Graphics Plugin User Guide

Version 3.0

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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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Contents

1 Introduction to Graphics Plugin

The Graphics Plugins User Guide for Adobe Premiere Pro, Avid and Edius focuses on workflows, how to use the configuration tool and the user interface.

For information about other supported Graphics Plugins, please go to the relevant version of the Graphics Plugin Administrator Guide.

1.1 Feedback and Suggestions

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- Vizrt Documentation Center
- Vizrt Training Center
- Vizrt Forum

2 Basic Graphics Plugin Workflow

This guide focuses on workflows related to Graphics Plugin for Adobe Premiere Pro, Avid and Edius.

For information about other supported Graphics Plugins, please go to the relevant version of the Graphics Plugin Administrator Guide.

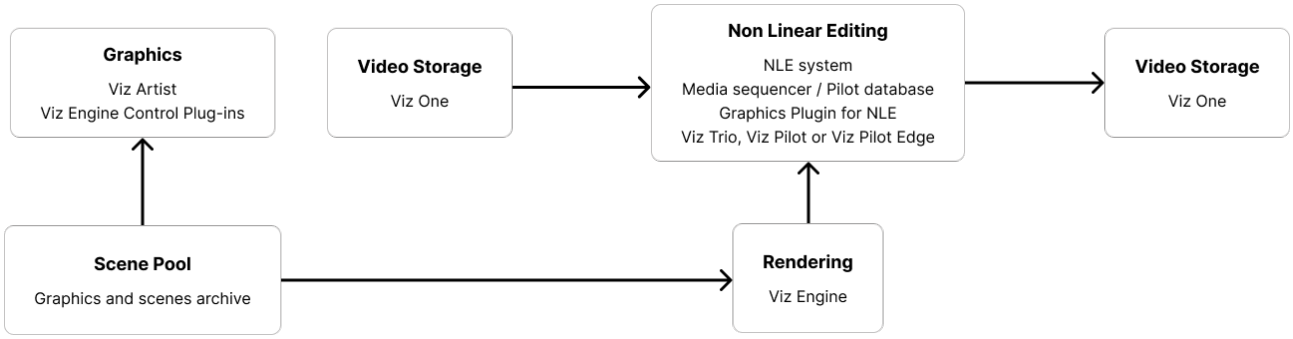
2.1 Workflow

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 to use with Viz Pilot in Template Wizard.
3. An editor or a journalist edits a video using an NLE system.
    a. Using Vizrt's Graphics Plugin, the user can access and add graphics to the video.
    b. Graphics properties can be edited using the graphics templates in either 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.

2.2 The Basic Graphics Plugin Workflow

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



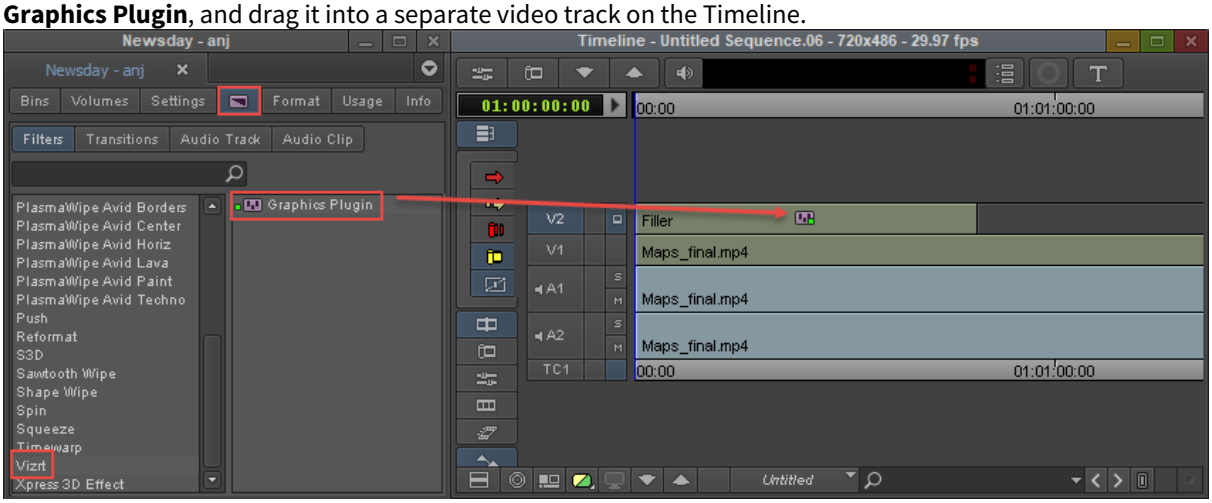
While third party NLE workstations have different ways of importing and inserting graphics into a video, Graphics Plugin itself has the same interface across all third-party programs.

3 Using Graphics Plugin with Avid Media Composer

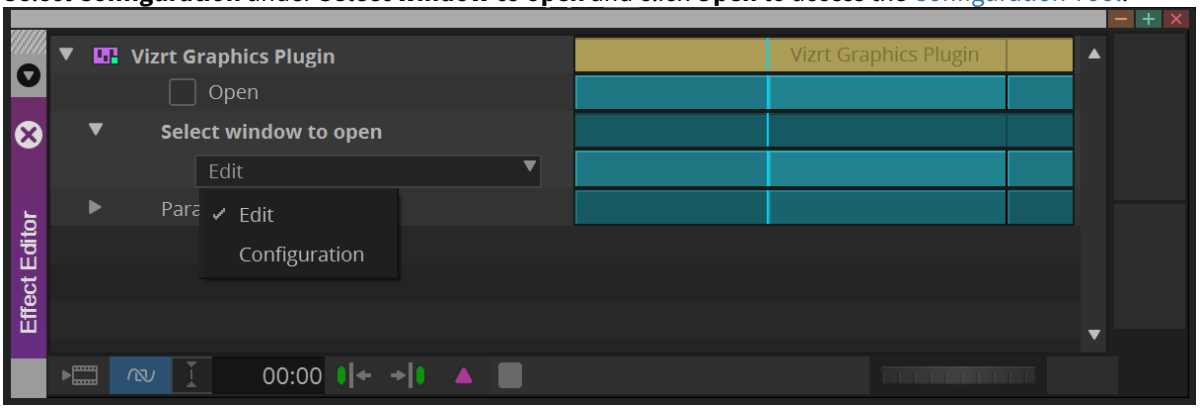
This section shows you how to add Vizrt graphics to the timeline in Avid Media Composer, and how to use stop points.

3.1 Adding Graphics Plugin

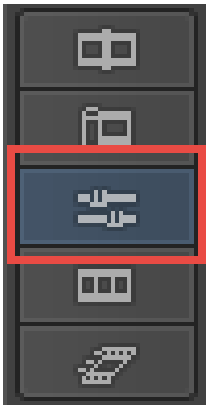
1. In Avid Media Composer, create a new project.
2. Import a video through the **Source Browser** window.
3. Click on the **film icon** on the item that you imported, and drag it into the **Timeline** window.
4. In the Project window, click on the **Effect Palette** tab (represented by a square purple icon), select **Vizrt** > **Graphics Plugin**, and drag it into a separate video track on the Timeline.



5. Open the **Effect Editor** by going to **Tools** > **Effect Editor**.
6. In the Effect Editor window, under Graphics Plugin, make sure **Edit** is selected under **Select window to open** and click **Open** to start importing graphics into Avid Media Composer. Viz Trio, Viz Pilot Edge or Viz Pilot rely on the specified Graphics Plugin User Interface in the Configuration Tool.
7. Select **Configuration** under **Select window to open** and click **Open** to access the Configuration Tool.



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



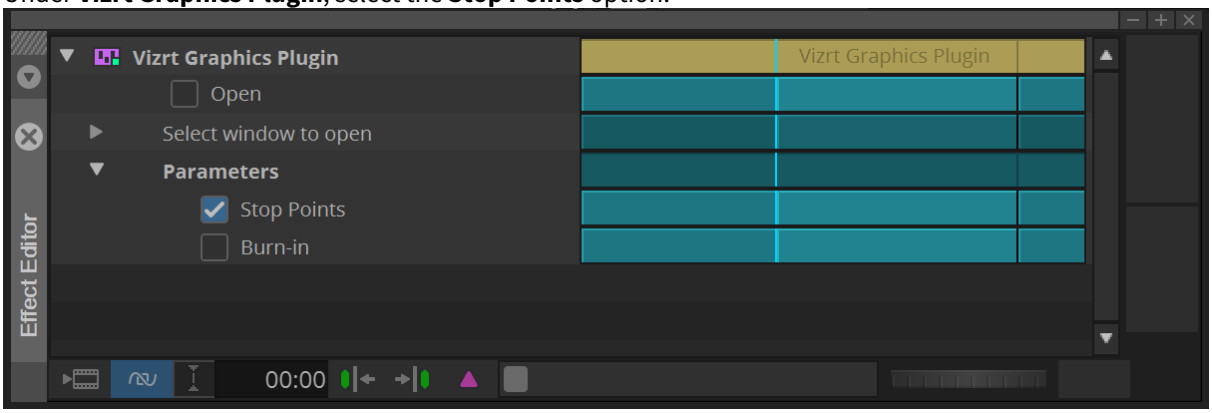
9. Play the video clip or scrub the timeline to see the new effect.

3.2 Editing Stop Points

Stop points are added to a graphics scene to control the playout of the animation. Graphics Plugin contains a stop point editor that allows you to adjust the length of the stop points when adding a graphic.

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

1. Go to **Tools** from the top menu and select **Effect Editor** in the drop-down list.
2. Under **Vizrt Graphics Plugin**, select the **Stop Points** option.



3. Click **enable**. A stop point editor appears at the bottom of the preview window:

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

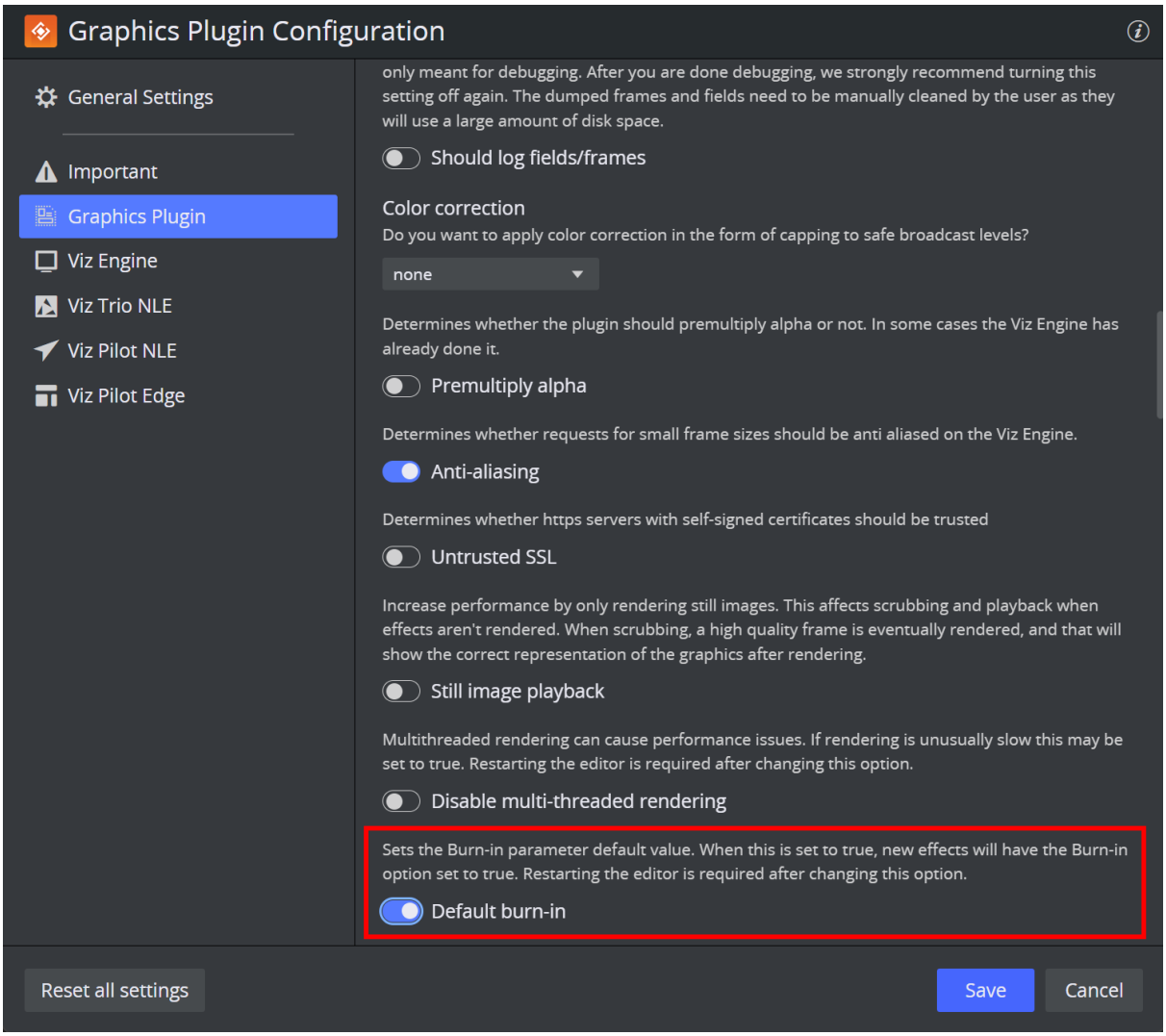
3.3 Exporting Metagraphics

Exporting sequences as metagraphics allows users to export metagraphics without burning graphics into the video. To enable, select the effect and untick the **Burn-in** checkbox of the Vizrt Graphics Plugin.

> **Note:** As Avid Assistant is only available for Windows, exporting a sequence containing metagraphics is only available for that platform.

When a user creates a new Vizrt Graphics Plugin effect, the default value for the **Burn-in** checkbox is read from a setting. This can be changed in the Configuration tool.

1. Open the Configuration Tool.
2. Select **Graphics Plugin**.
3. Set **Default burn-in** to the desired value.



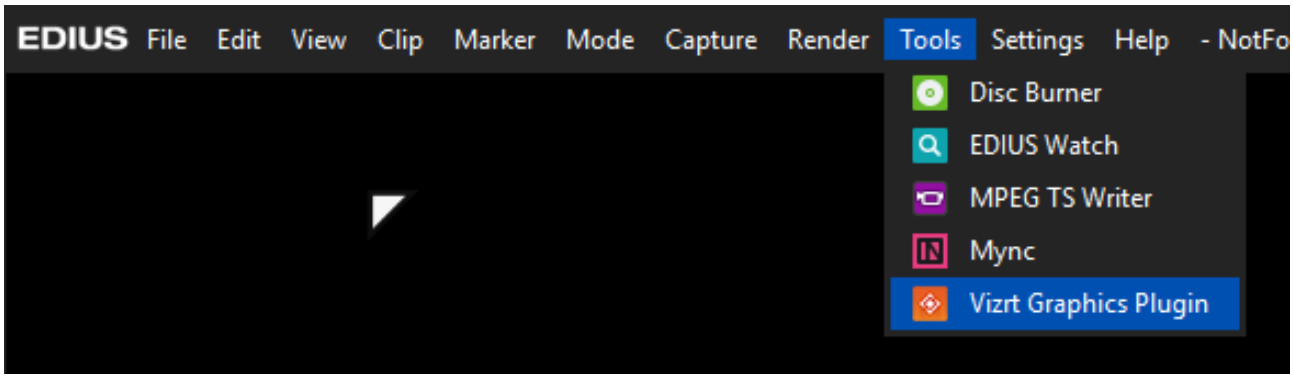
Note: Avid Assistant must be installed to export graphics to **Viz One**. See the *Avid Assistant User Guide* for more information.

4 Using Graphics Plugin with EDIUS

This section shows you how to add Vizrt graphics to the timeline in EDIUS.

