

UGUI

Animated Outlines & Glow



Outline & Glow

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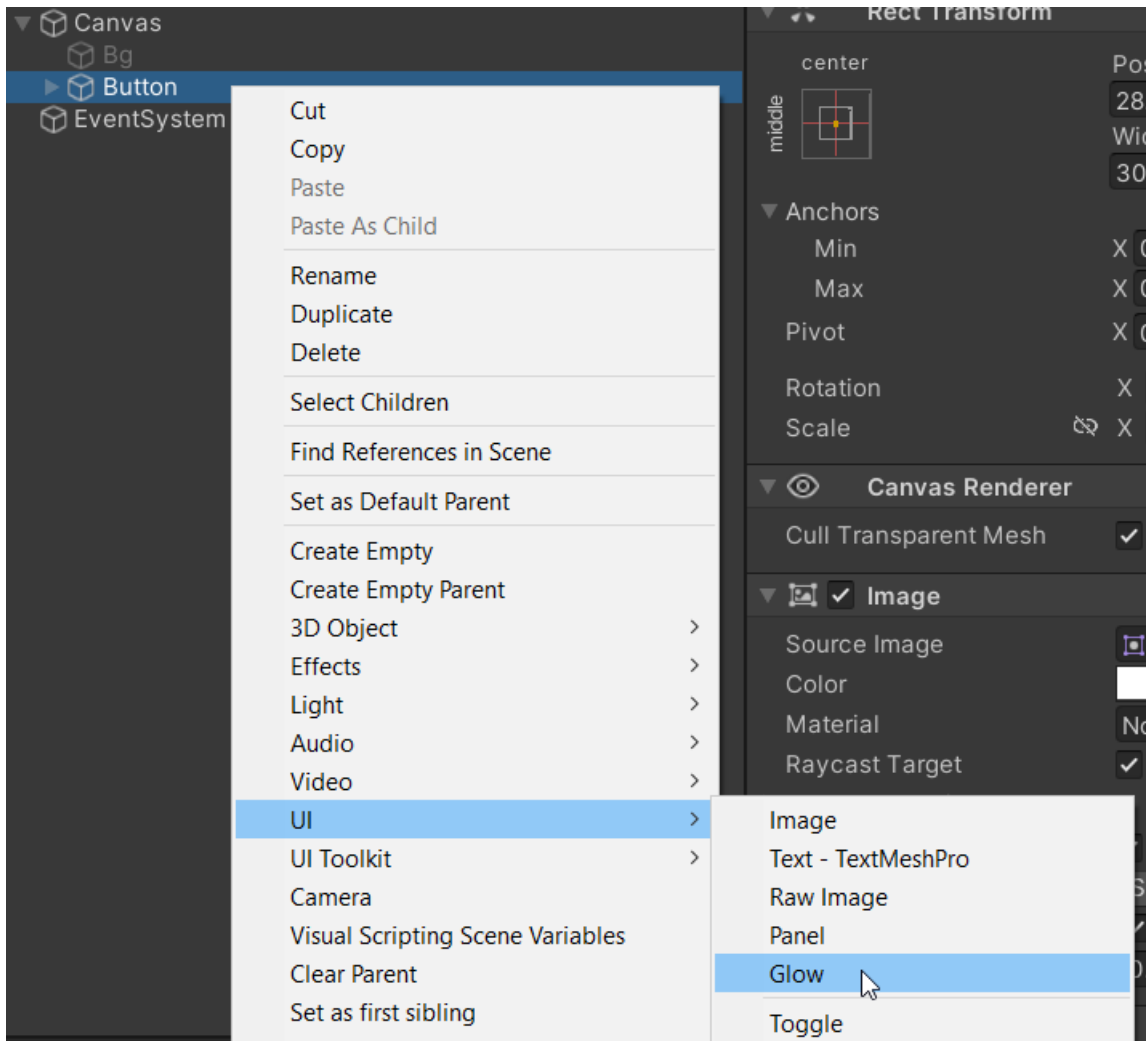
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Requirements

