Boris Graffiti
New Features Guide

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Introduction

This guide contains an overview of key new features in Boris Graffiti. For details about these features, see the Boris Graffiti Online Help. The Boris Graffiti CD-ROM includes Release Notes and a new, full-featured Online Help system with step-by-step instructions, Tutorials, and information about OpenGL.
Key Features

**User Interface Improvements**
Many new improvements have been made to the user interface of Graffiti allowing you to work more quickly and easily.

**EPS Import and Extrusion**
Scalable vector art can now be imported directly into Graffiti.

**16 Bit Color**
16 Bit deep-color provides the user with the ability to generate smoother gradients and more precise color correction.

**New Electronic Help System**
A new fully searchable electronic help reference system has been added to Graffiti.

**All New BCC Filters with Custom Preset Manager**
Graffiti now ships with 35 powerful filters from the Boris Continuum Complete package.

**FEC Filters**
Several filters from the Final Effects Complete package have been included with this latest release of Graffiti.

**Keyframe Effects Directly in the Composite Window**
Now you can generated keyframed effects right within the composite window, without the need to see the master timeline.

**Static Generator for Sony Vegas 7**
Users of Sony vegas 7 will now be able to use Graffiti as a static title generator, meaning less rendering and faster title generation.

**New Library Browser Templates from Effects Guru Steve Oakley**
Industry effects guru Steve Oakley has contributed dozens of effects to the Graffiti Library Browser.
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User Interface Improvements

Many new improvements have been made to the user interface of Graffiti. They include: user customizable quick key buttons in the timeline, new machine controls in the composite window, magnetic and sticky windows, a non-modal options palette and a tabbed interface for the Controls window eases title effects creation.

Configurable Shortcut Buttons in Timeline
The Timeline now includes Shortcut buttons that you can configure to suit your work style or a specific project that you are working on. You can rearrange the buttons to your liking by selecting and dragging them.

Composite Window Machine Controls
New buttons in the Composite window make it easier to move within a composition. You can now easily go to the head or tail of a composition, and move forward and backward by one frame or ten.

Sticky Windows Option
The Sticky Windows option moves windows in unison; as you resize one window, other windows resize automatically to accommodate the change. For example, when you move the Timeline up or down, the Controls and Composite windows resize as well.

Modeless Options Palette
A new Options Palette allows you to adjust many settings that were previously available in the Preferences window. This makes working with functions, such as grids and guides, an easier task. The Options Palette is a floating window; you can leave it open at all times, and the changes you
make in it are instantaneous. The options palette is available for Splines, Grids and Guides, Keyframe Interpolation, Keyframe Generator, and Timecode. The following example shows the Keyframe tab.

**Tabs in Controls Window**

A tabbed interface in the Controls window makes it easier to navigate between parameter categories.
EPS Import and Extrusion

Scalable vector art can now be imported directly into Graffiti. Users can add, delete or modify the original spline points right within the Graffiti interface and the result can be extruded and animated in 3D space. The advantage to working with scalable vector art is that unlike raster art which is pixel based, vector art never suffers a loss in quality when it is resize or scaled. Most company logos are generated in this format.
16 Bit Color

16 Bit deep-color provides the user with the ability to generate smoother gradients and more precise color correction via an expanded color palette, which expands the available color gamut from 16 million in 8 bit color to trillions of colors. The result is that gradients are far less prone to mach banding or color stepping. 16 bit color in Graffiti is host dependent and will only work in hosts that support this feature, such as Avid systems.
New Electronic Help System

A brand new fully searchable electronic help reference system has been added to Graffiti, meaning that you spend more time creating effects and less time figuring out how to do it.
All New BCC Filters with Custom Preset Manager

The original filter effects in Graffiti have all been replaced with the more powerful filters from the Boris Continuum Complete package and the number of effects filters that ship with Graffiti 5 has been increased to a total of 35. The list of filter effects includes radial blurs, particles, glows, distortions and procedural generators such as snow, rain and clouds.

Color and Blurs Filters

BCC Blur
Blur emulates the look of shooting in soft focus or with lens diffusion. This filter allows you to blur the horizontal and vertical components of the image independently.

BCC Directional Blur
Directional Blur blurs the image by displacing it in one direction. The effect is similar to how a photograph of a speeding object appears if taken with a slower shutter speed.
BCC Gaussian Blur

The Gaussian Blur filter implements a popular blur algorithm that produces smoother blurs but takes more time to render than the Basic Blur filter. Gaussian Blur softens the image by averaging each pixel with its neighboring pixels. The word Gaussian refers to the bell-shaped curve commonly used in statistical analysis. The shape of this curve determines how much each averaged pixel contributes to the output.

