

**Silhouette 7.5 What's New**

## ABOUT THIS GUIDE

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### About Us

SilhouetteFX brings together the unbeatable combination of superior software designers and visual effects veterans. Add 3 Academy Awards for Scientific and Technical Achievement, 3 Emmy Awards and experience in creating visual effects for hundreds of feature films, commercials and television shows and you have a recipe for success.

# WHAT'S NEW IN 7.5.4 - 7/12/19

## Features

### Preferences

#### **Paint > Clone > Default Filter**

Added a preference that sets the default filter for paint nodes.

#### **Paint > Hide Brush Outline While Painting**

Added a Paint > Hide Brush Outline While Painting preference.

#### **User Interface > Allow Nested Docks**

Allows all nested docks to be moved at the same time. Disabling this preference moves individual docks only.

## Changes

### **Roto > Feather > Decouple Shape and Feather Points**

The shape and feather points are now decoupled and can be moved independently. The older coupled point behavior is achieved by pressing **Shift** while moving the shape point.

## Bug Fixes

### **Clone > Auto Grade Result**

Clone > Auto Grade produced incorrect results in certain cases.

### **Clone Region Editing Crash With A Tablet**

Creating a new region with a tablet could crash the Clone tool.

### **Feather Artifacts**

Some shapes could end up with feather offsets that were negative/inward and would cause tiny artifacts.

## Moving Shapes Slow in Update > Release Mode

With the Viewer set to Output and the Update mode set to Release, shapes did not move smoothly when dragged.

## Source Crash

A crash could occur after replacing footage in a Source node followed by clicking the View Node and Edit Node icons.

## Sequence Editor > Add Edit On Last Frame

The Add Edit button was grayed out when parked on the last frame in the Sequence Editor.

# WHAT'S NEW IN 7.5.3 - 6/10/19

## Features

### Clamp Node

Added a new Clamp node in the Color group which clamps out super-blacks and or super-whites by default.

### Paint > Profile > Buildup

Allows the opacity to accumulate so it doesn't get clamped by the Opacity parameter value.

## Changes

### Lens Flare On-Screen Controls

Made the Lens Flare on-screen controls red instead of white, and no longer highlight the outer point all the time.

### Window Docking

The method by which windows are docked has changed.

- **Dragging a window by it's Title Bar will move all of the tabs docked with it as one unit.**
- **Dragging a window by it's Tab will move only that one tab.**
- **Windows can now be docked next to each other. For instance, you can put the Object List to the left of the Trees window with both being docked to the right of the Viewer.**

## Bug Fixes

### Command-Line Rendering Actions

Command-line rendering actions now handle render options.

### Floating Windows Could Not Be Docked Together

Windows could not be docked together while they were floating.

## Lens Flare > Flare Editor > Global Settings

Global parameter settings in the Lens Flare > Flare Editor did not transfer to the parameters in Silhouette.

## Paint

### Paint Outside Image Crash

With an image smaller than the Session size, painting outside the image area would cause a crash.

### Paint Without Brush Selected Crash

It was possible to undo the brush selection in a new Paint node which created a state where there was no brush, but allowed you to paint. This caused a crash.

### Panning With Spacebar Painted A Stroke - Windows

On Windows, panning with the Spacebar painted a stroke when using a pen/tablet.

### Tiling Artifacts

With very large brush sizes and partial opacity settings, square tiling artifacts could occur.

### Undo Error - Linux

On Linux, an undo error could pop-up after using **Shift**-click-click to set the clone offset.

## Resize Node > Size Fields

The Resize > Size fields were not automatically being set to the input image.

## Transform, Resize, Keystone Alpha Caching Issue

When using a RGBA clip with the Transform, Resize or Keystone nodes, the Alpha channel was completely opaque until the cache was cleared.

## WHAT'S NEW IN 7.5.2 - 5/07/19

### Features

#### Automatically Raise Dock Preference

Added a User Interface > Automatically Raise Dock Views On Selection Change preference. For instance, when the Paint node is selected, relevant tabs like the Paint History automatically appear.

#### Paint

##### Clone > Grade/Filter > Lift

Lift can now have negative values to darken the image.

##### Rebuild > Preview

A Preview option can be enabled once a Paint > Rebuild is initiated which displays each stroke as it is rebuilt. Please note that enabling Preview slows down the rebuild process.