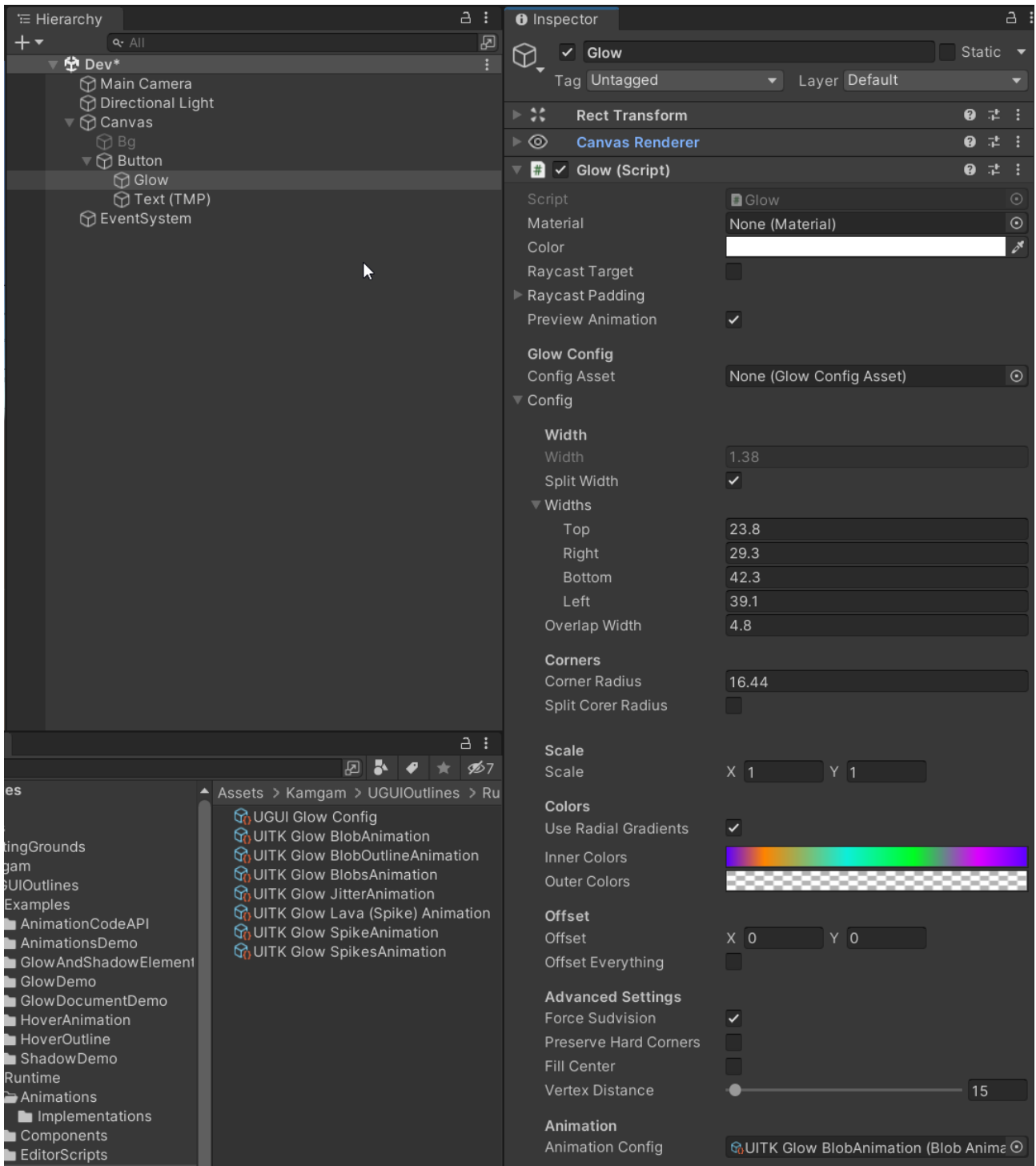
Unity 2021.3 or higher is required. If you can, please upgrade to the highest LTS version of Unity.

How to use the „Glow“ component

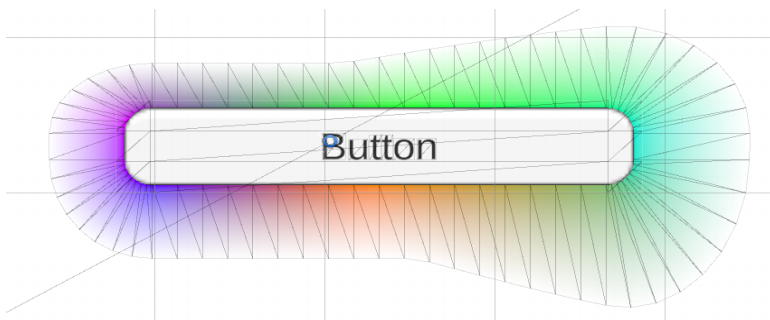
The easiest way to use the glow effect is to **Right-Click** on your ui element and choose: **UI > Glow**.