4.1 Accessing the Configuration Tool

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

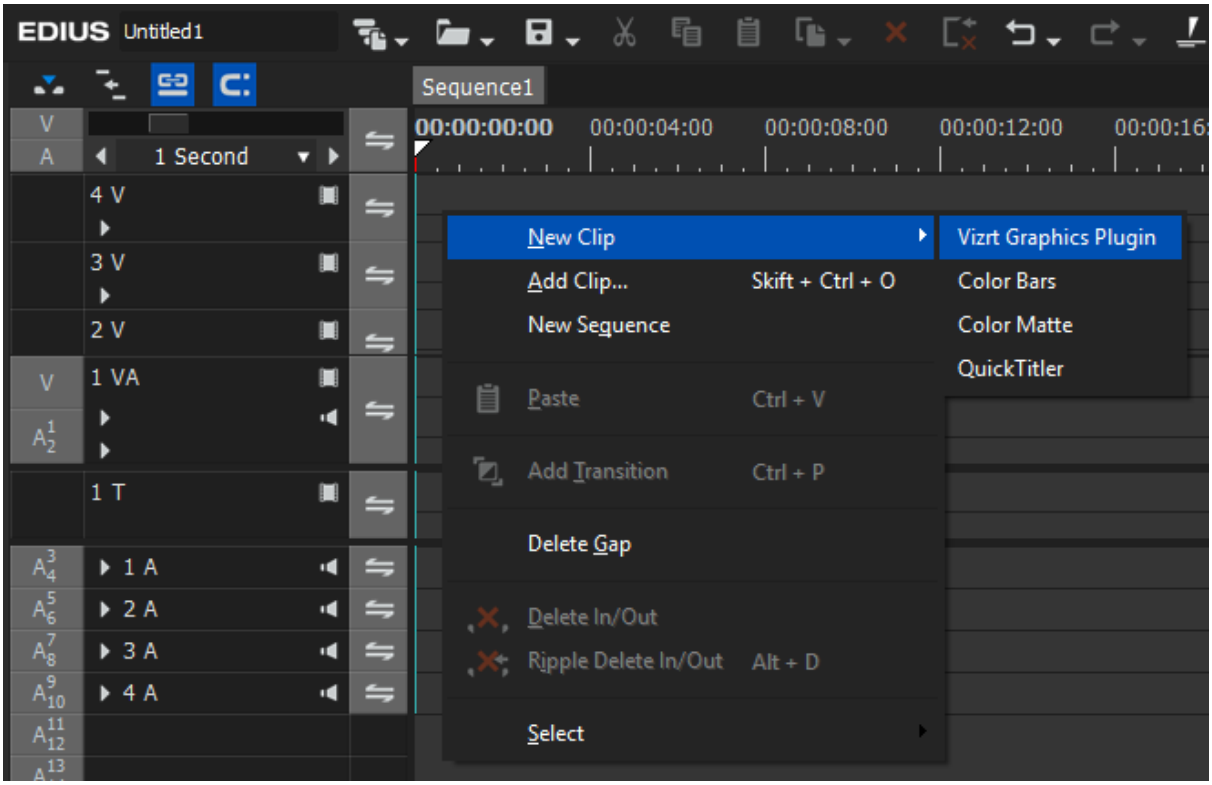


The Configuration Tool opens in a separate window where you can select your preferred Graphics Plugin User Interface, among other things. See Configuration Tool for more details.

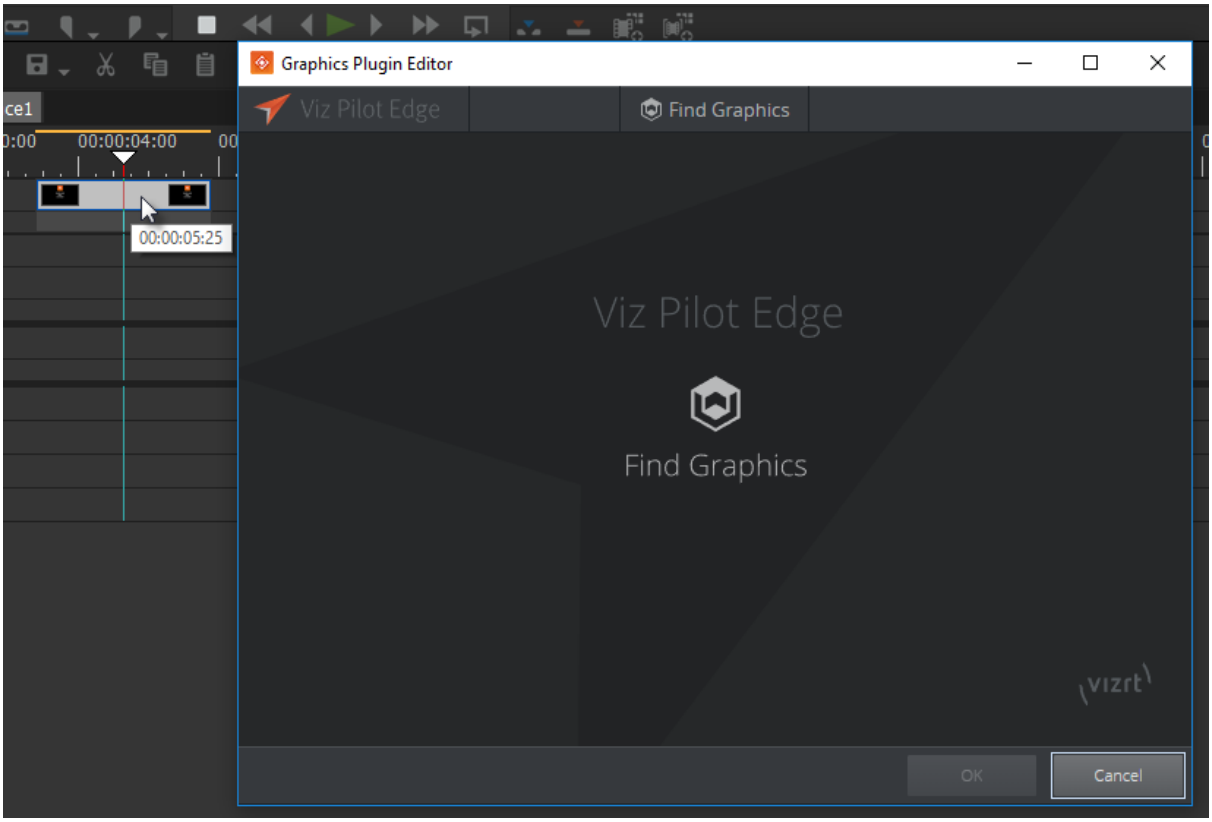
4.2 Adding Graphics Plugin

Before you can use Vizrt graphics, you must add 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**:



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



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.

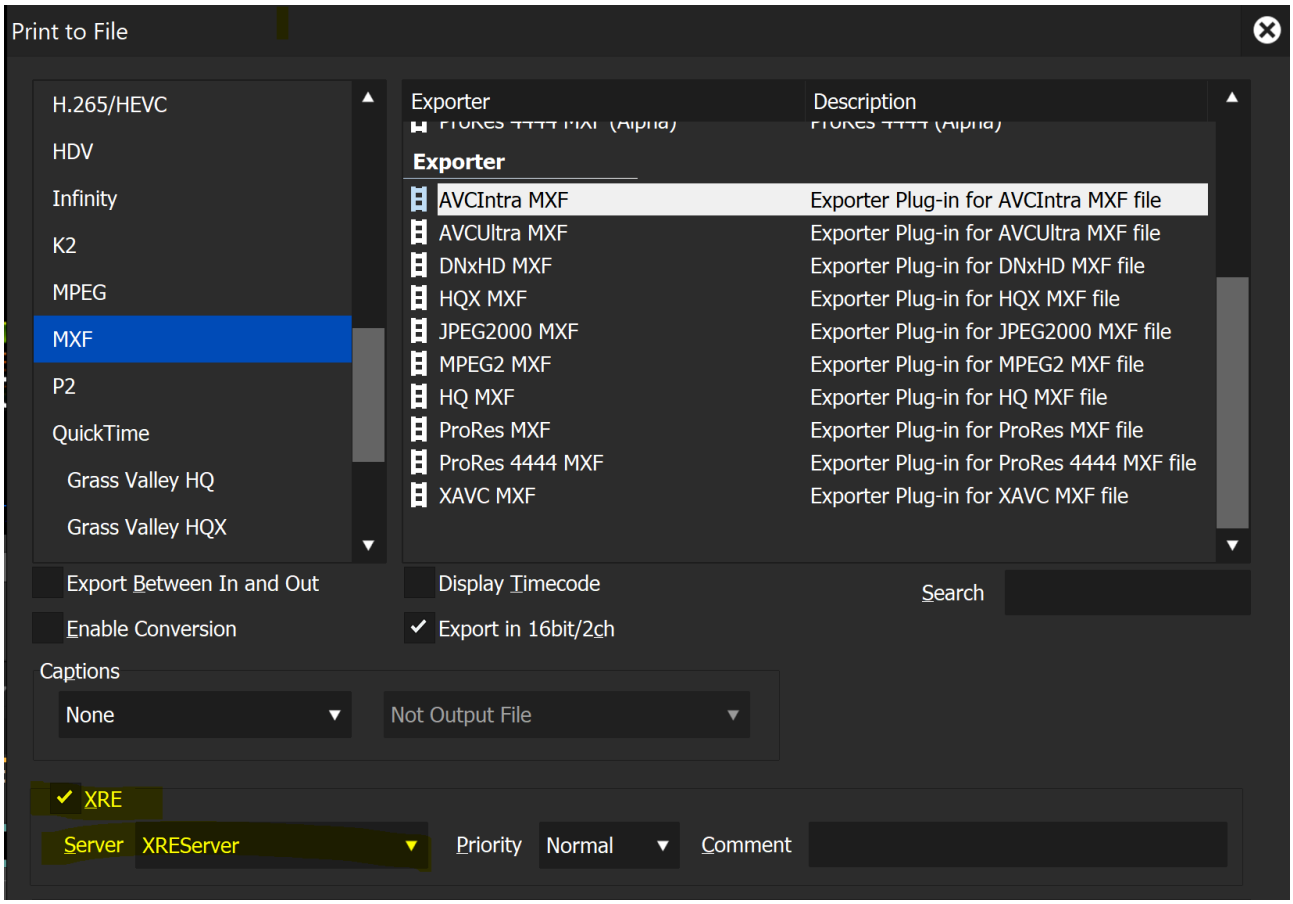
Note: For information about the graphics, right-click the graphics on the timeline and select **Properties...**.

4.3 Remote Rendering

After setting up server-side rendering following the Configuring Server-side Rendering, you can remotely render an Edius project that contains Vizrt graphics.

4.3.1 Rendering the Project

1. Go to **File->Export->Print to File** (F11).
2. Check the XRE checkbox and select the configured XRE server.
3. Click Export. The XRE Monitor displays a new job and progress report.



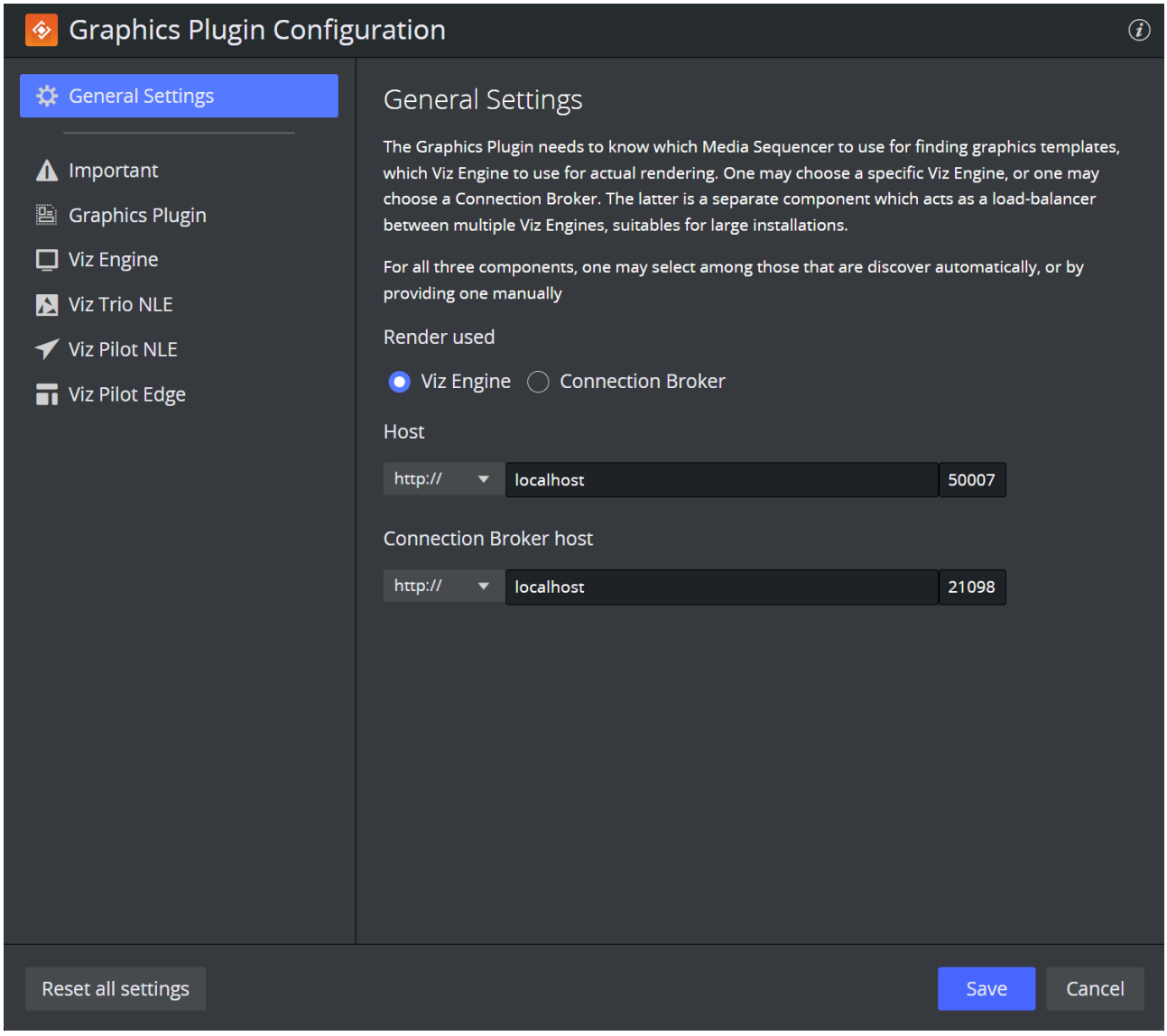
See also

- Configuring Server-side Rendering on the *Graphics Plugin Admin Guide*.

5 Configuration Tool

The Configuration Tool is the same for all applications. This section describes the UI and its options.

- **Reset all settings:** Resets all settings to default (factory settings).
- **Save:** Saves the current configuration.
- **Cancel:** Cancels all changes and closes the Configuration Tool.



The **General Settings** section is selected by default with the following settings:

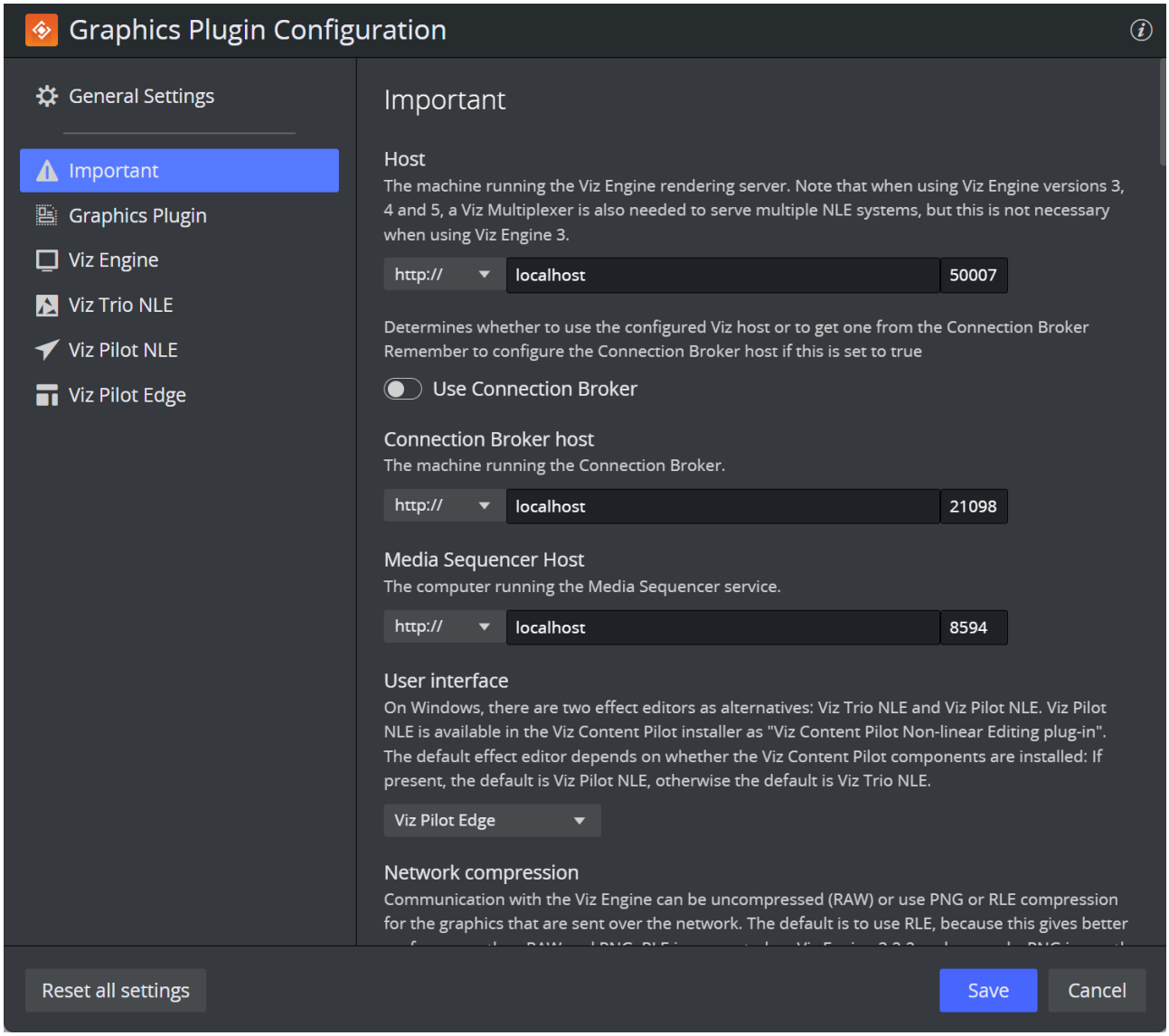
- **Render used:**
  - **Viz Engine** or **Connection Broker:** Specify one for rendering.

