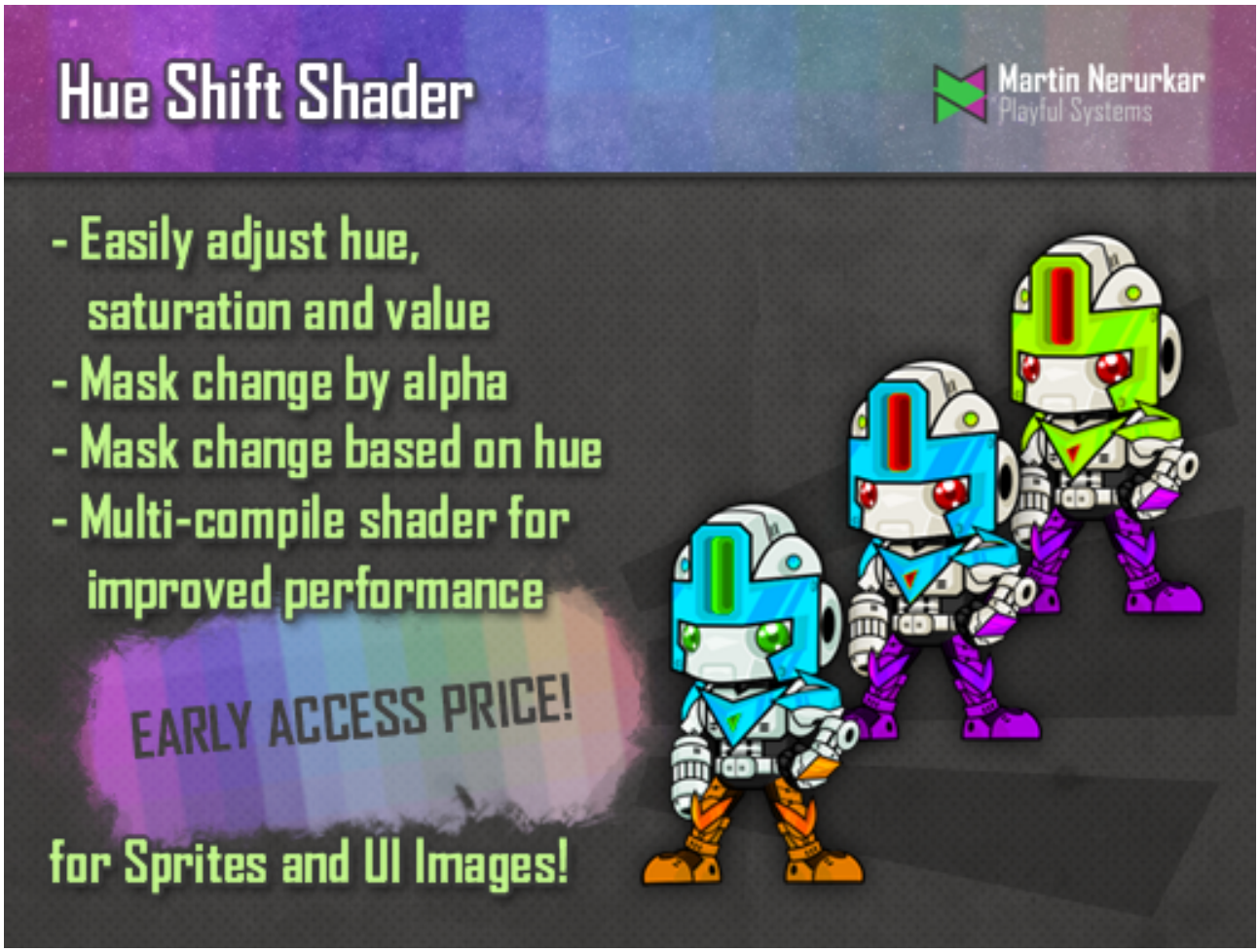
Hue Shift Shader (HSV)

User Manual – Version 0.5

Hue Shift Shader is an asset for Unity 3d to quickly and simply recolor your sprites and ui images. All you need to do is create the appropriate material and use it in your scenes. Then you can use the color property of the sprite or image to change hue, saturation and value of your texture.



