

Boris Graffiti™ 4.0.2

Release Notes

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Introduction

Welcome to Boris Graffiti 4.0.2. These Release Notes contain information regarding supported hosts, hardware and operating systems, known limitations, and other important information about the product.

For information on installing Boris Graffiti 4.0.2 into your host application, see the Installation Guide pdf file.

Version 4.0.2 is a maintenance release that fixes a number of bugs that appeared in previous versions of Boris Graffiti. These Release Notes contain important information regarding supported system requirements, fixed bugs, and known limitations. For information about Boris Graffiti software updates, other Boris products, and additional resources, visit our web site at www.borisfx.com.

Supported Hosts and Operating Systems

Boris Graffiti 4.0.2 supports the following host applications. Because host versions update frequently, please visit our website at www.borisfx.com for information on supported versions for each host.

Macintosh	Windows
Adobe® Premiere® 6.5	Adobe® After Effects® 6.0
Apple® Final Cut Pro® 3.0, 4.0 or later	Adobe® Premiere Pro® 1.5
Avid® Media Composer®, Avid Symphony® 4.7, 4.8, Avid XpressMac®, Avid Xpress DV® 3.0, 3.5.4, 4.8. Avid Xpress Pro® 4.0 or later	Avid® Media Composer®, Avid Symphony®, Avid Xpress®, Avid Xpress DV® 3.0, 3.5.4, Avid Xpress Pro® 4.0 or later, Avid Xpress Studio, Avid DS 6.0 and later
Media 100 i® 8.1 and later, Media 100 HD 10.0	Canopus® Edius® 2.5, Edius Pro® 3.0
	DPS® Velocity® 8.2
	Incite® Media Producer 3.0 and later, Remote Producer 3.0 and later
	In:Sync® Blade® 2.2, In:Sync Speed~Razor® 5.5
	Media 100® iFinish 4.6
	Pinnacle purple®, Pinnacle silver® 4.01, Pinnacle Liquid Edition® 6.0
	Sony® Vegas® 4.0
	Ulead Media Studio Pro® 6.5, 7.0

Supported Operating Systems

Graffiti 4.0.2 supports the following operating systems.

Macintosh

Macintosh OS X v10.2.6 and above (see note below). Graffiti 4.0.2 is the first version to add support for Macintosh OS X 10.4.2 (Tiger).



To take advantage of the OpenGL features in Graffiti, you must install Macintosh OS 10.2.6 or later. Final Cut Pro 4.x users must install Macintosh OS 10.3 or later.

Windows

Windows 2K®, Windows XP®

Minimum System Requirements

We recommend at least 512 MB of memory assigned to the host application for both Macintosh and Windows users using Graffiti.

To run Boris Graffiti 4.0.2, QuickTime version 6.0 or later must be installed on your system. Boris Graffiti supports dual processors, Hyper Threading, and AltiVec acceleration.

Localization

Graffiti is localized in several languages – English, French, German, Spanish, Italian, Japanese, Chinese and Korean. Graffiti installs a Boris Language Pack file which reads the system language specified on your system and translates its menus into that language, if it is supported. Localization should be automatic and requires no work on the part of users. The Boris Language Pack file is located in the following location.

Macintosh

Library/Application Support/BorisFX/Boris Language Pack.ecs

Windows

<Drive>\Program Files\Boris FX, Inc.\Boris Language Pack.ecs

Editing Language Pack files with the Boris Localizer

The Boris Localizer is a standalone Mac OS X application that can be used to update the translation of Graffiti in any of its eight supported languages. Use the Boris Localizer to edit Boris Language Pack files which contain translations of Graffiti menus and parameters into various languages. The Boris Localizer is available through your local Boris reseller.



Contact your reseller for more information on using the Boris Localizer to edit the default Graffiti translations.

Supported Hardware and Drivers

You need the following hardware and system requirements to use the hardware dependent features in Graffiti 4.0.2. For detailed information on the OpenGL feature in Graffiti 4.0.2. See the Understanding OpenGL pdf on your Graffiti CD or in the Graffiti User Guide.

Important Note on OpenGL Support

Due to the fast rate at which OpenGL card manufacturers release drivers, Graffiti may disqualify your OpenGL hardware erroneously. If this happens, you should try to enable OpenGL to see if you benefit from OpenGL acceleration. If you have troubles with slowness, or render inconsistencies, please disable OpenGL. For information on enabling OpenGL, see “Enabling OpenGL” on page 7.

While OpenGL may work in the Graffiti KeyFramer, that does not necessarily mean it will work inside your host application. This is due to the fact that some hosts use OpenGL memory, leaving it unavailable for Graffiti when you work inside the host.

If your host crashes when trying to apply Graffiti, and you cannot disable OpenGL in your host, please contact our technical support staff. They will send you a preferences file that will start Boris Graffiti with OpenGL disabled.

BorisFX will make every effort to continue to qualify OpenGL cards and driver versions. However, it is important to note that it is impossible to qualify all combinations of OpenGL cards, operating system, drivers and host applications. In general you should run the latest driver available for your OpenGL card. If you have problems with the latest driver, visit the Boris website to see a list of the latest supported driver versions.

Supported OpenGL Hardware

The following graphics cards and drivers are supported for Graffiti’s OpenGL features. This list is current as of the initial Graffiti 4.0.2 release. Boris FX maintains an updated list of tested video cards on our web site: www.Borisfx.com. In general you should download and install the latest driver for your GL card. For the latest updates to the list of supported cards and drivers, please visit: www.borisfx.com/html/products/RED/table.html.

OpenGL is a cross-platform standard that accelerates the rendering of 2D and 3D graphics. Most newer video cards have hardware-based OpenGL acceleration. If your system does not include the recommended minimum requirements, Graffiti initially defaults OpenGL to Off. You can re-enable OpenGL in the Graffiti Preferences window. You can still use Graffiti without OpenGL or with an older card, you just won’t gain as much acceleration while working. For details on how to use OpenGL, see the Graffiti User Guide.



Final Cut Pro 4.x users must have a minimum of Macintosh OS 10.3 installed to support Graffiti’s OpenGL feature.

Supported Macintosh Hardware

- ATI Radeon 8500 (and up), Radeon Rage 128 (Macintosh only).
- NVidia GeForceFX (all), GeForce 3 and GeForce4 (all)

Supported Windows Hardware

- ATI FireGL series, Radeon X300 (and up), Radeon 8500 (and up)
- NVidia Quadro FX (all), Quadro4 900 (and up), GeForce 6800, GeForce PCX, and GeForce 3 and GeForce4 (all)
- Matrox Parhelia



Note for NVidia users: The NVidia GeForce 2 is not supported for OpenGL in Graffiti.



