panel, click **Graphics Plugin Editor**.

Copyright © 2023 Vizrt

11. In the **Graphics Plugin Editor** window that opens, select a show and then a template containing an image field.
12. From the **Information fields** list, select the field that contains the image.
13. From the window that opens, click the **Search** tab.
14. Type a search string that matches your preferences in the search field.
15. From the list of images on your app server, select the one you prefer.
16. The image is being updated both as a thumbnail in the **Information fields** list and in the preview window.
17. Click **OK** to return to the sequence view.

5.5 Startup Variables

Options are used as variables for the actual value set for the plugin. The options can be used as part of an editor's startup options.

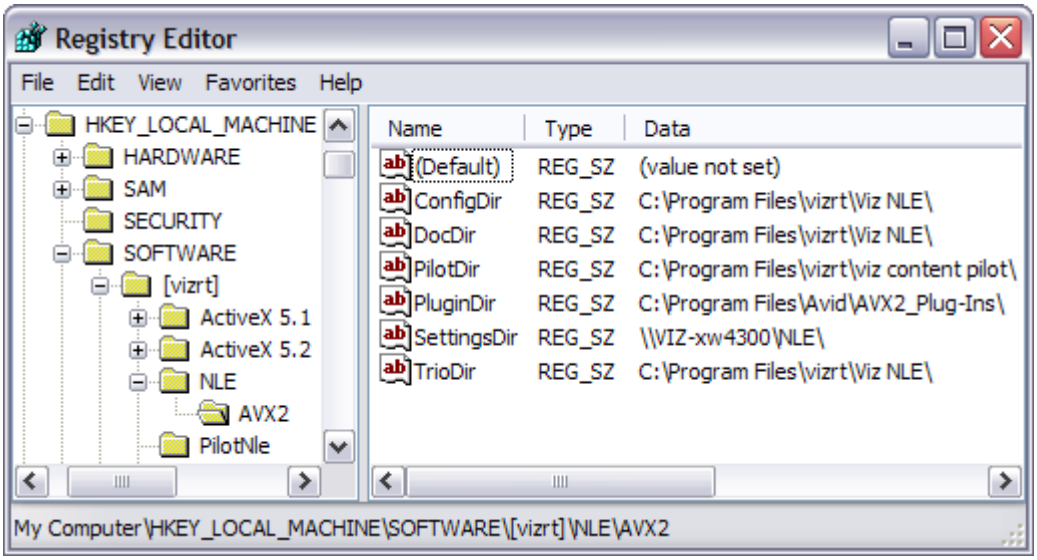
The following options are available and configurable:

- MSE_HOST: References the active *Media Sequencer host*.
  - Example: -mse MSE_HOST
- LOG_PATH: Refers to the currently used *Plugin log directory*.
  - Example: -logfile-path "LOG_PATH"

⚠ The startup options are only valid for NLE editors on Windows.

5.6 Shared System Settings

This section covers the shared settings feature that is available to Windows users in the system registry.



The system stores the settings in a per-user directory, for example under `C:\Documents and`

`Settings\<username>`. Placing the same file in a shared directory allows multiple users to use a standardized setup overriding per-user settings.

> ⚠ Shared settings does not apply to Mac users.

By adding a Windows registry entry with a path to the *master configuration file*, the settings in that file will take precedence over the default values for the various settings, but the individual settings that the user changes in the Graphics Plugin configuration tool will take precedence over the *master configuration file*.

```
HKEY_LOCAL_MACHINE/SOFTWARE/[vizrt]/NLE/AVX2/SettingsDir
```

Given a particular setting, the following rules apply:

1. If a setting has been set using the Graphics Plugin configuration tool, that value is used, otherwise;
2. if it has a value in the master configuration file, that value is used, otherwise;
3. the *default* value for the setting is used.

To add a shared system setting

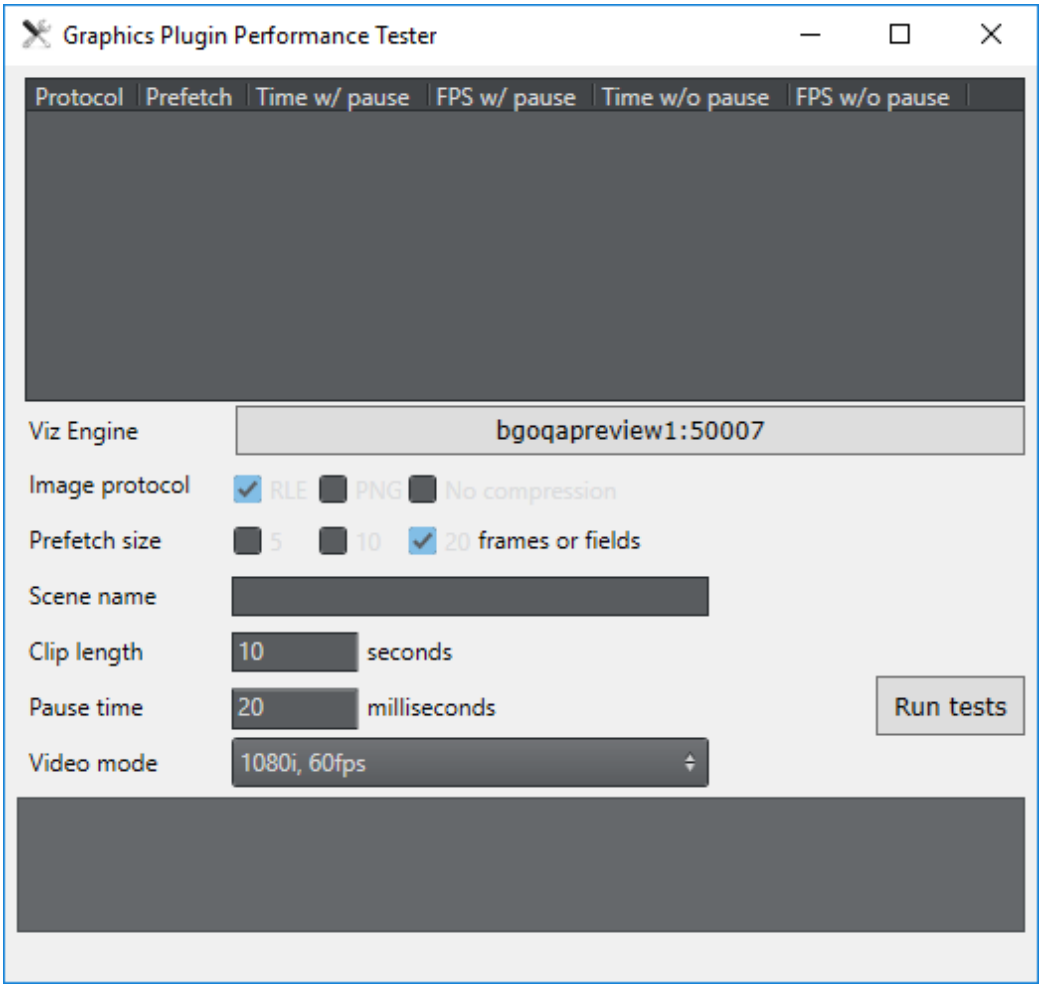
1. Start Graphics Plugin configuration tool.
2. Configure the Graphics Plugin using the configuration tool.
3. Save and exit the configuration tool.
4. Find the file *vizplugin.xml* in the current user's *Application Data* folder.
5. Copy the file to the designated shared location.
6. Set up the *SettingsDir* registry entry to point to the shared directory location where the copied file was placed.

