



**SILHOUETTE**  
**What's New**

## ABOUT THIS GUIDE

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### About Us

Founded in 1995, Boris FX is a leading developer of VFX, compositing, titling, video editing, and workflow tools for broadcast, post-production, and film professionals. Boris FX products have grown to serve over a million artists worldwide. The company's success lies in its ability to tightly integrate and leverage technologies through strong partnerships with Adobe, Apple, Avid, Blackmagic Design, Autodesk, FilmLight, Grass Valley, Magix, SGO, and other leading developers of video editing software. In 2014, Boris FX acquired Imagineer Systems, the Academy Award-winning developer of Mocha planar tracking software. In 2016, Boris FX acquired GenArts, the developer of Sapphire, the gold standard plug-in package for high-end visual effects. In 2019, Boris FX acquired the Academy Award-winning Silhouette for advanced feature film rotoscoping, painting, and effects.

# SILHOUETTE 2021 - 4/29/21

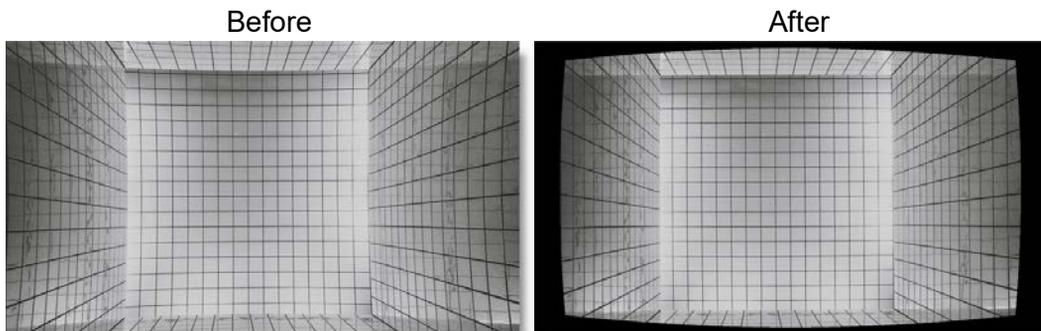
## Features

### Silhouette Plug-in

Previously, the Silhouette Paint plug-in was limited to paint functions, but now, all limitations have been removed. The Silhouette Paint plug-in has been transformed into a fully featured Silhouette plug-in that can do everything the standalone version of Silhouette can do, but as a plug-in.

### Lens Correction

Powered by Silhouette's Roto tools and based on shared technology from Mocha Pro's Lens Module, Lens Correction undistorts lens distortion and generates ST Maps for third party applications. To compute lens distortion, you need an image with one or more distorted straight lines or a distortion map, sometimes called a UV map or ST Map.



### GStreamer

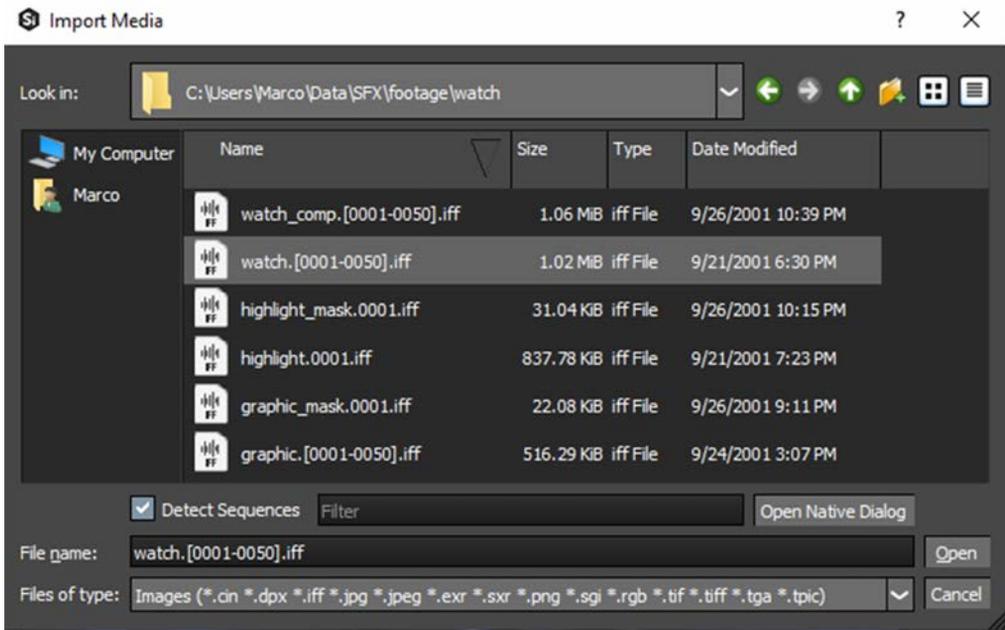
Import of movie file formats is supported through GStreamer which is a versatile media handling library for reading various codecs and footage containers.