Features

- Use color of Sprite and Image to adjust hue, saturation and value
- Mask change by alpha
- Mask change based on texture hue
- Multi-compile shader for improved performance

Using the Asset

Here's what you need to do to use Hue Shift Shader

1. Create a new material using either of the supplied shaders (see below)
2. Change the settings as need
3. Apply the material to the object that should make use of it
4. Change the color on the sprite or image to change hue, saturation and value

Here's the list of shaders:

Sprites/Default-HueShift	Use on Sprite Renderer, is not affected by lighting
Sprites/Diffuse-HueShift	Use on Sprite Renderer, affected by lighting
UI/Default-HueShift	Use on UI images and other canvas graphic elements

Changing Hue, Saturation & Value

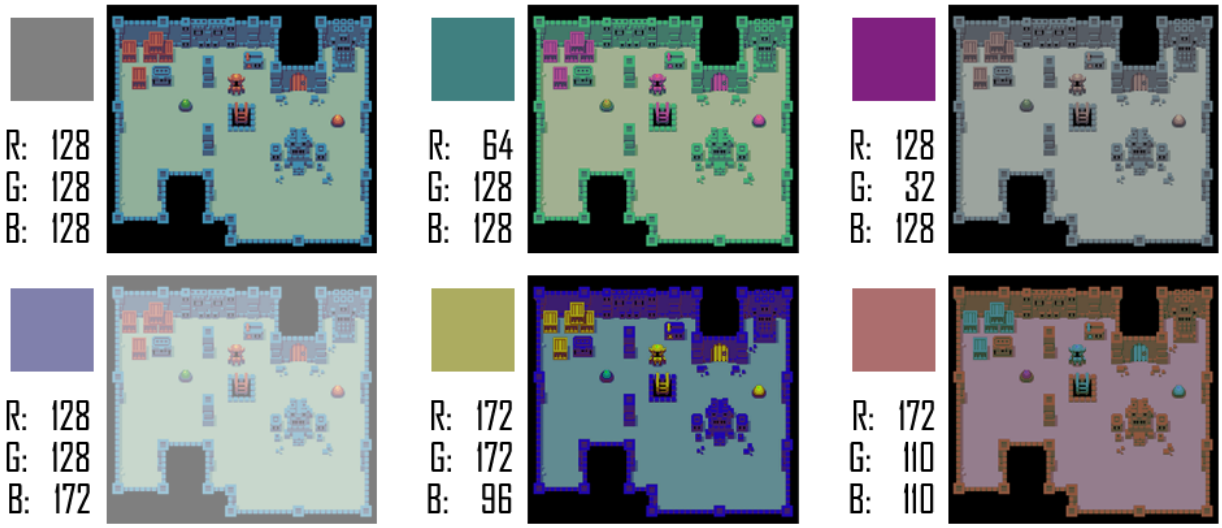
The color of the sprite or UI image is used to change the hue, saturation and value of the texture. The change is applied by using the values or Red, Blue and Green.

For each of these colors, with the value at 128, no change is made. As the value is increases the relevant channel is increased. While moving towards 0 the channel is decreased.

This means that a neutral grey with (128, 128, 128, 255) creates no changes. Deviating from that will affect the texture as follows:

- The **red value** of the color affects the hue of the texture.
    - Raising the red value shifts the hue in one direction, at the value of 255 it turned back around to red
    - Lowering the red value shifts the hue in the other direction, with a value of 0 having it turned all the way around back to red
- The **green value** of the color affects the saturation of the texture.
    - Raising green toward 255 will increase saturation
    - Lowering green to 0 will decrease saturation
- The **blue value** of the color affects the value (lightness) of the texture
    - Raising blue will increase the lightness of the affected pixels
    - Lowering blue will decrease the lightness accordingly

Examples:



HueShift Shader Settings

The HueShift shaders have the same options as the basic versions of those shaders but the following options have been added. These allow you to customize the material as needed.

Use Hue Range to limit HSV

With this enabled the shader will use the values from the **HSV Hue Range Mask Min** and **Max** sliders to limit the HSV change to pixels within that hue range.

Use Alpha as HSV mask

With this enabled the shader will no longer use it's alpha map to turn pixels of the sprite or image transparent but instead the alpha is used to mask which pixels the HSV change is applied to and how much.

Credits & License

See license.txt for details.