### Changes

#### Cutout Brush Default

Cutout Brush now defaults to RGB.

### Bug Fixes

#### Command-Line Renderer Crash

The Command-Line renderer was crashing.

#### Licensing - No Error

It was possible to get multiple No Error dialog alerts when running multiple instances of Silhouette at once.

#### Paint

##### Auto Grade With Clone Source > Output Paints Black

Black was painted with Auto Grade enabled and the Clone Source set to Output.

## **Clone Overlay Update Problem**

If the Clone Overlay is disabled, changing frames might not update the clone overlay image, so when it is toggled on, it could show the previous frame.

## **Mac Clone Cursor Issues With Tablet**

On the Mac, when using a tablet in the Paint > Clone tool, the paint cursor would sometimes fail to update when the pen was moved.

## **Rebuild With Active Layers**

Active layer changes were not recognized and stored in the Paint History. This would cause problems rebuilding strokes that were cloned from one stereo view to another and also when switching active layers and using Source Match Move.

## **Roto > Color > Enable And Open Shapes**

Roto > Color > Enable did not work with open shapes.



# WHAT'S NEW IN 7.5 - 4/24/19

## Features

### Global Parameter Adjustments

If multiple shapes or layers are selected, you can now adjust all parameters at once even if they have different settings.

### Mocha - GPU Accelerated

The mocha planar tracking algorithm was GPU accelerated using OpenCL video processing resulting in significant speed increases.

### Paint

#### Clone > Grade/Filter > Auto Grade

Auto Grade automatically grades the clone source to match the location you are painting.

#### Clear Paint Preset

Clear a paint preset by pressing Save, then **Alt**-clicking on the preset.

#### Clone > Corner-Pin Controls

Numeric Corner-Pin controls were added to the Clone tab.

#### Clone > Region

Change the position and size of the Clone on-screen control rectangle which allows the effect of the corner-pin to be controlled from a specific area. The center of the new region also becomes the anchor point for scale and rotation.

#### High Resolution Image Optimization

Paint has been optimized to work with high resolution images from 8K UHD all the way up to 100 megapixel stills.

#### Rebuild Speed

Rebuild speed is immensely faster now.

## Project Preferences

A new Project > Compress Project Data preference was added to reduce the project file size and a Project > Save Usage Analytics With Project preference was added to save a limited set of data analytics in the project file: 1) All users who saved the project and how long they had it open and 2) Creation date and usage time for each project, session, and node.

## Scripting - Close The Current Project

The current project can now be closed with scripting.

Added the following global methods:

```
setActiveProject()
```

```
setActiveSession()
```

Both can take None which will close the current project or deactivate the current session, respectively.

## User Interface

### Arrow Keys and Numeric Fields

When the cursor is hovering over a numeric field, the Arrow keys now adjust the value.

### Compact Parameter Sliders

The parameter sliders were replaced with compact numeric sliders. Drag on a numeric field to adjust the value. You can adjust any value with finer precision by pressing **Ctrl(Win)/Cmd(Mac)** while dragging. Hold **Shift** to adjust with a 10x adjustment, and you can alternate modifier keys while dragging to continue the adjustment without dragging again. For example, hold **Shift** to drag fast to get close to where you want to be, then switch to **Ctrl** to get fine precision to narrow in on the final value.

### Numeric Keyboard

Clicking once on a numeric field opens a numeric keyboard.

## Changes

### Applying Point Trackers

The Point Tracker > Apply and Average functions now use the work range instead of the whole session range.

### EXR Channels

EXR channels with lower-case names are now supported. In addition, files with xyz layers are mapped from xyz > rgb.

### Paint

#### **Blemish/Grain Brushes - Monochrome Mode**

Enabling Monochrome in the Blemish/Grain brushes now grays out parameters that have no effect.

#### **Clone > Filter > Blur**

The Paint > Clone > Filter > Blur and Blur Aspect controls were replaced with horizontal and vertical blur controls.

#### **Clone > Grade/Filter & Warp Controls Use Update > Release**

The Clone > Grade/Filter and Warp controls now obey the Update > Release update mode. Previously, they were always set to Update > Drag. The Update > Release mode is useful when using large images.

#### **Clone > Grade and Filter Tabs Combined**

The Clone > Grade and Filter tabs were combined.

#### **Downward Compatibility**

Silhouette 7.5's Paint is not downward compatible with Silhouette v7 and below.