### External Monitor Support

Silhouette can now be displayed on an external broadcast monitor when using a Blackmagic I/O device.

## Custom File Importer

A custom file import dialog now allows sequences to be collapsed, while the previous OS native file dialog can still be used.



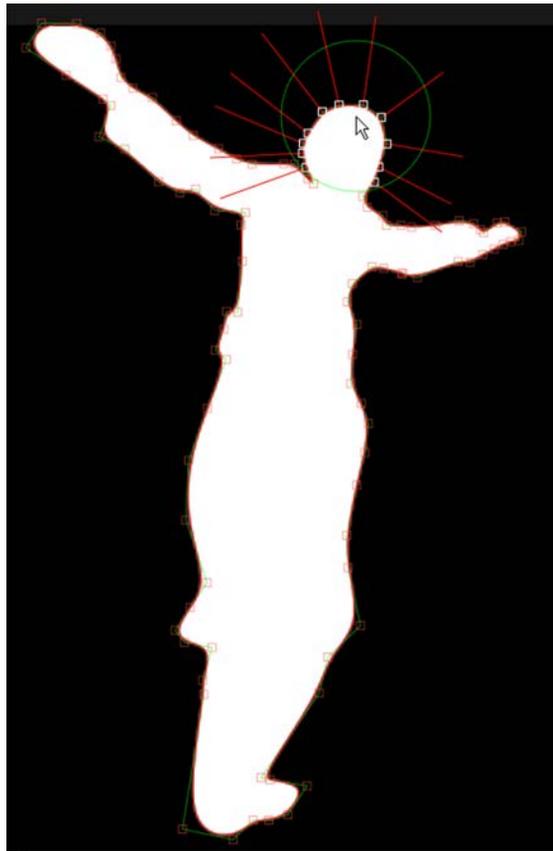
### Drag and Drop Import

Dragging and dropping files/folders from the OS file system into the Sources window automatically creates sources for any sequences that are found.

## Advanced Roto Editing Tools

### Brush Reshape

Brush Reshape uses a circular brush to automatically select and then move points when you click and drag them using the Magnetic Reshape behavior. Pressing **Shift** while dragging points disables the magnetic behavior. You can also **Shift-Alt** click/drag in the Viewer, not on any control points or shapes, and that becomes the magnet pull position instead of using a point.



### Collapse Points

Collapses a selection of points into a very small area which can later be distributed between surrounding points. This is useful for shapes whose complexity changes over time.

## Distribute Points

Evenly distributes selected points.

## Point Groups

Groups of points can be pre-defined and then quickly edited as a group in the Reshape and Transform tools.

## Control Point Selection Enhancements

### Select Range

Select a range of shape control points by **Shift**-clicking start and end points.