As a general rule, you should install and run the latest driver available for your GL card. ATI users should not use driver versions previous to 63.68. NVidia users should not use driver versions previous to 65.00.



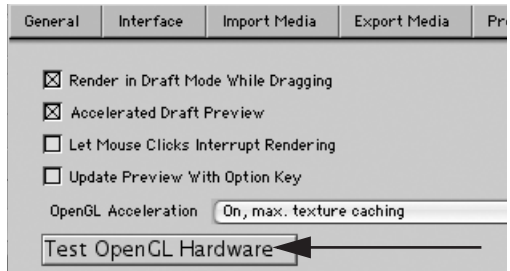
Note for Matrox Parhelia users: The Matrox Parhelia card is not recommended for Graffiti users running Ulead Media Studio Pro. See “Important Information for Ulead Users” on page 16 for more information.

Checking your OpenGL Hardware, Software, Drivers and Settings

The first time you launch Boris Graffiti, an internal test is run on your system to determine whether your hardware meets the minimum requirements necessary for OpenGL Hardware acceleration. If your hardware does not meet the minimum requirements, OpenGL is disabled by default on your system.

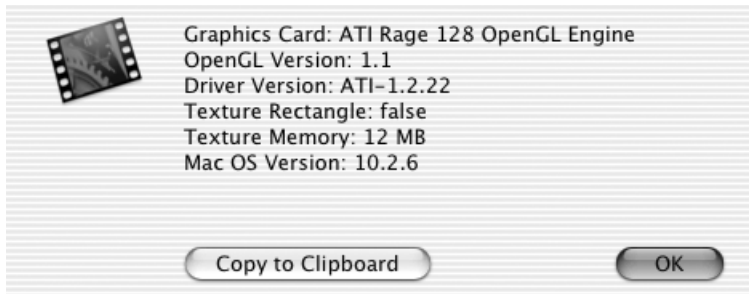
To perform the OpenGL Hardware test manually, click the **Test OpenGL Hardware button** in the Preferences window’s Render tab.

This test may take a few seconds. After the test is run, a window displays specifics of the hardware and drivers on your system. If any test results show your system may have problems running OpenGL, the errors are detailed in this window.



The test stresses your OpenGL hardware, so you should run the test with a typical workload. Before you run the OpenGL hardware test, launch any applications that you usually run while you edit (any graphics intensive applications you are running at the time may affect the results).

If you want, click the **Copy to Clipboard** button to copy this information to your system clipboard. This allows you to print or email this information. When you finish, click **OK** to close this window.



Graffiti uses the following guidelines for optimal OpenGL performance. Some of this information does not affect Graffiti's hardware testing but is useful for technical support if you are having OpenGL problems:

- **Graphics Card**-- See the table and notes on page 4. Also see the updated list on the Boris FX website.
- **OpenGL version**--Should be 1.2 and higher.
- **Driver Version**--As a general rule, you should install and run the latest driver available for your GL card. ATI users should not use driver versions previous to 63.68. NVidia users should not use driver versions previous to 65.00.
- **Texture Rectangle**--This is an advanced OpenGL image sizing feature. If you are having OpenGL problems, this provides useful information for technical support.
- **Texture Memory**-- Texture Memory displays the amount of memory on the video card available for Graffiti to use for textures (layer images).To use Graffiti without display or performance problems, Texture Memory must be at least 32MB. Texture Memory available is not the absolute of memory on your card, but rather the amount available to Graffiti.
- **Texture Dimension** displays the maximum texture size that can be used with the video card.
- **Macintosh OS Version** displays the installed version of the Macintosh OS (if you are running on a Macintosh system.) Macintosh users must have at least Macintosh OS 10.2.6 installed to support OpenGL; Final Cut Pro 4.x users, must have at least Macintosh OS 10.3 installed to support OpenGL.

OpenGL Errors

When the OpenGL Hardware Test is run, error messages may display if your system fails. These errors display as Hardware Status errors or Critical Testing errors.

Hardware Status errors report the status of your current system setup against Graffiti's recommended card manufacturer, model and driver. These errors do not prevent you from using OpenGL, they just warn that your specific setup may cause problems with OpenGL.

Hardware Status errors can include messages such as insufficient texture memory or reports that your card was not recognized by Graffiti’s internal hardware testing. When you receive a Hardware Status error, OpenGL is automatically disabled when you launch Graffiti. However, you can manually enable OpenGL in the Graffiti Preferences window.

Critical Testing errors report errors that will not allow you to use OpenGL in Graffiti. When you receive a Critical Testing error, OpenGL is automatically disabled when you launch Graffiti. If you receive a Critical Testing error, you should not enable OpenGL or you may crash.



Final Cut Pro 4.x users must have at least Macintosh OS version 10.3 installed in order to support Graffiti’s OpenGL feature.



Certain errors are influenced by your video card’s display properties, which are card-driver specific. As a general rule, set the display properties to 32 bits of color, with the depth buffer set to at least 16 bits. On many cards OpenGL capabilities are reduced for higher display resolution and refresh rates.

Enabling OpenGL

You can enable OpenGL in the Preview menu or in the Preferences window.

- To enable OpenGL in the Preference window, choose *Edit > Preferences* (Windows) or *Boris Graffiti > Preferences* (Macintosh). Click the Render Tab and select the **Accelerated Draft Preview checkbox**. Choose the appropriate choice from the **OpenGL Acceleration menu**. *On, Max. texture caching* provides the best performance and is the recommended setting.
- To enable OpenGL in the Preview menu, choose *Preview > Open GL Mode*. Choose the appropriate choice from the submenu. *On, Max. texture caching* provides the best performance and is the recommended setting.

Troubleshooting OpenGL Issues

To toggle OpenGL off, use the keyboard shortcut Command or Control-[. To turn it back on, the keyboard shortcut Command-] (Macintosh) or Control-] (Windows). Menu choices also appear in the Preview menu and in the Preferences window. You can still use Graffiti without OpenGL or with an older card, you just won’t gain as much acceleration.

Display problems such as white, rainbow or garbage images in the Composite window may be related to OpenGL. If this occurs, open the Preference window. In the Render tab, change the **OpenGL Acceleration menu** to use less texture caching. Texture caching is used for textures (layer images) and is related to the amount of Texture memory on the video card. Display problems related to OpenGL will not affect your rendered effects.