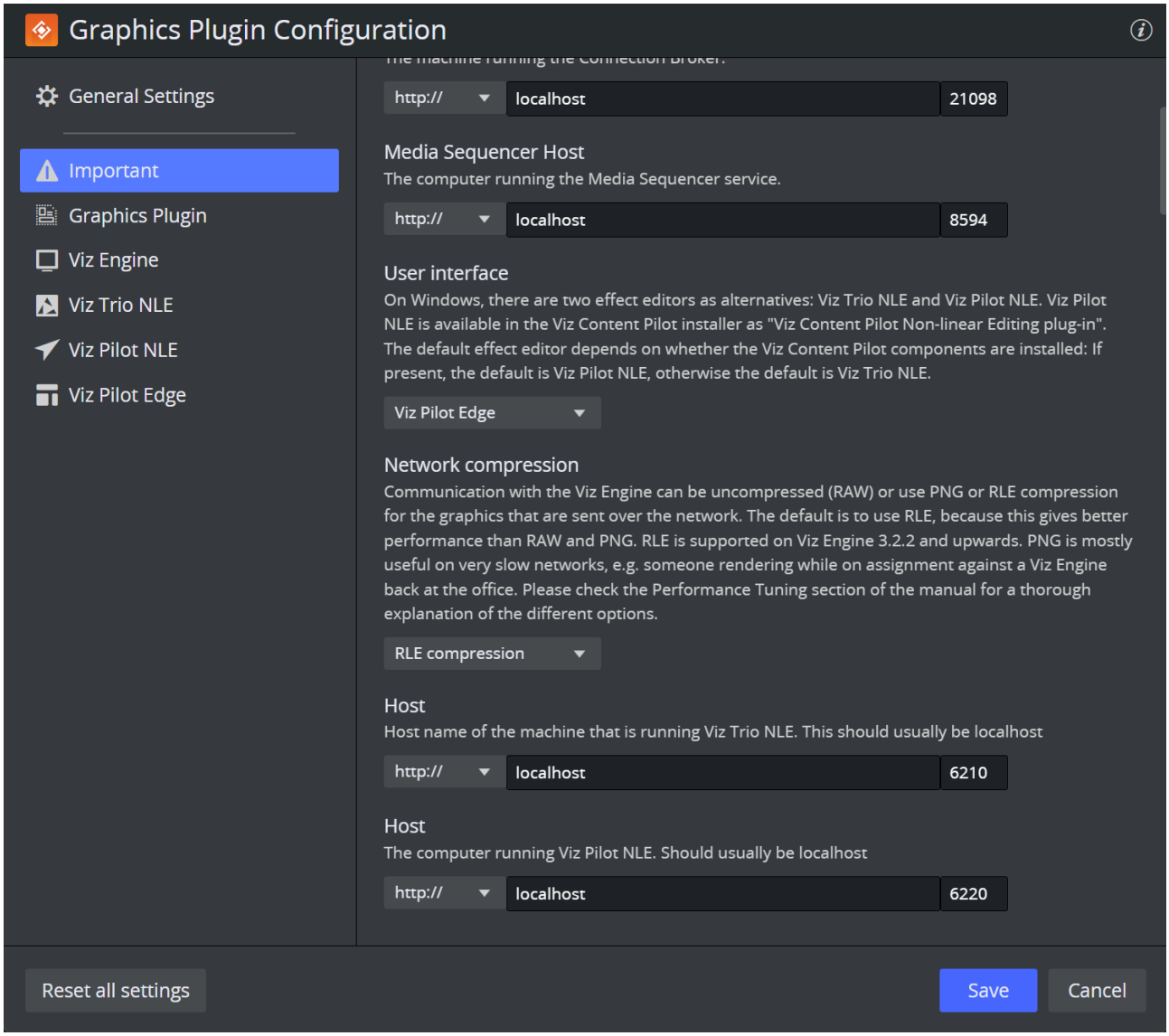
Info: Connection Broker is a separate component that acts as a load-balancer for multiple Viz Engines. It is suitable for big installations.

A description of configurable settings below the **General Settings** section, follows:

5.1 Important

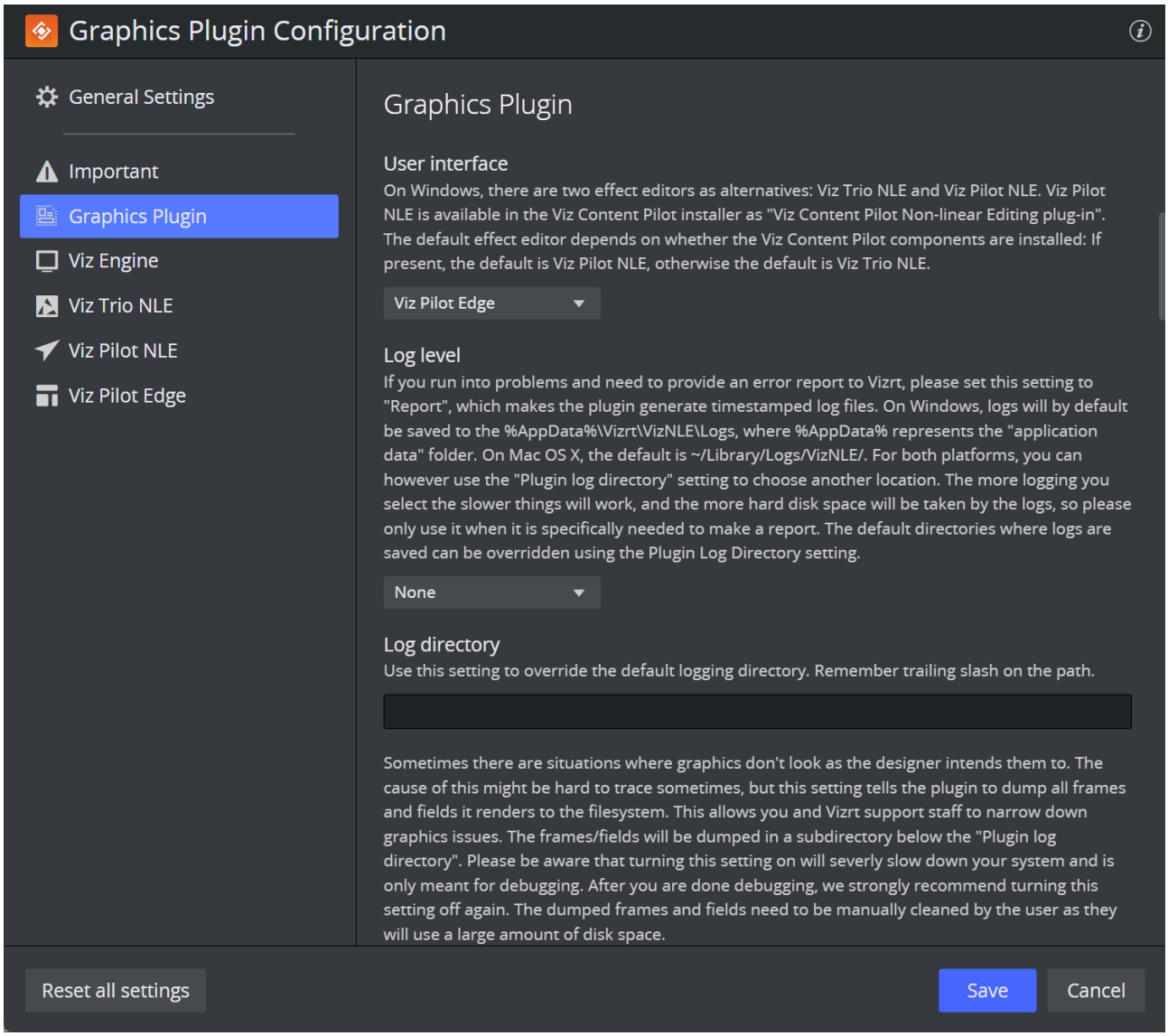
Shows the most important settings needed to run Graphics Plugin:

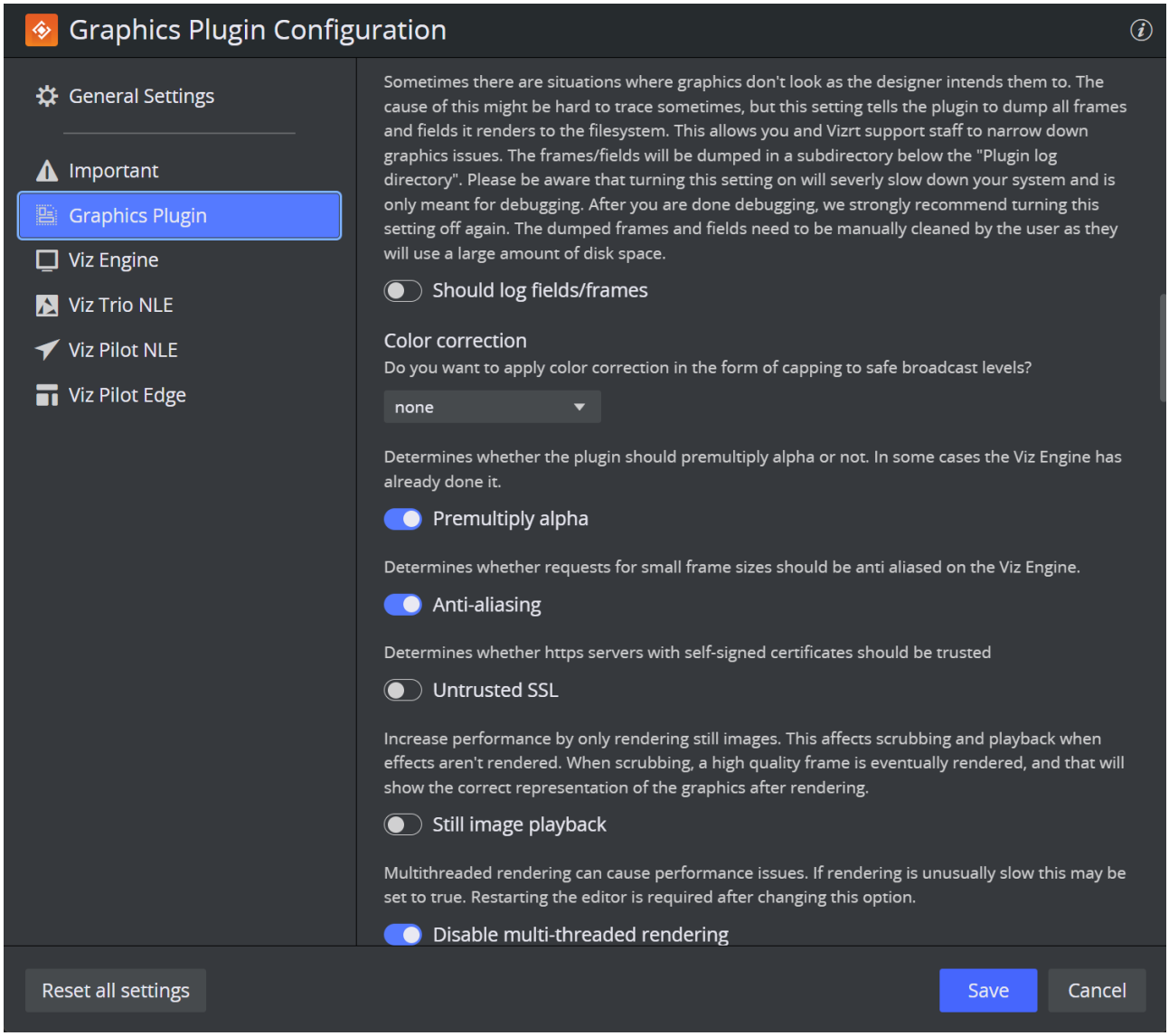


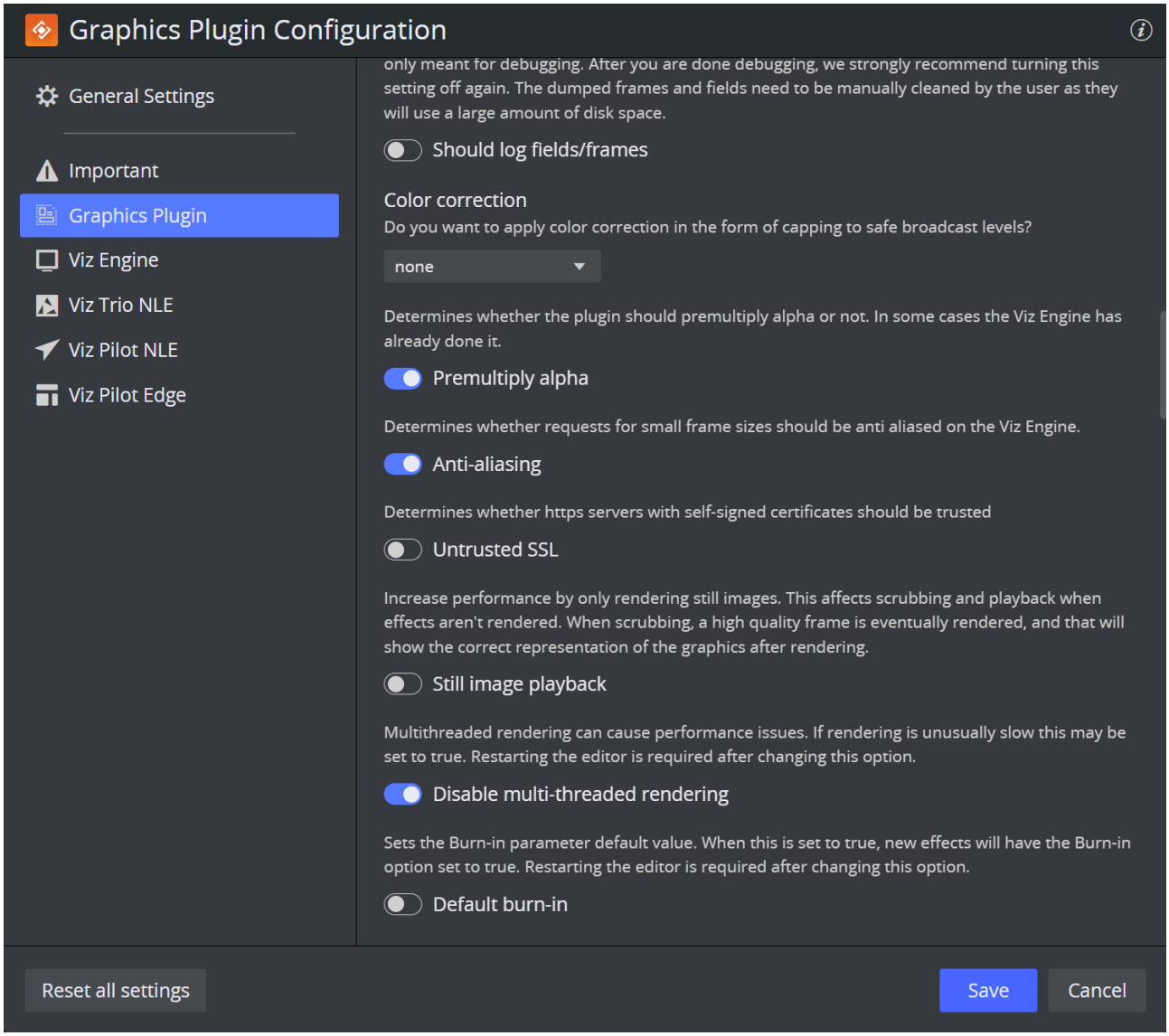


- **Host Viz Engine:** Sets the hostname or IP address of the Viz Engine renderer.
- **Use Connection Broker:** See Connection Broker in the *Graphics Plugin Administrator Guide*.
- **Connection Broker host:** Sets the host of the computer running the connection broker.
- **Media Sequencer Host:** Sets the host of the computer running the Media Sequencer service.
- **User Interface:** See User Interface.
- **Network compression:** See Network compression under Viz Engine.
- **Viz Trio NLE Host:** Defines the hostname of the machine running the Viz Trio NLE. Typically *localhost*.
- **Viz Pilot NLE Host:** Defines the hostname of the machine running the Viz Pilot NLE. Typically *localhost*.

5.2 Graphics Plugin







- **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 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 to provide an error report to Vizrt. Only do so when you need to make a report, as this slows down the plugin. See the Log Files section in the *Graphics Plugin Administrator Guide* for more information on log file locations.
  - **None:** Logs errors only, which is the default behavior.
  - **Report:** Generates dated log files. In almost every case, the log files include enough information to allow Vizrt to identify the issue.
  - **Extreme:** Generates 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 Administrator 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**.

> **Note:** The background videos (or images) should also be at safe levels to prevent darkening on semi-transparent pixels.

- **Premultiply alpha:** Configures whether the plugin pre-multiplies alpha when rendering. In some cases, the Viz Engine has already multiplied the color channels with the alpha channel.
- **Anti-aliasing:** Controls whether requests for small frame sizes should be anti-aliased on Viz Engine.
- **Untrusted SSL:** Controls whether HTTPS servers with self-signed certificates should be trusted.
- **Still image playback:** Only renders still images to increase performance when low-quality frames are requested, affecting scrubbing and playback. A high-quality frame is rendered upon scrubbing, which shows the correct representation of the graphics after rendering.
- **Disable multi-threaded rendering:** Causes performance issues when too many threads try to render at the same time. If rendering is unusually slow, this may be set to true. You must restart the NLE application after changing this setting.