### Extend Selection

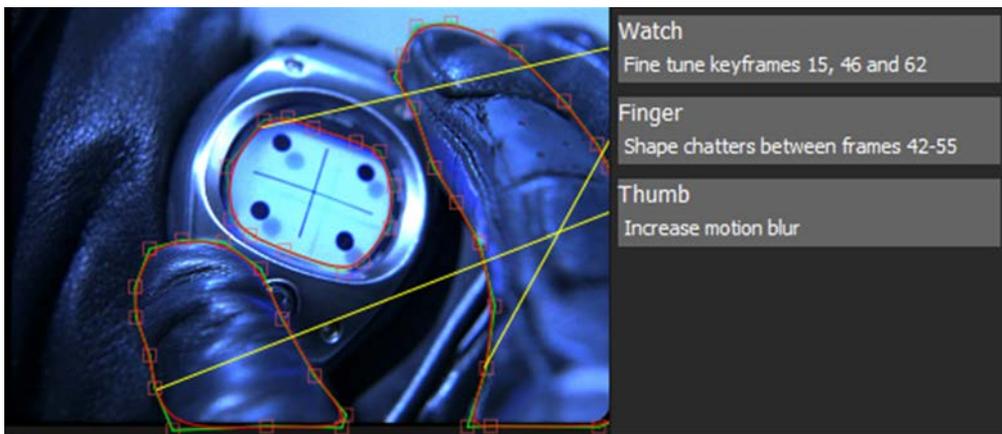
Extend the current selection by **Shift**-clicking an unselected point. The selection is extended by finding the nearest point of the selection.

## Roto Review and Approval

Notes assigned to objects (shapes, layers, trackers) can now be displayed in the Viewer. This is a useful review and approval tool for artists to easily see notes provided by their supervisors. Clicking the Viewer > Notes icon displays notes for all objects in the Viewer.



Selecting a note's text also selects the object and displays a callout line from the note to the object. A new Select > Notes action will select all notes.



## Split Shapes

Similar to Split Edit in non-linear editing systems where a clip is split in two, Split Shapes is useful for shapes that transform from simple to complex and vice-versa.

Accessed through the Reshape context menu, Split Shapes does the following: The original shape is duplicated and named Shape-copy. If there is an active selection, the new shape is created based on the selected points. At the current frame, the original shape is set to 0% opacity and the copied shape set to 100%. Both shapes are placed in a layer named Shape-Compound Shape. In editing terms, you are cutting from one shape to another.

## Weighted MultiFrame

Using the new Fade In and Fade Out MultiFrame parameters, the keyframe adjustment is weighted based on a specified Fade In or Fade Out time period. Keyframes within the fade areas are adjusted less than those that are not. The MultiFrame Start and End as well as the Fade In and Fade Out parameters can be set in either the Timebar or Timeline.

### Timebar

Set the Start and End as well as the Fade In and Fade Out values using the numeric fields that appear in the Timebar when MultiFrame is selected.



### Timeline

Set the Start and End by clicking and dragging the ends of the red MultiFrame track in the Timeline.



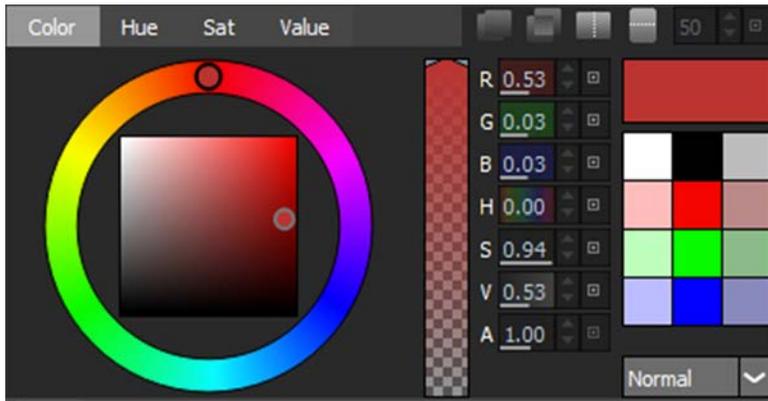
Set the Fade In and Fade Out values by pressing **Ctrl/Cmd** and dragging the start and end of the red MultiFrame range.