### Viewer > Alpha Color Overlay Preference - Refresh Viewer

The Viewer now updates after the Viewer > Alpha Color Overlay preference is changed.

### Warp and Roto Blend Renderer

The OpenGL mesh renderer was replaced with a custom CPU version that is highly optimized. It does z-buffering and bilinear filtering.

## Bug Fixes

### Alt-O Fixed and Updated

Alt-O was broken, fixed and then updated to toggle the View mode to Output (if it wasn't already) and cycle the alpha mode.

### Command-Line -Step Switch Did Not Work

The Command-Line -step switch did not work when combined with -range.

### Dual Clone 2 And Warp

If the number 2 Dual Clone preset was selected, adding a Warp pin had no effect.

### Horizontal Split / Caps-Lock Problem

Clicking on the Horizontal Split icon and then pressing Caps Lock twice caused an error.

### Licensing Window - Next/Cancel Buttons

The Licensing Window > Next/Cancel buttons could become disabled for a long time while waiting for the Buy URL request to come back if the network had a firewall.

### Make Project files Well-Formed

Silhouette project files were not well-formed XML when certain Paint State was stored in them.

### Paint > Brush Controls Sticking On

Paint could get into a state where the current brush controls stuck on after selecting a new brush.

## Roto

### Artifacts When Blurring

Linux and Windows versions exhibited artifacts when layers/shapes were blurred using certain blur values--usually when animating.

## Improper Interpolation Calculation

There was an improper interpolation calculation for motion blur between two keys that both were set to Linear.

## Open Spline Export to Nuke - Width Incorrect

Nuke does not accurately import the width of open shapes, but we now automatically account for this. In addition, the width of exported open shapes can be fine tuned with an Input/Output > Outline Width Multiplier preference.

## Roto Blend Crash

Roto Blend would crash if there was an upstream Crop node.

## Scripting - Startup.py Did Not Import Global Site Actions

Added a global import in startup.py of "sfxsite", just before "sfxuser". This allows facilities to have a site-specific set of actions that is separate from the built-in set as well as the per-user actions.

## Window Icons in Linux

The window icons on Linux were too large.

## WHAT'S NEW IN 7.0.11 - 2/01/19

### Bug Fix

#### Paint > Clone > Interactive Mode

The Clone > Interactive mode did not enable Onion-Skin Overlay as in previous versions.

## WHAT'S NEW IN 7.0.10 - 1/29/19

### Changes

#### Click In Field Selection

When clicking in a text or number field, all of the text or number is selected.

#### Paint > Clone > Compare Modes

The following Clone > Compare mode changes have been made.

- If there is no compare mode selected, choosing the Warp tab automatically activates Onion-Skin Overlay mode with a 50% mix.
- If a compare mode is selected, changing to the Clone, Grade, Filter or Warp tabs keeps the mode same.
- Align defaults to Mix at 50%.
- The Clone and Grade tabs no longer automatically show the on-screen controls.

### Bug Fixes

#### EXR Depth Render

The depth channel would be empty after rendering if the Source node pointed to a separate depth source.

#### Inconsistent Paint Brush Resizing With Tablet on Linux

Brush editing mode (default = Control key) was sometimes canceled prematurely on Linux due to a tablet handling bug.

## OCIO Conversion Problem

EXR images would not display correctly when there was a non-standard nonlinear transform in the OCIO config.

## Roto > Magnet Editing Mode

When editing in L/R stereo mode, Magnetic mode did not work right.

## WHAT'S NEW IN 7.0.9v9 - 12/21/18

### Bug Fix

#### Pen/Tablet - Lagging (Linux)

The Pen/Tablet could lag with certain Wacom drivers / Linux versions.

## WHAT'S NEW IN 7.0.9 - 11/20/18

### Features

#### Paint On-Screen Controls Anchor Point

The Paint on-screen controls anchor point can now be set with the period key.

#### Roto Node > Antialia

Added an Antialias switch to the Roto node parameters. It is on by default.

#### Tracker > Create Point Trackers in Root > Preference

Added a Create Point Trackers in Root Preference. When enabled, point trackers are placed in the root of the Object list, rather than the selected layer.

#### Viewer Zoom Level Presets

Added 15%, 10% and 5% presets in the Viewer > Zoom pop-up menu. In addition, the scroll wheel will zoom the image down to 0%.