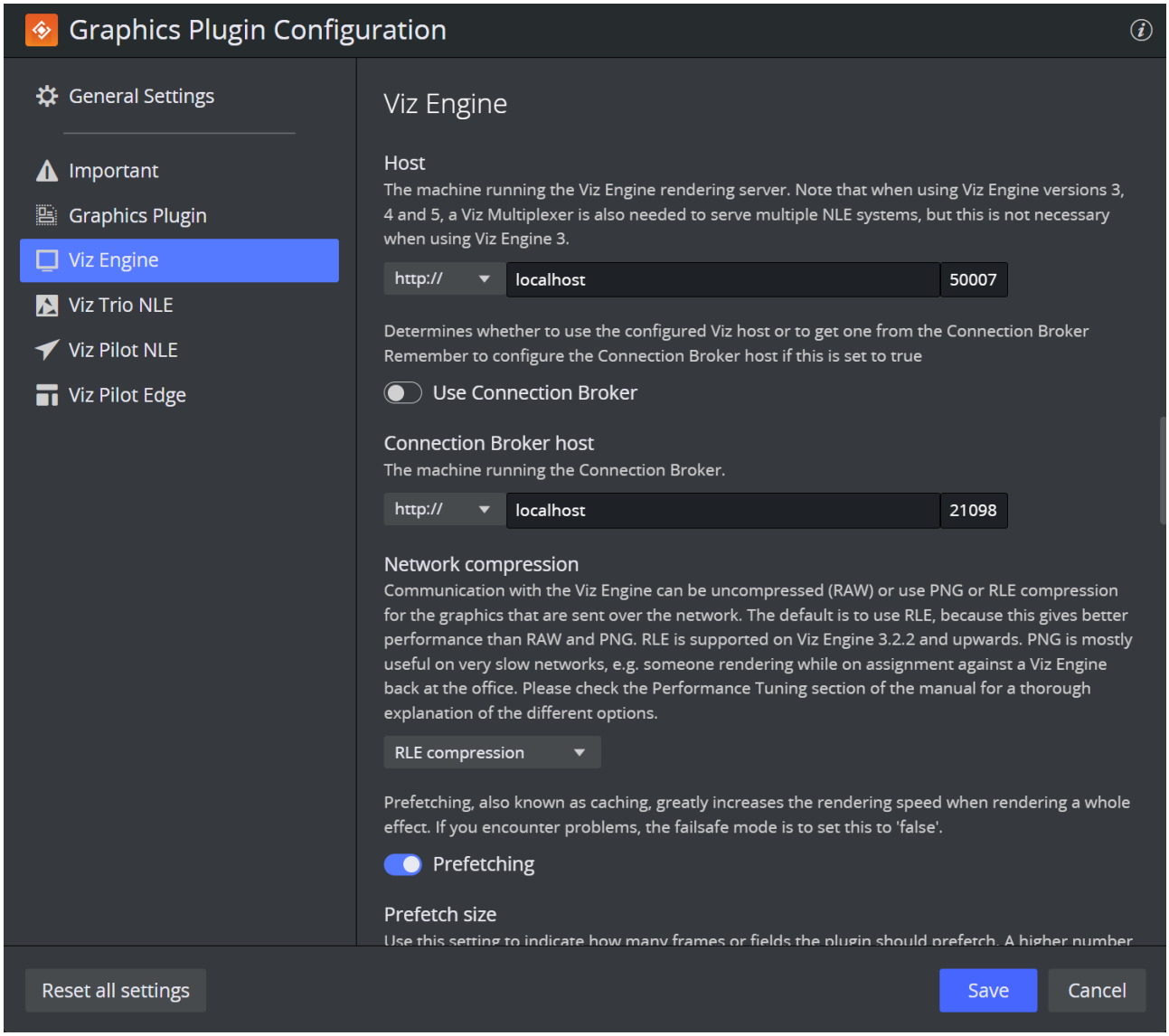
> **Note:** The option to **Disable multi-threaded rendering** is only available for Adobe Premiere Pro and Avid Media Composer.

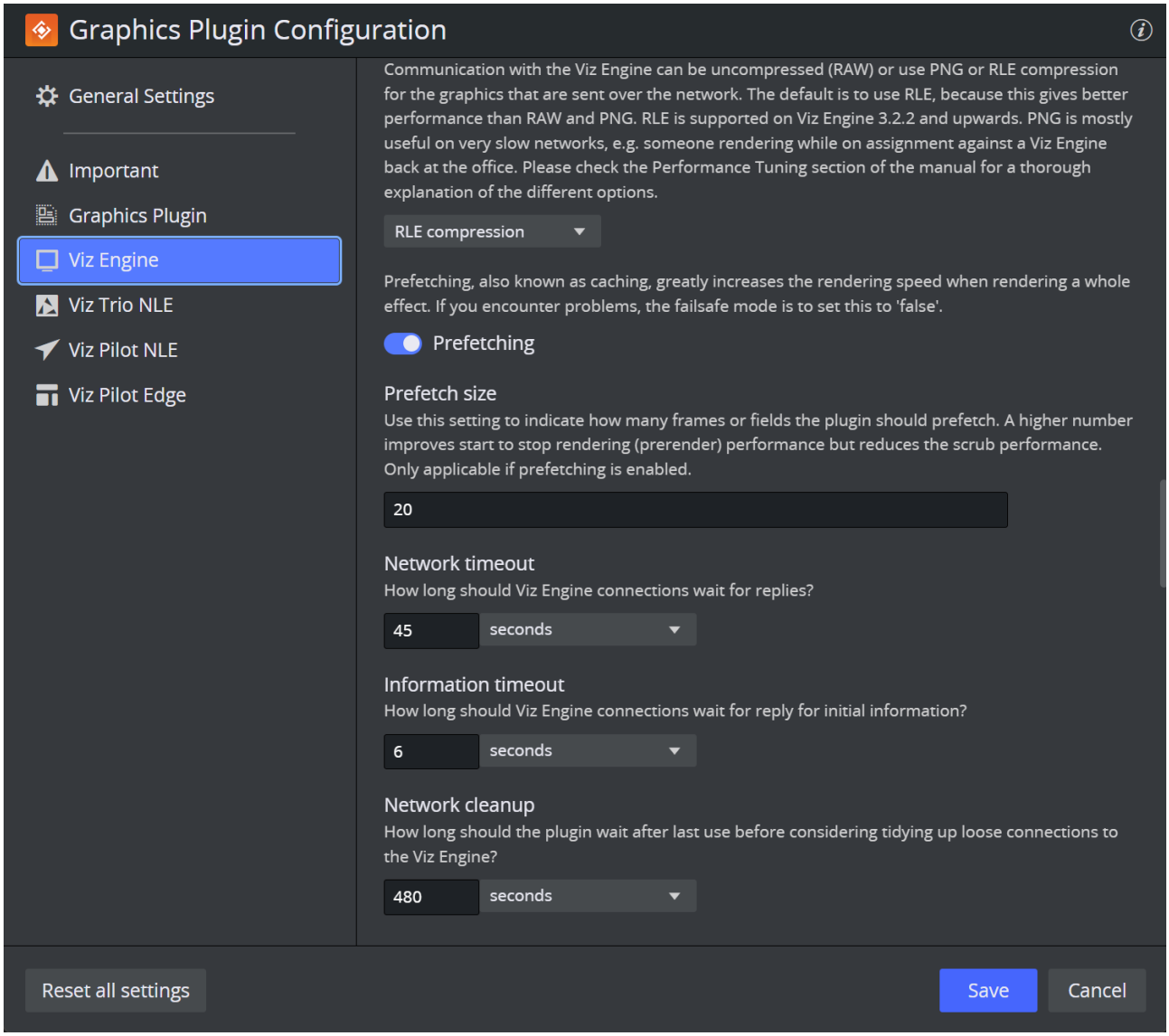
- **Default burn-in:** Default state of the Burn-in option on new effects.

> **Note:** The option **Default burn-in** is only applicable to Avid Media Composer.

5.3 Viz Engine

The Viz Engine Settings view is shown below:





- **Host:** Sets the hostname or IP address of the Viz Engine renderer.
- **Use Connection Broker:** Enables Graphics Plugin to connect to the Connection Broker for graphics rendering.
- **Connection Broker host:** Sets the hostname or IP address of the 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:** Sends all frames across the network uncompressed (for gigabit networks).
    - **PNG** (Portable Network Graphics)**:** A lossless compression format.
    - **RLE** (Run-length Encoding)**:** A lossless compression format. RLE is only supported by Viz Engine 3.2.2. and later versions (see the Software Requirements section on the *Graphics Plugin Administrator Guide*).
- **Prefetching:** Prefetching, also known as caching, greatly increases the rendering speed when using 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 ignored. Default value is **20**.
- **Network timeout:** Controls how long Viz Engine connections wait for replies. Unless network measurements for Viz Engine have been performed, this setting should not be changed. Default value is **45 sec**.
- **Information timeout:** Controls how long Viz Engine waits for a reply for initial information. This setting should not be changed unless network measurements of Viz Engine have been performed.
- **Network cleanup:** Controls how long the plugin waits after last use before cleaning up loose connections to Viz Engine. This should not be changed unless the actual use of the plugin has been measured. Default value is **8 mins**.

Host port number restrictions when previewing templates on Editor

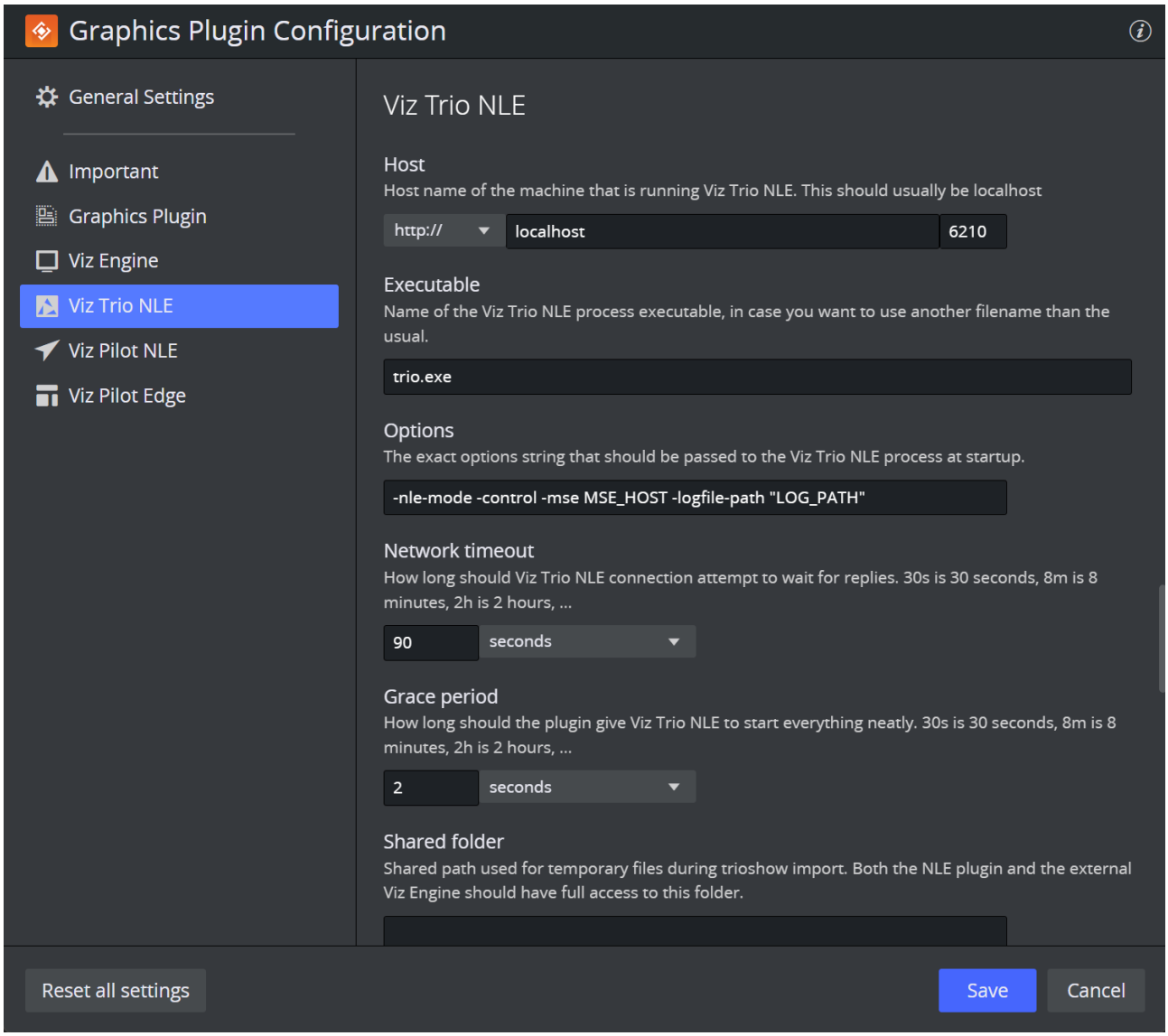
Note: Viz engine port `50007` or `50107` must be used in order to preview templates on Graphics Plugin Editor (Viz Trio, Viz Pilot or Viz Pilot Edge). These ports connect to preview ports `50008` and `50108`, respectively. See Network Requirements in the *Graphics Plugin Administrator Guide* for port numbering information.

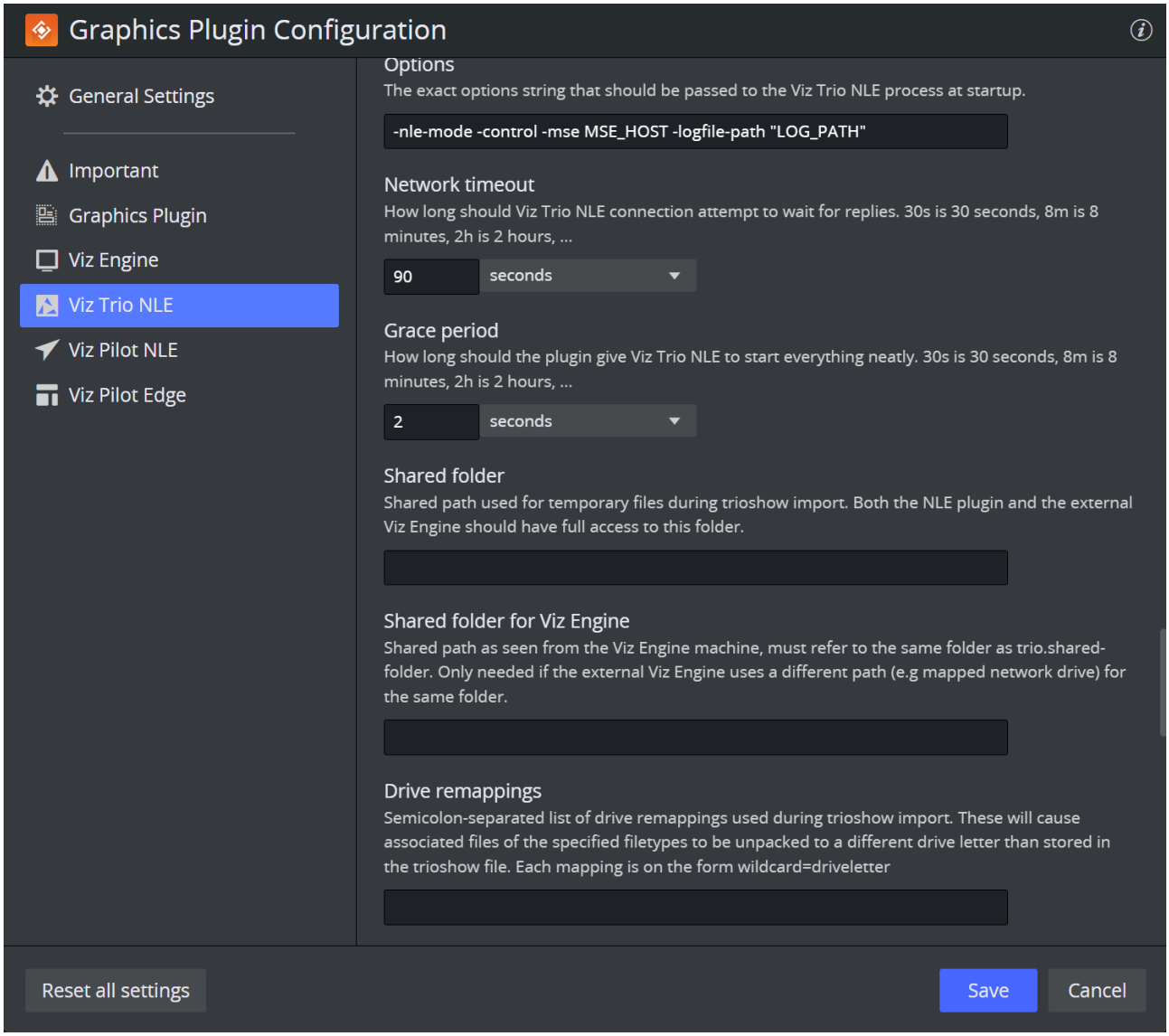
5.4 Editor Settings

Toggle **settings view** to display settings for either the Graphics Plugin Editor, Viz Trio, Viz Pilot or Viz Pilot Edge. Common settings are 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:** Controls how long connections to Graphics Plugin Editor wait for replies. This should not be changed unless network data for the Graphics Plugin Editor has been measured. Default value is **90s**.
- **Grace period:** Controls how long Graphics Plugin waits for the editor to start everything without interruptions. Default time is **2s**.