A new „Glow“ child will be added to your ui.
It contains the Glow component:



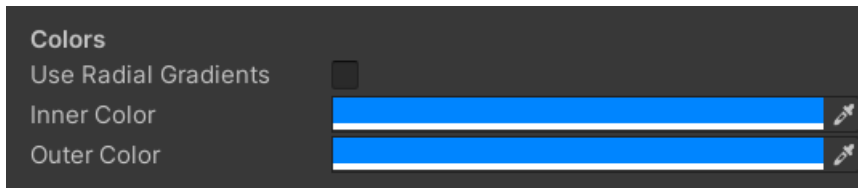
The glow component is a dynamically generated mesh with vertex colors, like this:



The final glow mesh and colors can be controlled by the properties of the glow config.

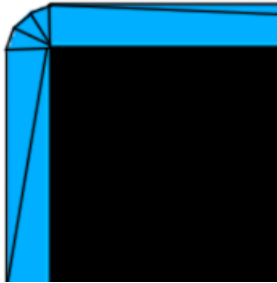
How to make an outline?

It's very simple: choose the same glow color for the inside and the outside, done.



Glow Config

The first thing to understand about the glow effect is that it is achieved by generating a mesh around the element.



The mesh is then colored by tinting the vertices. If you set the inner tint to a color and the outer tint to transparent then you will have a glow effect. If you set both the the same color then you will get an outline effect.

Width

Width describes how big the glow / outline is.

Width = 2



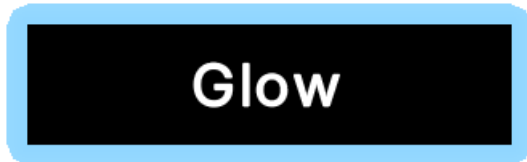
Width = 10



Overlap Width

Overlap define how much the glow mesh will overlap on the inside.

Overlap = 0



Overlap = 10



Split Width

Splitting the widths allows you to specify the with in each direction (left, top, right bottom). If disabled then the same „Width“ will be used for all sides.

Width Left / Top / Right / Bottom

Split Width	<input checked="" type="checkbox"/>
Width Left	30
Width Top	10
Width Right	10
Width Bottom	10



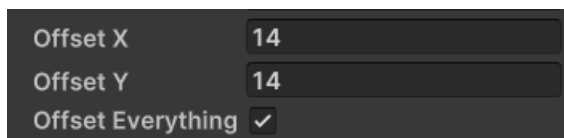
Offset X / Y

The offset pushes the outer vertices in one direction.



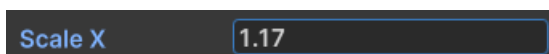
Offset Everything

By enabling this you can offset both inner and outer vertices which means that you are effectively pushing the whole glow mesh around.



Scale X / Y

Scaling allows you to scale the glow mesh. The scale origin is always the center.



Inner / Outer Color

With these you define the color tinge on the inside and outside of the glow mesh.

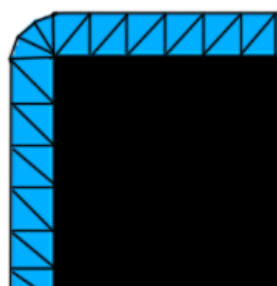
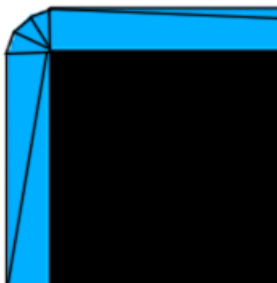


By choosing a transparent outer color you can create a glow effect since the inner color will fade out over distance.



Force Subdivision

Usually the mesh is generated with as few vertices as possible. Like this



However, for animations you may want to have more vertices that are evenly distributed. If „Force Subdivision“ is enabled then even the sides are divided into multiple parts. Like this:

Preserve Hard Corners

If enabled then hard corners are kept hard on the outside. If disabled then they will be rounded.

