

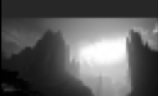

	Cyan (Pixel) <input checked="" type="checkbox"/>
	Magenta (Pixel) <input checked="" type="checkbox"/>
	Yellow (Pixel) <input checked="" type="checkbox"/>
	K (Black) (Pixel) <input checked="" type="checkbox"/>
	Background (Pixel) <input checked="" type="checkbox"/>

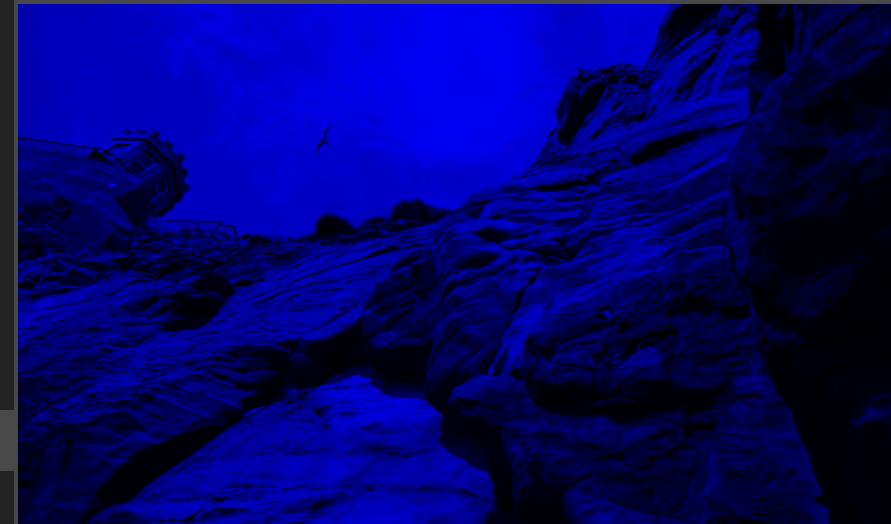
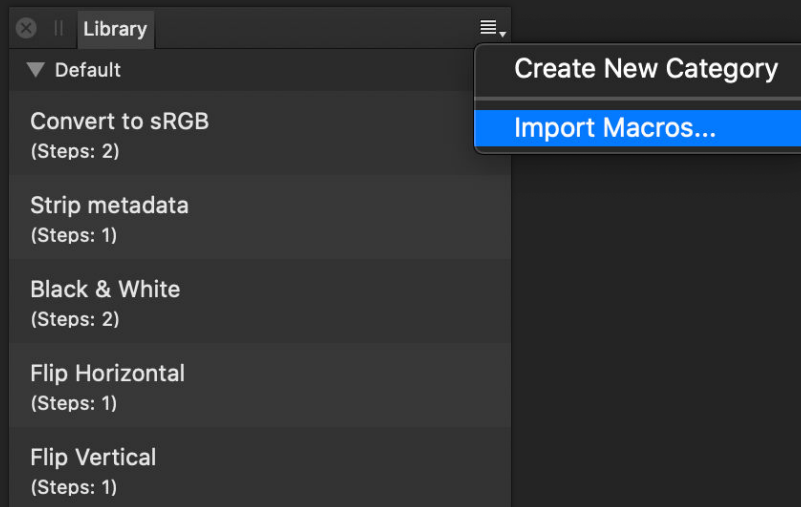


JR Macros: Channels

Introduction

This macro pack contains functions for channel manipulation, including creating greyscale pixel layers from colour information and separating the channels into additive layers.

It is chiefly intended for advanced editors who have a requirement to perform tone and colour manipulations based on channel information.



Installation

1. Extract the *.afmacros* file to a directory of your choice.
2. In Affinity Photo, you will need to expose the **Library** panel. To do this, go to **View>Studio>Library**.
3. Click the small icon at the top right of the **Library** panel and choose **Import Macros**.
4. Navigate to the directory containing the *.afmacros* file and select it, then click **Open** (or double click the file).
5. The **Library** panel will then be populated with the macros from that category. If you are installing any other macro packs, repeat the process for those categories.