5.4.1 Viz Trio NLE

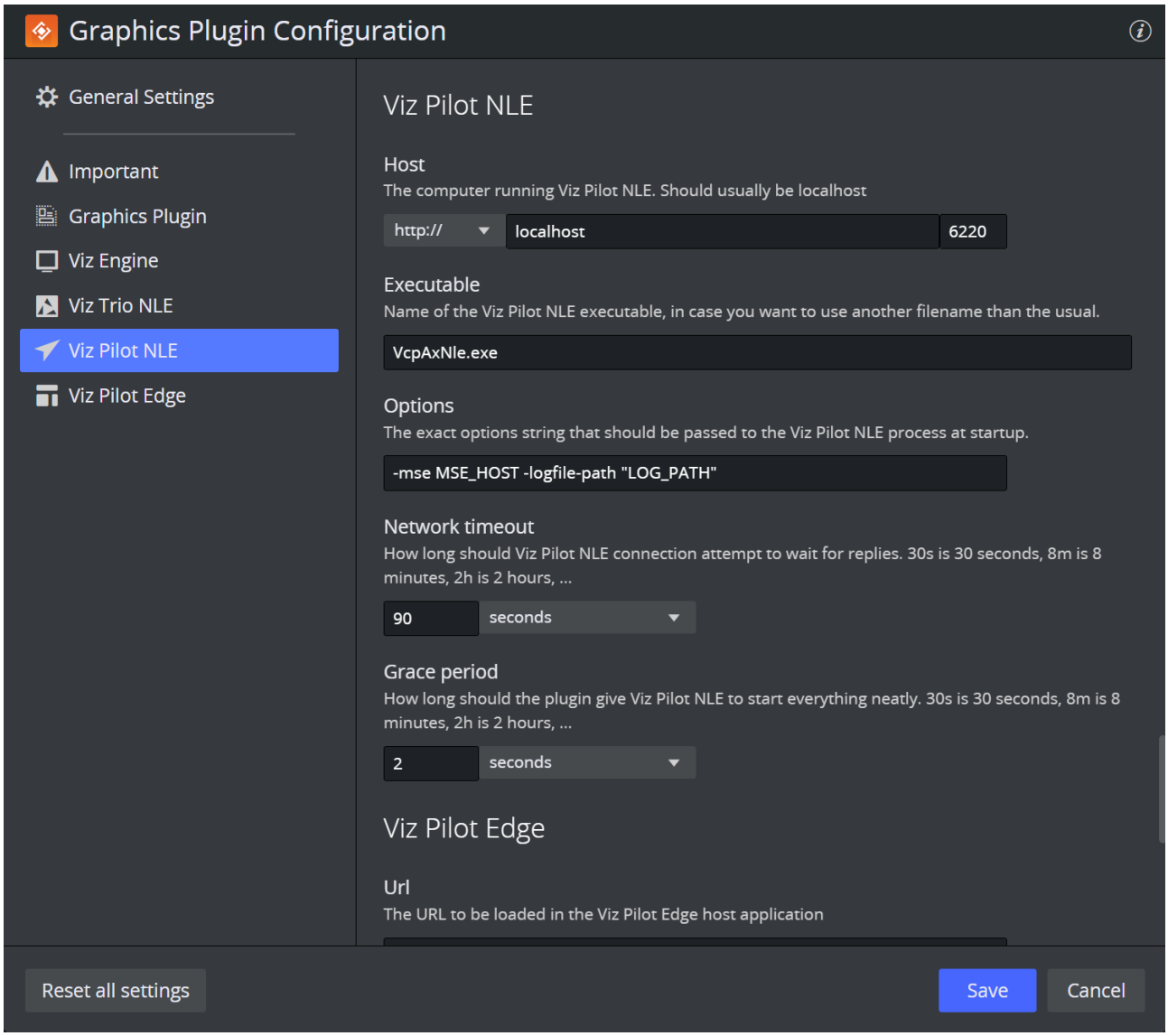




- **Host:** Sets the hostname or IP address of the Viz Trio renderer.
- **Executable:** Name of the editor's executable file. Can be changed if a different filename is in use. Default value is *trionle.exe.*
- **Options:** The exact command line options string passed to the editor's process at startup. For more information on command line options, see the Startup Variables section.
- **Network timeout:** Controls how long connections to Graphics Plugin Editor wait for replies. This should not be changed unless network data for the Graphics Plugin Editor has been measured. Default value is **90s**.
- **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 required if the external Viz Engine uses a different path (such as a 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 rather than stored in the **.trioshow* file. Each mapping is in the form *wildcard=driveletter*.

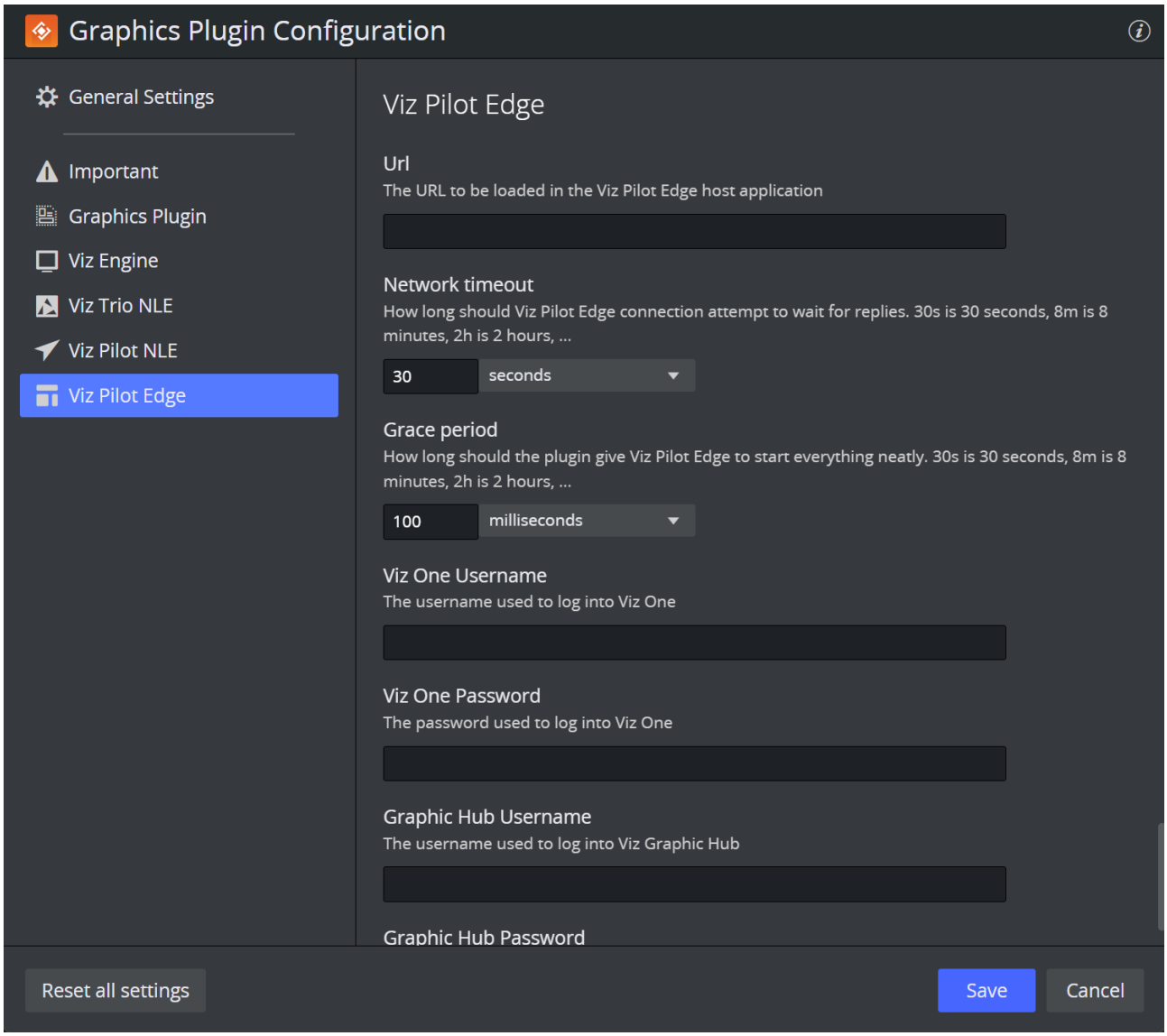
5.4.2 Viz Pilot NLE

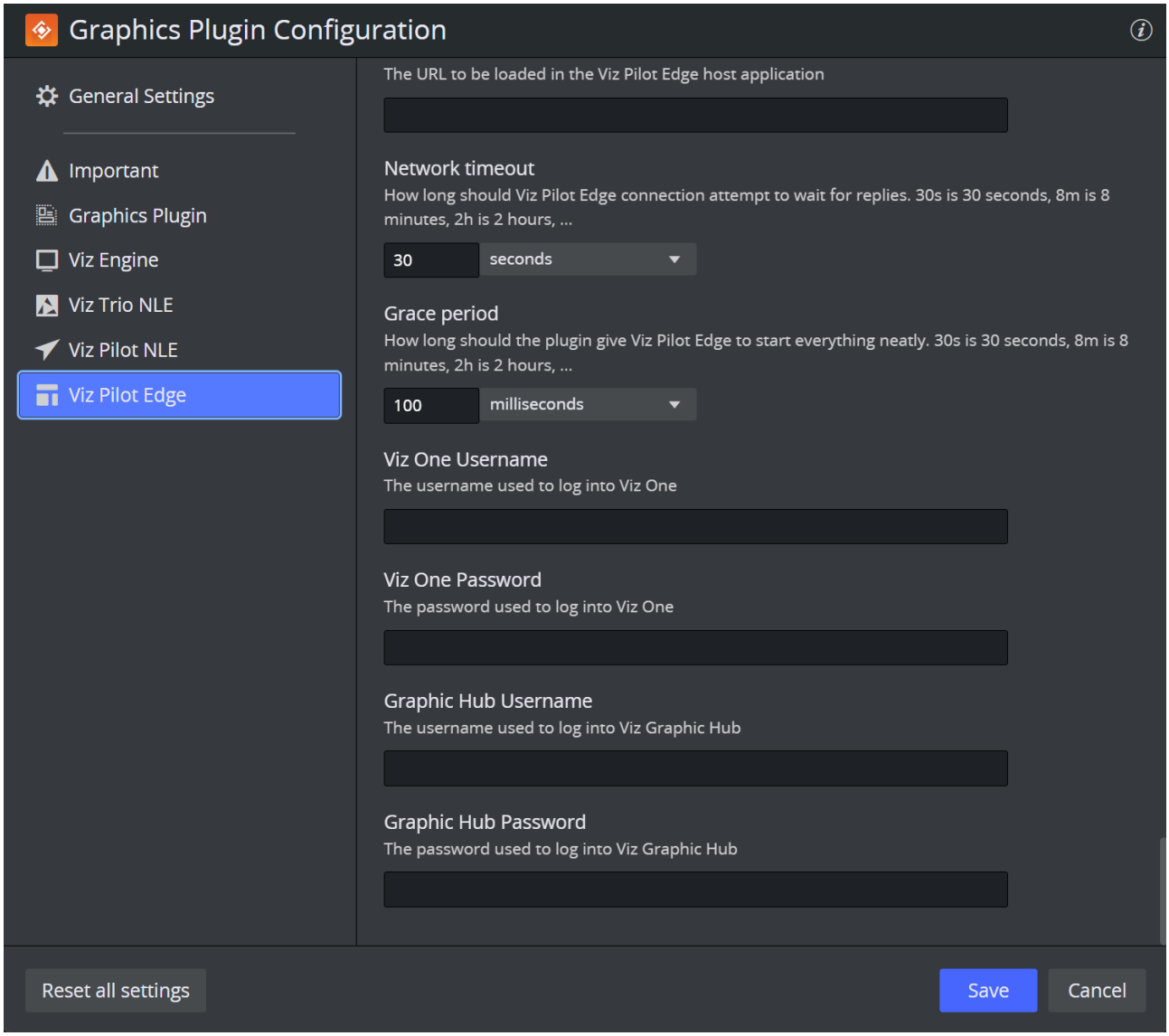


- **Host:** Sets the hostname or IP address of the Viz Pilot NLE renderer.
- **Executable:** Name of the editor's executable file. Can be changed in case another filename is in use. Default value is *VcpAxNle.exe*.
- **Options:** The exact command line options string passed to the editor's process at startup. For more information on command line options, see the Startup Variables section.
- **Network timeout:** Controls how long connections to Graphics Plugin Editor wait for replies. This should not be changed unless network data for the Graphics Plugin Editor has been measured. Default value is **90s**.

- **Grace period:** Controls how long Graphics Plugin waits for the editor to start everything without interruptions. Default time is **2s**.

5.4.3 Viz Pilot Edge

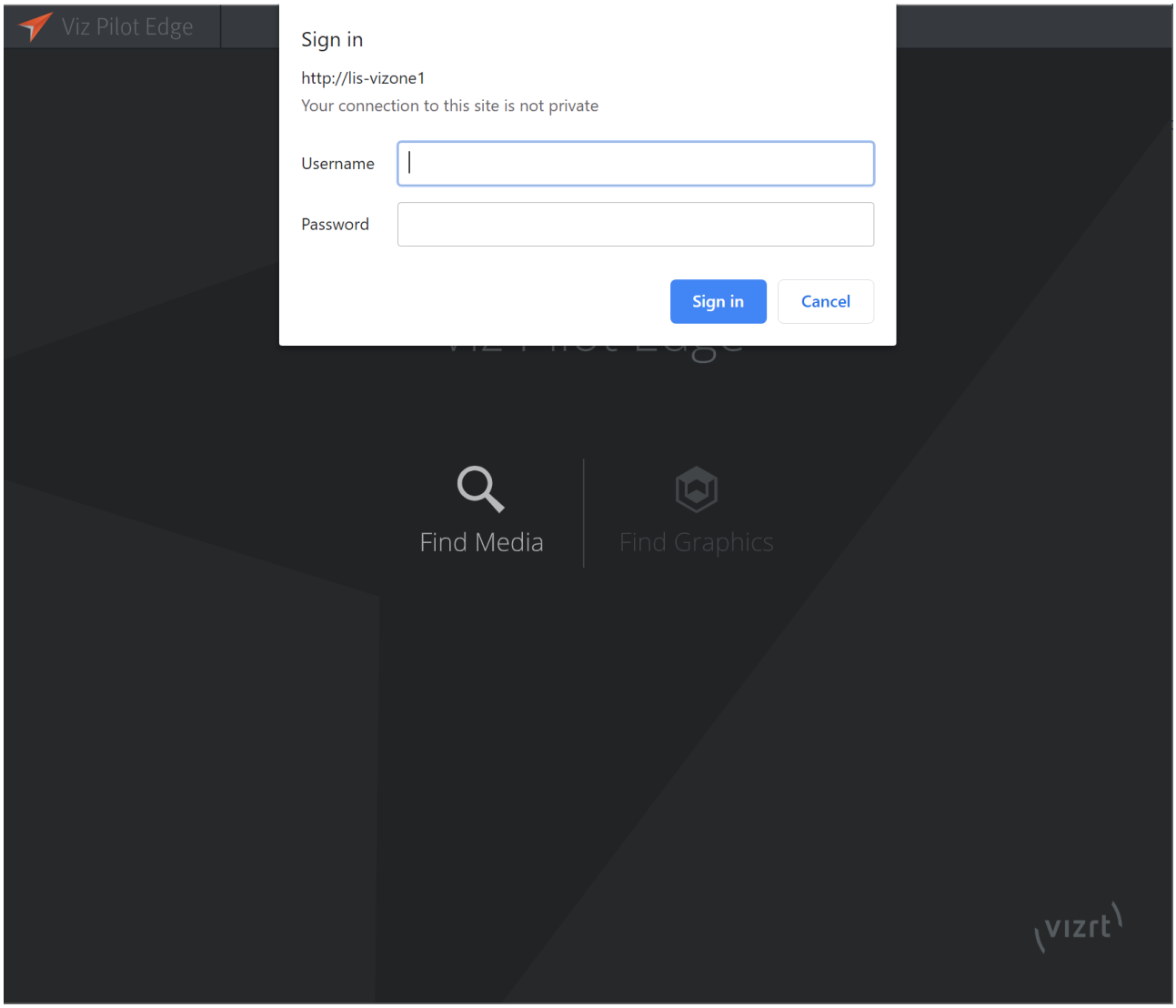




- **Host:** Sets the hostname or IP address of the Viz Pilot Edge renderer.
- **Executable:** Name of the editor's executable file. Can be changed in case another filename is in use. Default value is *payload_editor.exe*.
- **Viz One Username:** The username to log in to Viz One.
- **Viz One Password:** 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 Viz Pilot Edge in a Regular Browser (Chrome/Firefox/IE)

The popup below appears if Pilot Data Server is configured to use a Viz One server, or you have 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. If the username and password are not entered, the server's media is unavailable for the duration of the session and it is not visible while browsing Viz Pilot Edge.