## Paint

### New Color Picker

The ring sets the hue while the inner square sets the value (brightness) and saturation.



### Auto Paint > Step Selected Events Forward/Backward

Selected events in the Paint History can be stepped either forward or backward one frame at a time.

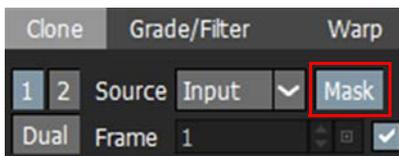


### Brush Opacity Shortcut

**Ctrl/Cmd-Alt**-drag sets the brush opacity.

### Mask

Masks the clone source input using its alpha channel.



When enabled, the Clone brush only paints using the masked area of the clone source. In addition, when transforming the clone source, both rgb and alpha channels are transformed.

## New Nodes

### Alpha Composite

Composites alpha channels with channel and blend mode options for each of the five sources.

### Alpha Threshold

Threshold cuts the alpha channel at a certain value. Anything below the value goes to zero (black), while anything above goes to 1 (white).

### Dot

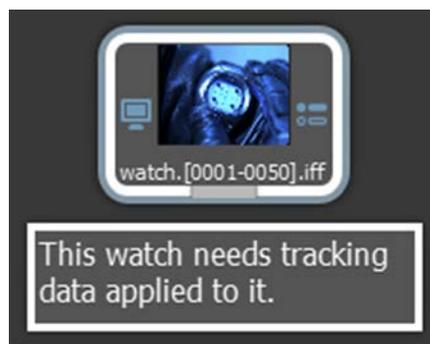
The Dot node, located in the Utility node group, cleanly routes node connections and is displayed as a dot in the tree.



Create a Dot node by **Alt**-clicking on an existing node connection or add it from the Utilities node group like any other node. To drag out an additional output, hold **Alt** over the Dot node and drag the output port that appears.

### Note

The Note node adds a node text frame to the Trees window. It can be resized, moved behind other nodes and its background color can be set. The text can be formatted using font type, size, color, bold, italics and underline.



## OCIO Colorspace

Converts from one colorspace to another using OpenColorIO.

## OCIO Display

Determines the transform that occurs between the input scene's colorspace and the display colorspace.

## OCIO LUT

Applies a custom OCIO LUT to the scene.

## User Interface

### Flyout Menus

Tools with multiple modes, like Roto > Transform and Reshape, now have flyout menus.



## Nodes

### Alignment

Right-clicking over the Trees window displays a new Arrange menu containing Clean Up, Align and Distribute options.

#### Clean Up

Neatly aligns all nodes in the Trees window.

#### Align

Lines up selected nodes either horizontally or vertically. Nodes are aligned horizontally when they are on average horizontal, and vertically when they are more or less vertical.

#### Distribute

Nodes are distributed in a line between the two nodes that are furthest away from each other.

## Coloring

The color of a node can be changed using the Node > Options controls.



## Grouping

Nodes within a group can now be deleted.

## Options

Per node controls are available in the Node > Options tab for Node Color, Layout, and Connection type.

## OCIO Roles

Silhouette now supports OCIO roles and categorizes colorspace according to their family, if defined.

## Session Formats

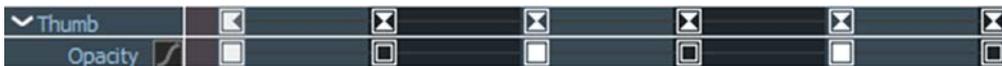
Added UHD 4K/8K session formats.

## Sapphire Node Tab

A dedicated Sapphire node tab appears when Sapphire is installed.

## Timeline > Shape Visibility Bar

Shapes set to 100% opacity appear as a bar in the Timeline. This is achieved by darkening all tracks associated with an object in areas where the opacity is 0.



