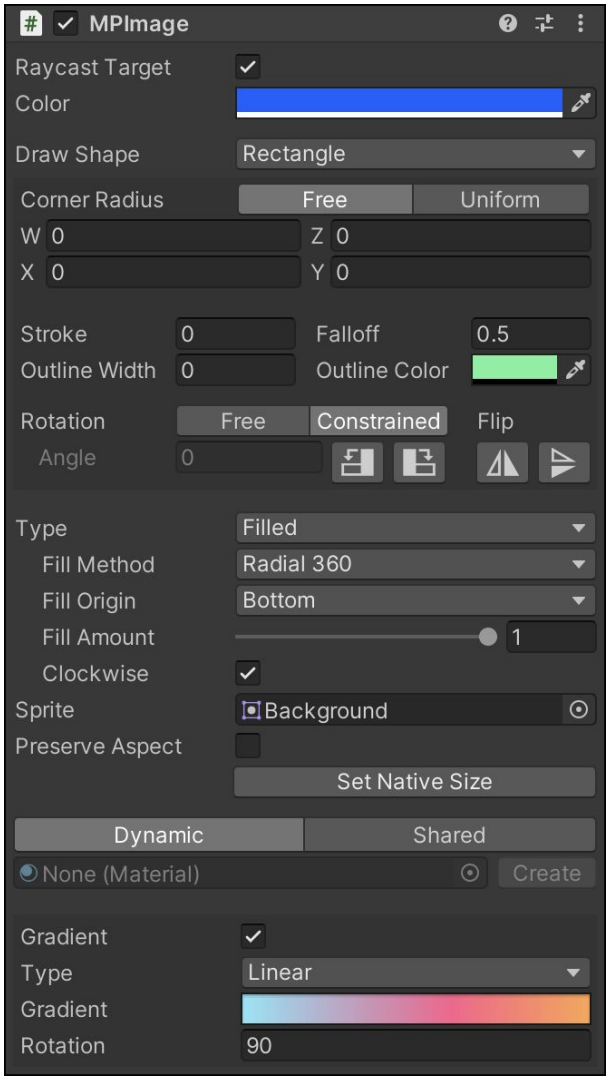
Modern Procedural UI Kit

Overview

Modern procedural UI Kit is the ultimate UI solution that offers unlimited possibilities for building UI without any sprite assets. MPImage component does not require an image sprite, but instead renders a sprite in real time with given parameters. However, You can add a sprite and MPImage will render your shape on top of the sprite provided. All the parameters can be modified in the editor and at runtime, by animating with the **Unity Animation** or **Timeline**, as well as animating with **Scripts** or **Tweening Assets** from the assetstore.

This documentation describes the features of Modern Procedural UI Kit and also gives a basic guide of how to use the Kit to build and animate beautiful UI components



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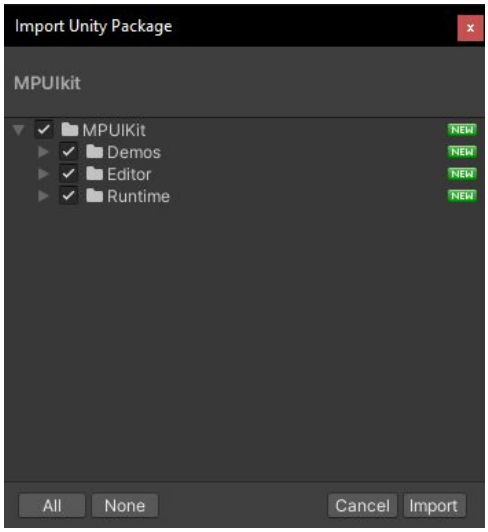
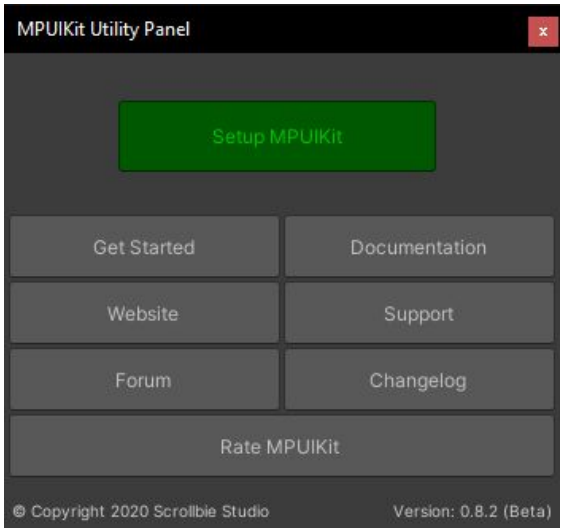
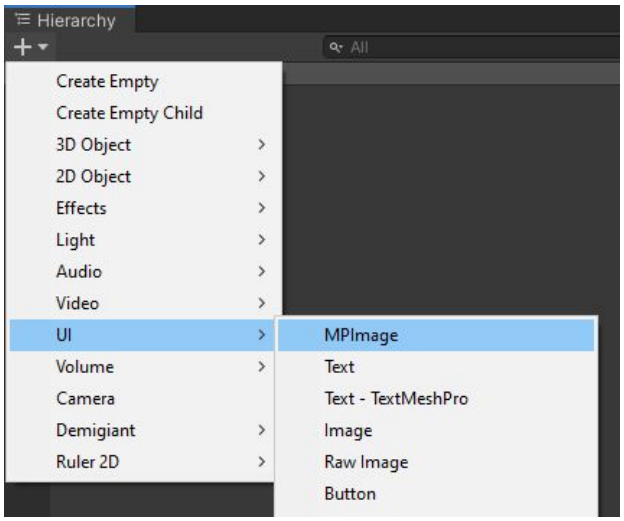