5.7 Performance Tester

The Performance Tester is accessed by clicking the Performance button at the lower left in the Graphics Plugin Configuration Tool. The purpose of the tool is to test various configurations. It will test the Graphics Plugin directly and how it performs on the network, as well as the rendering and how quickly the Graphics Plugin returns graphics to the NLE system, which is the raw speed of the plugin.

The tester does not test the time it takes to fill the NLE system's frame buffer or the time used between each request for frames to the NLE system. It is therefore recommended to test the NLE system once the Graphics Plugin is tested and found to be working satisfactorily.

Copyright © 2023 Vizrt



- **Results table:** Shows a table of results displaying the protocol tested, prefetch size, time and frames per second achieved.
- **Viz Engine:** Sets the Viz Engine host to be used for testing.
- **Image protocol:** Sets the parameter for how to transfer the graphics over the network. Select one or multiple options and choose between **RLE**, **PNG** and **No compression**.
- **Prefetch size:** Sets the pre-fetching that will be tested. Available options are **5**, **10** or **20** frames or fields.
- **Scene name:** Sets a particular scene that can be loaded and tested (e.g. `02_GFX/VizNLE/1000`).
- **Clip length:** Sets the length of the clip that is to be rendered. 5 or 10 seconds are good starting points to check the rendering time.
- **Pause time:** Sets the pause in milliseconds between renders, that is the time that an NLE system uses to process the previous data. This would be lower for SD than for HD. It is recommended to try other values between 0 and 100 ms+ to see how this affects the network use. For more information, see the Tuning the NLE System section on the Questions and Answers page.
- **Video mode:** Sets the Viz Engine video mode to either:
  - 1080i 50 FPS

Copyright © 2023 Vizrt

    - 1080i 60 FPS
    - 720p 50 FPS
    - 720p 60 FPS
    - PAL
    - NTSC
- **Run tests:** Tests the current settings configured for the plugin with the clip length and pause options set. This is useful when performing tests with concurrent users.
- **Test summary:** Shows a report of problems and various statistics.

Once the settings that give the optimal results are found they can be set in the Viz configuration tool manually so that the settings can be tested with the actual NLE system.

Copyright © 2023 Vizrt

6 Graphics Plugin User Interfaces

This section describes user interfaces that can be used with the Graphics Plugin. The NLE version of Viz Trio is bundled with the Graphics Plugin installation. The Graphics Plugin Editor is the user interface for Mac machines since Viz Trio is not supported. Viz Pilot Edge can be used by providing the URL in the Configuration Tool. Viz Pilot can also be used as the user interface if it's installed on your computer.

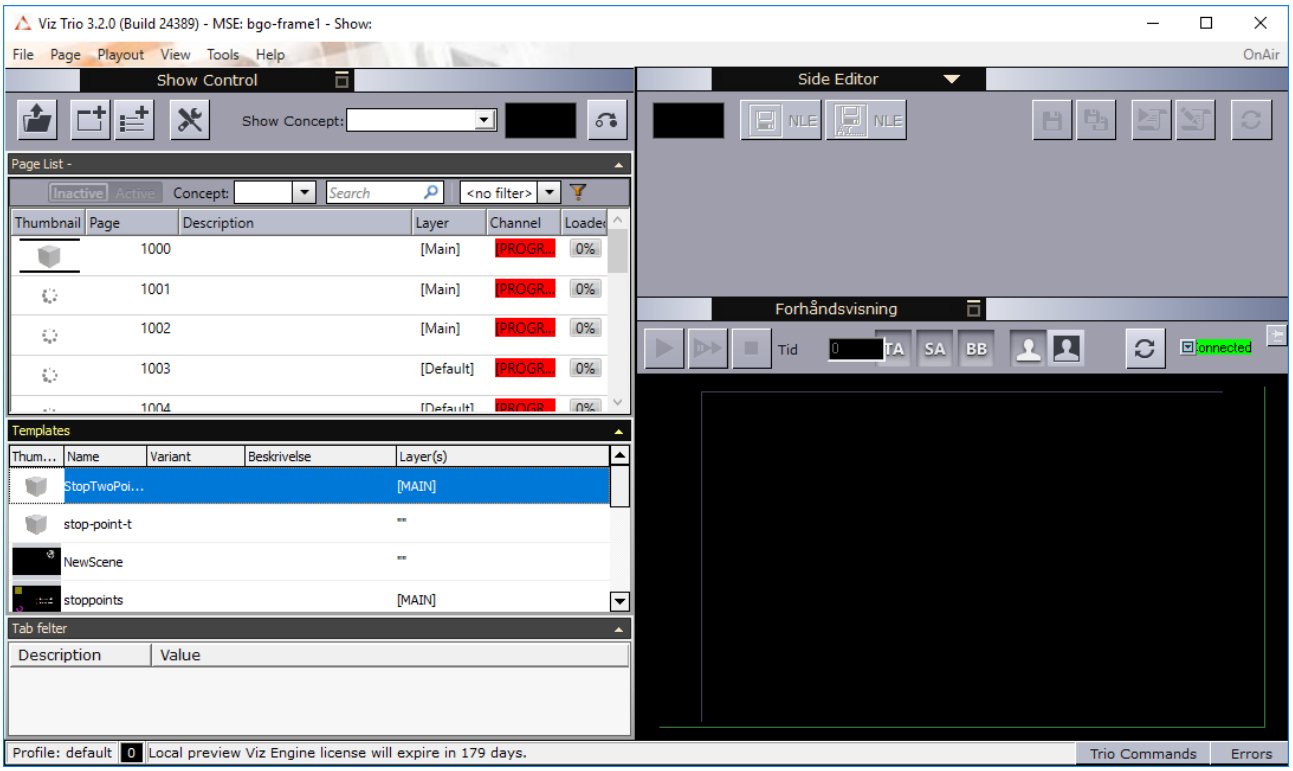
Click the Edit button in Adobe Premiere Pro, or the Editor button in Avid to open the user interface selected in the Configuration Tool in a separate window.