If you experience OpenGL problems, setting the **OpenGL Acceleration menu** to use less texture caching improves OpenGL reliability, but lessens performance.

Supported Preview to Monitor Hardware

You can output video to an external monitor through a FireWire converter box or through supported video hardware connected to your system. You can output media at any project size and immediately view your working frame without rendering the timeline.

Some hosts have native Preview to Monitor (PTM) where Graffiti passes a frame and the host displays it, for example Meridien-based Avid systems. However, if a host does not have native PTM ability, then you can use the Preview to Monitor feature. The user does not have hardware choices in the Preferences window if Graffiti uses native host PTM (since the host controls the hardware connection).



As a plugin, Graffiti does not officially support connecting to hardware that is already in use by the host NLE for direct Video Out purposes. Graffiti can only use the FireWire output if the NLE releases it while Graffiti runs. A number of hosts (for example Premiere and FCP) will not release control of the primary display hardware. This prevents Graffiti's Preview to Monitor feature from working until the NLE releases control of the FireWire hardware.

However, Graffiti looks for all possible output devices upon installation, and lists the results in the Device menu in the Preview tab of the Boris Graffiti preferences. As a result, users may be able to use a different output device for Graffiti than the one that the host application uses. The host application may use its own capture hardware for display, leaving the FireWire port available.

Video-out capabilities are also available in the Boris Graffiti KeyFramer. This enables anyone with supported video hardware, whether built into their computers, included with their NLEs, or provided through third parties, to see the work they create in Boris Graffiti immediately on television monitors.

Graffiti supports the following video cards for the new Preview to Monitor (PTM) feature in both the Graffiti KeyFramer and while using Graffiti in your host. For detailed information on the new PTM feature, see the User Guide.



Make sure you have the latest drivers installed for the supported video cards.

Supported PTM Cards

- Cinewave®
- Matrox® Parhelia®
- AJA® Xena®
- Canopus® RT® (See note below.)



Note for Macintosh Users: Most cards supporting standard QuickTime video out capabilities and drivers should work.



Note for Windows Users: Although the previous cards were internally tested and approved, other cards may work as well. We also support standard FireWire out. Many Canopus RT boards work, although we cannot guarantee they all will.



Note for Final Cut Pro version 3.0 Users only: FCP 3 users running Graffiti as a plug-in with FireWire for Graffiti's Preview to Monitor feature, must disconnect before clicking the **Apply button** or FCP will crash. To disconnect, choose Preview > Disconnect External Monitor.



Note for Final Cut Pro version 4.x Users only: In order to use the Preview to Monitor feature, you must turn off the external video in Final Cut Pro before launching Graffiti. Choose View > External Video > Off then enable Graffiti's Preview to Monitor feature when Graffiti is launched. After leaving Graffiti, reenable the external video (View > External Video > All Frames) to see Final Cut Pro video in the external monitor.

Once the hardware is connected, choose *Connect to Monitor* from the **Preview menu**. Commands in the Preview menu allow you to set the video display. You can output media at any project size and immediately view the working frame without rendering the timeline.

When you choose Display Frame on Monitor from the Preview menu or click the **Display Frame to Monitor button** in the upper-right corner of the Composite window, the image displays on the external monitor, using the Resolution and Quality settings specified in the Composite window.



When you choose Display HQ on Monitor from the Preview menu, the image displays on the external monitor, using the Full Resolution and High Quality settings, regardless of the Resolution and Quality settings in the Composite window. When you choose Auto-Update Monitor from the Preview menu, every frame of your effect previews to the external video monitor connected This allows you to drag the CTI in the timeline and view updating frames. This option is not available in some host applications or system configurations.

Once the hardware is connected, configure the Graffiti Preferences to use this feature. See the next section for details.

Enabling Preview to Monitor



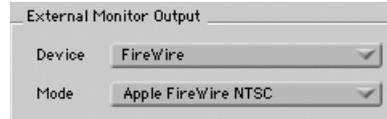
Final Cut Pro version 3.0 Users only: FCP 3 users running Graffiti as a plug-in with FireWire for Graffiti's Preview to Monitor feature, must disconnect before clicking the **Apply button** or FCP will crash. To disconnect, choose Preview > Disconnect External Monitor.



Final Cut Pro version 4.x Users only: To use the Preview to Monitor feature, you must turn off the external video in Final Cut Pro before launching Graffiti. Choose View > External Video > Off before launching Graffiti, then enable Preview to

Monitor when Graffiti is launched. After exiting Graffiti, reenable the external video (View > External Video > All Frames) to see FCP video in the external monitor.

1. Choose File > Preferences (Windows), or Boris Graffiti > Preferences (Macintosh).
2. Click to select the Preview tab.
3. In the External Monitor Output section, choose your Firewire Converter box or Video hardware board from the **Device menu**.



The Device menu displays all the supported hardware connected to your system.

4. Choose an option from the **Mode menu** if applicable. For example, if you are using a Firewire Converter box, you can choose *PAL* and *NTSC* formats from the **Mode menu**.
5. Click **OK** to save your settings and exit the Preferences window.



The Preview to Monitor preferences save and apply to all Graffiti projects unless your Graffiti preference file is rebuilt.


Displaying Frames on your External Monitor

Commands in the Preview menu allow you to set the video display:

- When *Connect to External Monitor* is chosen in the **Preview menu**, Preview to Monitor is enabled and the following three options in the menu become available:
- When you choose *Auto-Update Monitor* from the Preview menu, every frame of your effect previews to the external video monitor. This allows you to drag the CTI in the timeline and view updating frames. The image displays on the external monitor, using the Resolution and Quality settings specified in the Composite window.



Enabling Auto-Update Monitor slows Graffiti since every frame updates in the external monitor.

- When you choose *Display Frame on Monitor* from the **Preview menu** or click the **Display Frame to Monitor button** in the upper-right corner of the Composite window, the current frame displays on the external monitor, using the Resolution and Quality settings specified in the Composite window. 
- When you choose *Display HQ Frame to Monitor* from the Preview menu, the image displays on the external monitor, using Full Resolution and High Quality settings, regardless of the Resolution and Quality settings in the Composite window.

Important Note on Missing Filters

Several BCC filters (BCC Spiral Blur, BCC Light Zoom and BCC Twirl) are not included with the Boris Graffiti installation. Instead, these filters are available as a free download to registered users on the Downloads page at www.borissfx.com.



You must register Boris Graffiti to download these filters. See the Installation Guide PDF for details on registering.