Tip: you can also drag-drop the *.afmacros* file onto a blank area of the app and it will immediately import and be shown on the Library panel. You can bulk import multiple *.afmacros* files this way.

Macros

Macro

Composite to RGB Layers

RGB/8
RGB/16
RGB/32

Functionality

Splits a pixel layer up into its three Red, Green and Blue components (not greyscale) so you can edit them individually. Three layers are created (each with an "Add" blend mode) and the original pixel layer is hidden.

Isolate RGB Channels

RGB/8
RGB/16
RGB/32

Creates three pixel layers, each containing respective red, green and blue channel data from the chosen layer.

Channels to Greyscale Layers

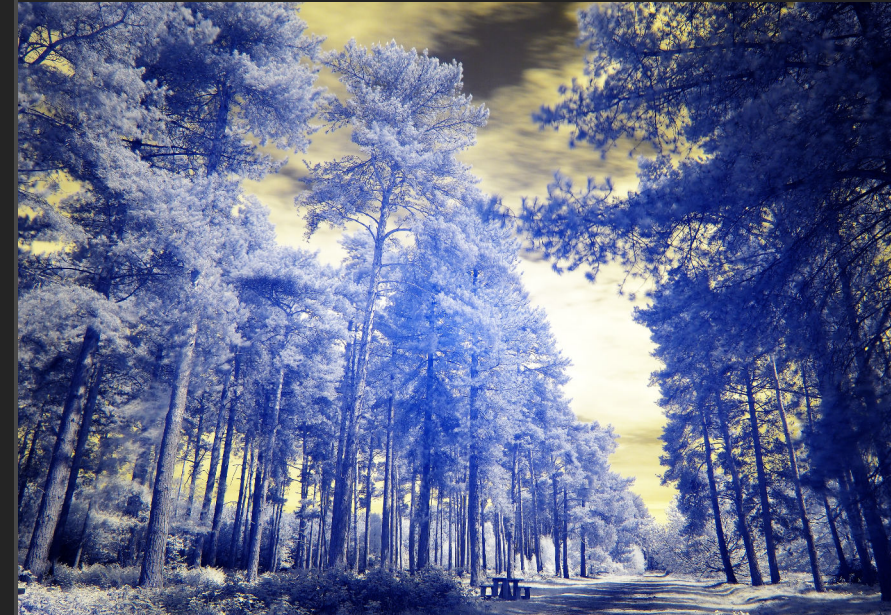
RGB/8
RGB/16
RGB/32

Creates three composite pixel layers based on greyscale channel information and hides them. You can use these with blend modes and blend ranges, and create masks from them.

Red/Blue Channel Swap

RGB/8
RGB/16
RGB/32

For infrared imagery. Swaps the red and blue colour channels and also provides some additional enhancements like brightness/contrast compensation, red tinting, vibrance and saturation.



Red/Blue Channel Swap

Macro

Extract CMYK Layers

RGB/8
RGB/16
RGB/32

Linearised RGB Channels

RGB/8
RGB/16
RGB/32

LAB 50:50 Mix

RGB/8
RGB/16
RGB/32
CMYK/8
LAB/16

RGB Control Mixer

RGB/8
RGB/16
RGB/32

Functionality

This macro can be run from a document in RGB: four pixel layers (Cyan, Magenta, Yellow and Black) will be created from the source layer with appropriate blend modes set.

This enables you to manipulate tone and colour based on the subtractive CMYK colour model whilst staying in an RGB or LAB colour format.

Creates three layers which isolate the Red, Green and Blue channel data but linearised, as opposed to non-linear.

Try experimenting with blend modes for each layer and use adjustments nested into the layers (e.g. Curves) to further control the tonal blending.

Performs a non-destructive LAB channel mix, altering the balance of the A and B channels for unique colour toning.

Upon running the macro, you can modify the A and B channel mixing and also adjust an optional Lightness curve which will add contrast to just the lightness information (ignoring colour contribution).