Note: As the **pop-us are not shown when Viz Pilot Edge is used via the NLE Editor**, any authentication requests fail silently. This can be fixed by filling in the **Username** and **Password** fields. If the server requests additional authentication for either Viz One or Graphic Hub, the above fields are used. However, if the server does not request Viz One or Graphic Hub credentials, either because valid credentials already exist in the server side, or because no Viz One or Graphic Hub is configured, these fields are silently ignored.

5.4.4 Graphics Plugin Editor

- **VOS image search:** URI template for image search from the Object Store, a component of Viz Pilot. This requires a Pilot Data Server. Since it is a URI template, there must be a placeholder in the text you enter, indicated by curly-brackets, which is replaced by specific search terms, for example: *http://vcpserver.example:8177/vos/search?q=\{query}*.

5.4.5 Searching for Object Store Images

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, 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**.
11. In the **Graphics Plugin Editor** window, 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.

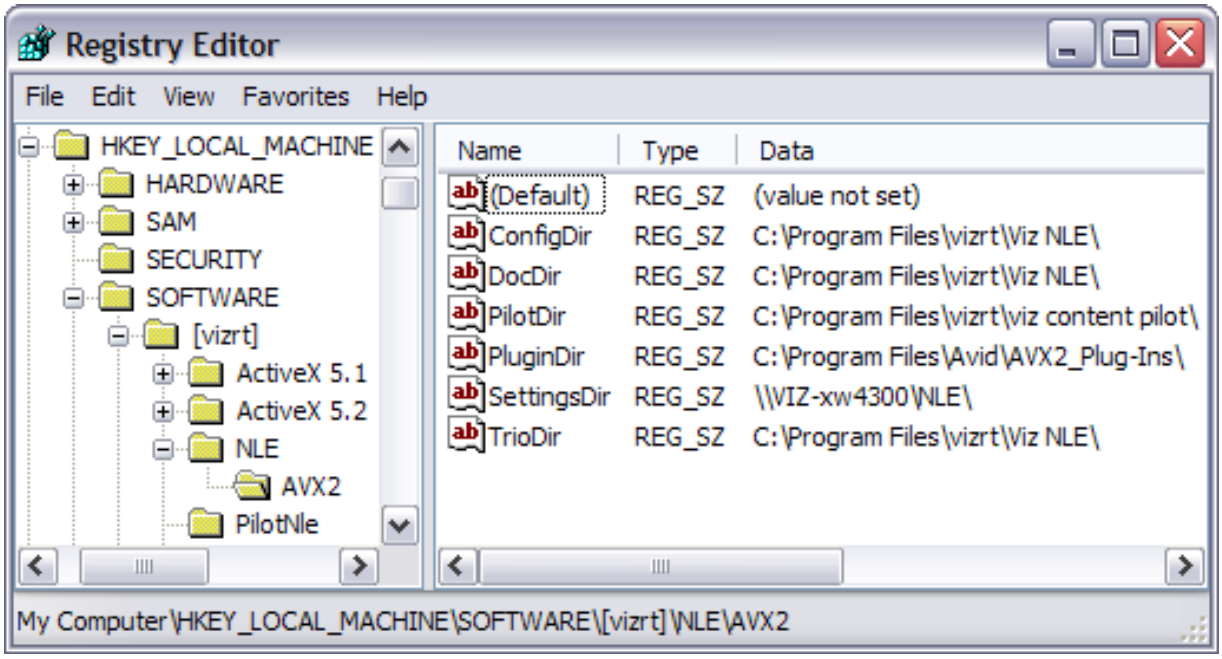
The following options are available and configurable:

- 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"

Note: 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.

> **Note:** Shared settings do not apply to Mac users.

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

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

Given a particular setting, the following rules apply:

- If a setting is set using the Graphics Plugin configuration tool, that value is used.
- If it has a value in the master configuration file, that value is used.
- The *default* value for the setting is used.

5.6.1 Adding a Shared System Setting

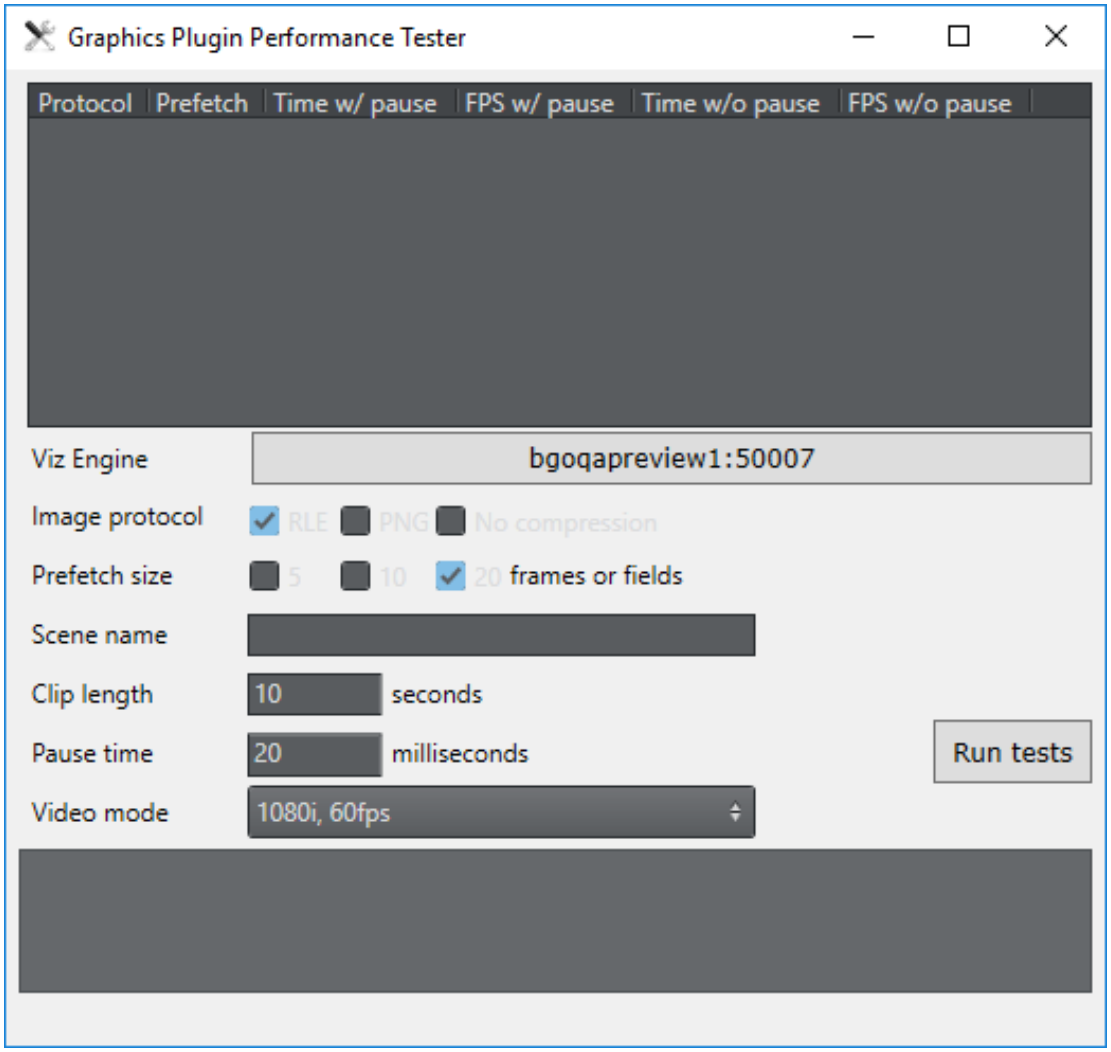
1. Start the Graphics Plugin configuration tool.
2. Configure Graphics Plugin using the configuration tool.
3. Save and exit the configuration tool.
4. Find the file *vizplugin.xml* in the current user's *Application Data* folder.
5. Copy the file to the designated shared location.
6. Set up the *SettingsDir*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

5.7 Performance Tester

The Performance Tester is used to test different configurations. It tests Graphics Plugin directly and how it performs on the network, and rendering. It also shows how quickly Graphics Plugin returns graphics to the NLE system, the raw speed of the plugin.

Note: The Performance Tester is accessed by clicking the Performance button at the lower left of the Configuration Tool.

Note: The time it takes to fill the NLE system's frame buffer and the time used between each request for frames to the NLE system, are not tested. It is, therefore, recommended to test the NLE system once Graphics Plugin has been tested and found to be working satisfactorily.



- **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 (for example, *02_GFX/VizNLE/1000*).
- **Clip length:** Sets the length of the clip that is to be rendered. Five or ten 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's recommended to try other values between 0 and 100 ms+ to see how this affects the network use. For more information, see Fine-tuning the System in the *Graphics Plugin Administrator Guide*.
- **Video mode:** Sets the Viz Engine video mode to either:
    - 1080i 50 FPS
    - 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.

Note: Once the settings that provide optimal results are found, they can be manually set in the Viz configuration tool and tested with the NLE system itself.

6 User Interface

This section describes user interfaces that can be used with 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.

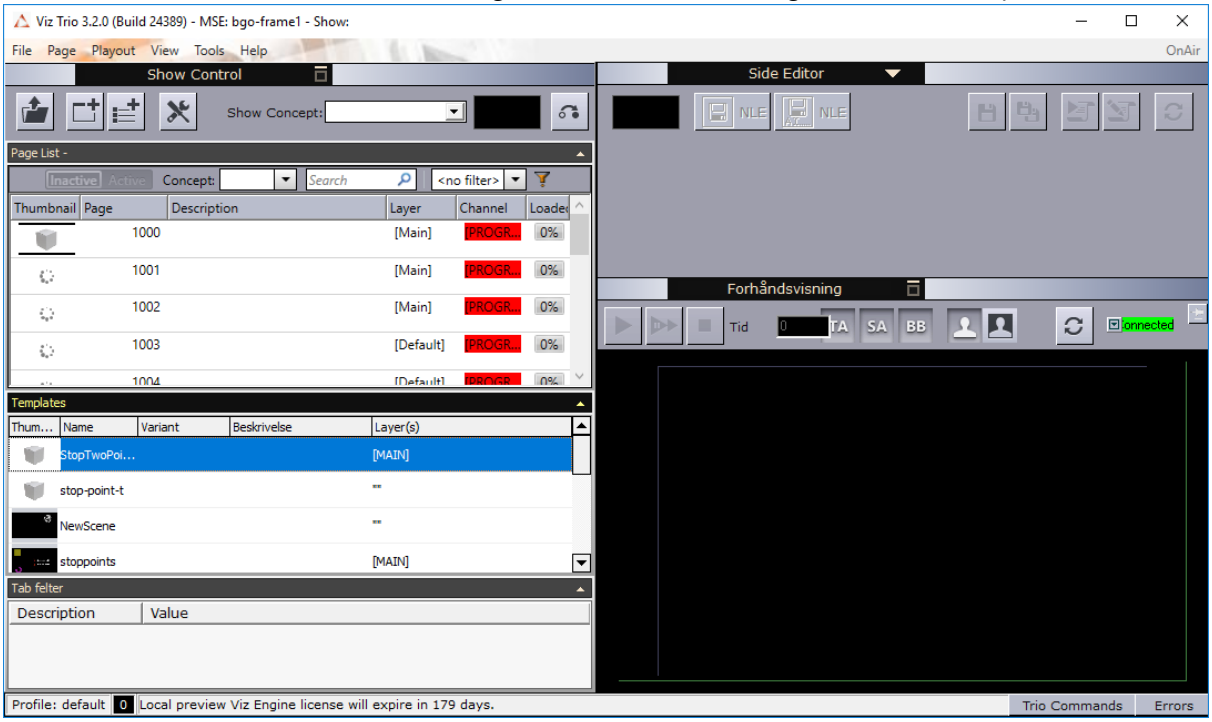
Click the Edit button in Adobe Premiere Pro, or the Editor button in Avid to open the user interface selected in the Configuration Tool in a separate window.

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

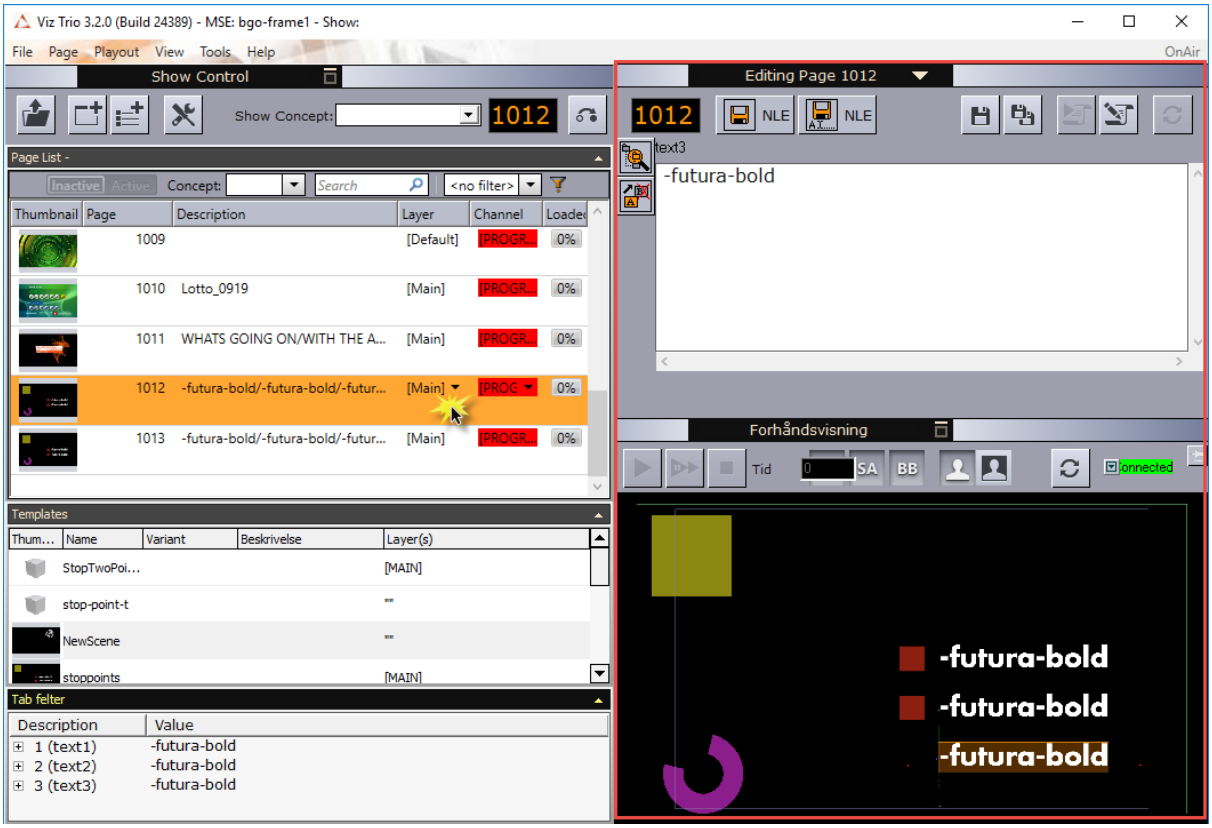
- Viz Trio
- Viz Pilot Edge
- Viz Pilot

6.1 Viz Trio

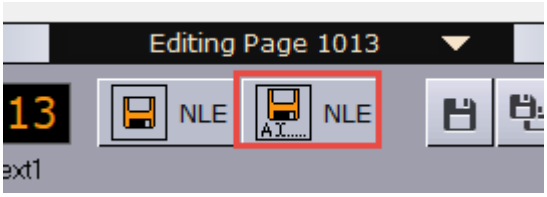
- If Viz Trio NLE has been selected in the Configuration Tool, the following Viz Trio window opens:



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

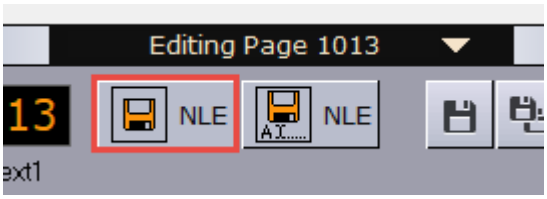


- When your graphics template is ready to be used, click **Save As NLE** to avoid overwriting the page:



The graphics is given a new Page ID.

