



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 2026 - 5/27/26

Features

Integrated 3D & Tracking Improvements

3D features have been expanded with the new Head Track ML, which generates a 3D head mesh and tracks facial motion, pose, and expressions for stable, face-aware effects. New Unwrap and Rewrap nodes enable seamless workflows between 3D and 2D UV space for roto, paint, and beauty work, while the Render Depth node generates depth maps from scene geometry. Additionally, SynthEyes improvements introduce clean-up and refine tools for optimizing and updating solves without retracking.

3D Scene

Head Track ML

Automatically generates a 3D head mesh and tracks facial shape, pose, and expressions over time. Mesh fine-tuning is achieved through trackable, keyframeable deformer anchor points, ensuring precise alignment with facial features. When combined with Paint, Roto, Unwrap, and Rewrap nodes, it enables stable, face-aware beauty effects.³³

SynthEyes - Clean Up Features

Cleans up a solve after it has been completed.

SynthEyes - Refine Solve

Updates a cleaned-up solution without starting over, providing a quick way to minimize pixel drift.

Render Depth (New Node)

Generates a depth map from both the 3D Scene node's Head Track ML meshes and any meshes imported into the 3D Scene node.

Rewrap (New Node)

The Rewrap node reprojects roto, paint, and beauty work created in 2D UV space back onto the 3D model, restoring the effects to their correct position on the model's surface.

Unwrap (New Node)

The Unwrap node projects a 3D model's surface into 2D UV space, creating a flat representation that's useful for roto, paint, and beauty effects.

AI Matting & Segmentation Enhancements

Matting features have been enhanced with updates across Depth ML, Face ML, Mask ML, and Matte Refine ML. Face ML adds a dedicated face contour matte option, Mask ML introduces intuitive foreground and background paint tools, and Matte Refine ML includes the new Video Matting v2.0 model for improved temporal edge consistency while preserving Cryptomatte data.

Depth Map ML

The new v2 model delivers greater detail and improved temporal consistency, and the Near/Far Scale/Clip parameter ranges can now be expanded to -10 to 10 by holding **Alt**.

Face ML

Added Nose, Neck, and Face options to Face ML. The Face mode generates a matte around the facial contour. When Face is enabled, the other options become unavailable and are automatically grayed out.

Mask ML

Mask ML now includes Foreground and Background paint tools. Use Foreground to add to the mask and Background to subtract from it. To delete a stroke, simply **Shift-Alt-click** on it.

Matte Refine ML

Video Matting v2.0 (New Model)

The Video Matting v2.0 model delivers improved temporal consistency along edges compared to earlier versions.

Preserves Cryptomatte Data

Matte Refine ML now preserves Cryptomatte data from Mask ML and Matte Assist ML via the data port.

Tracking Enhancements

Introducing new ML-powered Point and Object trackers, with automatic detection of faces and license plates that generate tracked layers as objects appear. Point Track ML improves robustness by maintaining tracks through occlusion and off-screen movement.

Object Tracker

Tracker enabled nodes now feature an Object Tracker that uses machine learning to detect faces or license plates. Each detected object is added to a new layer that can then be tracked. If additional faces or license plates enter the frame mid-track, new shapes and layers are created automatically.

Point Track ML

Point Track ML uses machine learning to track points despite occlusion or exiting the screen.

Point Tracker Visibility

Point trackers previously used white overlays, making it difficult to distinguish between multiple tracks. The Search Region and crosshair now inherit the path color defined in the Object List for improved visibility.

Paint System Improvements

Paint features have been significantly enhanced with new creative controls and workflow improvements. Brushes now support blend modes and pressure-sensitive size and opacity, while updates to the Blur, Clone, and Drag brushes introduce more natural and flexible behavior, including progressive blur, continuous cloning, and smoother stroke motion. A new Healing Brush enables seamless cleanup and retouching, and expanded color sampling allows picking from any input. Additionally, Resize Paint introduces a resolution-independent workflow, allowing strokes created at a lower resolution to be accurately rebuilt on higher resolution media.

Blend Modes

Added blend modes for all brushes. Set the blend mode in the Paint tab before painting.

Blur Brush > Blur Mode

Added a Blur Mode with Area and Sample modes.

Area

Blurs outward from the brush and, depending on the Radius value, may sample colors from neighboring areas. This was the previous default behavior.

Sample

When the brush is set to Sample, the Radius parameter is disabled. The internal blur size is 1 pixel, but because a typical stroke generates many samples, the result continues to blur progressively, producing an organic look. This mode does not sample colors from neighboring areas.