## Trees Window > Select Context Menu

Right-clicking in the Trees window with selected nodes displays a new Select menu containing Sources, Upstream Nodes, and Downstream Nodes.

## Sources

Selects and highlights the sources in the Sources window.

## Upstream Nodes

Selects upstream nodes.

## Downstream Nodes

Selects downstream nodes.

## Viewer > Channel Indicator

The Viewer > Channel icons now display a white outline around the currently selected channel's icon.

## Viewer Snapshot

Viewer > Snapshot now works between Sessions.

## UI Font Change

Changed the font used by Silhouette from the default system font to Inter UI.

## Utility Node Group

A new Utility node group was added for nodes like Dot, Notes, and Null.

# Preferences

## Paint

### Clone > Default Subpixel State

The Clone > Default Subpixel State preference sets whether Clone > Subpixel is enabled or disabled by default.

## Scripting

A new Scripting preference was added to make it easy to load your own scripts.

### Enable External Scripts

Enable the loading of external scripts.

**Note:** Disabling external scripts will also have the scripting system ignore `$SFX_SCRIPT_PATH` and `$SFX_USER_PATH/scripts`.

### External Script Paths

Add one or more paths where your scripts are stored.

## User Interface

### Connection Color

Sets the node connection's default color.

### Default Group Color

Sets the group's default background color.

### Default Node Color

Sets the default node color.

### Use Native File Dialog For Importing Media

When enabled, the OS's native file dialog is used for importing files.

## Scripting

### Improved Communication With Tools

Expanded the "tool command" and "query" functionality to support arbitrary values that can be sent to tools with the `fx.viewer.toolCommand()` and returned with `fx.viewer.queryTool()`. This was necessary to allow [ ] editing of the brush size in the Reshape > Brush Reshape tool.

### **object.objects attribute**

Added a convenience attribute to object ("objects") which returns the first property that can contain children, if there is one. This is usually the "objects" property of Layers/Roto and Tracker nodes. This the equivalent of: `object.property("objects")`.

# Changes

## Nodes

### Node Selection Coloring

#### Active Node

The active node has a blue outline and white edges.

#### Selected Nodes

Selected nodes have white edges.

### Null Node Moved From Image Group

The Null node was moved from the Image group to the Utility node group.

## Roto

### Adjust Feather Handles By Same Amount

If you hold **Shift** while dragging a feather handle, the same distance you moved the active handle will be applied to all selected handles. Otherwise, the distance will be scaled by the original distance of each point.

### Math Composite - Individual Channels

Math Composite operations can now be done on a per channel basis.

### Morph > Output Alpha of Shapes

In the Morph node, there is now a Cutout option to output the shape alpha.

## Paint

### Color Brush Icon

A new Color brush icon was added to the Paint toolbar.

### Input Naming

The Paint node inputs were renamed as follows:

- Renamed “Foreground” to “Input”
- Renamed “Input 1-5” to “Source 1-5”

### Paint Missing Icon

An icon is displayed in the Output node when the painted data is missing.

## Preferences

### Colors

Shape and Viewer color preferences were moved into a new Colors category.

### Fade Outline With Opacity

The Fade Outline With Opacity preference now defaults to off. In addition, the **V** key still toggles the visibility of zero opacity shapes, but no longer turns the Fade Outline With Opacity preference on/off.

## User Interface

### Eyedropper Removed

The Eyedropper next to color pots was removed. The operating system color picker eyedropper is now used instead.

### Object Naming Change

The default name of the first new object has changed so that it is appended with the number 1. Previously, the first object was named <Object> with the second named <Object> 1. Now, the naming is <Object> 1 and <Object> 2.

### Render

#### Data Window

Determines the rendered image size and replaces the previous Render ROI option. Now, you can choose from Session, ROI (Region of Interest) and DOD (Domain of Definition).

#### Validate

When selected, rendering is aborted if a Paint node's data can't be found.

### Streamlined Workspace Change

The Nodes tab in the Timeline was added to the Streamlined workspace.