This section contains more information about how to use the various user interfaces:

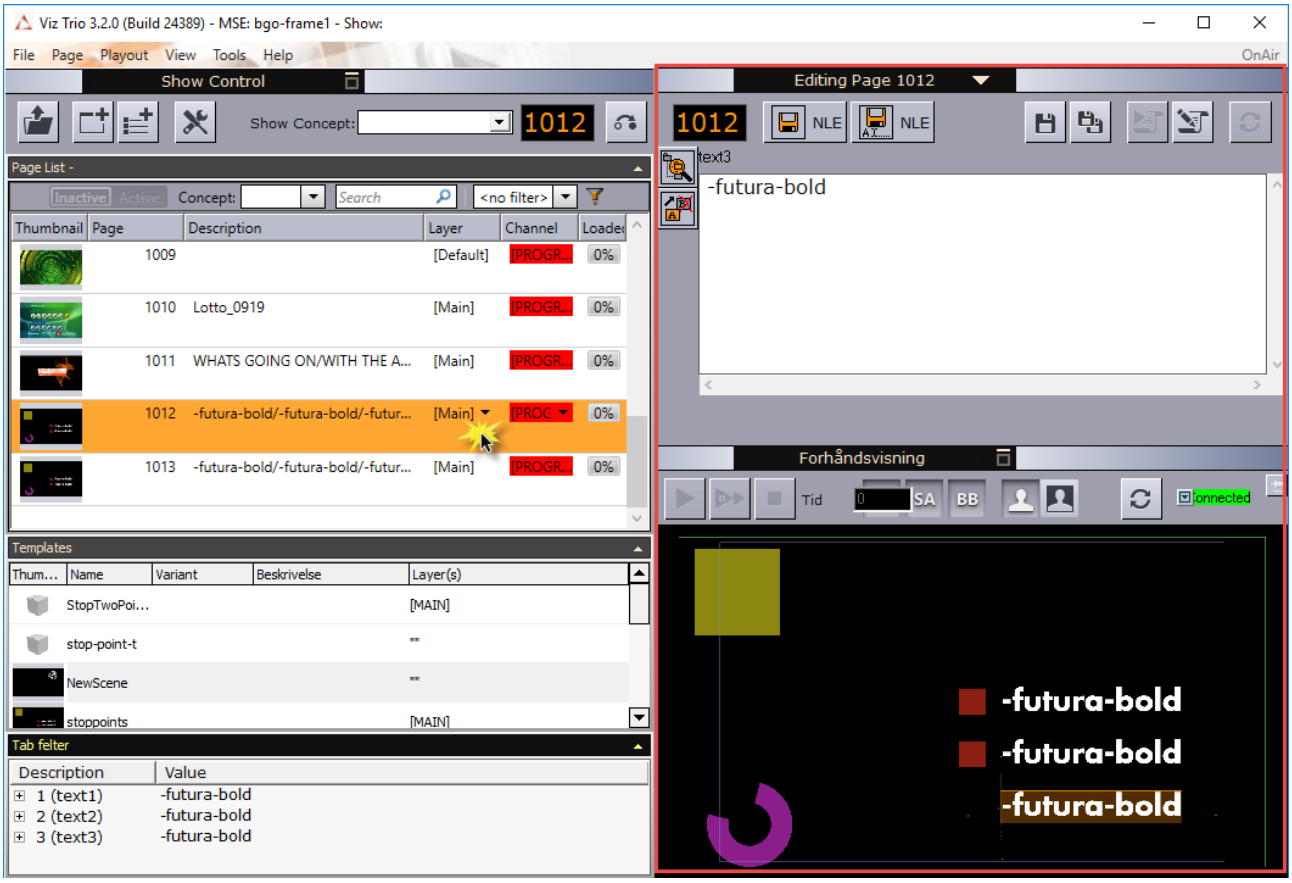
- Viz Trio
- Viz Pilot Edge
- Viz Pilot
- Graphics Plugin Editor

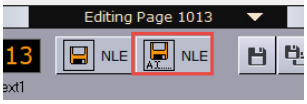
6.1 Viz Trio

If Viz Trio NLE has been selected in the Configuration Tool, the following Viz Trio window will open:

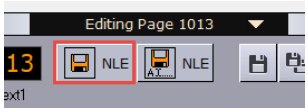


Select a graphics template by double-clicking it in the **Page List**. The graphic will open in the **Side Editor** where it can be edited and previewed in the window below:



When your graphics is ready to be used in your NLE system, click the **Save As NLE** button to avoid overwriting the page: 

The graphics will be given a new Page ID.