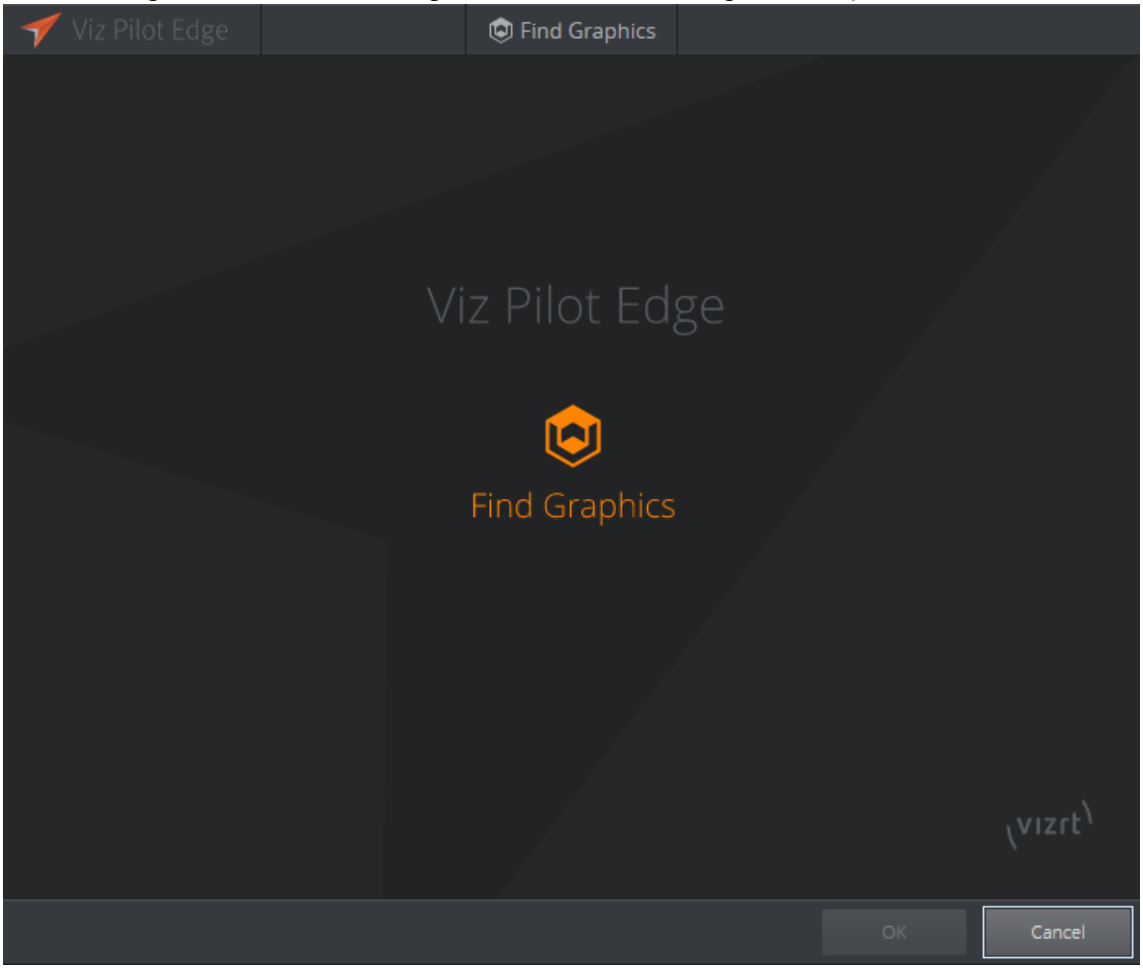
- Click **Save and render in NLE**:



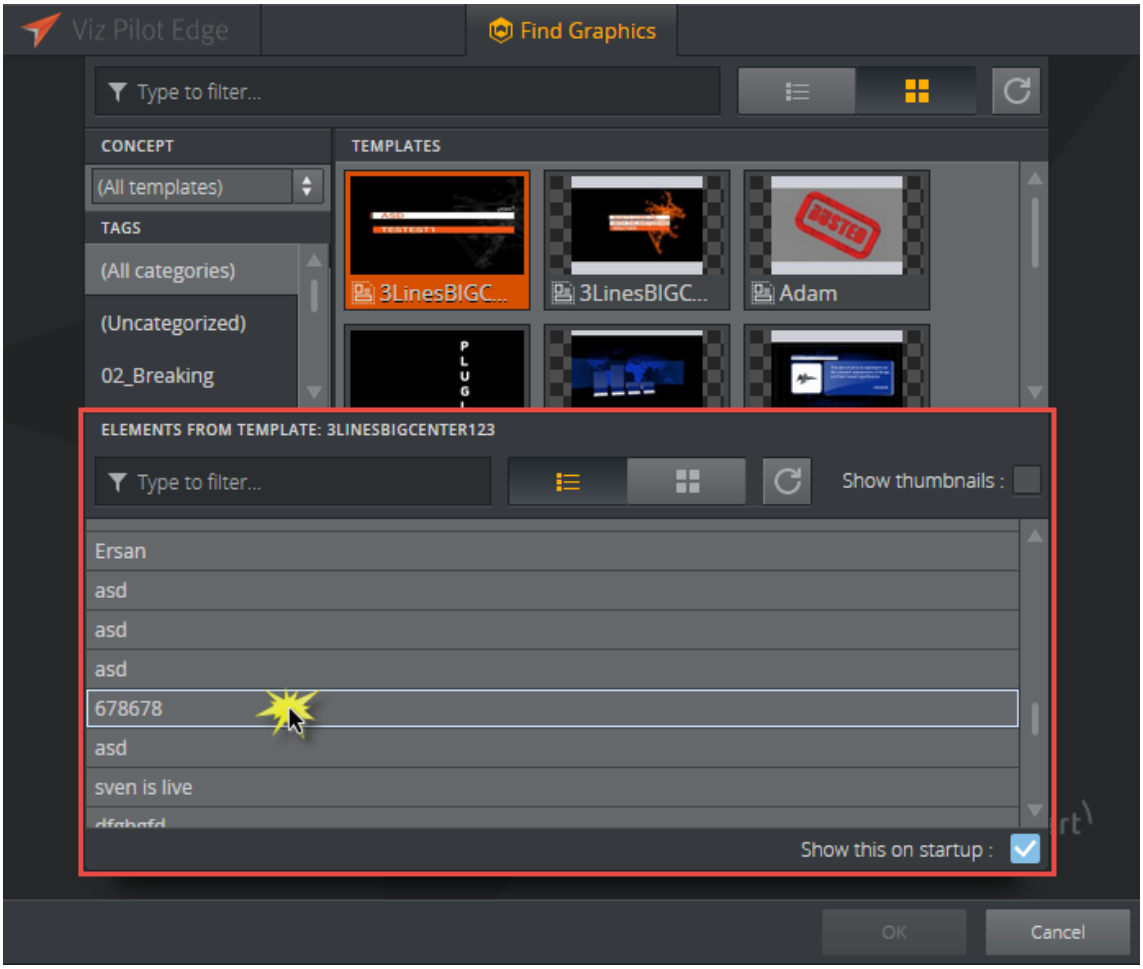
Viz Trio closes and the graphics appear in your NLE system.
For more information on how to use Viz Trio, please see the Viz Trio User Guide.

6.2 Viz Pilot Edge

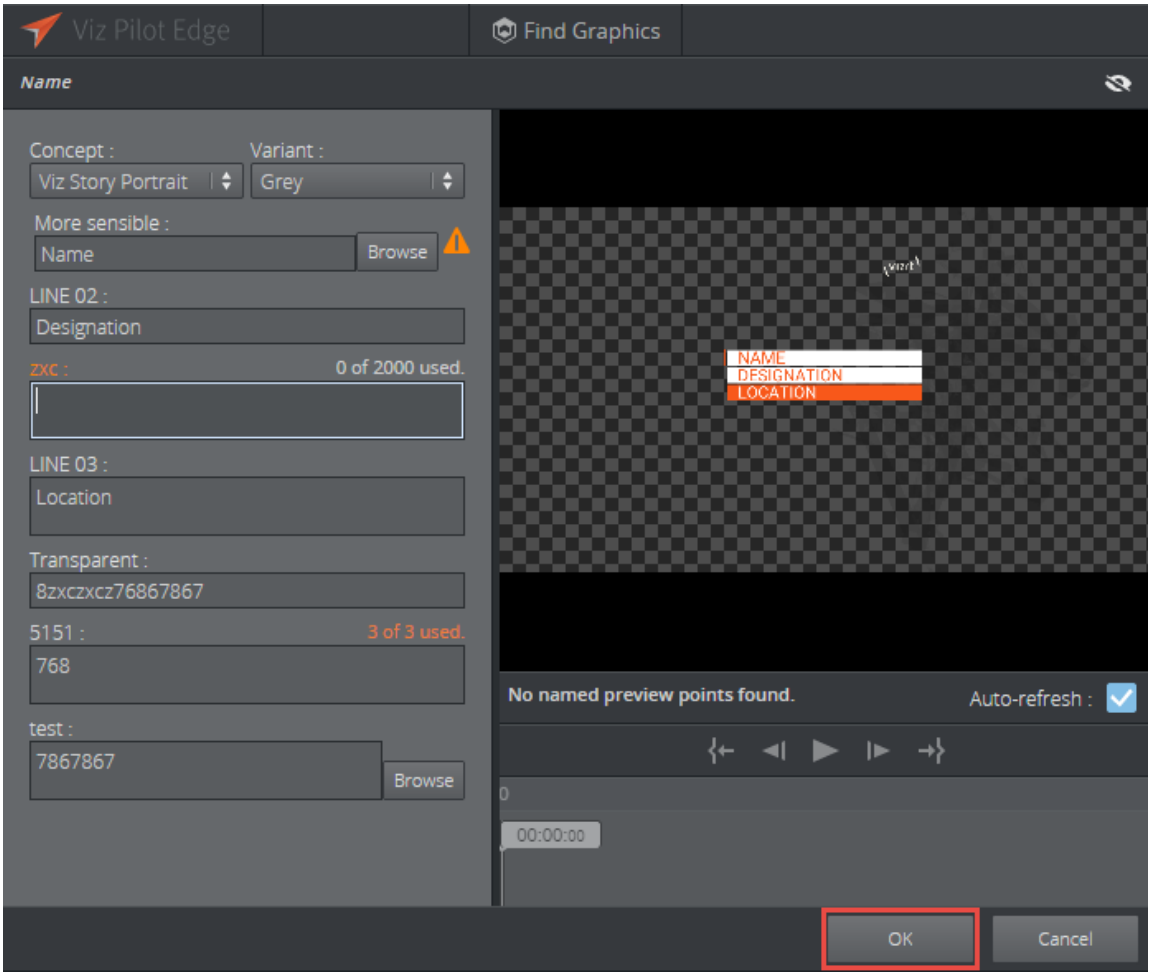
- If Viz Pilot Edge is selected in the Configuration Tool, the following window opens:



- Click **Find Graphics**. Select a graphics element or a template from the bottom of the dialog, it appears by double-clicking it:



- The graphics open in a new window where you can edit the content in the fill-in form and preview the output, as shown in the image below:

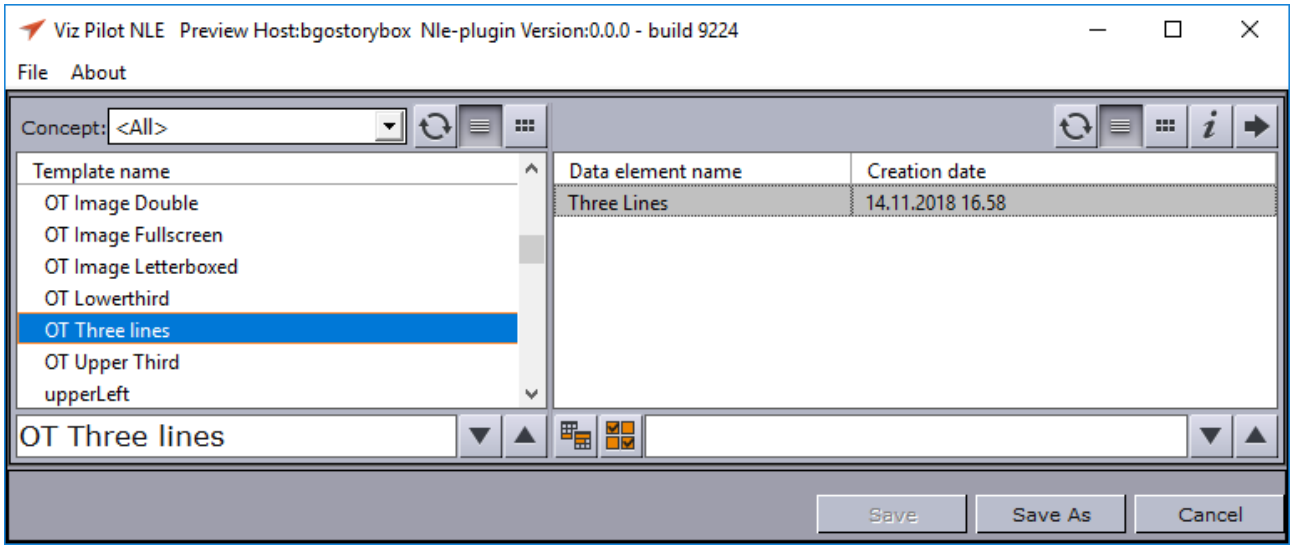


- When your graphics is ready to be used, click **OK**. Viz Pilot Edge closes and the graphics appear in your NLE application.
  For more information on how to use Viz Pilot Edge, please see the Viz Pilot Edge User Guide.

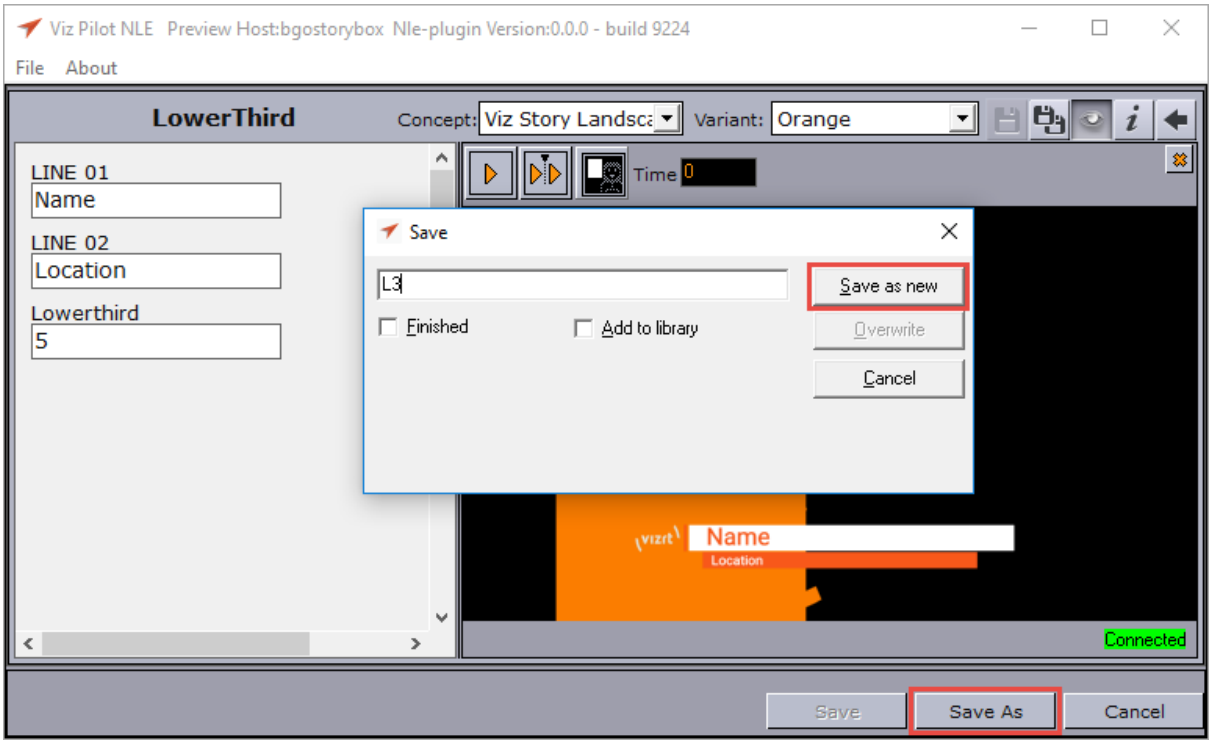
6.3 Viz Pilot

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

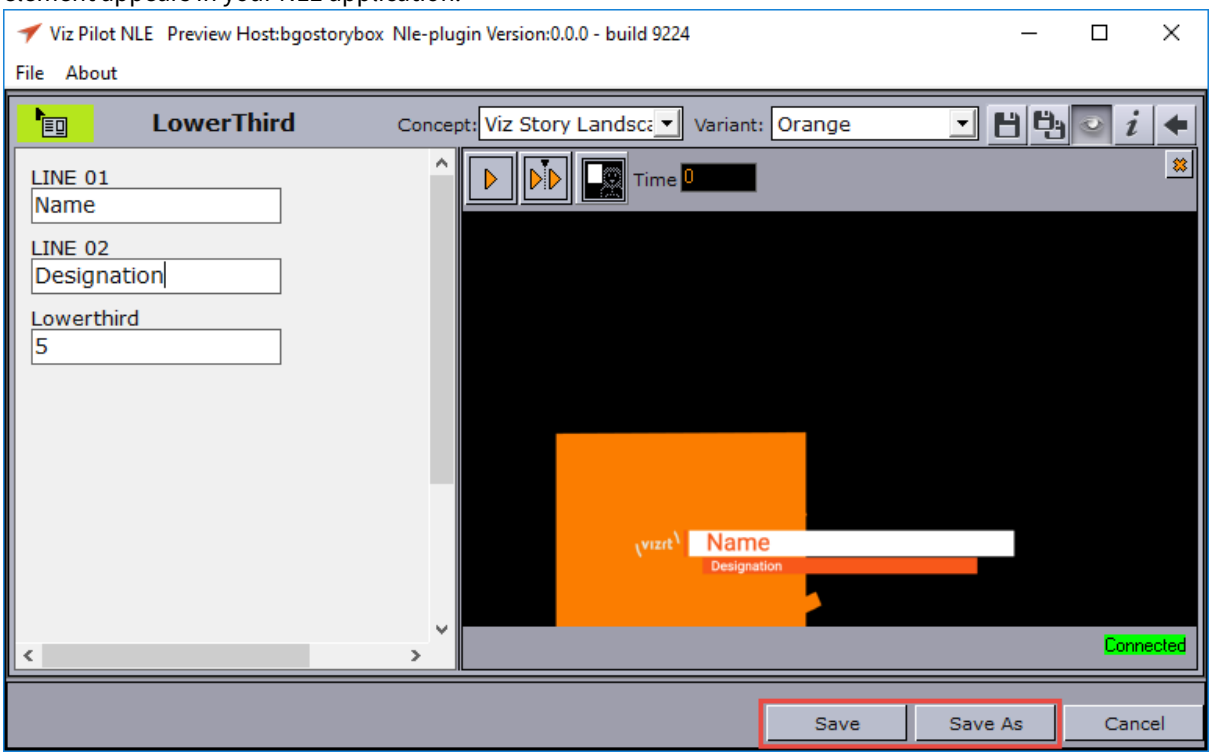
The left side of the window lists available templates in the database, while the right side lists available data elements (saved templates).



