

In this demo I will be giving an overview of the new release of Boris Continuum Complete for Adobe After Effects. BCC is at version 7 now. It is re-engineered from ground up on the 64-bit platform to take advantage of the new Adobe CS5, 64 bit version. 64 bit processing allows us to further increase performance and the amount of memory that we can use for image processing. Every filter in BCC 7 packages is either multi-threaded or Open GL accelerated for top rendering speed.

So let's get started...

BCC Warp

First, I'll show you the **BCC Warp** filter. This filter is used to generate static or animated image warps. I'm going to use the warp filter to make this bridge look like it is experiencing some rough winds, or an earthquake. This filter is very easy to use, and the Open GL hardware acceleration makes it incredibly fast. So to use the filter, I need at least two AE splines. I've added a third closed AE spline to contain the warp effect.

Going into the timeline controls, you can see I've given the splines different colors so they're easier to keep track of, and also that I have animated the spline paths. If you look at the Filter controls, you'll see that I only animated the warp percentage. The rest is done automatically. Now as I scrub the timeline, notice how quickly the effect updates. Rendering the effect is also very fast. For added control, you can turn on the warp grid, to see what's really going on behind the curtain here. I'd like to point out that while AE also has a warp filter, the AE warp filter is locked to a grid and is not OGL-accelerated or free-form, like the BCC version.

BCC Morph

Next, let's check out the **BCC Morph** filter. This filter allows you to transform or morph one still image into another, giving you an animated warp-dissolve effect. Like the **BCC Warp** filter, it is also OGL accelerated, and requires the use of AE splines. Going into the timeline here, you can see a lot more spline mask paths than we used in warp. Each mask is animated from the source image to match up with the destination image. Once we have our masks set up, it's an easy task to just apply BCC morph, set the destination image, and keyframe the start and end of the morph animation.

What if you want to use the morph effect on a video instead of a still image? Well then you are in luck, because we also offer a Video Morph filter! This handsome devil you see here is yours truly, but even I can't stand to stare at my own face all day, so I'm going to turn myself into another person. Like the morph filter, this OGL effect requires you to create AE mask shapes and animate them. This time, however, we must create masks in pairs so that each feature has a source and destination mask. You can see, for example, that my lips have a source and destination mask. Let's see the end result and take a break from staring at vapid expression here. You can see a cool video morph result.

To morph two video clips you will need another filter: BCC Video Morph. There you will have to provide animated splines corresponding to the source and destination clip.

BCC Lens Blur

Moving on to a different category of filters, we have the BCC lens blur effects.

The first filter in this set is **BCC Lens Blur**. This filter emulates the "bokeh" effect in a real lens. That is, when an image goes out of focus on a real lens, the highlights of that image take on the shape of the shutter blades in the iris. This is a very pleasing effect, and once you have this filter, you're going to want to use it a lot. I know I do. The filter is not OGL enabled, but it does take advantage of Multiprocessing. Note the on-screen controls which make the filter easy to control, and the ability to select a wide variety of lens shapes. You can even add noise and bokeh shading to your effect...making your footage look like it was shot with a catadioptric lens (if that's what you want).

Another great feature of the BCC Lens Blur filter is the ability to use Depth Of Field. Depth of Field refers to the amount of distance covered by your focal range, or in-focus zone. Our lens blur filter lets you use a Z-map to adjust the areas that are in focus in your image, and then rack focus between them. Any first-year photography student knows what a rack focus is, perhaps too well, but it's when the focus shifts from foreground to background or vice versa. And now you too can create pleasing (if not overused) effect with **BCC Lens Blur**.

The next lens effect is **BCC Lens Transition**, which takes something good and makes it better! Basically, you are creating a transition that blurs the source image into the destination using the lens blur. As before, once you discover this effect you'll want to use it whenever you can. Check out some of the cool effects you can get by adjusting the iris scale, or boosting the highlights threshold. For subtly different effects, try changing the apply mode so that the blur only affects the incoming layer, or so that the transition happens independent of the lens blur altogether. And as this is a transition, you can adjust the fully automated timing system, holding your transition so it takes less time, or easing it out for a smoother transition.

The last lens blur effect is **BCC Lens Shape**. Lens shape is very similar to lens blur, except you can use custom shapes to create lens highlights. You can create a lens shape from any image with an alpha channel, or even luma and RGB values.

BCC Noise Reduction

The next filter is **BCC Noise Reduction**. Anyone who's used a video camera has seen video noise at some point. The purpose of BCC Noise Reduction is to reduce or eliminate video noise while maintaining detail contrast in shadows and specular highlights. For comparison, let's take this artbeats clip and apply a generic blur effect. The noise is reduced...and so is the usability of the image. Now let's disable that and use **BCC Noise Reduction** instead. You can see that the noise is virtually gone, but we've kept details in shadows and the specular highlights in the image. On a personal note as a

videographer, the **BCC Noise Reduction** filter helped me save footage that was shot in very low light.

3 Way Color Grade

Continuing with the image restoration filters in BCC 7 we have **3 Way Color Grade**. The **BCC 3 Way Color Grade** gives you professional level digital color grading tools that were once the exclusive realm of high-end (and very expensive) proprietary color grading systems - Lustre or DaVinci. While most color correction filters allow you to adjust the shadow/mid-tone/highlight regions of the input clip via industry standard lift/gamma/gain controls the **BCC 3 Way Color Grade** includes masking and keying features and separate color adjustment for inside and outside the mask making primary and secondary color correction easy.