Click **Save and render in NLE** 

. Viz Trio will close and the graphics will appear in your NLE system.

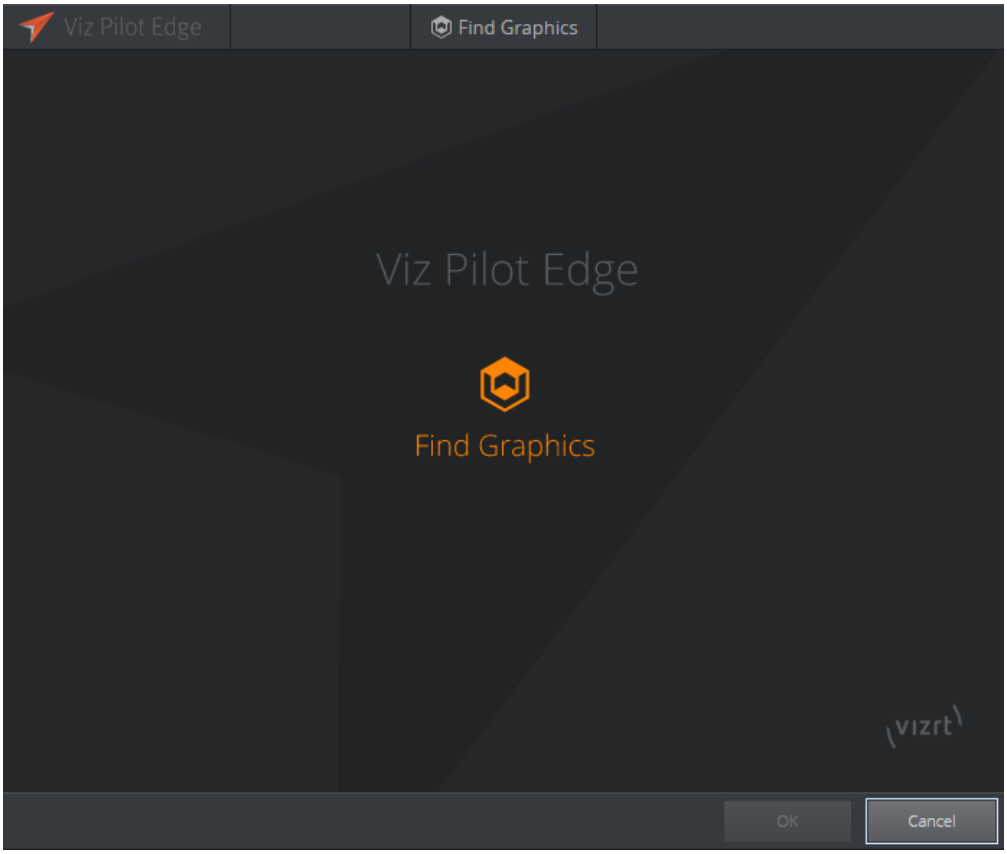
For more information on how to use Viz Trio, please see the Viz Trio User Guide.

6.2 Viz Pilot Edge

If Viz Pilot Edge has been selected in the Configuration Tool, the following Viz Pilot Edge window will open, where the user can browse for graphics.

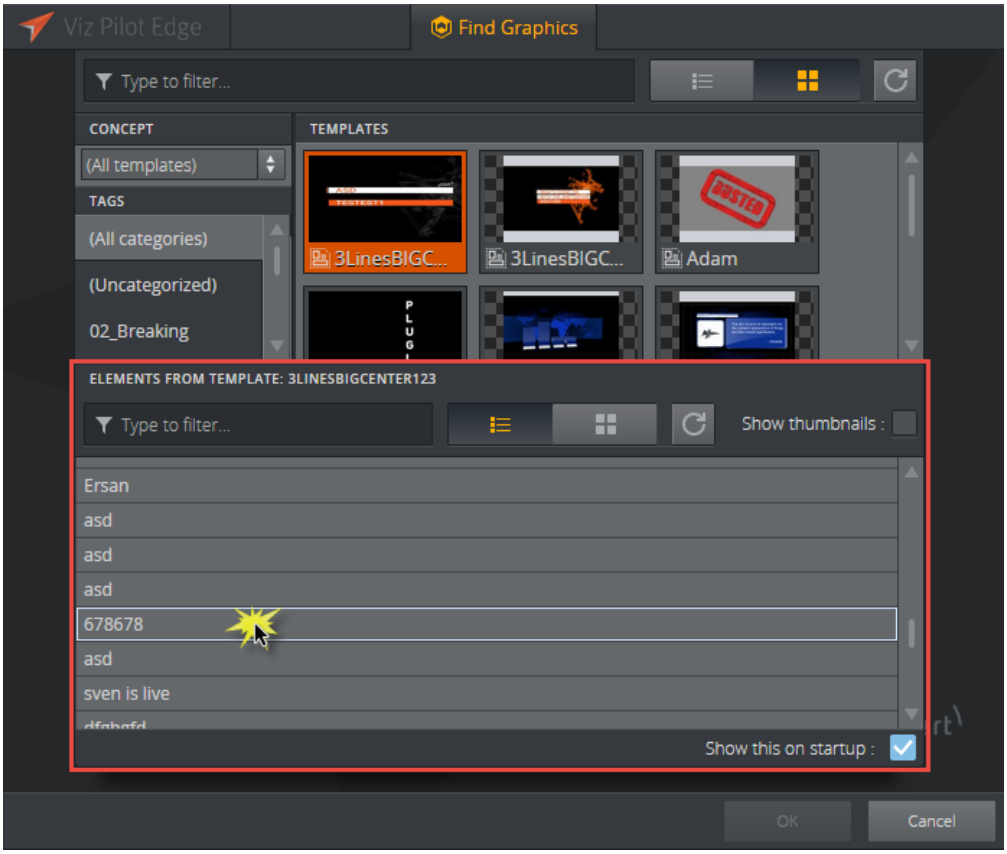
Click **Find Graphics**.