### Template Changes

Since roto and tracking are often used with paint, the previous Paint template was deleted while the Roto+Paint template was renamed to Paint.

## Thumbnail Color Space

Previously, the thumbnail colorspace was set based on the colorspace of the Viewer > OCIO controls. Now, it is inferred from the colorspace of the sources themselves.

## Timebar Numeric Fields

The Timebar > Start Frame, End Frame, Current Frame and Frame Step fields can now be scrubbed by clicking and dragging while a single click opens a numeric keyboard.

## Viewer > View XForm Renamed

View XForm in the Viewer was renamed to View Transform.

## Workspace Menu Moved

Workspace was moved out of the Window menu and placed at the main level between Window and Actions.

# Bug Fixes

## Nodes

### Composite

When the ROI did not contain both input FG and BG DOD's, the composited alpha channels displayed a line where they intersected.

### Hold

#### Default Frame Wrong

The Hold node defaulted to 0 when the sequence started at 1.

#### Frame Field Too Small

The Frame field was too small in the Hold node. If you had 6 digit frame numbers, they got cut off.

### Linear/Radial Gradient Composite Artifacts

There were vertical line artifacts when comping Linear/Radial Gradients with another image using Math Composite.

### Mocha Pro 2021 Crash

Silhouette's startup script had a conflict with Mocha Pro OFX 2021.

### Morph and Power Matte - Missing Tools

The Magnetic Freehand and RotoOverlay tools were missing from the Morph and Power Matte nodes.

## Output

### Alpha Only EXR With Automatic Data Window Corrupted

Rendering alpha only EXR's with Automatic Data Window enabled produced a corrupt image.

### Render > Automatic Data Window Did Not Work

The Automatic Data Window rendering option was not rendering a data window based on the alpha channel.

## Paint

### Angle & Flatness Affected Square Brush Profile In Viewer

The Angle and Flatness controls should not have changed the square brush profile in the Viewer.

### Clone Corner-Pin Did Not Work - Linux

In some cases on Linux, nothing happened when moving the Clone transform controls and then painting.

### Clone Cursor Lag On Some Wacom Tablets - Windows

The Clone brush cursor lagged in the Viewer with some Wacom tablets.

### Clone Would Occasionally Not Produce A Result

Sometimes, when the clone source was transformed, painting did not have any effect.

### Crash When Painting Outside The Image

Using an image smaller than the session size, Silhouette would crash when painting outside the image area.

### Plug-in: Resolve > Fusion Page Hangs

The Silhouette plug-in hung when trying to load images when opened from the Fusion page within Resolve.

### Power Matte Output Didn't Composite In Composite Node

Power Matte wasn't marking its output as RGBA and resulted in the output not compositing in a Composite node unless all three inputs (Foreground, Background, Matte) were connected.

## Roto

### B-Spline to Bezier Conversion Caused Undo To Fail

After converting a B-Spline to Bezier, Undo no longer worked.

### Layers Became Inactive After A Move

Layers became inactive after they were moved.

### Layer Transform Color Preference Had No Effect

The Layer Transform Color preference had no effect.

## **Magnetic Shape Stroke Mode With ROI Did Not Work**

Magnetic Shape stroke mode did not work with ROI.

## **Nuke Export > Feather Falloff Settings Didn't Match**

Silhouette exported shapes with a Shape > Feather Falloff of 2 set to Smooth instead of the Nuke default of Feather Falloff of 1 set to Linear.

## **Open Shape B-Spline Required A Minimum Of 3 Points**

Previously, a minimum of three points was required to create an open shape B-Spline. Now, two points can be used.

## **Tracker**

### **Automatically Created Layer Not Really Selected**

If a layer was automatically created when applying trackers, like in the Mocha and Planar trackers, the layer was highlighted and appeared selected, but was not.

### **Point Tracker Inaccurate In Float 16/32 With Contrast/Gamma Adjustments**

The Point Tracker did not track properly in float 16/32 bit sessions when using Pre-Processing > Contrast and Gamma adjustments.