### Changes

#### Window > Close and Maximize Icons Hard To See

The user interface window's close and maximize icons were lightened and are now easier to see.

#### Nuke Export > Enable Global Motion Blur By Default

Global Motion Blur is now automatically enabled in Nuke for exported shapes. This results in a more faithful representation of motion blur between Silhouette and Nuke.



## Source Thumbnails Now OCIO Color Managed

The source thumbnail images are now OCIO color managed.

## Bug Fixes

### Clone Source Pop-up Changed When Switching Nodes

Switching between nodes changed the selection in the Clone source pop-up menu.

### Grain > Blue Channel Did Not Animate

The Grain > Blue channel did not animate.

### Motion Blur Artifacts With Multiple Roto Nodes

When you had multiple Roto nodes with Motion Blur enabled, the bottom node messed up the Motion Blur of the upstream node.

### Nuke Exporter - B-Splines

The interpolation type for B-Splines was not exported to Nuke.

### Nuke Exporter - Shapes Not In Layer

Shapes not in layer exported upside down.

### OFX Memory Leak

Found and fixed an image memory leak in the OFX support.

### Paint - Clone Brush Scale Values

The Clone brush scale values showed 0,0 initially.

### Paint - Clone Rotation With Scaling Incorrect

When using Clone > Rotation in conjunction with Scaling, the painted result was incorrect.

### Paint On-Screen Controls Anchor Point - QWE

Setting the on-screen controls anchor point with the Q,W, and E keys did not work.

### Paint - Rebuild - Linux

On Linux, strokes drifted when using Paint > Rebuild.

## Pen/Tablet - Cursor Did Not Update

When using a Pen/Tablet, the cursor did not update when changing views.

## Pen/Tablet - Hovering

The Pen/Tablet did not trigger hover events on Linux.

## Pen/Tablet - Lagging

The Pen/Tablet could lag under certain circumstances.

## Pen/Tablet - Won't Edit ROI in Mac/Linux

The tablet could not be used to edit the ROI on Mac/Linux.

## Reversing Bezier Control Points and Feather Tangents

Reversing bezier control points did not reverse feather tangents.

## Stereo Align With Non-Session Size DOD

The stereo alignment overlay did weird things when the image DOD did not match the session DOD.

## Tracking Preview - Image Shift - Linux

When using the tracking preview, if you adjusted the contrast or gamma, the image moved approximately 2 pixels horizontally.

## WHAT'S NEW IN 7.0.8 - 8/28/18

### Features

#### Paint > Layer Transform

If a layer is active in the Paint > Object List, it now appears in the Paint > Transform pop-up menu.

### Bug Fixes

#### Deleted Paint Strokes Reappear in Paint History

Strokes on frame 1 of the Paint History were not deleted when the project was saved and reloaded.

#### Frost > Paint Crash

If you hooked up a Paint node after a Frost node and then selected the Clone brush, Silhouette crashed.

#### Nodelocked License Tool in Windows 7

The nodelocked license tool did not work properly with some Windows 7 machines.

#### Object List on Linux

The Object List on some Linux distributions did not display all of the columns.

## WHAT'S NEW IN 7.0.7 - 8/10/18

### Bug Fixes

#### Nuke Export of Planar Tracked Shapes in Nested Layers

Exporting shapes in nested, planar tracked layers did not work properly.

#### Transform and Reshape Tool State

If the Transform tool was set to Points mode and the Reshape tool to Magnet mode, clicking on either of the icons switched it to the default tool's mode. Now, the state of the tool is remembered.

## WHAT'S NEW IN 7.0.6 - 8/06/18

### Features

#### Transform Matrix Extrapolation

Transform Matrix keyframes can now be extrapolated. This is useful for extending motion blur beyond the current frame on shapes when the majority of the motion is from the matrix and not the shape.

### Bug Fixes

#### Grouping Crash

Replacing or deleting a node within a group would cause a crash. Now, only ungrouped nodes can be deleted or replaced.

#### Paint Crash With ROI

When the DOD (Domain of Definition) was larger than the ROI (Region of Interest), painting outside the image area would cause a crash.

#### Stereo Align Crash

Adjusting the Stereo Offset in the Stereo Align view would cause a crash.

#### Stereo Align Keyboard Shortcuts Did Not Work

The Stereo Align Keyboard shortcuts did not work.