Copyright © 2023 Vizrt



Select a graphics element or a template at the bottom of the dialog that appears by double-clicking it.

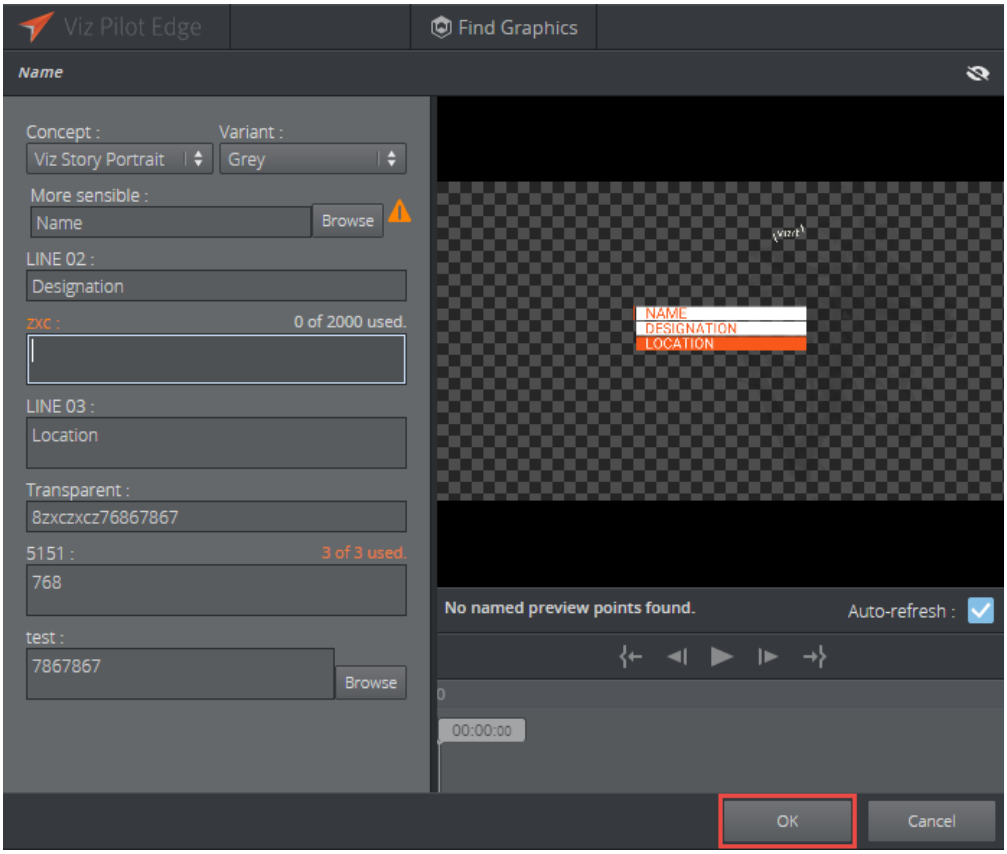
Copyright © 2023 Vizrt



The graphics will open in a new window where you can edit the content of the graphics in the fill-in form to the left and preview the output at the right in the application. When your graphics is ready to be used, click **Ok**. Viz Pilot Edge will close and the graphics will appear in your NLE application.

> ⚠ If you edit a template or data element and then attempt to open a different one, a dialog will appear which allows you to save the first template or element.
> Creating a new data element cannot be done in Viz Pilot Edge through the NLE application, but must be done separately in Viz Pilot Edge in a browser.

Copyright © 2023 Vizrt



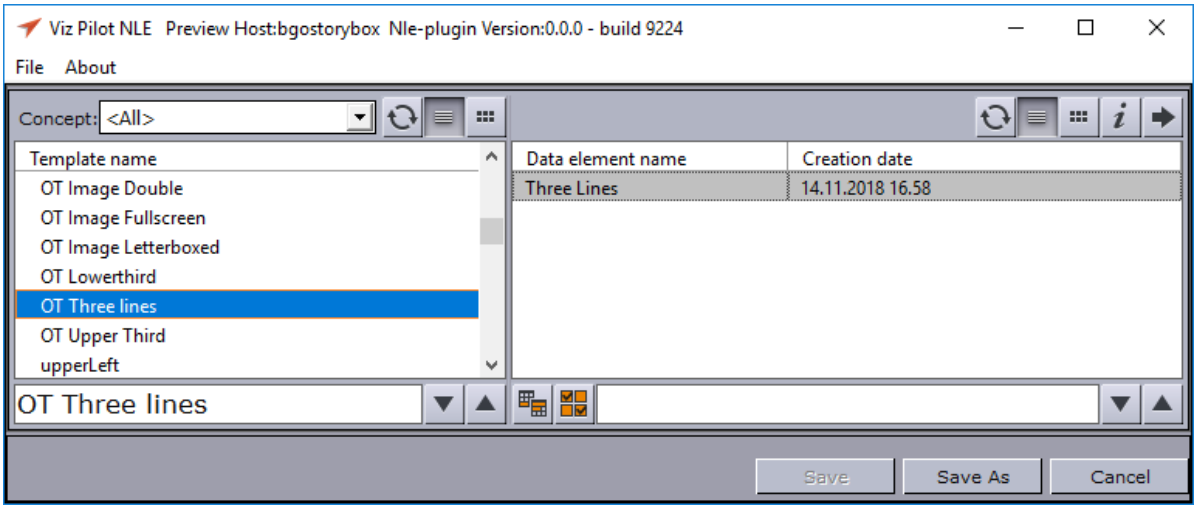
For more information on how to use Viz Pilot Edge, please see the Viz Pilot Edge User Guide.