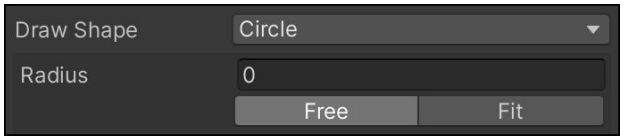


Shapes and Shape Properties

Shapes are the main building blocks of the MPImage component. MPImage supports 6 different shape modes out of the box. Each shape has its own set of parameters that you can use to customize how the shape will be rendered. Parameters such as radius of each individual corner, size and radius of the tip in case of complex shapes like pentagon and hexagon.

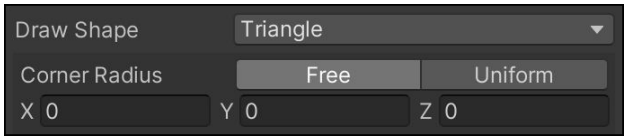
Circle

Just a basic circle! Change the radius and that's all you can do with it. Oh and if you want to resize your circle along with the rectTransform, you can enable 'Fit' and the circle will automatically fit to the rectTransform.



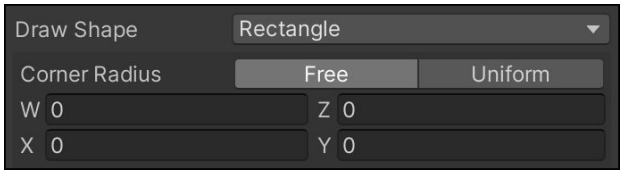
Triangle

Triangles are always the size of your rectTransform. The corner radiuses are individually customizable. Handy toggle 'Uniform' allows you to change all the corner radius values together at once.



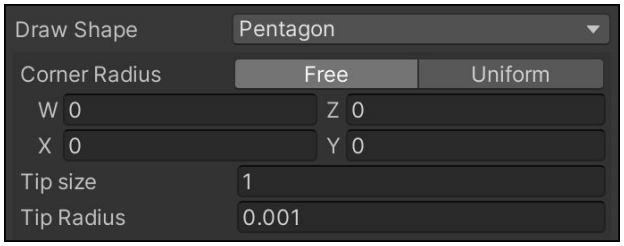
Rectangle

You can customize the rectangle's all four corners individually and make interesting shapes with it. Circles and Oval shapes can be created with rectangles by customizing the size of the recttransform and radius of the corners. Handy toggle 'Uniform' allows you to change all the corner radius values together at once.



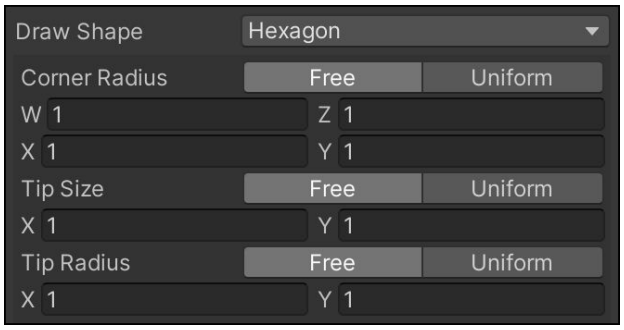
Pentagon

A pentagon is a hybrid shape combining a triangle with a rectangle. You can change the rectangles corner radiuses as usual, in addition to that, the size of the triangle and radius of it's tip can be changed as well.



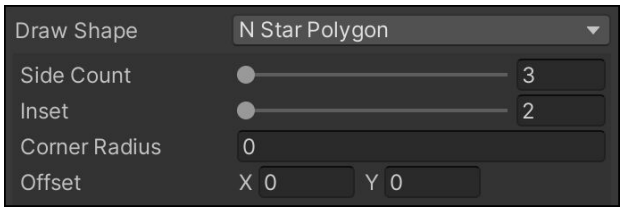
Hexagon

A hexagon is also a hybrid shape combining two triangles and a rectangles. Radius of the rectangle, size of the triangle and tip radiuses can be customized. Thehandy ‘Uniform’ toggle is also here to help.



N-Star Polygon

It’s a complex shape that allows you to create polygons with 3-10 sides. 3 sides makes an equilateral triangle, 4 sides makes an equal sided diamond shape, pentagon, hexagon up until a decagon. Changing the ‘Inset’ parameter will change the shape into a star of that particular shape. You can modify the corner radius but all the corner radiuses will be equal, so is the size of every side of the shape.