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



- If you are using an 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 closes and the graphics element appears in your NLE application.



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

7 Scene Design

When designing scenes in Viz Artist that are to be used together with Supported NLE Systems, you must follow specific design conventions for the output to render correctly.

Please be aware of the following, when designing for the Graphics Plugin workflow:

7.1 Key

When designing a scene, a *key* signal must be added to the scene for the graphics to blend correctly with the video.

7.1.1 Adding a Key Signal

Add the Key plugin to one or more containers in the scene, and enable **Auto Key** under the global scene settings.

7.2 Stop Points

If you are using stop points when designing a scene, 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 is automatically converted to a pause point, and, if needed, is also stretched to make the entire animation (in, pause, and out) match the length of the graphics element in the NLE timeline.

7.2.1 Stretching Stop Points

The stop points in a scene are automatically stretched so that the animation matches the length of the graphics element in the NLE timeline.

Example 1

If an in-animation of three seconds and an out-animation of four seconds is stretched to ten seconds in the NLE timeline: the in-animation is shown for three seconds, then the stop point between the in and out-animation that is stretched is shown for three seconds, and finally the out-animation is shown for four seconds (totaling ten seconds).

Example 2

If the animation in example 1 above is shortened to five seconds: the in-animation is shown for three seconds, the pause point is skipped, and the out-animation is reduced to two seconds.

Multiple stop points are stretched evenly unless you have a modified stop point. If the animation contains two stop points and is stretched to 17 seconds, then the in-animation is shown for three seconds, the first stop point for five seconds, the second for another five seconds, and the out-animation for is lastly shown for four seconds.

> ⚠ **Note:** If you modify a stop point, any attempt to resize only affects the rightmost stop point, if possible.

7.2.2 Directors and Stop Points in Viz Artist

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) are 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 are not stretched, such as looping background animations and similar, should be placed here. These animations are played out continuously, regardless of the stop points in the root containers.

> ⚠ **Note:** When making a scene for NLE, make sure that no empty directors are left in the scene. The main director that contains the in and out animation must be the very first director on top of the list of all directors. This main director must be on top and contain the stop point *pilot1*. If an empty director is left on top no output will be displayed.

7.2.3 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 to stretch sound.

7.2.4 Video

There is no support for embedded video clips in graphics being used in the Graphics Plugin workflow.

7.3 Effect Plugins

Effect plugins, such as *RFxSmoke*, work in such a way that particles are emitted from a certain point and then moved in a random order in a 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. It is, therefore, recommended to use such effects with caution when designing for NLE.

7.4 Transition Logic

It is possible to work with Transition Logic scenes with certain limitations. Graphics templates can be modified and sent to air using the normal NLE workflow. 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.

7.4.1 Transition Logic Scene Design Limitations

- 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 shift to the upper part of the screen when a lower third is taken on air. To achieve this type of behavior: use Viz Trio or Viz Pilot's Template Wizard to create a combination template 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 each other on the timeline, it's not possible to keep the backplate from object number one, and simply update the editable variables, such as the name of the interview objects. Instead, the first element must be animated out, and then the second element must be animated in.

7.5 Lift and Extract

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

- **Lift** removes a portion of a clip while leaving the interval duration between the mark-in and mark-out points.
- **Extract** removes 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 entirely separate, and the graphic is also split.

7.5.1 See Also

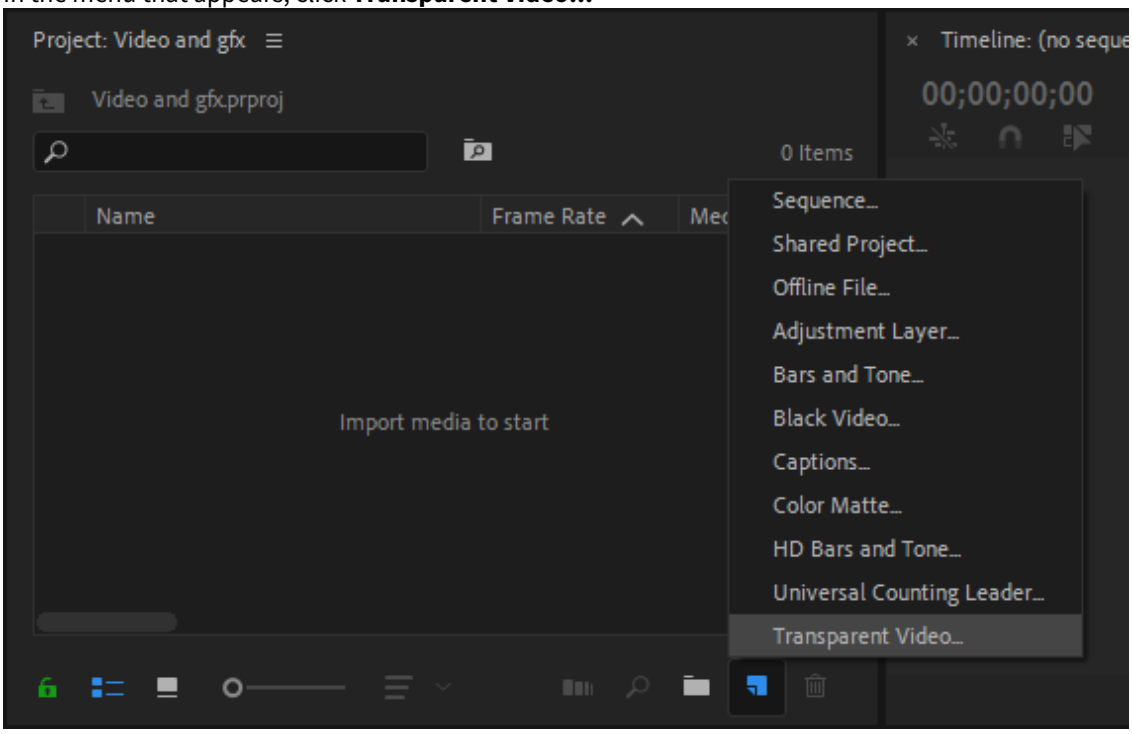
- Viz Artist User Guide sections on Transition Logic
- The Viz Trio User Guide section on Combination Templates

8 Using Graphics Plugin with Adobe Premiere Pro

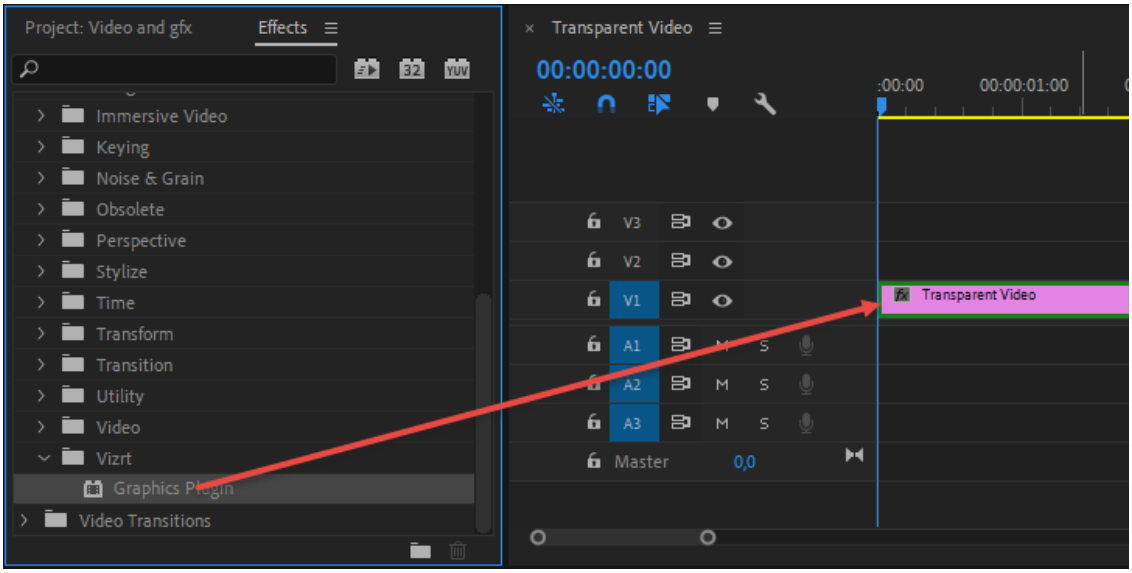
This section explains the required steps on how to add Vizrt graphics to the timeline in Adobe Premiere Pro, and how to use stop points.

8.1 Adding 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:
    a. In the Project panel, make sure that the Project tab is selected, and click the **New Item** button in the lower right corner.
    b. In the menu that appears, click **Transparent Video...**

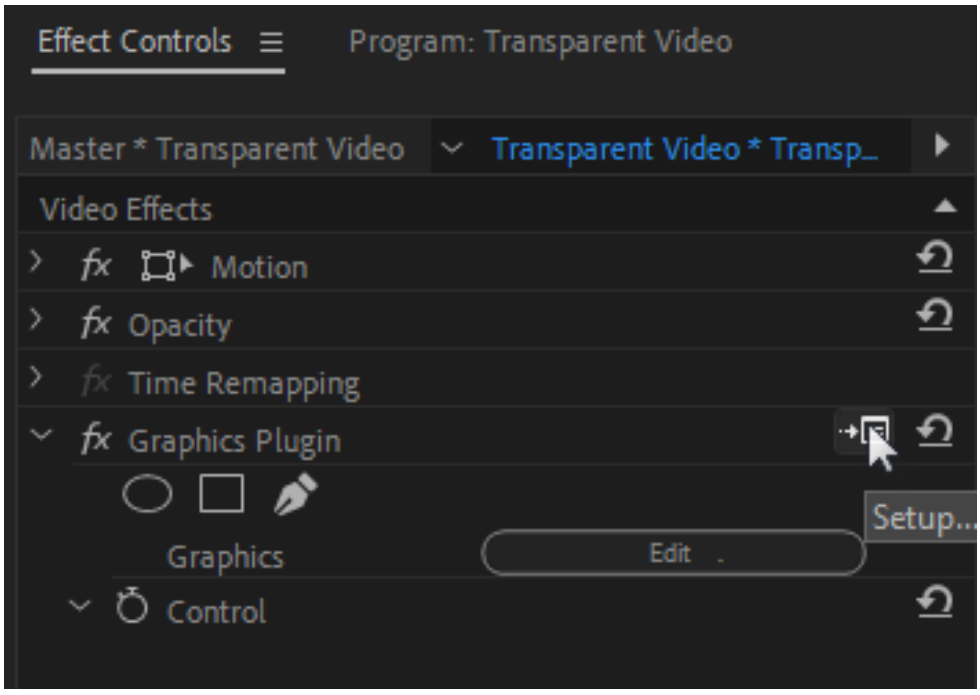


    c. In the New Transparent Video dialog box that opens, select your Video Settings and click **OK**.
    d. Drag the new transparent video clip to the Timeline.
3. Add Graphics Plugin to the project:
    a. In the Project panel, click the **Effects** tab. (If the tab is not visible, select it from the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



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) 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 freezes 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.

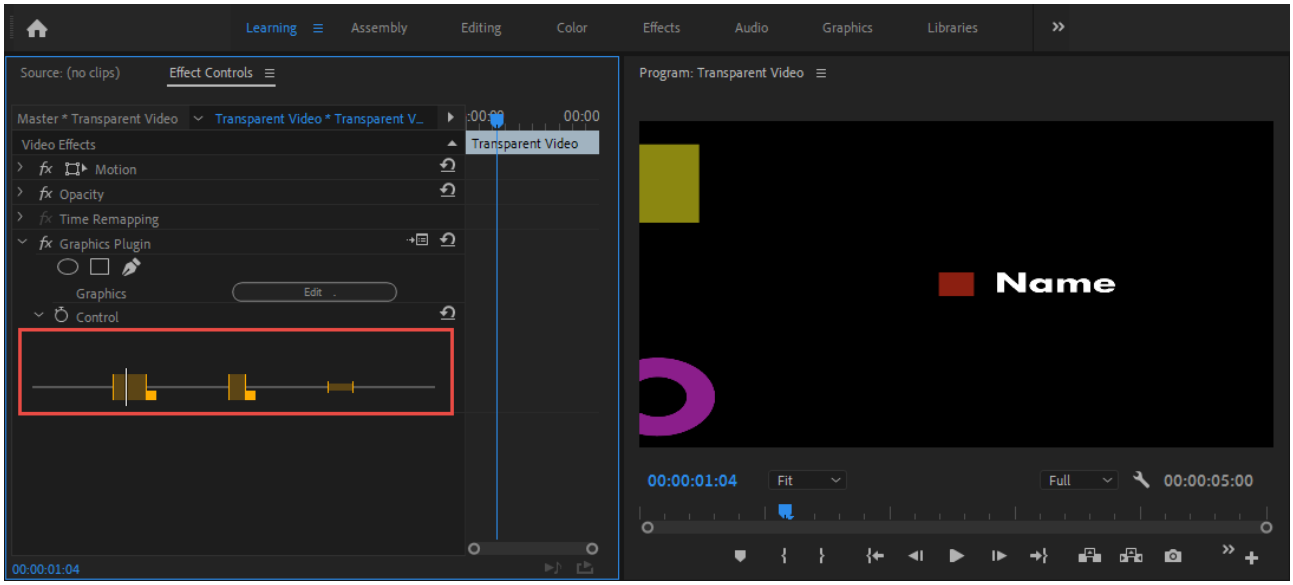
10. Create another Transparent Video with graphics plugin and drag it to the timeline to have multiple graphics.

8.2 Stop Points

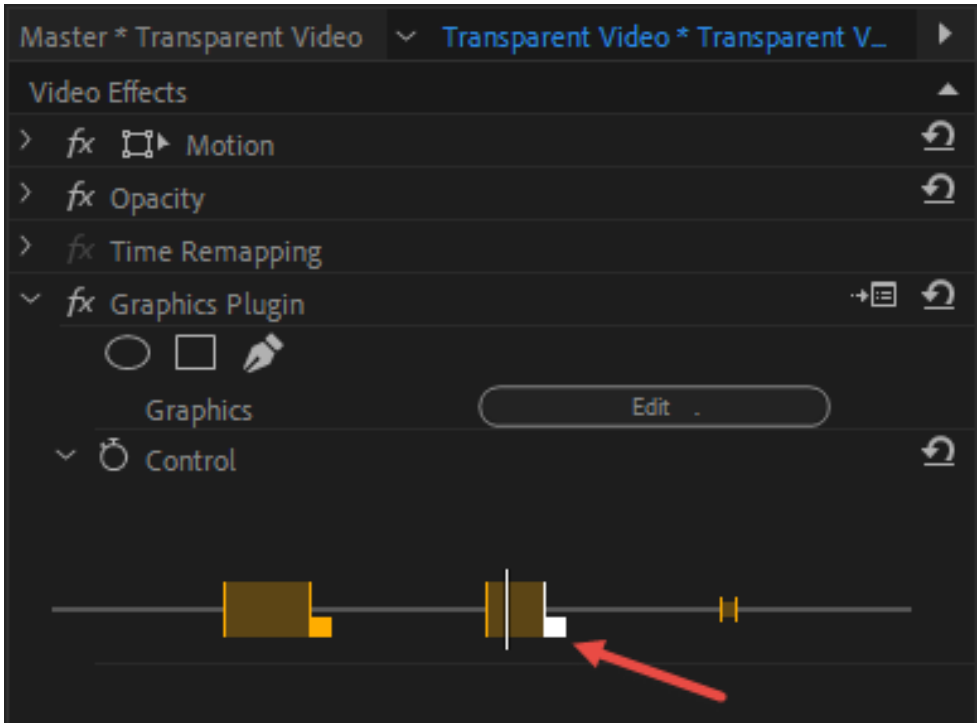
Stop points are added to a graphics scene to control the playout of the animation.

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:


Master * Transparent Video
Transparent Video * Transparent V...
Video Effects
Motion
Opacity
Time Remapping
Graphics Plugin
Graphics
Edit
Control