Shader-independent glow manual v.1.

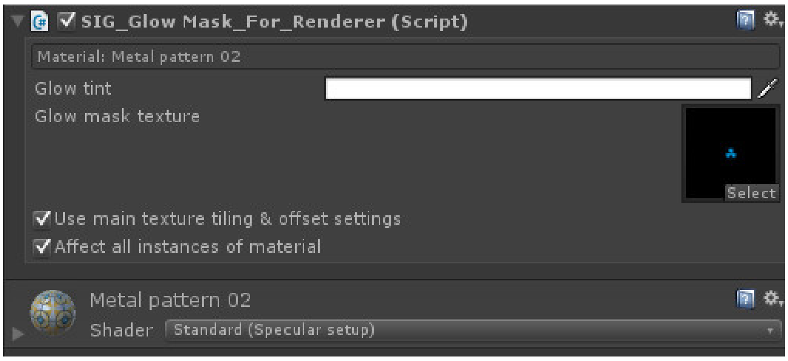
1) Quickstart.

To enable shader-independent glow, first select your camera and add **ShaderIndependentGlow component** to it. To do that, you can select "Component\Image effects\Shader-independent glow\Shader-independent glow image effect" from Component menu or use "Add component" button.

Default component settings should work for most projects (see chapter 2 for settings description).

After adding image effect, you need to setup your glowing objects. It can be done with 2 other component (located in the same menu folder):

GlowMask for renderer can be added to the GameObject with a renderer that needs to glow:



☑ SIG_Glow Mask_For_Renderer (Script)

Material: Metal pattern 02

Glow tint

Glow mask texture

☑ Use main texture tiling & offset settings

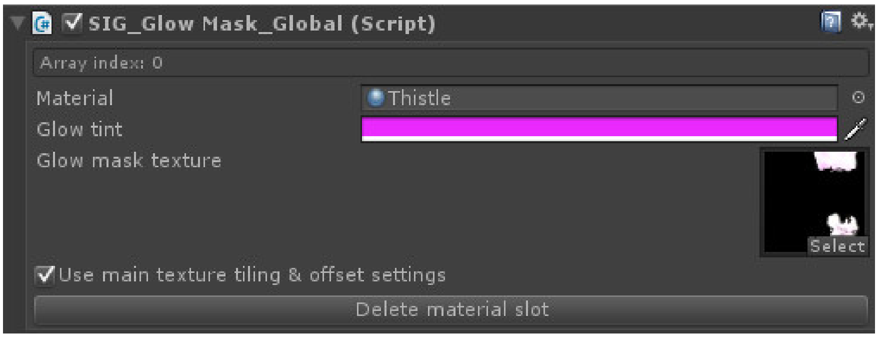
☑ Affect all instances of material

Metal pattern 02

Shader: Standard (Specular setup)

It will automatically create slots for each material in that renderer. You can change tint color of glow and provide glow mask. Without glow mask, whole object will glow. **Affect all instances of material** will enable glow for all renderers using this material, but it's recommended to use next component for that purpose:

GlowMask global can be added to any GameObject(it doesn't matter as long as GameObject is active). This component will enable glow for all instances of designated material. Except for material slot, its settings are identical with glow mask for renderer.



☑ SIG_Glow Mask_Global (Script)

Array index: 0

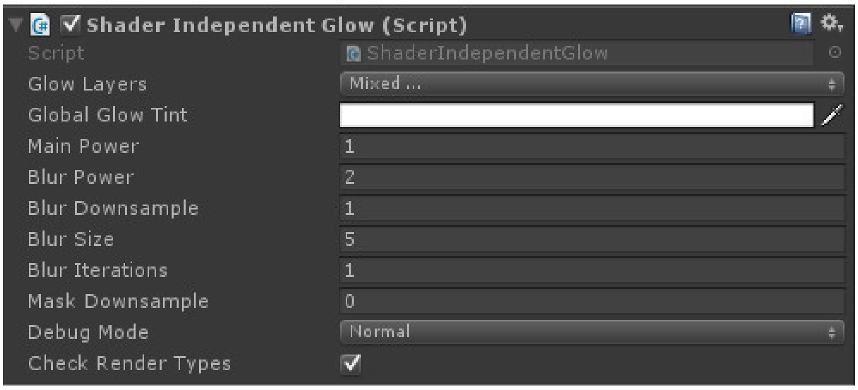
Material: Thistle

Glow tint

Glow mask texture

☑ Use main texture tiling & offset settings

2) Image effect settings



☑ Shader Independent Glow (Script)