Clone Brush

Continuous Mode

Continuous mode copies pixels from the area you paint over and immediately reuses them as the source, so the painted area keeps cloning itself as you brush.

Lock Auto Grade

Lock Auto Grade in the Clone brush lets you reuse the auto grade from a single stroke for subsequent strokes. When enabled before the first stroke, the same auto grade is applied to all following strokes. If enabled after the first stroke, the auto grade from the initial stroke is reused. Turning the option off clears the locked grade data.

Drag Brush > Smoothness

Added a new Smoothness control to the Drag Brush--turn it up to make drag steps noticeably smoother.

Healing Brush

Erase blemishes, spots, or unwanted details. **Shift-click** on a part of the image that looks similar to what should replace the imperfection--nearby skin, background, fabric, etc, and the brush tool blends everything together naturally--matching the surrounding color and texture so the fix is seamless.

Pressure Settings

The Opacity and Size brush settings now include a P button next to each parameter. When enabled and used with a pen or tablet, the parameter responds to pressure. Previously, Opacity always followed pressure; it can now be turned off.

Resize Paint

You can now paint in a lower-resolution session, then switch to a higher resolution, replace the media with higher-resolution footage, and rebuild the paint strokes. All required settings are automatically converted to produce an exact replica of the original paint at the new resolution.

Sample Screen Color

Sampling screen color is now available from any input connected to the Paint node, including Foreground, Clone 1, Clone 2, and others when the image is viewed. Previously, color sampling was limited to the Output view. Alongside the existing period shortcut key and right mouse button, you can now use **Shift-Alt-click** to sample a color directly from the screen.

Square & Custom Brush Profile Rotation

The Square and Custom brush profiles can now be rotated.

Retime ML

New retiming features include support for importing and exporting retime curves across multiple formats, along with the ability to retime Roto keyframes directly using Retime ML to preserve maximum image quality.

Import/Export Retime Curves

Added support for importing and exporting retime curves. Supported import formats include Silhouette Retime ML, Avid AAF, Nuke, and Simple. The Simple format imports a generic text file containing source and target frame data.

Retime Roto Keyframes

Connect the Roto and Retime ML data ports to retime Roto keyframes. When Channels is set to RGBA or Alpha, the Roto output is evaluated at the retimed target time and its alpha is written directly to the final alpha channel. This preserves pristine Roto quality by retiming only the keyframes rather than retiming the rendered Roto result.

Cryptomatte & Data Pipeline Enhancements

A new output data port passes Cryptomatte data through all nodes via the Obey Matte input, enabling objects or layers to be used directly as matte sources, while the new Cryptomatte Muxer node combines multiple Cryptomatte streams into a single output for streamlined selection and matting.

Cryptomatte

Cryptomatte now has an output data port that passes through the filtered Cryptomatte data.

Cryptomatte Muxer (New Node)

The Cryptomatte Muxer node combines multiple Cryptomatte inputs into a single Cryptomatte output. This allows objects from different sources to be packaged together so downstream Cryptomatte tools can select and matte them as one set.

Mocha, Sapphire and Particle Illusion Updates

Mocha Pro 2026

Mocha Pro has been updated from v2025.5 to v2026, delivering enhanced core VFX workflows with new AI-assisted tools and improved usability. The release introduces Matte Refine ML for cleaner, more accurate matte edges and a Refine Solve workflow for faster 3D camera track cleanup without full re-solves. A redesigned Curve Editor provides better visualization and control of tracking and roto data, while performance improvements and support for VFX Reference Platform 2025 make the overall experience more efficient and production-ready.

For a complete list of features, fixed bugs and changes, see: [Release Notes](#)

Sapphire 2026

Sapphire has been updated from v2025.5 to v2026, introducing new creative tools, effects, and workflow enhancements. The release adds the S_FilmBurn effect and transition for authentic analog film looks, along with the Mocha-powered S_MochaWhip transition for dynamic, AI-assisted cutouts. Updates to the Builder include parameter linking for improved node-based workflows, alongside Mocha engine enhancements. Additional improvements include new lens flares, presets, and expanded hardware support, delivering more flexibility and performance for high-end compositing and motion graphics. For a complete list of features, fixed bugs and changes, see: [Release Notes](#)

Particle Illusion 2026

Particle Illusion has been updated from v2025.5 to v2026, introducing enhancements to animation control, workflow efficiency, and creative flexibility. The release adds new Reverse Animation and Advanced Interpolation options for smoother, more precise particle motion, along with updated Position Path, Color Gradient, and Alpha Gradient presets. A refreshed 2026 emitter library expands creative possibilities, while UI improvements—such as clearer parameter highlighting and usability tweaks—help streamline the overall user experience.