BCC Pyramid Blur Filter

The BCC Pyramid Blur filter emulates the look of shooting in soft focus or with lens diffusion. This filter allows you to blur the horizontal and vertical components of the image separately. The functionality is similar to the BCC Blur filter. However, BCC Pyramid Blur uses a refined algorithm that speeds rendering approximately 20 - 40 percent. When you create new blur effects, you should use this filter.
BCC Radial Blur Filter
The BCC Radial Blur filter creates a blur around a specific point, simulating the affect of a zooming or rotating camera. The Amount option specifies the amount of blur, depending on the selection for Type. For a Spin blur, which applies blurs in circles around the center point, the Amount value indicates the degree of rotation. For a Zoom blur, which applies blur that radiates out from the center point, the Amount value specifies the degree of radial blurring.

BCC Safe Colors Filter
The BCC Safe Colors filter prevents clips from having saturation values that exceed the legal limits of broadcast standards. Use this filter to limit the values that are present in the image.
Shift Channels Filter
Shift Channels uses values from chosen input channels to compute new RGB and alpha channels for the output image.
BCC Spiral Blur Filter
The BCC Spiral Blur filter creates a blur or smear that appears as though it is spiraling toward the center of the image.

![Original Image](image1.png) ![Filtered Image](image2.png)

Distortion & Perspective Filters

BCC 2D Particles and 2D Particles Advanced
2D Particles breaks the source image into particles and disperses them in 2D space. This filter also provides a variety of explosion, velocity, and gravity controls to adjust the particles movement. You can also control the size, shape, density, and opacity of the particles, and create custom particle shapes and scatter wipes. Use the auto-animation feature to easily generate explosion effects, or animate the filter manually for precise control.

![Source image](image3.png) ![Filtered image](image4.png)

BCC 3D Image Shatter
3D Image Shatter shatters the image in 3D space and disperses the image fragments. The filter provides a variety of explosion, velocity, and gravity parameters to control particle movement. In addition, 3D Image Shatter has a number of parameters that allow you to control the particle size.
and shape, rotation, opacity, lighting, and explosion style. This filter is auto-animated by default, but you can manually animate it for more precise control over the movement and dispersion of the particles.

**3D Image Shatter effect**

BCC Bulge

Bulge makes the source image appear as if it is stretched over a surface with a bulge or a depression.
**BCC Displacement Map**

The Displacement Map filter uses the luminance or color information from an alternate video or still image track (the Map Layer) to displace the pixels in the source image horizontally and vertically. This filter creates a distorted version of the source whose distorted regions correspond to the luma or color channel of the Map Layer's media.

![Source image](source_image)  ![Map Layer](map_layer)  ![Filtered image](filtered_image)

**BCC Edge Bevel**

Edge Bevel creates the appearance of a beveled edge around the borders of an image. To create an Edge Bevel effect, select a track and choose Filters > Distortion and Perspective > Edge Bevel.

![Source Image](source_image)  ![Filtered image](filtered_image)
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Edge Bevel
Edge Bevel creates the appearance of a beveled edge around the borders of an image.

Source Image | Filtered image

BCC Fast Flipper
Fast Flipper flips or mirrors your image. You can flip your image vertically or horizontally, or define an invisible mirror line that mirrors your image in various directions. You can also blend the mirror line to produce a smoother transition between the original and mirrored images. Resampling is on a pixel-for-pixel basis, so the filter is fast and no quality is lost.

Source image | Filtered image (flipped horizontally)
**BCC Polar Displacement**
The Polar Displacement filter uses a Map Layer to displace pixels radially outward from the Center Point and angularly along an arc of a circle centered at the Center Point.

![Source image](image1) ![Map Layer](image2) ![Filtered image](image3)

**BCC Ripple**
The Ripple filter simulates ripples spreading out from a point of origin in a pool of water, similar to what you see after tossing a pebble into a pond. This filter automatically creates animated ripples and allows you to choose from a range of wave shapes.

![Source image](image4) ![Filtered image](image5)

**BCC Vector Displacement**
Vector Displacement uses the RGB channels in the Map Layer to displace the image in three different directions.
**BCC Wave**

The Wave and Ripple filters are very similar, except that Wave creates parallel waves instead of waves that radiate from a point.

![Source image](image1) ![Filtered image](image2)

**Effects Filters**

**BCC Alpha Pixel Noise**

Alpha Pixel Noise adds noise to an image's alpha channel. You can use this filter to create pixelated transitions between two images.