Appearance

Appearance parameters define how the shapes will visually look. There are three styles and all of then can be applied to a shape.

Color

This is the main color of the image. It affects the entirety of the image. It can have alpha.

Stroke

Modify the stroke size to create a stroke of your shape. Stroke width of 0 means no stroke. Stroke uses the main color.

Falloff

Falloff creates a fade out effect along the edges of the shape. It can be used to make the shape fuzzy and can help reduce aliasing of sharp edges or just be a cool effect. It can be used to create soft shadows under an image.

Outline

Outline can be applied with or without stroke. Outline width 0 means no outline. Main Color will not affect the outline and so it has a seperate color field.

Transform

Shapes can be transformed locally, in other words, shapes can be rotated and flipped despite the rotation of the recttransform. This setting applies on top of the recttransform's rotation. In many cases it's not possible to rotate the recttransform due to layout constraints or any other reasons. Local transformation can help in those situations.

There are two rotation modes. **Free** and **Constrained**. They are fundamentally different and intended to be used in different situations. Also shapes can be flipped horizontally and locally.

Free Rotation

Free rotation allows you to rotate the shape freely in any angle. For images that's width and height are the same, this mode is perfect. However shapes can clip for arbitrary rotations. If used in images that's width and height are not the same, rotation other than 0 and 180 will result in clipping.

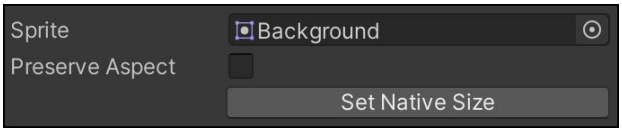
Constrained Rotation

Constrained mode eliminates the clipping problem of Free Rotation mode but it has a limitation. You can only rotate the shapes in 0, 90, 180 and 360 degrees. In this case, the width and height of the image may or may not be the same.

Flip

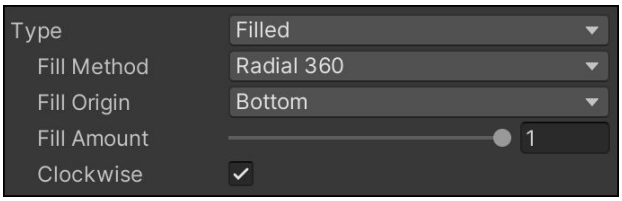
Images can be flipped horizontally and vertically. Flips affect on top of Rotation.

Sprite and Sprite options



You can add an additional sprite to be rendered along with the shape. This sprite can have an alpha channel that will affect the shape. If a sprite is assigned, you use the toggle **Preserve Aspect** to make sure the image retains its existing dimension. You can also use the button **Set Native Size to** set the dimension of the image box to the original pixel size of the texture.

Image Type



There are two image types in the MPImage component. **Simple** and **Filled**. Simple is the default type. Filled type allows to create a fill effect similar to what Unity image component has. It is not mandatory to have a sprite assigned to use the filled type. The parameters of filled type affect both the sprite (if provided) and the procedural shape.

Material Settings

Material settings allow you to choose the material that will be used to render the image. There are two modes, **Dynamic** and **Shared.** By default, it's set to dynamic material mode.

Dynamic

In dynamic mode, every mpImage issues one draw call as a material is created at runtime for every MPImage.

Shared

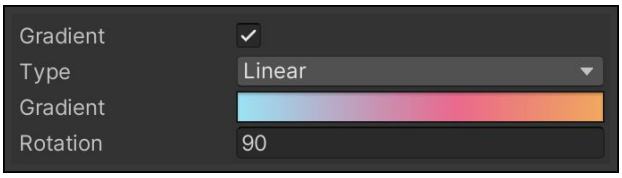
In shared mode, you can specify a material to use. You can have multiple images using the same material and in that case, they all will be rendered in one draw call. However, if you choose to use dynamic material, all the images using the same material will have the exactly same properties. So, it's better to group your ui elements and use a shared material for similar looking ones.

Gradient Shading

Gradient shading is applied on top of everything. There are three gradient modes, **Linear** Gradient, **Radial** Gradient, **Corner** Gradient.

Linear Gradient

You can have a gradient of 8 colors and 8 alpha keys and it will be applied linearly. You can change the rotation of the gradient.

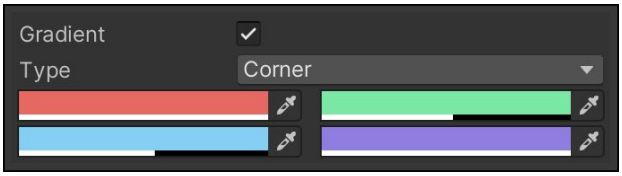


Radial Gradient

You can have a gradient of 8 colors and 8 alpha keys and it will be applied radially.

Corner Gradient

You can have 4 colors with alpha for 4 corners of the image. These four colors are linearly blended.



Fixed and Blended Gradient

In the gradient picker window, you can choose the gradient mode.