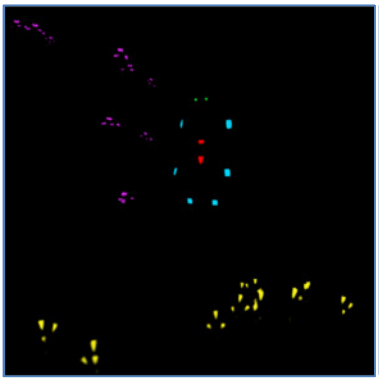
Script: ShaderIndependentGlow
Glow Layers: Mixed ...
Global Glow Tint:
Main Power: 1
Blur Power: 2
Blur Downsample: 1
Blur Size: 5
Blur Iterations: 1
Mask Downsample: 0
Debug Mode: Normal
Check Render Types: ☑

Glow layers – should include only layers with glowing object (see chapter 3 for tips on optimization)

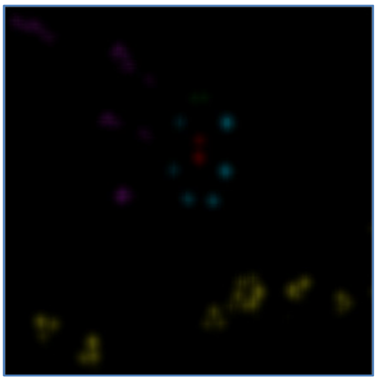
Global glow tint – Glow output will be multiplied by this color

Main power & blur power – strength of the non-blurred and blurred parts of glow effect. You can use negative numbers for substractive glow effect. Non-blurred and blurred outputs will be multiplied by these numbers before being added to original frame.

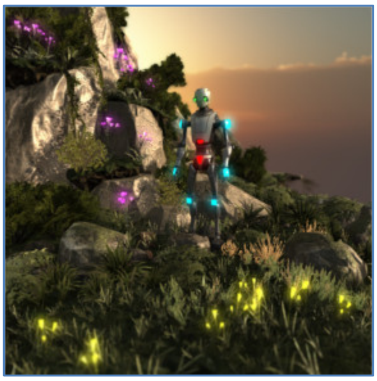
Non-blurred output



Blurred output



Final composing result



Blur Downsample, Blur Size, Blur Iterations – parameters for blurred part of glow. Identical to standard optimized blur image effect (http://docs.unity3d.com/Manual/script-BlurOptimized.html):

Property:	*Function:*
`Downsample`	The number of times the image will be downsampled before the blur is applied. Bigger blurs and faster speeds can be expected the more you downsample.
`Blur Size`	The spread used when filtering the image. Higher values produce bigger blurs.
`Blur Iterations`	The number of of times the filter operations will be repeated.

Mask downsample – downsample factor for rendering glowing parts. Higher numbers will improve performance, but lower visual fidelity.

Debug mode – allows you to see non-blurred and blurred outputs of glow rendering passes.

Check render types – if toggled on, will include transparent and cutout objects as occluders for glow. Uncheck if there's no transparent objects on your scene.

3) Optimization

While by default, glow layers are set to include all layers of your project, you can drastically reduce number of additional draw calls by placing all glowing objects on separate layers. Doing that and checking only layers with glowing objects in “**glow layers**” parameter of image effect is the first step in optimizing this glow effect.

(Note: If you have transparent or cutout objects that need to occlude glowing objects, you’ll have to include layers of these objects in “glow layers” too.)

Second step in optimizing the effect is trying to use **Mask Downsample** parameter. Downsample factor of 1 usually don’t affect final result that much while reducing glow rendering resolution by 4.