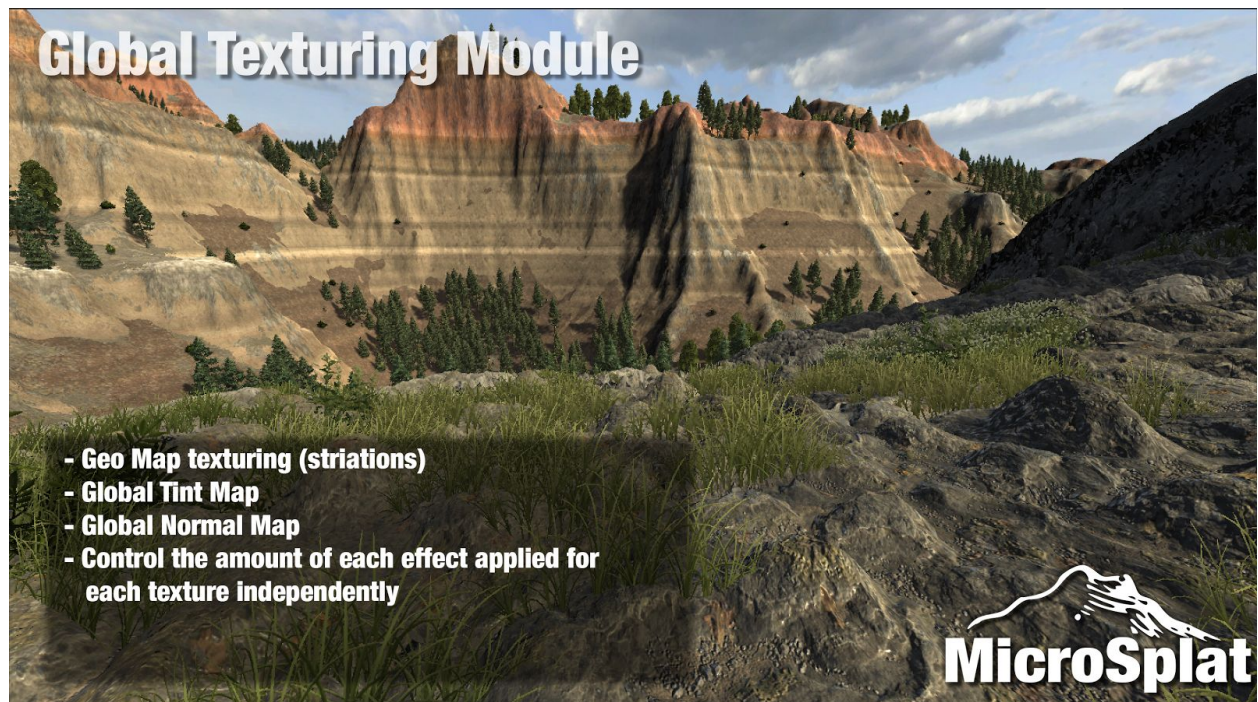


MicroSplat

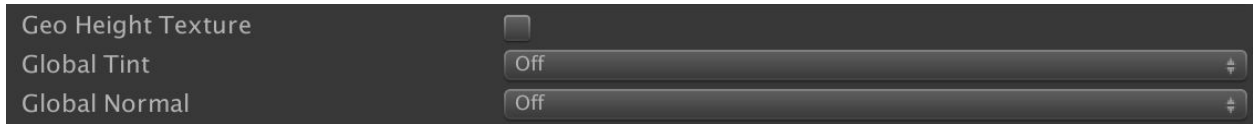
Global Texturing Documentation



Overview

The Global Texturing module adds several features which allow you to quickly shape the overall look of your terrain.