## WHAT'S NEW IN 7.0.5 - 7/30/18

### Bug Fix

#### Paint Change State Is Not Zero Error

With Interactive mode enabled in the Paint > Clone Brush, a “Paint change state is not zero” error could occur when changing the Clone source Frame parameter.

## WHAT'S NEW IN 7.0.4 - 7/27/18

### Bug Fix

#### Source Window > Delete Clip Crash

Deleting a clip in the Source Window caused a crash.

## WHAT'S NEW IN 7.0.3 - 7/27/18

### Bug Fix

#### Magnet Mode With Transformed Layer

The wrong points would move when using Magnet Mode if the shape was in a transformed layer.

## WHAT'S NEW IN 7.0.2 - 7/25/18

### Bug Fixes

#### Clone > Warp Crashed With A Pen/Tablet

Clone > Warp would cause a crash when using a pen and tablet.

#### Merge Views Did Not Display the Right View

The Merge Views node did not display the right view.

#### Pin Warp - Obey Matte Input Removed

The Obey Matte input on Pin Warp was removed since adding tacks is a better method for limiting the warp effect.

# WHAT'S NEW IN 7.0 - 7/23/18

## Features

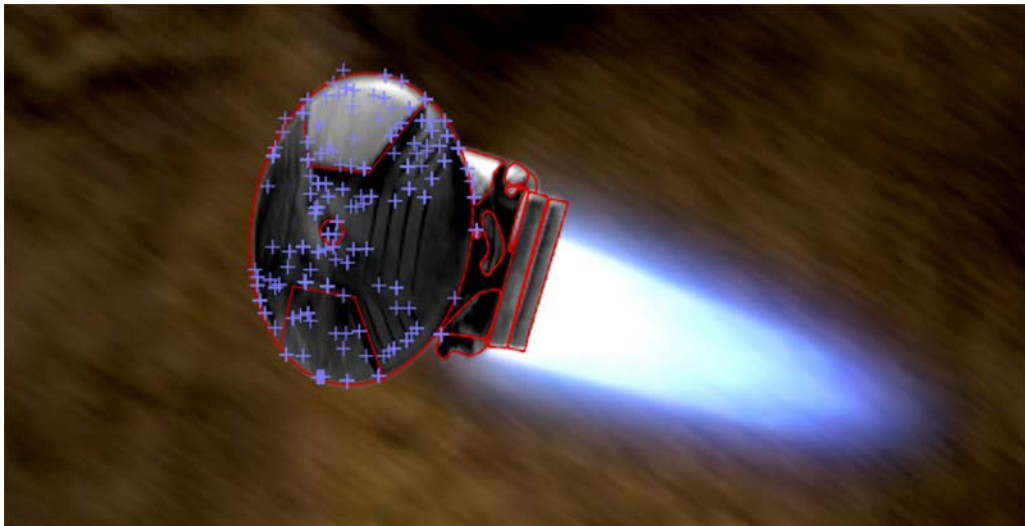
### Sequence Editor

Silhouette can perform editing tasks such as cutting, joining, moving, copying, replacing, trimming, retiming and repeating clips in the Sequence Editor.



### Planar Tracker

The Silhouette Planar Tracker has undergone a major upgrade.



Previously only detecting features based on corners, the Planar Tracker can now track edges and ridges resulting in excellent results even with textureless objects. To achieve the best tracking result, you can choose between Auto, Corners, Edges or Ridges tracking feature modes as well as Perspective,

Affine and Translation motion models. Partial occlusions are handled, in most cases, without the need for subtract shapes while Drift Compensation algorithms are implemented to reduce tracker drift and to fine tune the result.

## Roto

### Combine Shapes

Copies selected points from a source shape between the selected points of a target shape.

