OpenGL Gradient Brush Effects

The CGI-Studio gradient brush paints an area with two colors that blend into each other along an axis. You can use a gradient brush to create impressions of light and shadow, giving your controls a feeling of 3D. You can also use them to simulate smooth surfaces like glass, chrome, or water. CGI-Studio provides three types of gradient brushes: GlLinearGradientBrushBlend, GlLinearGradientBitmapBrushBlend and GlRadialGradientBrushBlend.

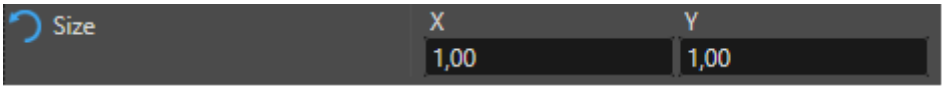
> Note that the Gradient Brush Effects are OpenGL effects that are only available on platforms supporting OpenGL.

GlLinearGradientBrushBlend

The GlLinearGradientBrushBlend paints an area with a gradient defined along a line, the Gradient Direction. Additionally to common blend effect properties, you can define the size of the painted area, the gradient's two colors as well as the center, the direction and the magnitude of the gradient.

Size

The filled size (width and height) in pixel.

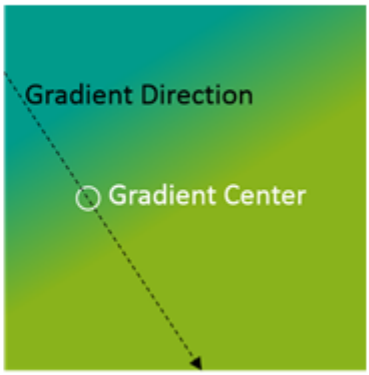
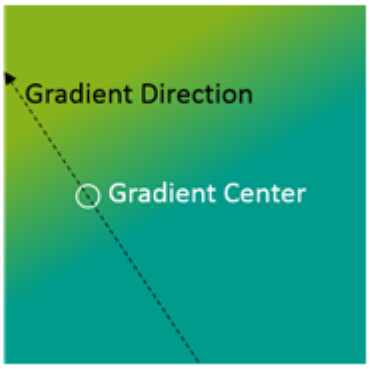


Gradient Center

This 2D coordinate value defines the center of the gradient effect. This is the position where both colors are half opaque. The gradient center coordinate is relative to a bounding box: 0 indicates 0% of the bounding box and 1 indicates 100% of the bounding box.

Gradient Direction

This 2D vector value defines the direction of the gradient effect. The colors of the gradient can be switched by changing the direction of this vector.

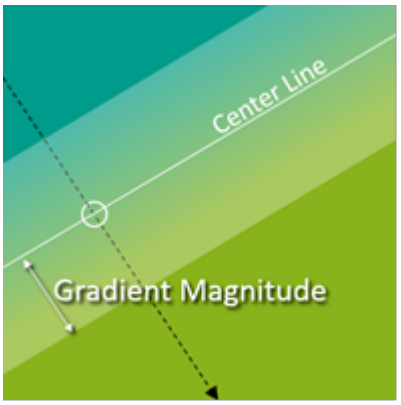
Gradient Direction value	3; 5	-3; -5
Visual result		

There are three special gradient directions that need to be addressed:

Gradient Direction value	1; 0	0; 1	0; 0
Description	vertical gradient	horizontal gradient	radial gradient
Visual result			

Gradient Magnitude

Defines the magnitude of the gradient effect. The magnitude is the distance from the center line to the closest parallel line where the ’positive’ color is fully opaque in the Gradient Direction and the ‘negative’ color is fully opaque in the opposite direction.



Two special values should be noted:

Gradient Magnitude value	0,0	0,5
Description	No gradient, the color changes without blending	One configured color is displayed in the top left corner, the other defined color is displayed in the bottom right corner, blending of the two colors is done all across the area between
Visual result		

Positive Color

Defines the positive color. The opacity of the positive color increases in the Gradient Direction.

Negative Color

Defines the negative color. The opacity of the negative color decreases in the Gradient Direction.

GlLinearGradientBitmapBrushBlend

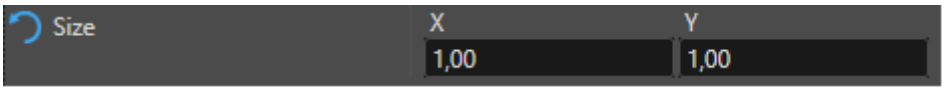
The GlLinearGradientBitmapBrushBlend effect blends a specified bitmap image with a linear gradient to create a combined visual output. The gradient's configuration is identical to the GlLinearGradientBrushBlend effect. The image configuration is the same as for the BitmapBrushBlend effect.

GlRadialGradientBrushBlend

Like the GlLinearGradientBrushBlend, the GlRadialGradientBrushBlend paints an area of a defined size with a generated radial gradient between a Center Color and a Radial Color. The gradient layout can be defined by the Gradient Center and the Gradient Magnitude.

Size

The filled size (width and height) in pixel.



Gradient Center

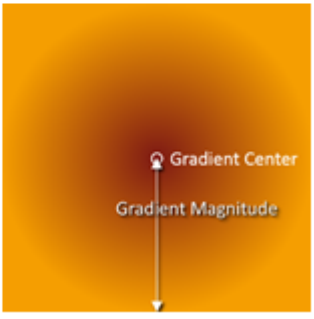
This 2D coordinate value defines the center of the gradient effect. This is the position where the 'center' color is fully opaque and can also be configured to be outside of the node (e.g. -0,25; -0,25). The gradient center coordinate is relative to a bounding box: 0 indicates 0% of the bounding box and 1 indicates 100% of the bounding box.

Gradient Magnitude

Defines the magnitude of the gradient effect. The magnitude is the distance from the center point to the closest point where the radial color is fully opaque and the center color is fully transparent.



There are two special values for the Gradient Magnitude:

Gradient Magnitude Value	0	0,5
Description	no gradient, radial color only	The center color starts opaque at the center point and the radial color is opaque only on a very thin radial area in the outskirts. The colors are blended in a radial gradient in between.
Visual result		

Center Color

Defines the center color. The opacity of the center color decreases from the center point to the outlying area.

Radial Color

Defines the radial color. The opacity of the radial color increases from the center point to the outlying area.

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