Layer Blending Mode Shader
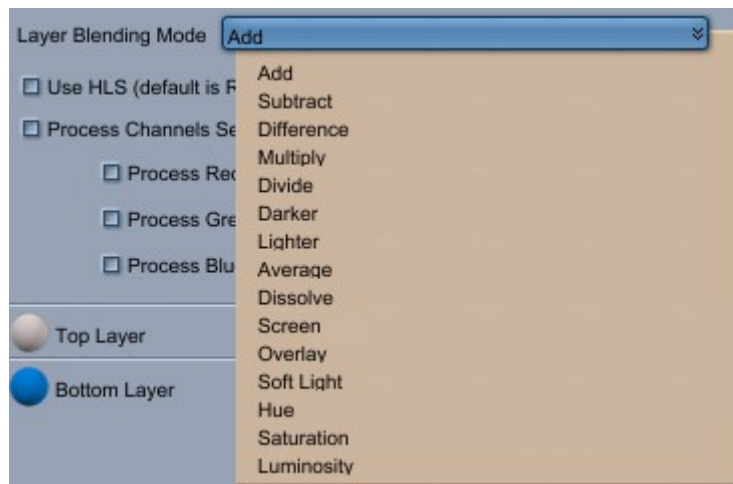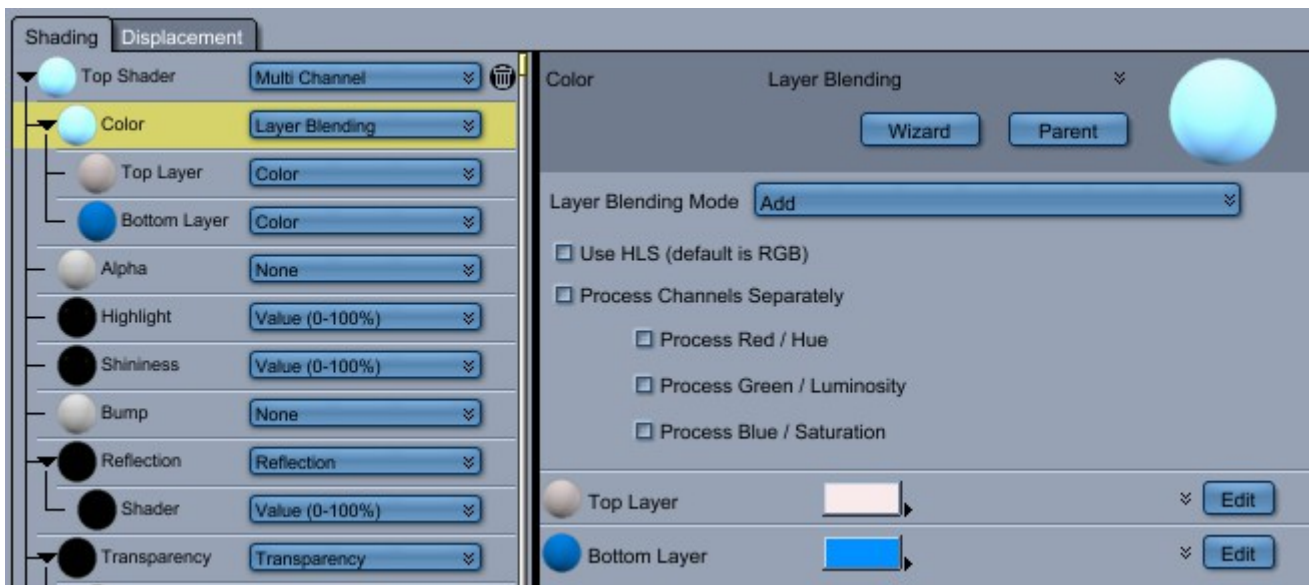
Provides advanced layer Blending, similar to that found in Photoshop, GIMP, or Paint Shop Pro.

http://fenric.com/wordpress/store/downloads/

Details

Takes two subshaders, a "top" and a "bottom", and Apples one of the following options

Add	Simply top + bottom. Will clip to white if the result is too high.
Subtract	Simply top – bottom. Will clip to black if the result is negative.
Difference	top – bottom or bottom – top, whichever would be non-negative
Multiply	Simply top * bottom. Will clip to white if the result is too high.
Divide	top / (bottom + 0.0000001) "bottom" values near black will not result in pure white.
Average	(top + bottom) / 2
Darker	takes the darker (closer to black) of top or bottom

Lighter	takes the lighter (closer to white) of top or bottom
Dissolve	randomly pick between the two layers
Screen	1 – ((1 – top) * (1 – bottom))
Overlay	if (top < 0.5) then (2 * top * bottom) otherwise (1 - (2 * (1 - top) * (1 - bottom))
Soft Light	if (bottom < 0.5) then (2 * top * bottom + (top * top * (1 - (2 * bottom)))) otherwise (2 * top * (1 – bottom)) + (sqrt(top) * ((2 * bottom) – 1))
Hue	top.H, bottom.L, bottom.S
Saturation	bottom.H, bottom.L, top.S
Luminosity	bottom.H, top.L, bottom.S

Except for the last three, you may choose between operating in either HLS or RGB mode. You may optionally select which of the three components are acted on independently (for instance, you may only want to add the red chanel).

The Hue, Saturation, and Luminosity modes always act in HLS mode, and always affect all three components.

Files

BlendingModeShader-1.0.dat
BlendingModeShader-1.0.mcx
BlendingModeShader-1.0.txt