### Extract Shape

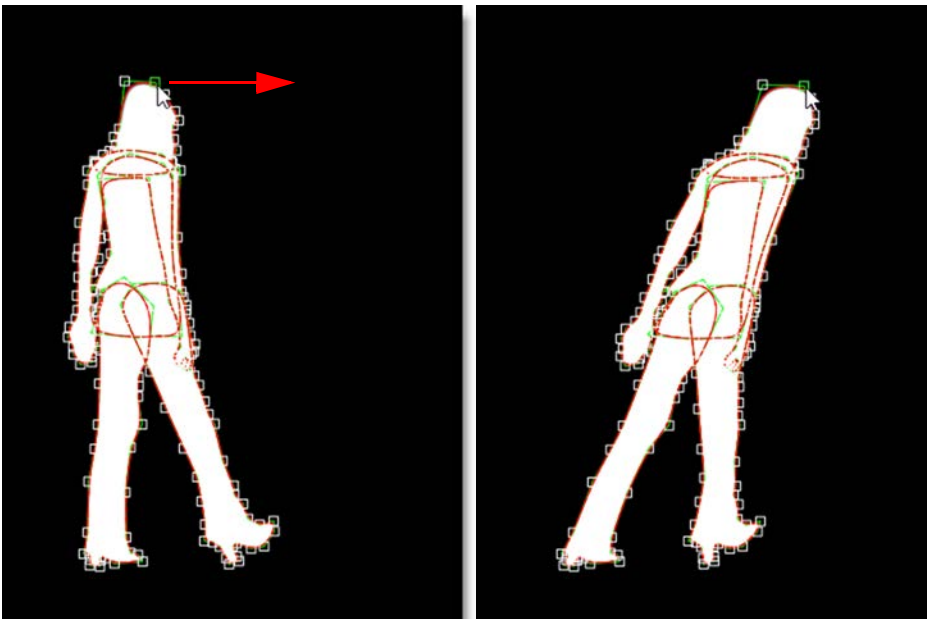
Extracts the selected points of a shape into a new closed shape.

### Extrapolate Shapes

Shape start and end keyframes can now use Timeline extrapolation. This removes the need to add an extra keyframe on both sides to account for motion blur.

### Reshape - Magnetic Mode (RR)

Points near the cursor move more than points farther away.



## Paint

### Clone Brush Transform On-Screen Controls

The Paint > Clone brush transform on-screen controls were re-written so that they are now always visible regardless of zoom level. All transform controls are always available including corner-pin, rotation, scale, translation as well as the newly added skew controls.

### Clone > Warp

The Clone > Warp allows you to warp specific image areas using pins, while leaving other areas untouched. Adjustments can range from subtle nip and tucks to something more obvious like repositioning an arm or leg.

### Cutout Brush

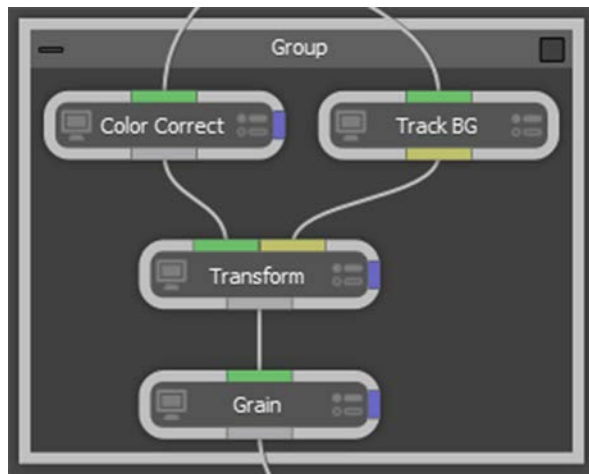
Cuts out a portion of the image based on a rectangular selection, taking into account alpha if it exists, and paints using the cutout.

## Stabilization

Previously, stabilization was limited to the active layer. Now, when the Stabilize icon is clicked, a list of all available nodes/layers are available to choose from. Once a layer is selected, stabilization is performed by the Viewer based on the selected layer's tracking data.

## Trees Window > Node Grouping

Nodes in the Trees window can be grouped, collapsed or expanded.





## Smooth (Catmull-Rom) Interpolation

Smooth (Catmull-Rom) interpolation creates a smooth animation curve between keyframes. Shapes using Smooth (Catmull-Rom) interpolation in Silhouette exactly match the result in Nuke when exported.

## PySide Integration

Silhouette now includes PySide2 integration for the creation of custom docks, widgets, and dialogs.

## Tracker > Smooth

Previously, only point trackers could be smoothed to remove jitter. Now, both point trackers and planar tracked layers can be smoothed using the Smooth button located below Pre-Processing.

## New Nodes

The following new nodes were added.

### Frost

A Frost filter was added to the Diffusion node group. Frost glows highlights and reduces contrast while softening facial blemishes and wrinkles.

