

BCC Bump Map Generator

Bump mapping is used to create three dimensional detail on an image based on the luminance information in the image. The luminance value of each pixel of the image creates height, with brighter pixels creating more height.

Control Parameter Group

The **Offset XY** controls determine the position of the generated bump map.

Rotation spins the bump map around the Z axis.

Select the **Use Alpha checkbox** to use the source image's alpha channel as a mask for the filter, so the texture appears only in the opaque regions of the source. If this option is deselected, the source image's alpha channel is ignored.

Bump Height determines the height of the bump map used to create the texture of the bricks.

Bump Smoothness adjusts the amount of blur applied to the bump map. Higher values produce more blur, which tends to reduce the amount of detail and noise in the filtered image.

The **Tiling Style menu** lets you repeat the texture. This menu has no affect unless the Scale X and Scale Y values are less than 100.

- **Symmetric** tiles the images.
- **Repeating** mirrors the tiled images.

Scale X and **Scale Y** determine the horizontal and vertical size of the bricks. Select **Lock to Scale X** to lock the Scale Y value to the Scale X value, or deselect this option to adjust each parameter independently.

Lighting Parameter Group

The **Light Type menu** determines the type of light source.

- **Point** combines both focused (specular) and diffuse light. You can use this Light Type to create the appearance of a shiny surface lit by a point light source.
- **Distance** creates a non-directional infinitely distant diffuse light, similar to sunlight.
- **Spot** creates the look of a traditional theatrical spotlight. Spot creates a small spot of intense light whose falloff can vary.

The **Light XY** controls position the light source in space by moving the light parallel to the image plane along the X and Y axes.

Light Z positions the depth of the light source relative to the image plane. A value of 100 places the light one source width above the image plane. Light Z can be negative, which places the light behind the image plane. If Light Z is negative, the light is seen only if the object is rotated or displaced so that all or part of it is behind the light source (that is, the light source always points in toward the object, never out at the viewer).

Light Intensity controls the intensity of the light.

The **Light Color** controls determine the color of the light.

The Spot XY controls set the X and Y coordinates for the point at which the spotlight is aimed. Unlike the X and Y Light controls (under the Light Type menu), adjusting the Spot parameters does not change the shape of the light.

Spotlight Angle sets the angle of the light. This is analogous to focusing the light. Decreasing values create a smaller, more focused light.

Spotlight Falloff controls the relative softness of the edges of the lit region. Leave Spotlight Falloff at its default setting if you prefer a soft edge, or decrease this value to harden the edges of the lit region. Spotlight Falloff removes light from the edges of the lit region. To maintain the size of the region while softening the edges, you need to increase Spotlight Angle accordingly.

Select the **Use Texture Color checkbox** to use the color values from the underlying track to which the filter is applied. Deselect this checkbox to use the luminance values only. When this checkbox is deselected, the **Color controls** below set the color that is used with the luminance values.

White in Specular increases the amount of white in the specular light. Increasing this value can create a more metallic surface effect. This parameter is only useful when Specular Intensity has a value greater than 0.

Ambient Intensity adjusts the total amount of diffuse light on the image. The default setting of 100 does not add or subtract ambient light from the source image. Decreasing this setting makes the image darker before the other lights are applied. Ambient light illuminates or darkens the image evenly, and is unaffected by any other lighting parameters.

Diffuse Intensity determines the amount of non-directional diffuse light applied to the object. Increasing Diffuse Intensity brightens the object uniformly.

Specular Intensity simulates lighting a glossy surface from a point source, creating a small spot of intense light whose falloff can vary. Increasing this value adds reflected light to the surface.

Shininess controls the rate at which the Specular light falls off from the center of the lit region. A higher Shininess value creates a more concentrated highlight, simulating a shiny, highly reflective surface. A lower Shininess value spreads light more evenly throughout the lit region, simulating a rougher, less reflective surface.

Surface Image Parameter Group

The **Image Layer menu** allows you to choose a layer to use as the background of the effect. When the Image Layer menu is set to None, the other parameters have no affect.

The **Position XY controls** determine the position of the layer specified in the Image Layer menu.

Scale X and **Scale Y** determine the horizontal and vertical scale of the layer specified in the Image Layer menu. Select **Lock to Scale X checkbox** to lock the Scale Y value to the Scale X value, or deselect this option to adjust each parameter independently.

Image Rotation spins the layer specified in the Image Layer menu around the Z axis.

Image Opacity sets the opacity of the layer specified in the Image Layer menu.

Apply Parameter Group

Select the **Source Alpha checkbox** to use the source alpha channel as a mask for the filter, so the texture appears only in the opaque regions of the source. If this option is deselected, the source image's alpha channel is ignored.

Opacity adjusts the opacity of the simulated texture.

The **Apply Mode menu** controls how the texture is composited over 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 affect. If Apply Mix is 0, Apply Mode has no affect. Increase Apply Mix to blend the Apply Mode setting with the Normal apply mode.