Important Information for Avid Users

Avid users can now apply Boris Graffiti as a filter to titles created with the Avid Title tool.

Applying Boris Graffiti as a Title-Matte Effect

You can apply Boris Graffiti directly to titles created in the Avid timeline. For example, if you have a bin with saved titles, you could apply a filter to the titles in Graffiti.

1. Edit an Avid title or matte key into the Avid timeline.
2. Open the Avid Effect Palette and select Boris Graffiti from the Effect categories. From the list of available Graffiti effects, drag the *Boris Graffiti Title-Matte Effect* to the title or matte key in the Avid timeline.



The Title-Matte effect is a destructive process which replaces the title or matte key. Removing a Title-Matte effect removes the title's nested alpha channel. To remove a Title-Matte effect and preserve the alpha, use the Undo command instead of the Remove Effect command.

3. Click the **Other Options** button in the Avid Effect Editor to launch Graffiti.



If the title or matte key looks blocky when Graffiti opens, select its Face track in the timeline. In the Host Media tab, choose *Straight Alpha* from the **Key menu**. This usually happens automatically.

Replacing a Title-Matte Effect

Since a title is replaced by applying the Title-Matte effect, to re-edit a title with a Title-Matte Effect (for example to change the text or a font) you must save the Title-Matte effect while you are in Graffiti (in the File menu). Recreate the Avid title and overwrite the older title in the Avid timeline. Drag a Graffiti Title-Matte Effect to the new title. In Graffiti, open the saved effect and apply it to the new title.

Avid Systems and Preview to Monitor

Graffiti's Preview to Monitor feature works for Xpress DV, Xpress Pro, and Adrenaline and Mojo models only. All other Avid products can use the existing AVX Preview to Monitor feature within Graffiti. The AVX Preview to Monitor allows you to see video in an external monitor without the extra step of selecting your hardware in Graffiti's Preference window.

Important Information for Edius Users

Due to limitations in the Edius architecture, you need to be aware of the following limitations when using Graffiti inside Edius.

Launching Boris Graffiti within Edius

To launch the Graffiti user interface after applying a Boris effect to a clip, the Edius timeline cursor must be placed over the effect and the track containing the effect must be selected.

Working with Edius Palettes when Graffiti is Launched

When using Boris Graffiti as a Transition effect in Edius, the Edius Palettes remain above the Boris windows. BorisFX has reported this issue to Canopus and is working with them to resolve it in a future release of Edius. Currently, to work around this issue, position the Edius Palettes and Boris windows so they don't overlap.

Editing Previously Rendered Effects

In Edius, when a clip is rendered, that clip is locked. Any changes to a Graffiti effect will not display in the Edius Preview window until Edius is closed and reopened. To work around this limitation, complete the following steps:

1. In the Edius settings, click the Render tab.
2. In the **Delete invalid rendering files** section, choose *When the Rendered File is Invalid*.
3. Unrender the clip by making a change, such as toggling the checkbox to disable/reenable the effect in the Edius Information Palette.

Unexplained Crashes in Edius with OpenGL Enabled

If Edius crashes when trying to apply Graffiti it may be because OpenGL is enabled. If you cannot disable OpenGL, launch the standalone Graffiti KeyFramer to disable OpenGL, then you should be able to apply Graffiti within Edius as a plug-in. You can also contact our technical support staff. They will send you a preferences file that starts Graffiti with OpenGL disabled.

Applying Multiple Boris Graffiti Filters to a Clip in Edius

You should be aware of some issues when applying multiple Graffiti filters to a clip.

Stacking Multiple Overlapping Boris Effects

We do not recommend adding multiple Graffiti effects to an Edius clip or stacking clips containing Graffiti effects on multiple layers in the Edius timeline. Depending on your system specifics, multiple Boris effects (>2) on a clip may not render properly. Instead, apply a single Graffiti effect to an Edius clip and add multiple effects to the clip within Graffiti.



This limitation only applies to effects that overlap exactly. For example, a track containing both an in and an out transition would not fall under this suggestion (since they can not overlap).

Applying More than one Boris Effect to a Clip

If there is more than one Boris effect applied to a clip, the effect of preceding filters will not display in the subsequent filters in the Graffiti user interface. For example, if first a blur filter and then a twirl filter are applied to the same Edius clip, the blur filter effect will not show in the effected track when the ripple effect is launched. However, all effects display during render in the Edius Preview window.

Playing Boris Graffiti Effects

Edius timeline playback stops when trying to play through a Boris effect. To fix this, in the Edius settings deselect the *Stop Playback at Frame Drop* in the **Playback tab**.

Working in Boris Graffiti when Edius is Running

When Graffiti is launched, Edius is unable to perform other actions (such as closing). It is possible to get Edius into a state where it thinks Graffiti is launched, but the Graffiti user interface does not appear. This will functionally lock Edius. To resolve this, delete the Graffiti .ini file in the root: \\WINDOWS folder, and launch Graffiti again. If this doesn't work, save the Edius project, force a manual close of Edius (Control-Alt-Delete), delete the Graffiti .ini file, then launch Edius again.

Applying Boris Filters within Native Edius Filters

At this time Boris products do not support being launched from inside other Edius filters (for example, the Combine or Region Edius filters).

Important Information for Final Cut Pro Users



Final Cut Pro 4.x users must have at least Macintosh OS version 10.3 installed in order to support Graffiti's OpenGL feature.



To use Graffiti's Preview to Monitor feature, you must turn off the external video in Final Cut Pro before launching Graffiti. Choose View > External Video > Off before launching Graffiti, then enable Graffiti's Preview to Monitor feature when Graffiti is launched. After leaving Graffiti, reenables the external video (View > External Video > All Frames) to see Final Cut Pro video in the external monitor.

- Final Cut Pro 3 users running Graffiti as a plug-in with FireWire for Graffiti's Preview to Monitor feature, must disconnect before clicking the Apply button or FCP will crash. To disconnect, choose Preview > Disconnect External Monitor.
- Graffiti includes a **Static Generator** for *Final Cut Pro*. The Static Generator allows you to create a static slate which takes advantage of Final Cut Pro's real-time capabilities. When you apply the Static Generator, the Boris timeline opens with a duration of one frame which can then be applied to Final Cut Pro as a static slate.
- Graffiti now correctly field renders video in the wells when using a Graffiti FCP Generator. However, media placed in the input wells for a Graffiti Generator should match the FCP sequence size. Both the Graffiti project size and the size of the well video appear in Graffiti at the FCP sequence size. If the well media is not the same as the FCP sequence size, fields won't render correctly.