6.3 Viz Pilot

If Viz Pilot NLE has been selected in the Configuration Tool, the following window will open where the user can browse for templates and data elements.

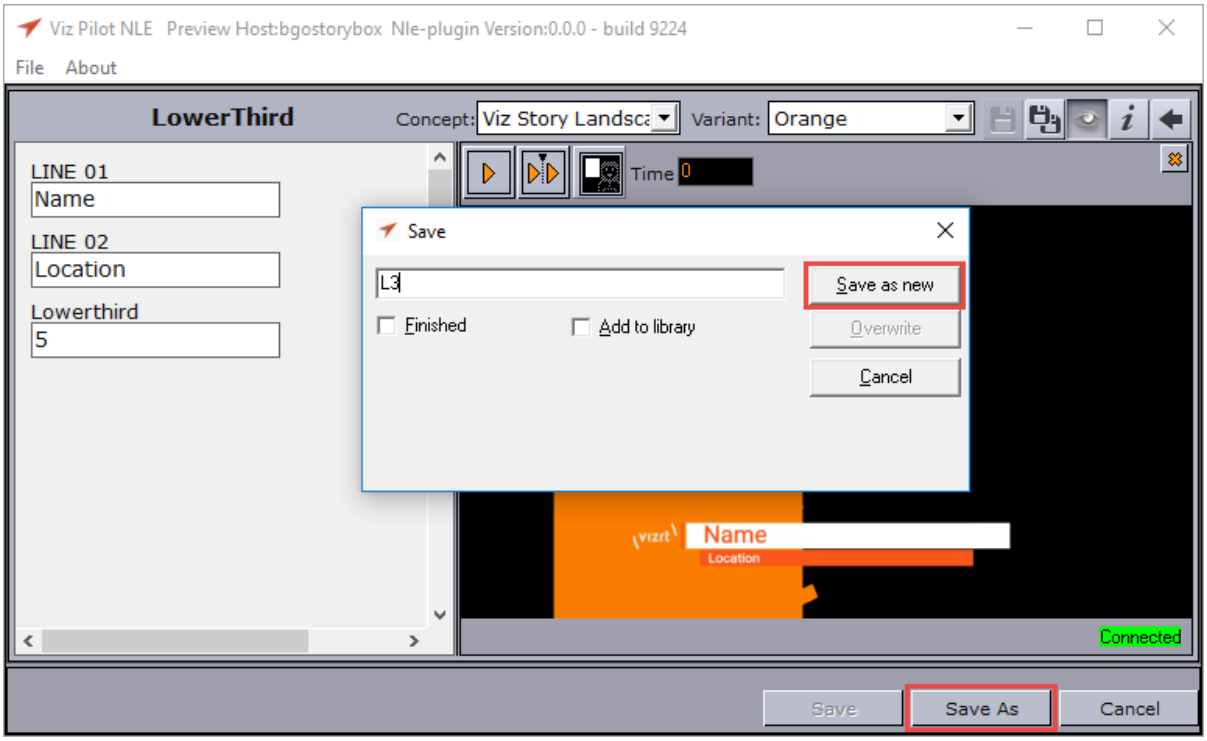
The left side of the window lists available templates in the database while the right side lists available data elements (saved templates).

Copyright © 2023 Vizrt



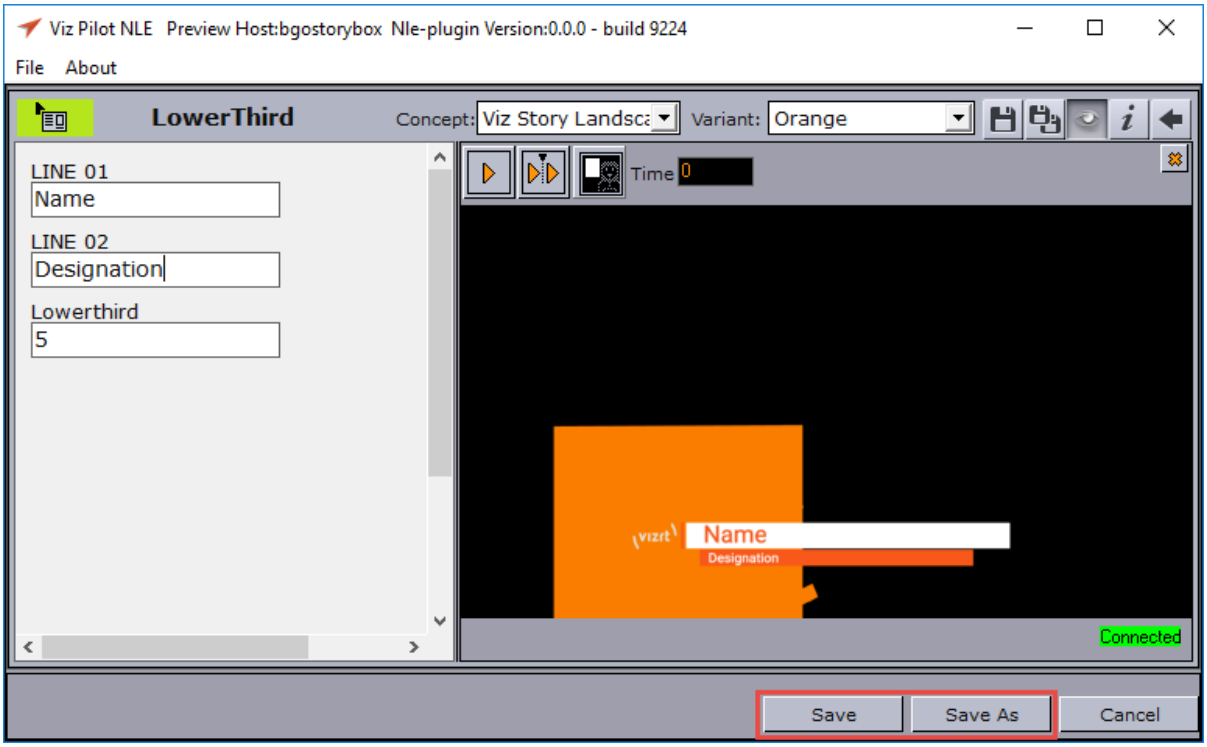
Select a template or element by double-clicking it and edit the content of the graphics to the left and preview the output at the right in the application.