Adds a Procedural Texture filter that allows you to use rotational input controls to alter the mix of the red, green and blue channel information.

Once the macro is run, simply double-click the **RGB Control Mixer** layer, then expand the dialog and click-drag on the three rotational input controls.

There is also an additional **Brightness** slider.



Macro

Min/Max Greyscale Layers

RGB/8
RGB/16
RGB/32

Functionality

Produces two greyscale pixel layers, one containing the maximum (brightest) range of pixels, the other containing the minimum (darkest) range of pixels.

You can use these layers in conjunction with blend modes, or even convert them to masks (**Layer>Rasterise to Mask**).

Min/Max Greyscale Blending

RGB/8
RGB/16
RGB/32

As above, creates maximum and minimum pixel range layers, but gives you additional options to control the initial opacity and blend mode of the two layers.

Intensity Gradient Map

RGB/8
RGB/16
RGB/32

Calculates a greyscale map from the intensity of the selected layer and clips a Gradient Map adjustment into it. The Gradient Map has greyscale colour values set by default (0, 128 and 255)—you can double click the adjustment and change these to apply colour tinting based on the layer's intensity.

Luminance Gradient Map

RGB/8
RGB/16
RGB/32

Similar to the **Intensity Gradient Map**.

Calculates a greyscale map from the luminance of the selected layer and clips a Gradient Map adjustment into it. The Gradient Map has greyscale colour values set by default (0, 128 and 255)—you can double click the adjustment and change these to apply colour tinting based on the calculated luminance.



Intensity Gradient Map

Macro

Luminosity Masking Setup

RGB/8
RGB/16
RGB/32

Functionality

Comprehensive luminosity masking setup: creates a copy of the selected layer based on a luminosity selection, and provides a greyscale (intensity) copy of this luminosity layer. Both layers have a Curves adjustment clipped into them for easy editing, and both are hidden by default.

Finally, a luminosity mask layer is provided—simply enable this and clip it inside an adjustment or filter layer for a functional luminosity mask.

Value Map

RGB/8
RGB/16
RGB/32

Creates a greyscale pixel layer based on the calculated “value” (non-perceptual brightness) of whichever layer is selected. The blend mode is set to Darken by default.

Brightness/Contrast and Curves adjustments are clipped into the new *Value* layer. Experiment with these adjustments plus others for interesting tonal effects.

Channel Packing (R+G+B)

RGB/8
RGB/16
RGB/32

Useful for texture artists: loads greyscale material/texture maps like Roughness, Metallic and Ambient Occlusion into the three colour channels.

Requires a specific layer setup: you must have a layer named *Background* which can be any content. You also need your three material maps as layers named *Red*, *Green* and *Blue* (you can drag them in as *Image* layers, copy/paste from separate images or use **File>Place**).