Additionally, any video in the input wells should be the same size as the clip with Graffiti applied. In the case of Graffiti applied as a filter, the Graffiti project size is determined by the size of the filtered media. Once again the size of the filtered media needs to match any video in the wells. This will maintain the integrity of fields since Graffiti doesn't allow host video inputs of various sizes within the same effect.

To use media whose size doesn't match the FCP sequence size (Generator) or the Filter media size, the best approach is to import that media directly into the Boris timeline from disk (rather than from the wells in FCP). This will provide you with full flexibility for dealing with non-standard size images, field interpretation, and oversize images.

- To edit an existing Graffiti effect, make sure the playhead is positioned on the effect you want to edit before launching Graffiti. Otherwise, the Boris interface will not appear.
- To export from Graffiti, set the FCP resolution to 100%. Otherwise, you get reduced image quality, since FCP does not provide full-size frames. Likewise, if Final Cut Pro is at less than full resolution (100%), previews at full size appear in reduced quality.
- In some instances the Graffiti plug-in crashes due to an apparent conflict with MacsBug v6.6.3. If you have MacsBug 6.6.3 installed and experience crashing, try disabling or running an earlier version of MacsBug when using Graffiti.
- If more than one version of Graffiti is installed, the Effects menu lists both versions with the same name: Boris Graffiti. The top item in the list is Graffiti 4.0.2 and the second item is the earlier version. We recommend uninstalling earlier versions.

Important Information for Pinnacle Liquid Edition Users



Due to changes made in the Liquid Edition plug-in architecture in version 6.1, rendered Boris effects may display jagged edges or reversed fields. If your system shows this problem, you can install an .ini file to reverse the video fields. This is available for download at www.borissfx.com/register/download/.

If your system exhibits these problems, simply drag the *BorisGRAFFTI4Plug 1.ini* file into the same folder as the Liquid Edition .exe file. This is usually found in the following location: <Drive>\Program Files\Liquid.6\Program folder.

The .ini file includes the following two parameters:

- **ReverseSrcFieldOrder** reverses the field order when it is set to **1** (the default); at a value of **0** this is disabled and the original field order is used.
- **BottomFieldDominant** sets the field dominance. A value of **1** sets lower field dominance, **0** sets upper field dominance and **3** does not change the dominance.

Once Liquid Edition releases a patch that fixes this problem, this action can be undone by deleting this file. If you have questions about whether your system exhibits this problem, email Boris technical support at support@borisfx.com.

Issues with Project Size in Pinnacle Liquid Edition

In most host applications, when you use Boris Graffiti as a plug-in, the effect size is taken from the host application. However, due to changes made in the Liquid Edition plug-in architecture in version 6.1, you must manually set the size to match your Pinnacle Liquid Edition project. To do this, open the Preferences window by choosing Edit > Preferences (Windows) or Boris Graffiti > Preferences (Macintosh). In the General tab, use the **Project Size menu** to set the width and height (in pixels) for your project. This menu provides project dimensions and FPS for the most common video formats. The Project Size options includes **720 x 486 NTSC D1**, **720 x 480 NTSC DV**, **640 x 480 NTSC Square Pixels**, **640 x 486 NTSC Square Pixels**, **720 x 540 PAL D1 Square Pixels**, **720 x 576 PAL D1 DV**, **720 x 576 PAL D1 DV Square Pixels**, **1380 x 720 HDTV**, **1920 x 1080 HDTV**, **320 x 240 Medium Size** and **160 x 120 Small Size**.

Important Information for Sony Vegas Users

When you create an effect in Graffiti that will output an alpha channel to Vegas (for example a title which does not include the background video), when you apply the effect to the Vegas timeline you will notice the edges appear rough and contain white fringes. You need to reenter Graffiti and in the Graffiti Preferences set the Local Preferences' **Alpha Type menu** to **Premultiplied with Black**. The effect will display correctly when you apply back to Vegas. You need to set this preference every time you create an effect that outputs alpha.

Important Information for Ulead Users



Projects in certain versions of Ulead Media Studio Pro may display jagged edges or reversed fields in rendered Boris effects. If your system shows this problem, you can use a utility to reverse ULead's video fields. If you have questions about this utility or whether your system exhibits this problem, email Boris technical support at support@borisfx.com.



Using Graffiti in Ulead with the Matrox Parhelia board, may cause crashing. We do not recommend using the Matrox Parhelia board with Graffiti plugged into Ulead.

Installing and Using Adobe After Effects Filters within Boris Graffiti

Boris FX provides a supported list of AE filters for use inside Boris Graffiti. For best results, use only supported AE filters inside Boris Graffiti. An list of Supported, Conditionally Supported and Unsupported filters can be found on our website: www.borisfx.com.

Supported filters were tested on single-processor machines. While these filters should also work in multi-processor machines, it is possible you will experience unexpected results or your machine may crash. If you have problems with supported filters in multi-processor machines, try disabling your MP functionality and recreating your filter effect.



Tinder Users: Tinder’s Effect Viewer only works properly with the Graffiti Composite window set to Full Resolution. Additionally the Effect Viewer may disappear after dragging tracks. Use the regular controls if you experience this problem.

Important Information on Using After Effects Filters

- Checkboxes and menus cannot be animated.
- Time remapping filters do not work in Boris Graffiti.
- After Effects filters may take longer to render than most Boris Graffiti effects.
- None of Adobe's built-in After Effects filters work inside Boris Graffiti.
- If renders appear noisy or jittery, deselect the **Better Quality Field Rendering checkbox** in the Boris Preferences window and re-render the effect.
- If you have more than 900 filters, you will not see some filters inside Graffiti. If you reach the filter limit, when you launch Graffiti a warning asks you to remove some files from the BorisPlugins folder. You can ignore the warning but you will not have access to all filters in the BorisPlugins folder. Use the Plugin Filter Manager to hide filters you don’t need. See the User Guide for details on using the Plugin Filter Manager.

Installing AE Filters for Macintosh

Macintosh users should place supported After Effects filters or an alias in the following folder. The filters appear in the Filters menu within Boris Graffiti.

System Folder (or Library)/Application Support/BorisFX/BorisPlugins

Installing AE Filters for Windows

Windows users should place supported After Effects filters or an alias in the following folder. The filters appear in the Filters menu within Boris Graffiti.

C:\Program Files\Boris FX, Inc.\BorisPlugins

Important Information about Exporting to Flash

Boris Graffiti allows you to export files in the Macromedia Flash (SWF) format. This allows you to export compositions as compact, vector-based files optimized for web viewing. For example, you could export a Type On effect to include on a web page.