So if I want to take this footage here, which shows a lens blur in the background! Look at that! Anyway, if I want to re-white balance or simply change the colors in the image, I can click and drag on this color wheels to get as strong or subtle an effect as I want! Not only can I adjust the hue or each value, but the gain as well by using the sliders below. Also note that each gain slider has a fine-tuner slider below it. I can also reset each color wheel individually, or turn it "off." And if you look carefully here, you'll see that these color wheels are animated within After Effects.

In addition to this, the **BCC 3 Way Color Grade** includes built-in controls for isolating the color correction to specific secondary colors in the image, and to specific mask shapes built into the filter. If I turn on Key mode, I can select the color for which the grader will apply. Typically you'd want to isolate skin tones with this feature, but any color will do.

You can also isolate your affected area with mask shapes. Typically, you'd want to mask off somebody's face, and we have the perfect shape for that: egg shape! Now we're dealing with color correction inside the egg shape. Look at all the on screen controls I have for this mask! I can reshape it, resize it, feather it, and adjust feather bias all right here!

So I've got this great looking color correction here...but it's all applied inside the mask shape. I can save these color settings, and then apply them to "outside" correction using presets! Now I can tweak the outside controls slightly and get a really nice effect. I am applying color grading to a specific region of a specific color and a different color grade to the rest of the image, all from the same instance of the filter.

For a different use of 3 way color grader, check out this footage of a Bridge in London. See how quickly I can make this a day-for-night effect, or I can change the time of day to sunset. No masking required. This filter is really your one-stop-effect for all color correction.

BCC7 Beat Reactor

The next new filter is the **BCC7 Beat Reactor**. This awesome new feature can be used to generate keyframes based on an audio track within the AE composition. These keyframes can then be linked other parameters in your comp, basically, to any other filter in AE that can support keyframes!!

The Beat Reactor feature can be used as a standalone filter or as an integrated group of parameters in other filters. First, let's take a look at the Beat Reactor as an integrated feature in older filters.

We see here a snowboarder, and I've applied two BCC filters, Gaussian Blur and Glow. First, look at Gaussian blur. I use another built-in BCC feature, pixel-chooser, to limit the blur effect to just certain color values in the image. Now beat reactor. As I preview the clip, note the audio track I have here. A base drum, snare, and cymbal. Expanding beat reactor, I first select what filter parameter I want to apply to the beat. I select vertical blur. Next, I can select what range of frequencies will set off the reactor. I want this effect to change with the snare drum, so I isolate the frequencies that correspond to that sound. Now I've got an instant animation in my effect! Fully automated to the music! For greater control, I can fine-tune the "fall/off" of the effect, so it gradually snaps back to default, or I can make it build up indefinitely. Another key feature is the ability to adjust delay and affect strength, so I can dampen the effect, or have it apply late or early. Finally, I can apply up to three different beat reactor effects from the integrated beat reactor alone!

Above this, I've applied beat reactor to the glow filter so that the base drum also sets off the effect. Here's the end result. Imagine trying to synch this up manually!

Next is the stand-alone **BCC Beat Reactor** filter. It functions essentially the same as the integrated version, but gives you more control over creating keyframes. So I've got my effect, BCC Extruded Text here, the same audio track I had before, and an AE solid, which is where I will apply beat reactor. You can see the same set-up we had before, but this time I will generate keyframes that rely on the beat. I can create as many keyframes per second as I want, and I can build off these keyframes by re-generating them! Note the customized settings here, I've set the max to different values for each FX output...280 for A, 33 for B, and 5 for C. And I'm going to apply these FX to the Orientation Y, Position Z, and Jitter Amount of the text. Let's render the result. Again, this is such a time saver, trying to keyframe all these parameters individually to the music would've taken a very long time.

BCC Pin Art

The last filter I'm going to show is BCC Pin Art. The name for pin art is a reference to that toy you might have seen that has a pin screen and allows you to push objects into them and make extruded shapes. And so it is with BCC Pin Art 3D, and it is awesome! How would you like to be able to make extruded shapes and image maps from any video

or image on your computer? Check it out. I'll apply Pin art to this clip of a hand. The filter uses alpha and luma values to extrude points in 3D space, as you can see. The filter also reacts to AE lights and cameras in 3D space. I've got a couple AE lights here...you can see. I've also got an AE title in 3D, and if I move the camera around, you can see that the pin art filter moves accordingly in 3D space. Now I'm going to get a little more fancy...I'm going to use a different image as my Pin FX layer, since this has more contrast and gradation. I can also apply the effect to a different track altogether. Here is an image of blue sky, which I can extrude my hand out of. Really like the Pin Art effect in real life. I can also create wipe effects, each with lots of possible settings. Check out the different pin types we offer, not just spheres and circles, but cylinders, planes, and grid lines. You can even create custom pin shapes from other media!

We also let you deform the entire pin screen with twist, noise, and dispersion transforms. This is something you definitely can't do to the Pin Art toy (without breaking it). Finally, check out this effect. Set the pins to cards, and transform the pins as objects. You can create the effect of a crowd turning over poster cards, or tiles in the wind.

Now to tie it all together, let's use Pin Art with the Beat Reactor. You see here a real height map of a face having Pin Art and BCC glow applied. The Beat Reactor is applied to the dispersion wave effect of the Pin Screen.

I think that's enough for now, but there's even more to see and do with BCC 7 than what I've shown you here. To learn more, please visit our website, at BorisFX.com.