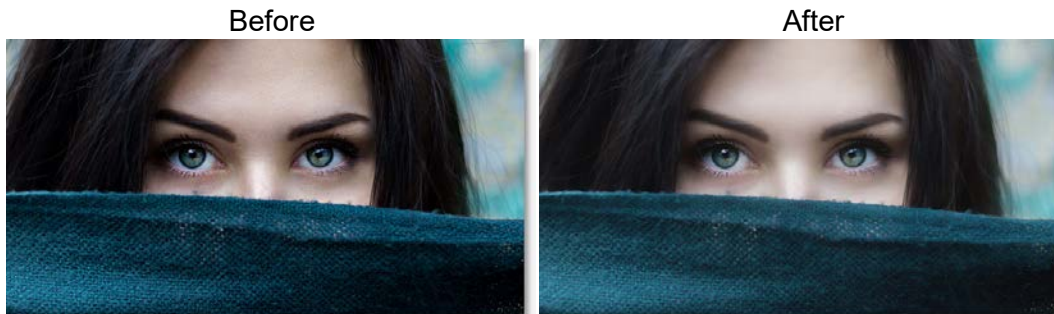


Photo by Alexandru Zdrobau on Unsplash

## Lens Flare

A Lens Flare filter was added to the Light node group. Lens flares are produced by the scattering or flaring of light within a lens when pointed into a bright light. Although an image aberration, lens flares can be added for dramatic effect and are created by combining the following elements: Caustic, Chroma Bands, Chroma Ring, Circle, Circles, Disc, Edge Streak, Ellipse, Fan Rays, Hot Spot, Polygon, Polygons, Radial Streaks, Random Spikes, Ring, Spikes, Spiral Rays, Star, Star Caustic, and Stripe. 331 optical lens flare presets are included along with a Flare Editor where you can create your own flares.



## Pin Warp

Pin Warp allows you to warp specific image areas using pins, while leaving other areas untouched. Adjustments can range from subtle nip and tucks to something more obvious like repositioning an arm or leg.



Photo by Tim Easley on Unsplash

## Source Clip In and Out Points

Each clip in the Sources window can have a different in and out point which are used when creating a new session or editing in the Sequence Editor. Double-clicking on a clip in the Sources window loads it into the Viewer and Mark IN and Mark OUT icons appear.

## Sources Window Icons

Import and New Sequence icons have been added to the Sources window. Also, the new Search field makes it easy to find clips or sequences.

## Backup Chooser

File > Open Backup opens a browser that lists the available backups by date and time which can then be loaded.

## Managing Media Paths

You can now virtualize media paths in order to improve asset sharing between users, asset management and render servers by specifying the file path with a SFX\_MEDIA environment variable. This is accomplished through a default

SfxContentResolver that maps a “sfx” scheme to the SFX\_MEDIA environment variable, and vice versa. When importing media that is nested under SFX\_MEDIA, it will replace the beginning of the path with “sfx://”.

## Preferences

### Shape > Interpolation Engine

A Shape > Interpolation Engine preference was added with Temporal and Spatial (Nuke-compatible) choices that apply only to shapes. Temporal enables all interpolation types except for Smooth (Catmull-Rom) while Spatial (Nuke-compatible) is limited to Smooth (Catmull-Rom), Hold and Extrapolate. This ensures that shapes using Smooth (Catmull-Rom) interpolation in Silhouette exactly match the result in Nuke when exported.

## Changes

### Halo Renamed to Mist

Diffusion > Halo was renamed to Mist.

### Net and Silk > Temperature

The Temperature group in Diffusion > Net and Silk was replaced with the Color Correct group.

### Paint Node

#### Clone 1-5 Inputs Renamed

The Paint node's Clone 1-5 inputs were renamed to Input 1-5 since other brushes can also use inputs.

#### Default Settings

When a new Paint node is created, the settings are now at their default rather than the previous Paint node's state.

### Roto

#### Self-Overlapping Roto Shapes

Shapes that overlap themselves subtracted where they overlapped. Now, the overlapping area is added instead of being subtracted.

## Tagging Points

Tag is now a toggle and is either enabled or not. Untag was then removed from the Reshape pop-up menu

## Stabilizing A Nested Layer

When a nested layer is selected for stabilization, the transforms of the parent layers are now combined with the current layer.

## Transform

The Transform > Wrap Edges control was removed since the Transform node no longer clips its output.

## Zoom Shortcut Keys

+ and = zoom in and - zooms out in the Viewer and Trees windows. The previous I and O shortcut keys for zooming are now used for marking the source clip in and out points.