Graffiti exports Flash .swf files that are compliant with the Flash 5 architecture. If you are using QuickTime to preview your exported .swf files, you need a version of QuickTime that supports the Flash 5 format. The following effects are supported for exporting to Flash.

- Text
- Spline media
- 2D Charts (which consist of text and spline shapes)

Other bitmap elements such as video or still graphics can be included in the exported Flash file and will be JPEG-compressed. In the Export preferences you can set the quality of the JPEG compression.



When you export text to Flash, any texture that was applied to the text is ignored.



When you export text with a gradient fill to Flash, the resulting .swf file is blank.

Exporting as Flash

The SWF format was designed primarily for animated 3D Line Art objects, so it works well when exporting settings that contain spline and text animations. Settings that contain video or animated bitmaps, however, generate rather large files. You might want to consider exporting such animations as a QuickTime or AVI file. See “Exporting Effects as Movies” on page 297 in the Graffiti User Guide for details.

The Flash export feature has some limitations. You cannot export 3D Extrusion tracks as Flash. Settings that contain 3D Extrusion tracks export as a blank track. The Flash export feature does not support shadows or gradients used as Texture tracks. However, you can export a static gradient as a bitmap background.




To prepare to export to Flash, you should change any shape track containing text or Spline media to the 3D Line Art shape. Because you cannot use the 3D Line Art shape with the Brush tool, you cannot export brush strokes as Flash.

1. Select the appropriate track in the timeline.
2. Choose File > Export > Flash.
A dialog box appears that allows you to name and save the file.
3. Name the track and click **Save**.

The composition is exported using the Flash Export settings, which are controlled by the Preferences window’s Export tab.

Important Information Using the KeyFrame Library

The first time you browse the KeyFrame Library effects within the Library Browser you must generate thumbnail images for the effects.

1. Open the Boris Library Browser, by choosing Window > Library Browser, clicking the **Open Library Browser button** in the timeline or pressing Command-9 (Macintosh) or Control-9 (Windows). 
2. Select an effect or effect folder and click the **Generate Thumbnails button**. For more information on using the KeyFrame Library, see the Graffiti User Guide.



We recommend that you build thumbnail previews for the KeyFrame Library in the Graffiti KeyFramer rather than within your host application. Because building previews actually renders your effect, this process can take as much as 25-30% longer in the plug-in than in the Graffiti KeyFramer.

Fixed Bugs in Boris Graffiti since Version 4.0

Graffiti 4.0.2 includes many bug fixes from the initial version 4.0 of Graffiti. Fixed bugs include the following. Some of the following bugs were fixed in earlier versions of Graffiti.

- Graffiti now correctly supports Macintosh OS X 10.4.2 (Tiger).
- Graffiti 4.0.2 settings now correctly open in Red 3.0.4.
- **Avid only:** Graffiti now correctly installs into Avid Xpress Pro 4.8 and Adrenaline 1.8 systems.
- An issue with QuickTime export movies has been fixed, which previously caused a crash in certain hosts plug-ins (primarily on Windows AVX hosts). This crash could also occur when selecting the QT codec.
- German umlaut fonts now correctly display in Graffiti.
- Third-party Asian fonts now appear correctly when typing in the Text window.
- **Final Cut Pro users only:** Graffiti version 4.02 now correctly field renders synthetic media (titles and splines) when you apply as a generator. However, this fix will not work for legacy projects from FCP version 3.0. A previously version corrected a related problem so that other media types would field render video in the wells when using an FCP Generator. However, the media placed in the input wells for a Generator should match the FCP sequence size. Both the Graffiti size and the size of the well video will appear in Graffiti at the FCP sequence size. If the well media is not the same as the FCP sequence size, fields won't render correctly.

Additionally, any video in the input wells should be the same size as the filtered clip. When applied as a filter, the Graffiti project size is determined by the size of the filtered media which needs to match any video in the wells. This will maintain the integrity of fields since Graffiti doesn't allow host video inputs of various sizes within the same effect.

In a case that requires media sources whose size will not match the FCP sequence size (Generator) or the filter media size, the best approach is to import that media into the Graffiti timeline from disk (rather than from the wells in FCP). This provides flexibility for dealing with non-standard size images, field interpretation, and oversize images.

- In Graffiti 3.0 the Preview To Monitor for Avid feature was disabled even when running in Meridien-based Avid versions. This was corrected in Graffiti 3.0.1.
- **Final Cut Pro 4.0 only:** The Graffiti banner in the Effect Control tab no longer disappears after you apply an effect.
- **Final Cut Pro 4.0 only:** In earlier versions, Graffiti could crash when applied as a filter or static generator in a setup that included a custom screen layout, such as color correction. This problem would occur when relaunching the Graffiti user interface. This problem has been corrected.
- The 1-2-1 Deflicker preference is now correctly saved with your Preferences file.
- **Premiere Pro only:** Transitions and presets no longer appear vertically stretched when applied in Premiere Pro 1.5.
- **Premiere Pro only:** Shapes no longer appear and render stretched when previewing a Premiere Pro timeline at High Quality.
- **Pinnacle Liquid Edition 6.1 only:** Fields are no longer reversed when rendering a Graffiti effect in Pinnacle Liquid version 6.1. See “Important Information for Pinnacle Liquid Edition Users” on page 15 for details.
- Dragging an animated spline track into the mask track of another track now correctly preserve the keyframe animation.
- Spline track keyframe timing information is now properly preserved when tracks are copied.
- **Windows only:** Crashes that occurred in certain situations when duplicating filter sets in the Plugin Filter Manager have been corrected.
- **Windows only:** Font styles are now stored with a **.B2F** extension instead of **.B2D**. This prevents the Text Styles and Font Styles from overlapping and appearing in the same tab in the Style Palette.
- Graffiti 4.0.1 fixed situations where the Render thermometer did not update when you worked with either OpenGL enabled, or on an MP system in High Quality mode.
- Switching vertically from track to track in the timeline using the keyboard now properly synchronizes the OpenGL interactors shown in the Composition and Preview windows.
- Deleting the last used Library Browser folder and then launching Graffiti no longer causes Graffiti to hang when trying to restore that folder as the current one.
- The Render Thermometer now updates more consistently.
- **Windows only:** Old tool tips no longer randomly display in the Controls window when you hover over unrelated areas.
- The **Delete** key now deletes selected items in the Style Palette.
- The display of multiple selected items in the Style Palette now indicates the current selection when you Shift-select.