OFF



ON



Fill Center

As the name suggests this will fill the center if enabled.

OFF

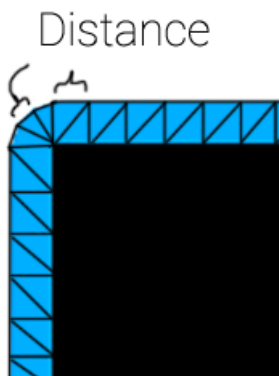


ON



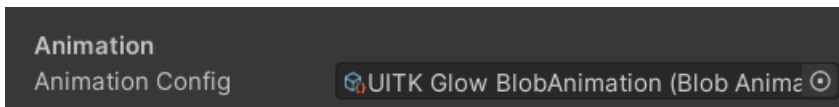
Vertex Distance

This defines how far the vertices in the corners will be apart. The value is the distance between the vertices. If you have „Force Subdivision“ enabled then this will also apply to the sides.



Animation Config

To add an animation to the glow you can add an Animation Config (Animation Asset).

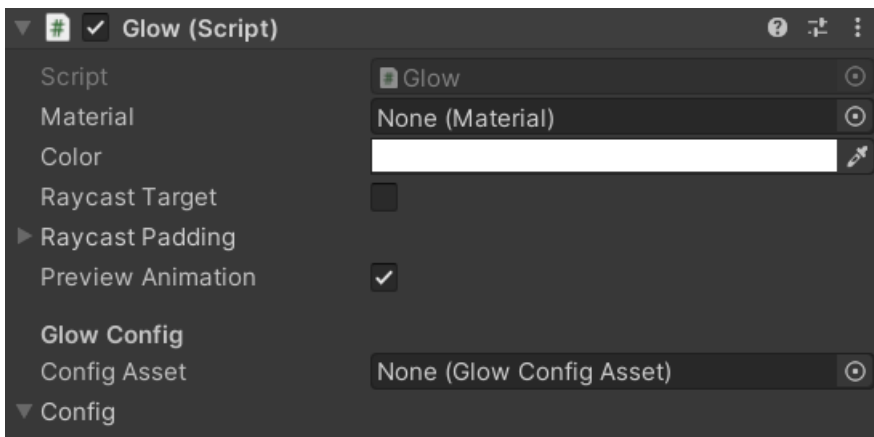


Animations

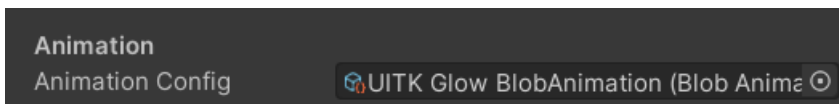
Take a look at the AnimationsDemo scene in the Examples.



To add an animation to your glow or outline all you have to do is drag in an animation asset into the config:



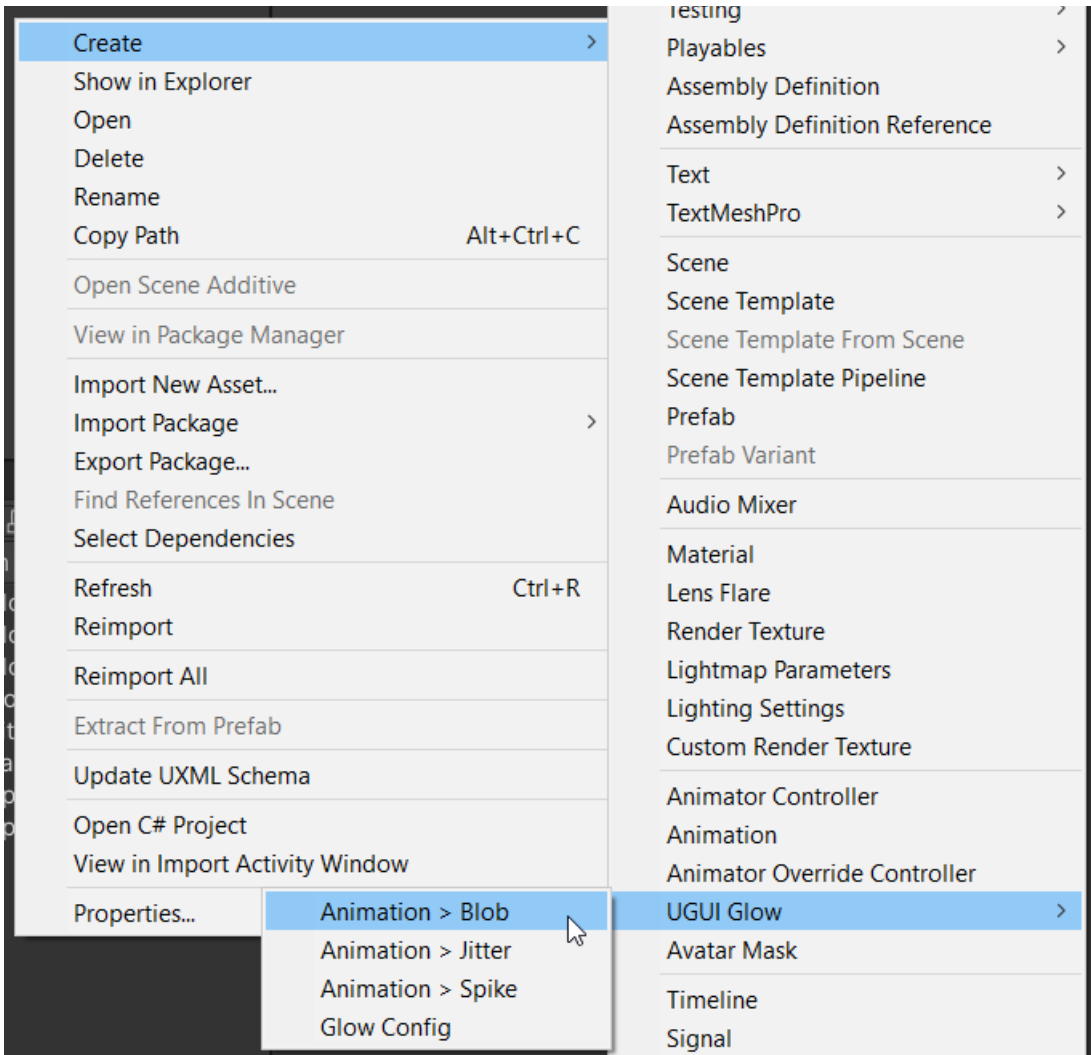
... (scroll way down in the config) ...



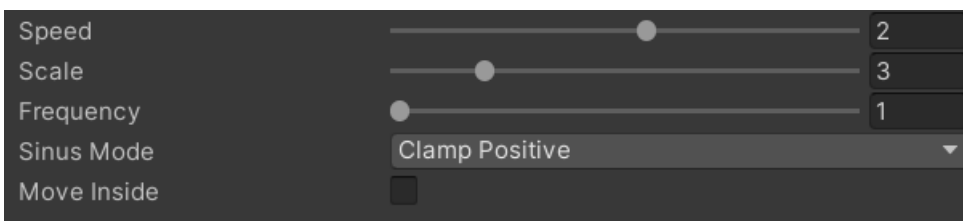
Animation Assets

There are some premade animation assets. Those are used in the demos. You can find them under Assets/Kamgam/UGUIGlow/Runtime/Res/.

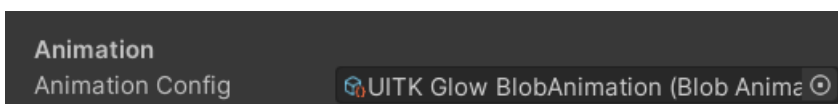
You can also create new ones with **Create > UGUI Glow > ...**



An animation asset is basically a config object for an animation. The advantage of this is that you can copy and paste these objects (reuse them easily).



To use an animation simply add it as an animation config to the glow:



Things to be aware of

Don't use too many animations

These animations are vertex animations which are done on the CPU. Use animations with caution. A few animations at the same time won't matter much but dozens might.

Avoid animating the config values

Changing the config values of a glow will update any (non-destructive) glow that is using the config. However, this will trigger a complete regeneration of the glow mesh, which is expensive. If you want to animate the vertex positions or the vertex colors then please use an animation.

While animations should be used with caution too they are more performant than regenerating the mesh every frame.

However, having said all that. It usually is no problem if you have only a few elements with animations or config changes per frame.

Frequently Asked Questions

Here are some common issues that have been reported.

Why are the edges not anti-aliased?

Sadly unity does not support aliasing on these custom UI meshes.