### **Shape Export Failed**

If you attempted to export a shape to Nuke from the Tracker node, it failed.

### **Transform Node Sometimes Fell Back To CPU**

In some cases, the Transform node would fall back to CPU mode.

## **Numeric Keypad Did Not Work On Linux**

The numeric keypad did not work when using Num-Lock on Linux.

## **OFX Blacklisting**

On Mac, the unsupported CineMatch OFX plug-in was blacklisted to prevent it from loading because it was causing a crash on load.

## Scripting

### **invalid Rects() Don't Represent As Invalid**

If you queried the default session "roi" property, you'd get an invalid Rect() which means "not set", but there was a bug where it didn't come out as invalid, but instead "infinite".

### **Select Siblings Action**

The Select > Siblings action mistakenly unselected the originally selected object once the new similar objects were selected.

### **Shift Source Time Action**

The Shift Source Time action was not calculating correctly when both the source time and session time were modified.

## User Interface

### **Channel Selector Would Not Work**

The Channel Selector could not be changed with Gain or Gamma adjusted.

### **Gang State Not Remembered**

The enable/disable state of the Gang icon (Lock) was not remembered.

### **Lock Project Could Not Be Enabled**

File > Lock Project could not be enabled.

### **Low Resolution Icons**

On 4K monitors, some icons were low resolution.

### **OCIO View xForm Not Set Right With Cineon/DPX Files**

Creating a new session in a new project did not set the OCIO View xForm correctly. The View xForm was being set to None instead of sRGB as in previous versions.

### **Trees Window**

#### **Clear Selection**

Clicking on an open space in the Trees window to clear the selection was not working.

### **Crash When Deleting Nodes**

A crash would occur when deleting a node using the Delete key while simultaneously moving the node.

### **Deleting Tree Wire Did Not Work**

Clicking on a wire to select it and pressing the Delete key did not work.

### **Panning Trees Window When Over A Node Moved The Node**

Middle-mouse dragging on a node in the Trees window moved the node instead of panning the Tree.

### **Shift-Clicking Connected Node Crash**

Selecting a node and then **Shift**-clicking another connected node caused a crash.

### **Version Check Window Opened Behind Other Windows**

The Boris FX version check window opened behind all other windows so you didn't know that it was there and prevented the Silhouette plug-in from recording its changes back in the host.

## Known Issues

### Linux GStreamer Console Errors

In the Linux console, GStreamer module errors may appear and are related to hardware accelerated decoding if certain libraries are not installed. These are benign errors and can be ignored. However, to remove these errors, please follow the instructions here: [Hardware Video Acceleration](#)

### Silhouette Plug-in

#### Flame Sequence Numbering

Flame is not obeying the OFX parameter that determines the start frame, so a Flame sequence starting at 1 instead starts at 0 in Silhouette.

#### Premiere Pro

##### Alpha Channels With Soft Edges

By default, Premiere Pro is linearizing the alpha channels exported from the Silhouette plug-in even though they are already linear. This causes the alpha to appear smaller when using soft edges. To avoid this issue, disable Composite in Linear Color in the sequence settings.

##### Misreporting The Resolution

Silhouette requires that Premiere Pro's Playback Resolution be set to Full. Otherwise, an error message is displayed when you try to open the Silhouette user interface. Sometimes, Premiere Pro misreports the correct resolution even though it is set to Full. If this happens, change to a different frame and try again. Adobe is aware of this issue and is working on a fix.

##### Trimmed Footage Loads Entire Clip Into Silhouette

If a clip is trimmed in Premiere Pro, the entire clip is loaded into the Silhouette plug-in instead of the trimmed clip. Adobe is aware of this issue and is working on a fix.

### Resolve and Vegas > Multiple Inputs

Resolve and Vegas do not allow more than one input for plug-ins that use custom user interfaces. However, additional sources can be added directly within Silhouette.