For a complete list of features, fixed bugs and changes, see: [Release Notes](#)

Automation & AI Integration

Silhouette is now externally controllable through a new built-in RPC server, scriptable from AI assistants through a new MCP server, and extensible with third-party Python libraries through a new Packages preference tab. Together these introduce a complete pipeline for driving Silhouette from external tools, integrating it with AI assistants such as Claude and Cursor, and managing the Python environment Silhouette uses to run scripts and extensions.

RPC Server

Silhouette now starts a JSON-RPC server on launch that lets external processes execute Python code, run script files, and drive the application remotely. Communication uses a local socket — a Unix domain socket on macOS and Linux, and a named pipe on Windows — and the socket name,

auth token, and process info are published to a `silhouette_info.json` file in the log directory for easy discovery. The socket name and token can be overridden with the `SFX_SCRIPT_RPC_SOCKET` and `SFX_SCRIPT_RPC_TOKEN` environment variables.

Python Package Manager

A new Packages tab in the Preferences window lets you install, update, and uninstall third-party Python packages directly from inside Silhouette. Packages are installed into a managed directory using Silhouette's embedded Python, keeping them isolated from the system Python. Enter a pip-style spec such as `numpy` or `mcp>=1.0,<2.0` and click Install; the table lists installed packages with version and summary information, and a link opens the packages directory in your file manager.

MCP Server

Silhouette now ships with a Model Context Protocol (MCP) server that exposes the fx scripting API as tools AI assistants can call directly, enabling Claude Code, Claude Desktop, Cursor, and Codex to inspect projects, build node trees, edit shapes and keyframes, and render frames on your behalf. The new MCP preferences tab installs the MCP package, generates a ready-to-paste config snippet for the AI client of your choice, and provides a Test button to verify connectivity. The server runs in either Online mode, which connects to a running Silhouette session for interactive use with undo support, or Offline mode, which spawns a headless Silhouette per request for automation and batch workflows.

Node Improvements

Color Estimation

Added Distort and Warp modes. Distort expands edge colors outward using distortion, while Warp pushes pixels outward using a directional warp.

Mosaic

Replaced the single Size parameter with separate horizontal and vertical controls for finer adjustment.

Sources - Deinterlace ML

A Deinterlace ML option has been added to the Source > Field Handling menu. It uses machine learning to remove field interlacing while preserving full image resolution.

Swap Channels

The new Patch Panel allows you to draw connections from one channel to another to rewire the output. Creating a connection updates the parameter pop-up menus accordingly.

Playback Performance Enhancements

Both Sources and Sessions can now play back much faster using predictive pre-fetch and batched render jobs. There are 3 preferences to control this, located in the Performance group:

Playback Job Queue Size

Sets how many frames are queued and rendered ahead of the playhead during playback. Higher values may improve smoothness by rendering more frames in advance.

Preload Frames

Specifies the number of surrounding frames to background-load when the player is parked at a location. During playback, it is the number of frames to queue ahead of the current frame.

Preload Threads

Number of threads to use for preloading purposes and determines how many images are loaded at once.

Scripting

Command-Line

sfxcmd.bat replaces **sfxcmd.exe**

The previous sfxcmd.exe only invoked silhouette.exe -cmd; this behavior is now handled by sfxcmd.bat. When running command-line arguments, you can simply type sfxcmd.

-tree

Think of `-tree` as a quick way to create a node setup in one line. You list what you want to do—source, effects, compositing—and it wires things up.

-view

Added the `-view` command-line option, which opens a viewer to display the result of the executed command.

Qt 6 and PySide 6 Migration

Silhouette has been migrated from Qt 5 and PySide 2 to Qt 6 and PySide 6, bringing improved HiDPI rendering, modernized widget styling, and access to current Qt features and fixes. Python scripts that previously imported from PySide2 must now import from PySide6, and a small number of Qt API changes may require updates.

User Interface

Curve Editor

Added two new interpolation types: Bezier and Spline.

Bezier Interpolation

Bezier lets you shape the timing and smoothness of motion by adjusting curve handles.

Spline Interpolation

Spline adds a natural ease-in/ease-out curve between keyframes. This is a variant of Smooth (Catmull-Rom) and meant to match the Spline curve type from Avid's Timewarp effect.