Shader Features



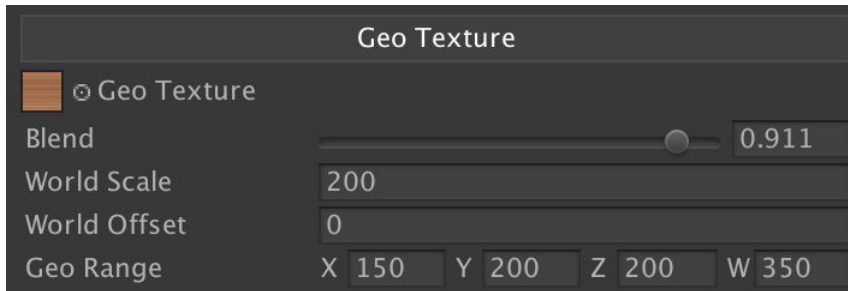
The Global Texturing module adds 3 features to the MicroSplat framework, the Geo Height Texture, which is a small gradient texture useful for creating striations and other horizontal patterns in the terrain, and the global tint and global normal options, which allow you to create a tint map or normal variation map for the entire terrain.

Geo Height Texture

The geo height texture feature applies a vertical tint map to the terrain. It is commonly used to create the type of rock striations found in the screenshot above.



Once enabled, two additional options are available. GeoRange, which allows you to fade the geo texture across the height of the terrain, and Geo Curve, which allows you to warp the texture up and down along the terrain using a curve.



In the Geo Texture properties section, you can supply a small vertical gradient texture to the Geo Texture property. This is applied with a Multiply2x blend mode, which means a grey value will have no effect on the terrain, and values above or below will brighten or darken that area respectively. Alpha is respected in this texture, so you can control the amount of the effect via the alpha channel as well as via additional properties below. Additionally, a per-texture option is available, allowing you to control how much the effect is applied to each texture. This can be very useful to filter the effect off of surfaces that should not be colorized. The other properties are:

- Blend
 - How much of the effect to apply
- World Scale
 - How many meters the image is stretched over
- World Offset
 - Where they beginning of the texture is in world space
- GeoRange
 - X
 - Height in the world at which the effect begins to fade in
 - Y
 - Height in the world in which the effect is fully faded in
 - Z
 - Height in the world in which the effect begins to fade out

- W
 - Height in the world in which the effect has fully faded out

Height Curve	
Scale	512
Offset	0
Rotation	0

When Geo Curve is enabled, extra properties will be shown:

- Height Curve
 - This is a curve which pushes the geo texture up or down across it's mapping on the terrain.
- Scale
 - This maps the size of the curve over the terrain in world unity. At a value of 512, the curve will repeat every 512 units in the world.
- Offset
 - Offset the curve in world units
- Rotation
 - Allows you to rotate the curve around the Y axis

Global Tint

The Global Tint map can apply an overall color to the terrain. Some landscape generation systems can create a global color map for you, giving your terrain an overall colorization which is much more diverse than your textures would allow by themselves.

The Global Tint map can also be used to apply color variation to the scene, as you can filter how much of the effect is applied to each texture. For instance, you might desaturate your grass textures and use the global color map to tint the grass texture various shades of green and brown, providing an overall wider palette of colors.

The Global Tint map has three modes:

- Multiply2x
 - The tint map is applied to the terrain such grey has no effect, and colors lighter or darker than grey lighten and darken the terrain respectively.
- Overlay
 - The tint map is blended the same as Photoshop's overlay color mode
- Cross Fade
 - The terrain will blend between the splat mapping and this texture as a cross fade

Global Normal

The Global Normal is similar to the global tint map, except that it modifies the existing normal. This can be used to add subtle variation to the lighting across the world, or cross fade blend to a global normal.

Properties

Global Tint and Global Normal each get a set of properties to control their blending:

- Blend
 - How much of the map to blend in
- Begin Fade
 - Distance to begin fading the global texture

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- Opacity At Begin
 - Opacity at the begin fade point
- End Fade
 - Distance at which cross fade is done
- Opacity At End
 - Opacity for distances greater than the end distance

Note that these properties are available in all modes. If you don't want to change the amount of the effect based on distance, just set the opacity values to 1. For blending satellite imagery, you might want to keep a small percentage of the texture blended in up close, and keep a small amount of the splat maps blended in far away. Setting opacity to 0.2 and 0.8 would accomplish this, for instance.