![Alpha Pixel Noise transition](image3)
BCC Burnt Film
Burnt Film simulates the look of holes burning through a layer of film to reveal another image. This filter provides control over the appearance of the burned edges and the burn rate, and allows you to use a custom alpha matte to set the shape of the burn holes.

BCC Colorize Glow
The Colorize Glow filter is similar to the Glow filter but it generates the glow from a single channel and then applies a gradient to the glow. The Colorized Glow can be composited with the original image or viewed by itself.
**BCC Drop Shadow Filter**
The BCC Drop Shadow filter allows you to apply an animatable drop shadow to titles or clips in the timeline.

**BCC Glow Alpha Edges Filter**
The BCC Glow Alpha Edges filter applies a glow that adheres to the contours of the image’s alpha channel or mask. Use this filter with masks or images that have an alpha channel.

**BCC Halftone Filter**
The BCC Halftone filter simulates the look of printed material by converting the image to simulated halftone dots. Print images are comprised of a rosette pattern of colored ink dots. To avoid moiré or interference patterns, the dots are printed at different angles; this process is known as halftone screening. This is also used in the art world as a creative process such as the work produced by Lichtenstein.
BCC Mosaic
Mosaic allows you to pixelate images to achieve a range of mosaic effects using a few simple parameters and a PixelChooser.
**BCC RGB Pixel Noise**

RGB Pixel noise applies noise to each of the RGB color channels independently. Alternately, you can use this filter to apply noise to the source image’s luminance channel without changing the pixels’ colors.

Source image

Filtered image

**BCC Scatterize**

Scatterize shuffles the pixels in the source image, creating a scattered effect.

**Variance** determines how scattered the image is and works in conjunction with the Scatter Percentage parameter.

Variance=0

Variance=10

Variance=30
**BCC Spray Paint Noise**
Spray Paint Noise applies a flat spray paint color to the image.

![Source image](image1.png) ![Filtered image](image2.png)

**Generators Filters**

**BCC Clouds Generator**
Clouds is a realistic clouds generator. The clouds can act as a filter on a layer or generate a sky with clouds and a horizon color. Three different types of clouds automatically animate using the Direction, Angle and Speed you set without using keyframes.

![Airy clouds](image3.png) ![Puffy clouds](image4.png) ![Wispy clouds](image5.png)
BCC Fire Generator

Fire is an auto-animated procedural fire effect which offers control over flame width and height, color, and movement, and allows you to generate smoke. This filter can use the alpha channel in any other layer as a Map Layer, allowing you to create fire effects which conform to a pre-composed image or logo.

BCC Rain Generator

Rain is an auto-animated filter which generates realistic rain effects. You can composite the rain over any clip in your timeline. The filter allows you to determine the density, speed, direction, and color of the drops, and to control the apparent depth of the effect.
BCC Snow Generator

Snow is an auto-animated snow generator which can composite snow over a sky color or an image layer. The filter offers extensive options for customizing the effect and allows you to create drifts or make flakes pile up along the edges of an alpha channel.
FEC Filters

Several filters from the Final Effects Complete package have been included with this latest release of Graffiti. Use FEC Hair to make text appear to grow hair along the edges of the title, or FEC Drizzle to make the title appear as though it was reflected in a puddle of rain. FEC Glass can be used to make text appear to have been cut from glass.

**FEC Drizzle Filter**
FEC Drizzle is a particle-based simulation of circular ripples on a watery surface akin to ripples on a pond caused by light raindrops.

![Unfiltered Image](image1) ![Filtered Image](image2)

**FEC Glass Filter**
FEC Glass creates a convincing glass-like appearance. To accomplish this effect, the selected image defines a bump map, which is then used to create a glossy, 3D texture. Use FEC Glass to create dramatic and innovative effects by using values from a different layer to create the illusion of that layer rising through the source layer.

![Unfiltered Image](image3) ![Filtered Image](image4)
FEC Hair Filter
FEC Hair creates particles that stretch into filaments like hair. Hair uses a chosen property to determine where hair should grow.
Keyframe Effects Directly in the Composite Window

Now you can generate keyframed effects right within the composite window, without the need to see the master timeline. Select an element in the composite window by clicking on it and the keyframes associated with that object appear in the mini timeline included in the composite window. Keyframes can be added and directly manipulated right in the mini timeline.
**Static Generator for Sony Vegas 7**

Users of Sony vegas 7 will now be able to use Graffiti as a static title generator, meaning less rendering and faster title generation.
New Library Browser Templates from Effects Guru Steve Oakley

Industry effects guru Steve Oakley, a long time Boris advocate and digital effects compositor/editor, has contributed dozens of new keyframed effects which are included in the Graffiti Library Browser.