Favorite Nodes - Display Star Within Node In Nodes Window

Nodes that have been favorited display a star within the node in the Nodes window.

Heads-Up Display

The heads-up display, accessed with the ``` (backtick) shortcut key, overlays buttons in the viewer for quickly selecting, editing and animating node parameters, Roto tools, Paint brushes, and related settings.

Improved Unique Naming Algorithm

Unique names for objects—such as those created during copy/paste or new object creation—now follow existing suffix patterns when available, ensuring more consistent and predictable naming.

Node > Ports

A new Node > Ports tab allows you to change node inputs and outputs between RGBA->RGB and RGB->RGBA.

Player Bar Cache Indicator

Blue markers now appear in the Timebar to indicate that frames have been cached.

Search Field In Preferences Window

Introduced a searchable field in the Preferences window. Typing filters categories by matching preferences; Escape clears the search or closes the dialog. Up/Down arrows navigate enabled categories.

Search Improvements

In addition to searching by node name, you can now search using specific node attributes, including category, intent, and data type.

Search By Category

Use `/nodeCategory` to display all nodes within a specific category.

- **Example:** `/Composite` -- shows all nodes in the Composite category.

Search By Intent

Use `?intent` to find nodes that match intent fields defined in `resources/nodes.yaml`.

- **Example:** `?segment` -- finds nodes intended for segmentation tasks.

Search By Datatype

Use `+datatype` to find nodes that can handle a particular data type.

Examples:

- `+image`
- `+cryptomatte`

- **+transform**
- **+surface**
- **+scene**

Viewer > Lock Node

The lock icon to the right of the Node Selector in the Viewer locks the Viewer to the selected node, preventing it from changing when other nodes are selected.

Safe Mode Startup Option

Silhouette now includes a Safe Mode that lets you launch the application in a minimal configuration for troubleshooting. To enable Safe Mode, hold **Shift+Alt** immediately after launching Silhouette. When active, Safe Mode prevents external OFX plugins, external Python code, and external Extensions from loading. Note that on Windows, the key combination must be pressed after launch--holding the keys before starting Silhouette will not activate Safe Mode.

Changes

Preferences

GPU

A GPU selector is now available in the GPU preferences.

Plugins

Instead of an OFX Blacklist, an OFX Whitelist is now used instead. Enable OFX plug-ins that you want Silhouette to load. Note that some plug-ins may not work with Silhouette and could cause Silhouette to crash on startup. If that happens, hold **Shift-Alt** during launch to enable Safe Mode, and then disable any offending plug-ins.

Preload Frames

Preload Frames was moved from the Cache group to the Performance group.

UI

3D Scene Node Moved To 3D Node Group

The 3D Scene node has been moved from the Silhouette node group into a new dedicated 3D node group.

Automatic Object Numbering

Automatic object naming has been updated. Objects are now numbered sequentially as Object 1, Object 2, Object 3, instead of Object, Object 1, Object 2.

Compound Node Edit Mode

Double-clicking to enter Compound Node edit mode has been disabled to prevent accidental edits, as the same action is available via right-click > Edit Compound Node.

Context Menu Shortcut

The ` (backtick) shortcut key for opening a context menu over the pen/mouse location was changed to the ~ (tilde) key.

Paint

Clone > Align Features from Different Images In Time Shortcut Key

The shortcut key to align features from different images in time in the Clone brush was changed from ‘ (backtick) to , (comma).

Delete Paint

In the Paint tab, the Delete text label has been replaced with an icon.

Show Shapes

In the Paint tab, the Show Shapes text label has been replaced with an icon.

Syntheyes

Renamed Matte to Occlusion Source and removed the “Use” prefix from the options in that menu.

Unproject/Reproject

Renamed Surface > None to Auto. If there is only one surface, Auto automatically selects it.



Bug Fixes

Compound Node Parameter Animation Visibility

Animated parameters within compound nodes were not appearing in the Timeline.

Paint > Blur Brush Pulled In Colors From Adjacent Area

Painting near an edge could cause the Blur Brush to sample colors from neighboring areas, even when the brush remained within the boundary. Added a new Blur Mode with Area (previous behavior) and Sample, which prevents this.

Scripting

SFX_SCRIPT_IMPORTS Didn't Handle Windows-style Paths

SFX_SCRIPT_IMPORTS was splitting paths based on : or ;, and the : didn't work on Windows.