- **Final Cut Pro 4.0 only:** When you use Graffiti as a Transition in Final Cut Pro 4.x, the Graffiti Preferences are now respected. This means that when you relaunch Graffiti as a Transition, changes you make to Quality, Resolution and other Graffiti Preferences no longer need to be reset each time.
- **Windows only:** Many keyboard shortcuts that displayed incorrectly have been fixed.
- When you create spline effects using the **Add Extruded Pencil button** with animated borders, the effect no longer exhibits frames that appear different after rendering than they did when previewing the effect.
- **Windows only:** The BCC Film Damage filter **Hair** parameter now functions correctly.
- Checkboxes and menus from the Controls window no longer display as **Option Change** in the History Palette.
- Preview to RAM now plays just the rendered section, rather than the entire timeline.
- Preview to RAM at Half Rate and Preview to RAM at Quarter Rate now preview the entire duration at their given rate.
- **Windows only:** If you press the Boris logo at the top of the Tools window, you no longer receive a memory error.
- **Media 100 iFinish only:** iFinish now passes the 16:9 ratio to Graffiti in transition mode only. The Composite window no longer reflects 4:3.
- Changing font size on Chart Legends now changes the size of the squares accordingly and the circles remain the same size.
- If you change a Fade Animated Chart from Flat to Extruded, the animation now works correctly.
- Enabling values and a legend on an Area Chart no longer causes their values to display underneath the chart.
- Resetting a chart now fully resets any color changes you made.
- **Windows only:** Oversized images used as media for a background track now show up correctly when OpenGL enabled.
- **Windows only:** Keyframes now display correctly in the timeline when you create them by moving OpenGL interactors if one of the position's interpolation is set to Constant.
- When you map media with an alpha channel to a Cube with multiple faces, you no longer see different media for the sides of the cube in OpenGL vs. Non-OpenGL modes.
- Spline shapes no longer shift if you draw a shape with the Brush tool then select the Arrow tool.
- If you have multiple tracks selected in the timeline and move them, the timeline now correctly displays the moved tracks.
- All settings from the Keyframe Library **Backgrounds** category now render correctly when you apply them with OpenGL enabled.

Known Limitations in Graffiti 4.0.2

Graffiti 4.0.2 includes the following known limitations.

General Limitations

- If you tumble an object that has an image bump map, you may see a moire pattern as it tumbles.
- When you save a style to the Materials tab in the Style Palette, it does not correctly save the Source type that was used in the Bump Map tab.
- When you open settings created in previous versions of Graffiti, Graffiti 4.0.2 ignores controls that were initially enabled in the Lights 2 and 3 tabs.
- When you search for a missing media file using the **Search button** in the Media Files window, it may not find files that were moved to another local drive. Manually browse to the new location of the file and press the **Replace button**.
- Tracks containing PSD files that are converted to containers do not correctly update if you modify them (for example in Photoshop) and then use the Reload Files command.
- When you choose *Targa Sequence* as a file type when exporting a movie file, clicking the **Compression Settings button** erroneously displays QuickTime codec selections.
- Files exported to Flash from Graffiti cannot be used in Macromedia Flash authoring applications such as Flash MX.
- If you use the Keyframe Time field in the timeline to move keyframes, all keyframes that a moving keyframe passes are merged to it. Instead, move keyframes past one another by dragging the mouse.
- Photoshop (.psd) files with adjustment layers display incorrectly in Graffiti if you convert their track to a container. Turn off any adjustment layers in Photoshop before importing .psd files if you plan on converting them to containers.
- Microsoft DV Type 1 filters do not work in Graffiti as audio tracks.
- You cannot adjust Volume and Balance for Graffiti audio files do not update after you have changed them once.
- Previewing with audio while you Preview to RAM to Monitor will disconnect Preview to an external monitor.
- Audio waveforms do not update when you adjust the global timeline. This is only a display issue and can be corrected by moving something slightly in the Composite window.
- Resuming a partial render of an exported QuickTime file may have some undesirable results. In particular, video compressed with codecs that use frame-differencing and data-rate-limiting (such as Sorenson or Cinepak) may exhibit the following behavior. Some frames following the resume point may be corrupted. The data rate may be slightly larger than expected. Also, if the file includes an audio track, a slight blip may be heard at the resume point. This may occur with any codec.

- If you apply a title container to the timeline and add text into the container, you cannot successfully change the Background Color (in the Render tab). However, if you disable OpenGL, you can change the color if you view in High Quality.
- If you use Frame-Differenced movies (including movies compressed with Apple's QuickTime Animation codec and some movies compressed with Sorenson), you will see reduced performance. The use of Frame-Differenced movies is not recommended within Graffiti.
- When host field media is exported or previewed as frames, only the first field is used.
- When an image is full size in the Composite window, you must deselect the Shape control in the Composite window's Controls menu to directly manipulate an object's Mask or Crop controls.
- **Windows only:** Balance and Volume controls have no affect on audio tracks containing AVI files or MP3 files.
- **Windows only:** Boris Graffiti exports Flash.swf files that are compliant with the Flash 5 architecture. If you are using QuickTime to preview your exported.swf files, your QuickTime version must support the Flash 5 format. Older versions of QuickTime display the background as a solid color.

Limitations with Avid Systems Only

- Avid 24p media renders with an image quality problem that seems to indicate Graffiti is treating it as fielded media. We are working with Avid to quickly correct this problem.
- **Avid XpressDV and Speed~Razor only:** The Tool window can be forced into the background if you open it then click a window it is floating over.
- **Windows Avid Xpress Pro Only:** Due to a problem on Avid's side, you will crash when exporting a QT movie from Graffiti if you choose Avid's MPEG 2 codec.
- Titles created in Avid display garbage in Graffiti when viewed at Full Quality and if the visibility for the lower timeline track(s) in Graffiti are disabled.
- Rendered Graffiti or AvidFX effects on tracks in the Avid timeline above Boris effects aren't unrendered when a change is made to the Boris effect - even in cases where they should become unrendered.

Limitations with Edius Systems Only

- In Edius, when a clip is rendered, that clip is locked. Any changes to a Graffiti effect will not display in the Edius Preview window until Edius is closed and reopened. To work around this limitation, complete the following steps:
In the Edius settings, click the Render tab. In the **Delete invalid rendering files** section, choose *When the Rendered File is Invalid*. Unrender the clip by making a change, such as toggling the checkbox to disable / reenable the effect in the Edius Information Palette.
- At this time Boris products do not support being launched from inside other Edius filters (for example, the Combine or Region Edius filters).