In order to use a template subsequently, you must save it as a data element by clicking **Save As**, giving it a name and clicking **Save as new**. This closes the Viz Pilot NLE application and the graphics element will appear in your NLE application.



If you are using an already existing data element click **Save** to use the data element as is or to overwrite any changes. Click **Save As** to create a new data element. In both cases, the Viz NLE application will close and the graphics element will appear in your NLE application.

Copyright © 2023 Vizrt



For more information on how to use Viz Pilot, please see the Viz Pilot User Guide.

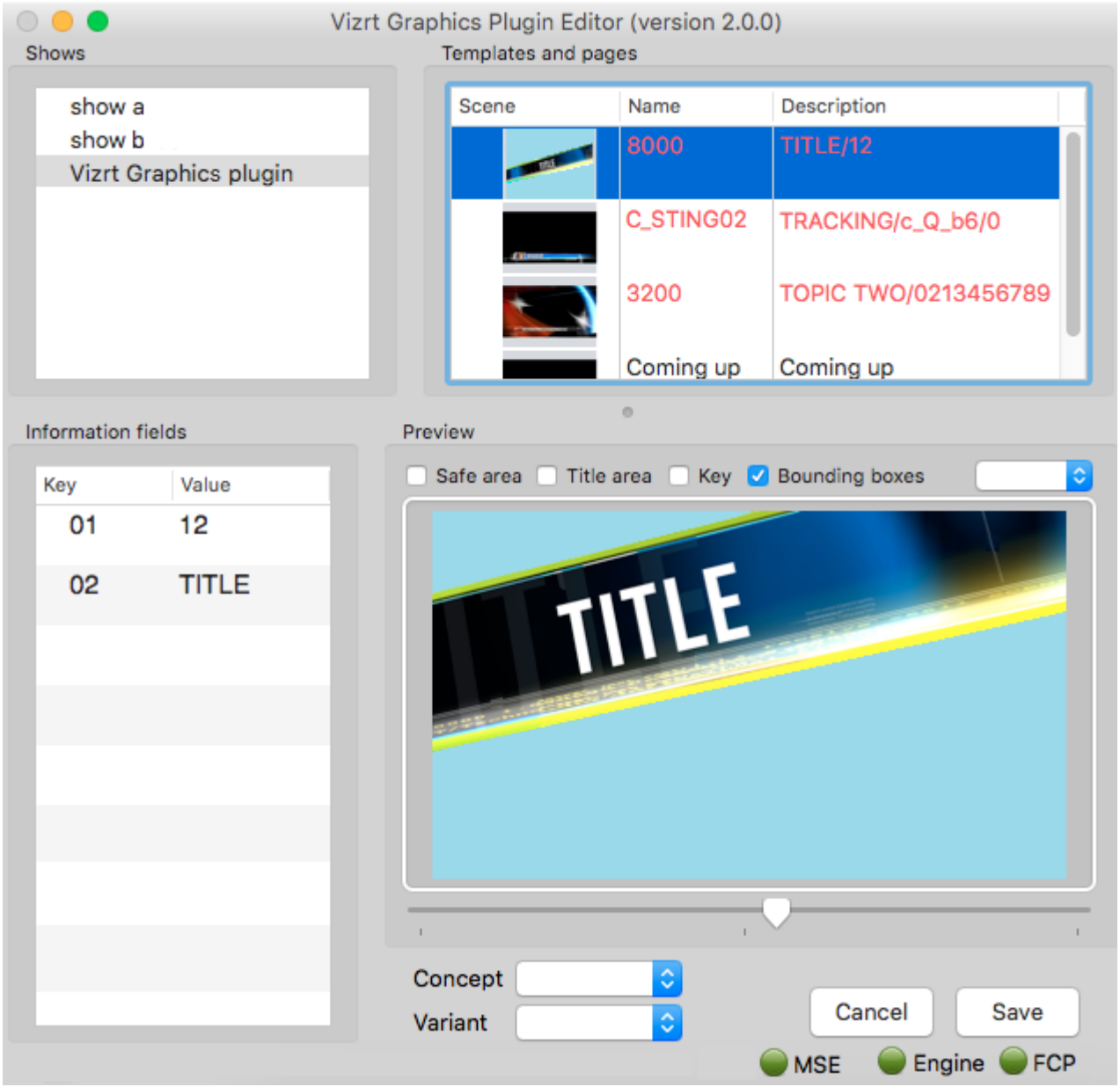
6.4 Graphics Plugin Editor

This section describes the Graphics Plugin Editor's interface which is only available for Mac users. If you're using Viz Pilot Edge or Windows with Viz Pilot or Viz Trio, please see the relevant sections above.

This section covers the following topics:

- Menu Options in Graphics Plugin Editor
- Information Fields in Graphics Plugin Editor
- Preview Settings in Graphics Plugin Editor

Copyright © 2023 Vizrt



6.4.1 Menu Options in Graphics Plugin Editor

The following menu options are unique to the Graphics Plugin Editor. Other options are generic options provided by the operating system.

- **Page**
  - **Save Page (Cmd+S)**: Saves a page back to the Media Sequencer.
  - **Next tabfield (Cmd + Arrow Down)**: Selects the next tabfield.
  - **Previous tabfield (Cmd + Arrow Up)**: Selects the previous tabfield.
- **Show**
  - **Import Trio XML Archive**: Imports an exported Viz Trio archive. The import recreates the exported show on the connected Media Sequencer.

Copyright © 2023 Vizrt

> **Note:**
>
> When performing an import you should always make sure that the scenes are available to the connected Viz Engine.

