Tech Reviews

by Todd Sheridan Perry

Boris FX's Mocha Pro 2020

It's been a little too long since I've reviewed Mocha Pro, and it's about time that we have a new one. Mocha Pro is known as a super powerful planar tracker whose data can be used for a plethora of VFX solutions such as monitor replacements, object removal, rotoscoping, etc. And 2020 is pushing those features further. Let's take a look, shall we?

The first big feature is the ability to create "Mega Plates." VFX pros are constantly stitching together multiple frames of a moving shot in order to create a huge background image that we can bring into Photoshop and turn into a matte painting or create an empty plate. Mocha Pro uses the tracking data from the shot, and auto-magically seams pixels together into a massive image that covers the entire camera move. That image can then be manipulated and comped back into the shot using the same tracking data that was used to track it in the first place. For example, take the footage of a person trudging through the snow — on the eighth take, when his footprints from the other takes are all over the place. Create a Mega Plate, paint out the old footprints in the Photoshop (or Nuke or whatever), and then comp it back in. This is a super huge time-saver.

Next on the list is the Area Brush. I love this, because I hate rotoscoping. Imagine a world where you can paint the area you want to track. A vector-based spline is created where you painted, and you are ready to track. That's when you realize that the world you imagined is now the world you are currently living in. This is a fast and efficient way of creating rotomattes. And you can paint counter-mattes to mask the masks you are tracking — as when other objects are moving in front. Or subtracting from the middle of the mask, for times (like sunglasses, for instance) when internal reflections are confusing the tracking engine. Again, this feature proved to be an amazing time-saver.

And on the housekeeping front — Mocha Pro now has an OpenColorIO (OCIO) color management system, which is an absolute must for larger studios, or smaller studios working on larger films. Python support has also been updated to 3.7 for those that have custom pipeline tools that need to communicate with Mocha Pro. And, with Boris FX bringing Silhouette into the mix, Mocha Pro talks nicely with the new family member, sharing shapes, cornerpins, color data, etc., for a more seamless flow of information.

I turn to Mocha Pro frequently for problems ranging from the most mundane to issues where solutions in other software have failed. I believe it should be a required tool in your VFX toolbox. Don't forget: MochaPro has an Adobe plugin for After Effects and Premiere Pro, as well as the OFX version with support for a multitude of platforms like Nuke, Blackmagic's Fusion, Flame, Avid Media Composer and more!

Website: borisfx.com

Price: $295 (12 months); Mocha Pro + Sapphire (12 months): $595; Mocha Pro + Continuum (12 months): $495; Mocha Pro + Sapphire + Continuum (12 months): $795

Boris FX's Sapphire 2020

Sapphire and the other GenArts tools became part of the Boris FX family after Mocha Pro, but before Silhouette. So, you can say it's the middle child. But this product came from a very good home and has a long legacy of high-end plugins, especially in the Flame and Inferno worlds. Now we can all use them, and we should celebrate because they are quite great. And to add a dollop of whip cream on the banana split, it was recognized by the Television Academy with a nice little Emmy Award.

Sapphire 2020 is more about improving efficiency and creative workflow and less about super sexy new plugins. However, there is a super sexy new plugin: FreeLens.

Freelensing — or lens whacking — is a technique where you remove the lens of the camera from its mount, and then hold the lens loose in front of the film sensor. This results in all kinds of unpredictable aberrations such as light leaks, arbitrary focus, tilt-shift effects, etc. It gives the footage an "artsy" and frequently "dreamy" look, and is apparently all the rage!

The FreeLens module in Sapphire approximates this, and makes it more controllable. By adjusting the lens manipulation, defocus, light leaks, you can design the look of the whack. Additionally, there is a parameter to affect any randomness by toying with the shake mode — a parameterized way to animate the value, and give it an organic feel.

Like Mocha Pro and Silhouette, OpenColorIO (OCIO) has been incorporated into Sapphire so that the result will have the same color

transforms that are happening to the footage in other parts of the workflow. This is absolutely critical in making sure that you are working within the same color parameters that have been set by the client — and remain through the end color grade.

Because Sapphire is now part of the Boris FX family, the numerous already existing Sapphire effects as well as the new FreeLens can be tied to Mocha Pro which is helpful for masking out the FreeLens from areas that you'd like to keep clear and visible — like text or an actor's face. Also, for previous effects, you can track lens flares to sources, lock contact points in Zap — the lightning plugin. And like Freelens, track mattes can be used to isolate the effects or hold them out.

The Preset Browser gives you an interface to select and/or design looks for the effects, but in 2020 it has a compare mode to wipe between the original footage and the effect, and 16 more Lens Flares have been added to hundreds of already existing presets. Also, many of the effects have been optimized to use your GPU — but also faster speeds on the CPU.

Sapphire is (and always has been) a more premium plugin, so it's not the cheapest on the market. But, to be fair, a lot of effects are included in the package. And not to bow to a logical fallacy of appealing to authority, but a lot of visual effects and design houses working on numerous commercials, television shows and films have Sapphire in their quiver.
Website: borisfx.com/products/sapphire
Price: $495 (12-month sub)

Boris FX's Silhouette 2020

Late last year, Silhouette became the latest family member in the growing Boris FX household. At the time, I honestly thought, "Hmm, interesting. But they already have a strong

roto tool in Mocha Pro," completely forgetting that in its evolution, Silhouette has grown from humble beginnings as a roto and paint tool into a full featured, node-based compositing tool with stereo support and timeline sequencer. Silhouette 2020 has so many new features, I could spend this entire review only talking about the rotoscoping features. So, let's see how this goes.

First issue of rotoscoping is the tedium of spline creation. Silhouette 2020 has a couple methods of alleviating that. One is setting key points around the shape you are roto-ing, and Silhouette detects the closest edge, growing the curve as you add more points. The other is loosely drawing around the inside edge of the foreground object, and then drawing another loose curve to define the background. Silhouette then figures out what's what, and creates an edge separating the foreground and background.

Next issue in rotoscoping is consistency of animated edges as objects move around. The same magnetic technology used to create splines is used to grab points on the edge, and have Silhouette detect the edge and snap the spline to it. That helps immensely. But you also now have access to RotoOverlay tools. Onion skinning shows where the splines have been and where they are going. So, you have a visual

for continuity of movement. Not only that, but if you see an errant line, you can click on it and jump to that frame to fix the problem. On top of *that,* there are sliders for weight control between keyframes to fine-tune the interpolation. This includes a slider for motion blurred frames to adjust where in-between curves are, but you can also adjust the shutter of the camera to determine how much blur there is.

Silhouette is already a powerful paint tool. New brushes include dodge and burn tools which can be refined to work within tight exposure parameters — in the highlights or midtones or shadows, for instance. This, as well as being able to paint in just color or details, is ideal for beauty work and cleanup. The paint strokes are vector-based and non-destructive, so parameters can be adjusted after the fact and animated.

All of these rotoscope and painting tools can be driven by Silhouette's own sophisticated tracking tools, or seamlessly work with MochaPro.

BorisFX has put both tools into a subscription bundle that, given the power you are getting, doesn't have a bad ROI at all.
Website: borisfx.com/products/silhouette
Price: $295 (12-month sub)

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