Limitations with Final Cut Pro Only

- **Final Cut Pro version 3.0 Users only:** FCP 3 users running Graffiti as a plug-in with FireWire for Graffiti's Preview to Monitor feature, must disconnect before clicking the **Apply button** or FCP will crash. To disconnect, choose Preview > Disconnect External Monitor.

Limitations with Media 100 and iFinish Systems Only

- **iFinish only:** Intermittently, iFinish's Media 100 codec is not available within Graffiti's QuickTime Export options list. Quitting and relaunching iFinish may fix this.

Limitations with Pinnacle Systems Only

- **Pinnacle Liquid Only:** When you apply Boris as a transition and launch Graffiti, Graffiti's Composite window incorrectly displays the outgoing clip as the incoming clip. This is only a cosmetic problem and the transition will render correctly in Liquid. To work around this limitation, do one of the following.

Create the transition in Graffiti as if your clips are correct. When you finish, apply the effect to Liquid and render your transition. The final render will be correct.

Alternatively you can press the **Media icon** in each Graffiti track and swap Video 1 and Video 2. When you create your transition it will look correct in Graffiti. Remember to swap them back before applying to Liquid.

- When Graffiti is applied to a segment that also has a transition (including a native Liquid Transition) applied, the effect previews correctly, but renders as if the effect was applied twice (once on the video segment and again during the duration of the transition).
- Although choices appear for accessing video tracks 1 - 32, you can only successfully access tracks 1 and 2. Tracks higher than two display as black. This is a limitation of the Pinnacle plug-in architecture.

Limitations with Premiere and Premiere Pro Only

- **Premiere 6 only:** When exporting host media through Graffiti, use Fields > None to export movies, rather than choosing upper or lower fields.

Limitations with Sony Vegas Only

- When you create an effect in Graffiti that will output an alpha channel to Vegas (for example a title which does not include the background video), when you apply the effect back to the vegas timeline you will notice the edges appear rough and contain white fringes. You need to reenter Graffiti on the effect and in the Graffiti Preferences set the Local Preferences' **Alpha Type menu** to *Premultiplied with Black*. The effect will display correctly when you apply back to Vegas. You will need to do this every time you create an effect that outputs alpha.
- If a Boris effect is prerendered in the Vegas timeline, future changes to that effect in Boris will be saved but do not appear in the Vegas Preview window until you remove the prerender in Vegas (Tools > Clean up Prerendered Video).

- Vegas only previews a single frame of host video in Boris Graffiti. The preview frame is taken from the current position of the Vegas cursor. To preview your effect with updating source media, exit Graffiti and preview the effect in the Vegas Video timeline or import the video directly into the Graffiti timeline.
- Motion Blur does not display in a rendered effect if you apply Graffiti directly to a clip in Vegas. Instead, import the media directly into the Graffiti timeline and you will see motion blur after you render your effect.

Limitations with Ulead Only

- When using Graffiti as a transition in Ulead, the image quality for host media in the Composite window is very poor. This is because Ulead does not pass a full size image. However, this does not affect rendering. The effect renders in high quality.
- When using Graffiti within Ulead with the Matrox Parhelia board, you may run into crashing problems. We do not recommend using the Matrox Parhelia board with Graffiti.
- Projects in certain versions of ULead Media Studio Pro may display jagged edges or reversed fields in rendered Boris effects. If your system shows this problem, you can install a registry key that indicates that ULead's video fields should be reversed. This is found on the top level of the Boris CD in the Ulead Field Change folder. It also available at www.borisfx.com/download/utilities.php on the Boris FX website. For more information, see "Important Information for Ulead Users" on page 16.

Limitations with OpenGL

- Final Cut Pro 4.x users must install a minimum Macintosh OX 10.3 installed in order to support Graffiti's OpenGL feature.

Limitations with Keyboard Shortcuts

- **Windows Only:** After creating new keyboard shortcuts, certain items in the Windows menu may show duplicate keyboard shortcuts (for example, the Filter Palette and Media Files window display the same keyboard shortcut). You can assign new shortcuts in the Shortcuts window. See the User Guide for details on creating shortcuts.

Limitations with the Spline Object Media Type

- If you select a group of splines in the Composite window and adjust one of the Path track's control parameters, the changes are not applied to any of the splines. The Path controls can only adjust one spline at a time.
- The *Reverse Keyframes* command (Track > Reverse Keyframes) does not work in Spline effects.
- If you apply a spline style from the Style Palette to a spline primitive shape, the shape resets back to the default shape values.

- Selecting the **Apply Current Spline Style checkbox** can create unintended changes if the setting is modified after another spline style is selected. For example, you create a static Line chart with the **Apply Current Spline Style checkbox** selected. You apply another spline style from the Style Palette to a different track. If you then animate the chart, the chart will update with the latest spline style, rather than the style originally saved with the effect. The only workaround necessary is to reapply the original spline style from the Style Palette.
- Depending on the scale you set for a Line Chart, you may see small nicks or indentations in the lines when you work in Full Resolution. Slightly increase or decrease the scale of the line chart to fix this.

Limitations with Filters

- Any effect that uses a filter involving edge detection (for example, RGB Edges) should be rendered with the **Better Quality Field Rendering checkbox** selected. Otherwise, the rendered effect will jitter.
- In the 2D Particles filters, increasing the particle size scale can cause some custom shapes to truncate. You can avoid this by looking at the initial, unscattered particle grid. If some particles are cut off by the frame when you increase their size, then they will remain cut off throughout the duration of the effect. To avoid this, adjust the size parameters so that no particles are initially cut off.
- The first rendered frame of effects using the 2D Particles Advanced filter will display particles, although you will not see particles in the first frame of a preview.

Registration

Make sure to register your product in order to receive the latest technical and upgrade information as well as several BCC filters which are not included on the Boris Graffiti 4.0.2 installation CD. You can register either by filling out the registration form online at <http://borisfx.com/support/register.html> or by sending us your completed registration card.

We offer registered users one year of free technical support starting from the date of purchase. In addition, registered users have access to some free upgrades.



The BCC Light Zoom, BCC Twirl and BCC Spiral Blur filters are available as a free download to registered users. These filters are available on the Downloads page at www.borisfx.com.

Contacting Technical Support

For technical support, contact Boris Graffiti technical support specialists:

web: <http://www.borisfx.com/support/>

e-mail: support@borisfx.com

phone: 617-451-9900

hours: 9am-5pm Eastern Time (United States & Canada, GMT -05:00)