

## BCC Directional Blur Filter

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.



*Source image*

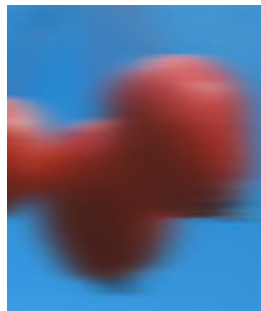


*Filtered image*

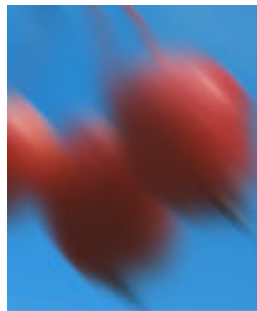
If the source image is opaque, selecting the **Opaque Source checkbox** can speed rendering and preview times. If your source is partially transparent, deselect this option for best results.

**Blur Amount** controls the amount of blur applied to the image. Increasing Blur Amount displaces pixels farther in the chosen direction and creates more blur.

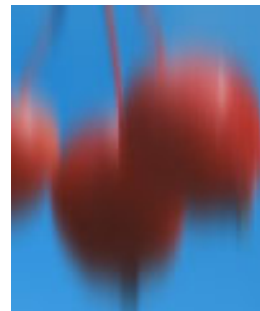
**Angle** sets the direction in which pixels are displaced to create the blur.



*Angle=0°*

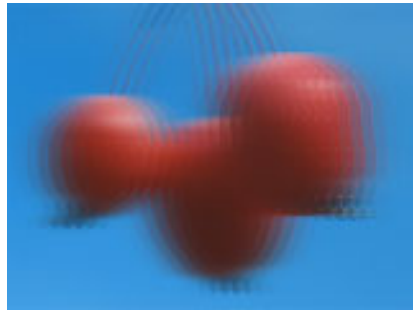


*Angle=45°*

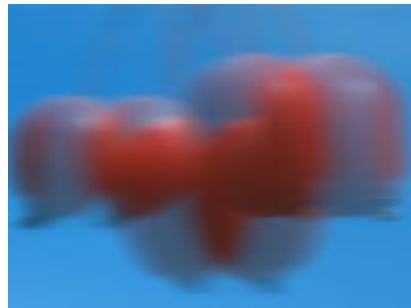
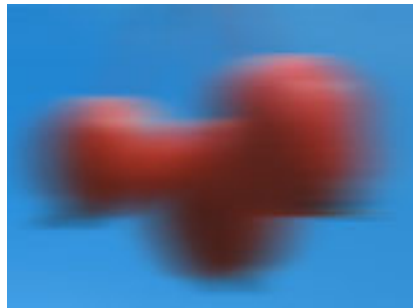


*Angle=90°*

**Thin** reduces the number of pixels used to compute each point in the blur. Increasing Thin decreases the smoothness of the blur but reduces render time. Higher Thin values produce a “double vision” effect.



Increasing **Spread** causes each point in the rendered output to be affected more by points farther away from it in the blur, producing a blurred “double vision” effect.



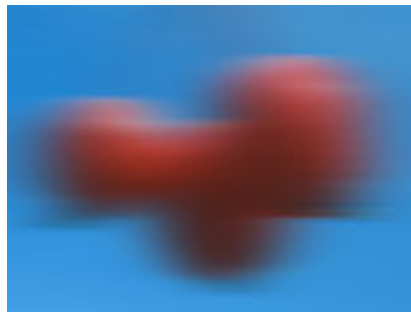
**Blur Threshold** reduces the amount of color change to each pixel by the threshold amount. Increasing Blur Threshold causes the parts of the image with abrupt changes in color to blur, while areas with subtle details remain unchanged.

The **Maximum Deviation** parameter sets the maximum deviation (based on 8 bit color) allowed for any channel. Reducing this value limits the amount any color can change. This control becomes more noticeable at values below 30. Very small values of Maximum Deviation can be useful (especially combined with PixelChooser) to reduce noise in video and digital stills that contain noise in their dark areas.

The **Avoid Clipping checkbox** allows you to render outside the source image. Note that this will cause the edges of an opaque image the full size of the project to become partly transparent (just as some hosts such as After Effects’ built-in blurs do). If this box is selected the filter always uses Better Alpha Blending.

**Displace Pixels** displaces each pixel in the direction it is blurred. For example, if **Blur Amount** is set to 20 and **Displace Pixels** is on, pixels are displaced 20 pixels in the specified **Angle** and blurred 20 pixels. Thus an **Angle** value of 0 displaces the image to the right, and a value of 180 displaces the image to the left. If **Displace Pixels** is off, pixels are blurred 20 pixels but not displaced.

In the following examples, the image is blurred with a **Angle** setting of 180°. When **Displace Pixels** is selected, the image is displaced to the left.



*Displace Pixels off*



*Displace Pixels on*

The **Apply Mode** menu controls how the filtered image is composited with the source image.



For descriptions of all the possible **Apply Modes**, see Appendix A in the User Guide.

**Apply Mix** controls the mix of the specified **Apply Mode** with the *Normal* apply mode. If the **Apply Mode** is *Normal*, **Apply Mix** has no effect. If **Apply Mix** is 0, **Apply Mode** has no effect. Increase **Apply Mix** to blend the **Apply Mode** setting with the *Normal* apply mode.

Use the **Channels** menu to specify which channels are blurred. You can blur all four channels (*RGBA*), just the *RGB* channels, just the *Alpha* channel, or any combination of the *Red*, *Green*, and *Blue* channels.

**Mix with Original** blends the source and filtered images. Use this parameter to animate the effect from the unfiltered to the filtered images without adjusting other settings, or to reduce the effect of the filter by mixing it with the source image.

If you are using the controls in the **PixelChooser** parameter group, the **Apply PixelChooser** menu determines when the **PixelChooser** controls are applied to the blurred image.

- Choose *Post-Effect* for the **PixelChooser** to affect the image before the blur is applied.
- Choose *Pre-Effect* for the **PixelChooser** to affect the image after the blur is applied.
- Choose *Both* for the **PixelChooser** to affect the image both before and after the blur is applied.

### **The PixelChooser Parameter Group**

The PixelChooser is included in many Boris filters and provides several methods to selectively filter an image.



For more information on the PixelChooser, see Chapter 10, “The PixelChooser” in the User Guide, or open the help file for the standalone PixelChooser filter.