6.4.2 Information Fields in Graphics Plugin Editor

The Graphics Plugin Editor supports the most common control properties; however, it is only possible to input text, change numerical values, select images, geometries, fonts and materials.

There is no support for input of boolean values, editing of lists and tables or scrolls. However, the editor can use and render Viz Trio pages made using a regular Viz Trio even though they have these field types.

6.4.3 Preview Settings in Graphics Plugin Editor

The following may be set for the preview:

- **Safe area**: Shows the defined safe area configured by the current Viz Engine.
- **Title area**: Shows the defined title area configured by the current Viz Engine.
- **Key**: Shows the graphics' key signal.
- **Bounding boxes**: Shows the bounding boxes for the graphical elements in the scene.

Copyright © 2023 Vizrt

7 Scene Design

When designing scenes in Viz Artist that are to be used together with Supported NLE Systems, it's important to follow specific design conventions, in order for the output to render correctly.

The following notes must be taken into consideration when designing for the Graphics Plugin workflow:

- Key
- Stop Points
- Stretching Stop Points
- Directors and Stop Points
- Sound and Stop Points
- Video and Stop Points
- Effect Plugins
- Transition Logic
- Lift and Extract

7.1 Key

When designing a scene that is to be used in the Graphics Plugin workflow, a *key* signal must be added to the scene, in order for the graphics to blend correctly with the video.

The key signal can be created by adding the Key plugin to one or more containers in the scene, or by enabling **Auto Key** under the global scene settings.

7.2 Stop Points

If you are using stop points when designing a scene that is going to be used in the Graphics Plugin workflow, they must be added to the directors at the root level of the Stage.

In a scene that contains only one stop point, the in-animation takes place on the left side of the stop point in the Stage, while the out-animation is visualized on the right side. The stop point will automatically be converted to a pause point, and if needed, stretched, to make the entire animation (in, pause, and out) match the length of the graphics element in the NLE timeline.

7.3 Stretching Stop Points

The stop points in a scene will automatically be stretched, in order for the animation to match the length of the graphics element in the NLE timeline.

As an example, imagine having an in-animation of 3 seconds and an out-animation of 4 seconds. If the animation is stretched to 10 seconds in the NLE timeline, the in-animation will be shown for 3 seconds, followed by the stop point between the in- and out-animation that will be stretched to 3 seconds, and then the out-animation will be shown for 4 seconds, totaling to 10 seconds.

Copyright © 2023 Vizrt

In another example, if the animation above is shortened to 5 seconds, it will show the in-animation for 3 seconds, skip the pause point, and then cut the out-animation down to 2 seconds.

Multiple stop points will be stretched evenly unless you have a modified one. If the animation contains two stop points and is stretched to 17 seconds, then the in-animation will be shown for 3 seconds, the first stop point for 5 seconds, the second for another 5 seconds, and then finally the out-animation for 4 seconds. If a user modifies a stop point, any resize operation will attempt to only readjust the rightmost stop point, if possible.

7.4 Directors And Stop Points

Stop points that are used to pause and stretch animations, must be placed in directors at the root level of the Viz Artist Stage. Stop points that are placed in sub-directors (not at the root level), will be ignored by the NLE system.

Animations that are paused and stretched must also be placed in directors at the root level of the Viz Artist Stage. Any animations in sub-directors will not be stretched, hence looping background animations and similar should be placed here. These animations will be played out continuously, regardless of the stop points in the root containers.

7.5 Sound And Stop Points

There is no support for embedded sound effects in graphics being used in the Graphics Plugin workflow. Sound that is embedded together with graphics is based on the timeline used for the graphics, and there is no good and general way of stretching sound.

7.6 Video And Stop Points

Through the use of various Viz Artist plugins, such as *MoViz*, it is possible to play media files or streams as part of the output of a graphics scene. Note that the video will be stretched according to the length of the graphics clip in the NLE timeline.

7.7 Effect Plugins

Effect plugins, such as *RFxSmoke*, works in such a way that particles are emitted from a certain point, and then moved in a random order in some direction until they eventually fade away. The output of this random particle movement may be distorted when played out as part of the Graphics Plugin workflow. Hence, it is recommended to use such effects with caution when designing for NLE.

7.8 Transition Logic

The Graphics Plugin workflow makes it is possible to work with *Transition Logic* scenes, with certain limitations.

Copyright © 2023 Vizrt

Following the normal workflow of the supported NLE systems, the graphics templates can be modified and sent to air. A template that contains multiple elements, such as a banner, logo, and a lower third, can be animated to the various in and out states so that it matches the timing of the graphics event in the timeline.

The following limitations apply to Transition Logic scene design:

- There is *no support* for graphics that are dependent on states of other graphics elements. For example, a normal Transition Logic scene can be designed to have a logo taken on air in the lower part of the screen, and then when a lower third is taken on air, the logo should shift to the upper part of the screen. To achieve this type of behavior; create a combination template, using Viz Trio or Viz Pilot's Template Wizard, to control the required layers, such as bug, clock, lower third, OTS, and so on.
- There is *no support* for multiple graphics stacked together, so-called *in-to-in* or *back-to-back* animations. For example, when showing two instances of a lower third straight after another on the timeline, it is not possible to keep the backplate from object number one, and simply update the editable variables, in this case, the name of the interview objects. Instead, the first element must be animated out, and then the second one in.

See Also

- Viz Artist User Guide sections on Transition Logic
- Viz Trio User Guide section on Combination Templates

7.9 Lift And Extract

When using Viz Pilot as your Editor, Lift and Extract allow you to remove a portion of a clip from the timeline. This is usually set by the mark-in and mark-out points.

- Lift will remove a portion of a clip while leaving the interval duration between the mark-in and mark-out points.
- Extract will remove a portion of a clip, but does not leave the interval (cutting the portion of the clip out completely).

Although Lift and Extract modify the clip, no frames in the graphic are skipped. The portions of the clip before mark-in and after mark-out are separate entirely, and the graphic will also be split.

Copyright © 2023 Vizrt