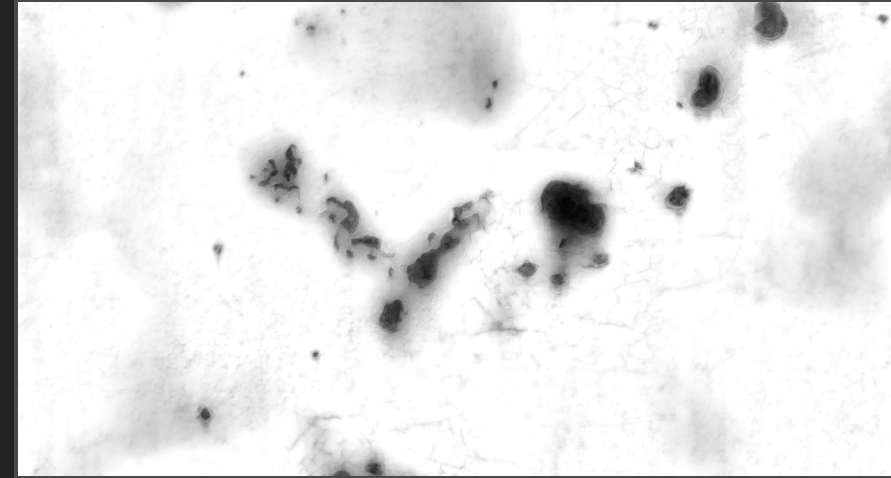
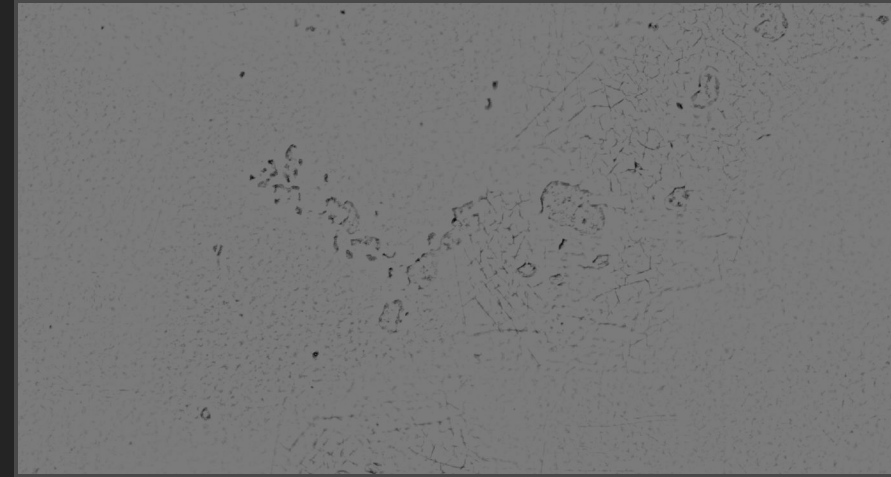
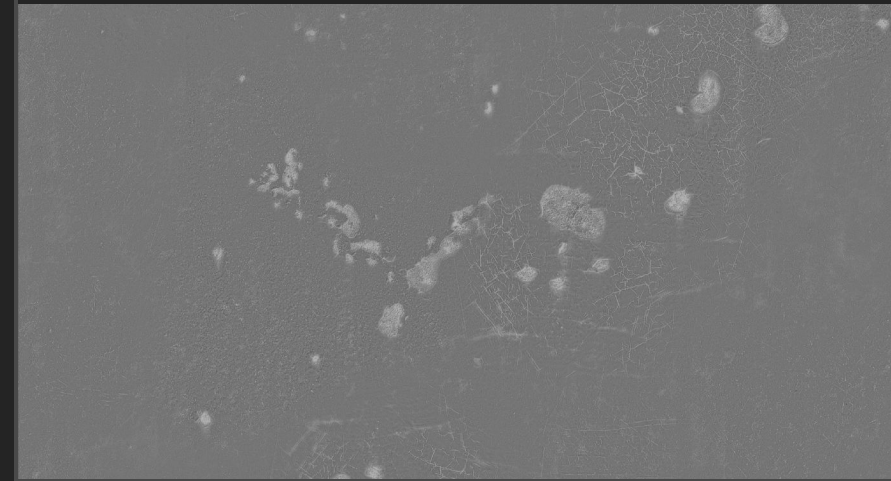
Run the macro on the *Background* layer and the channel data from the *Red*, *Green* and *Blue* layers will be ‘packed’ into the *Background* layer channels.

Channel Packing (G+B)

RGB/8
RGB/16
RGB/32

Variation of the Channel Packing (R+G+B) macro.

For this version, your *Background* layer will already contain the Red channel information you want to use. Run the macro, and the corresponding channel data from the *Green* and *Blue* layers will be loaded into the *Background* layer channel data.



Channel Packing (R+G+B): Roughness, Metallic and Ambient Occlusion maps

Credits

Header image created from an OpenEXR render of "Elite Landscapes: Alien Part III" by Velarion.
Rendered in Unreal Engine and edited by James Ritson.

All other photography and editing by James Ritson.