Gimp Layer Modes inside GEGL

How to list *gimp:layer-mode layer-mode=whatever* inside GEGL Plugins.

If you have been studying GEGL Graph you may have noticed the “Gimp:layer-mode layer-mode=” option which allows you to write graphs that call Gimp layer modes. This guide is meant to help users link Gimp only layer modes inside GEGL plugins they develop.

Doing this makes sense as it allows far more blend modes to choose from then the default GEGL ones listed at https://gegl.org/operations/svgfilter.html and even fixes issues that GEGL has in default; such as not being able to blend against filters like “cell noise”. But it also has one trade off. If your plugin uses Gimp exclusive blend its it will only work in Gimp and not any other GEGL using app. As these are Gimp exclusive blend modes.

It is important you familiarize yourself with these terms listed inside the templates.

blend-space options change the lighting of the blend mode and vary from (0-3) 3 usually breaks things. So only use (0-2) unless you know of specific filters that doesn’t get damaged by 3.

composite-mode options cycle between - auto, union, clip to backdrop, clip to layer, intersection represented as 0,1,2,3,4. Some times setting filters to 0 is needed when a blend mode defaults to union. 0 prevents the blend mode from applying on transparency. Union (1) applies blend modes on transparency.

opacity is the layer’s opacity. Dodge, Burn and Divide are examples of blend modes that usually require high transparency. Which would be represented as ***"opacity", 0.05*** in a template.

composite-mode is the composite mode of the gimp layer. Outside of special scenarios leave this unchanged. I don’t really use this option.

Sometimes GEGL blend modes do not transfer colors on certain composites like this graph

```
cell-noise
multiply aux=[  color value=#ff0000 ]

*MULTIPLY DOES NOT TRANSFER COLOR
```

But it will work with

```
cell-noise
gimp:layer-mode layer-mode=multiply  composite-mode=auto  aux=[  color
value=#ff0000 ]
```

```
--Below is a list of all common needed Gimp only blend modes-- Many of them have
composite and blend spaces added and Divide even has an opacity slider--  These
were ripped directly from the source code of my GEGL Plugins.  So feel free to copy
and past them when making a GEGL plugin of your own.
```

Most common used Gimp Only Blend modes for GEGL Graph templates

```
hslcolor = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 39, NULL);

grainmerge = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 47, NULL);

softlight = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 45, NULL);

addition = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 33, NULL);


hardlight = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 44, NULL);


hsvhue = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 37, NULL);


overlay = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 23, NULL);

burn = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 43, "blend-space", 1, NULL);

lchcolor = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 26, "blend-space", 3, NULL);

multiply = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 30, "blend-space", 2, NULL);

linearlight = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 50, "blend-space", 2, NULL);

screen = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 31, "blend-space", 2, NULL);

antierase = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 63, "blend-space", 2, NULL);

colorerase = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 57, "blend-space", 1, NULL);


divide = gegl_node_new_child (gegl,    "operation", "gimp:layer-mode", "layer-mode", 41, "blend-
space", 1, "opacity", 0.03, NULL);

subtract = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 34, "composite-mode", 0, NULL);

dodge = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 42, "composite-mode", 0, "composite-space", 1, "blend-
space", 1, NULL);

grainextract = gegl_node_new_child (gegl,
"operation", "gimp:layer-mode", "layer-mode", 46, "composite-mode", 0, NULL);
```