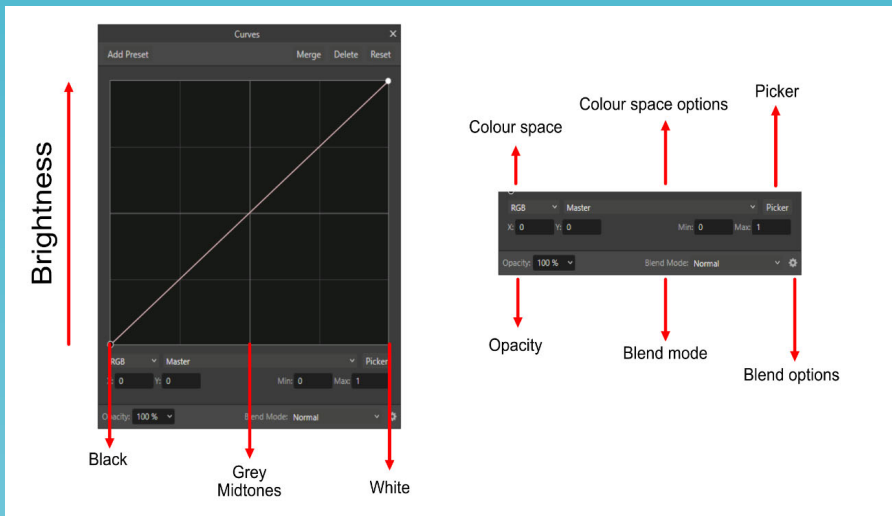


Affinity 3 - Curves

David Aitken

Affinity – Curves screen



Curves allow you to modify colour, tone and alpha channels either on individual channels or by tweaking the master curve (Affinity – link to their guide is at the end of document).

There are several ways to open curves, from the adjustment panel under the layers panel, the top menu 'Pixel', 'New Adjustment Layer', 'Curves' or using the shortcut Ctrl-M or Cmd-M.

Curves can seem daunting at first, but once you start using it you'll discover it is a great way to adjust brightness and contrast in an image.

There is a diagonal line from bottom left to top right, this is the 'curve' that you adjust.

- The vertical axis is brightness, moving the curve up makes the image brighter and moving it down makes it darker.
- The horizontal axis are the tones in your image, the shadows are on the left & the highlights are on the right. Between these two are the midtones(greys) in an image.

Underneath the curve are tools that help you refine your curves or select components in the image to adjust. We will look at these later. Also, V3.3 introduced more tools that add even more power to the curves adjustment tool.

Curves – soft light

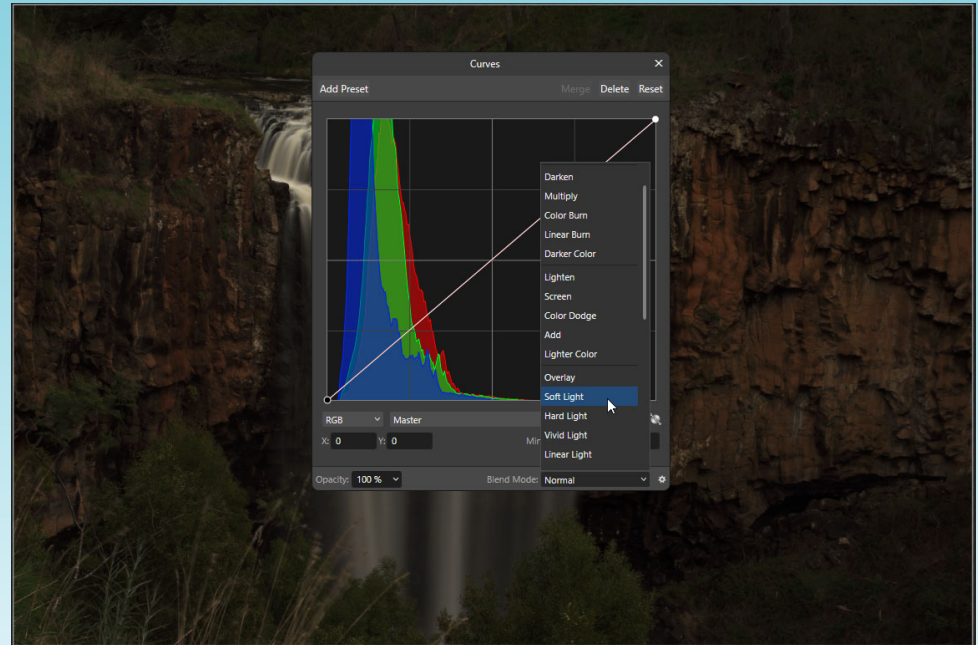
The simplest method of using curves to enhance contrast in an image is using the soft light blend mode.

Soft light is one of the contrast group of blend modes. They work by comparing the colours in an image to mid-grey (50% grey) and darkens those darker than mid-grey & lightens those areas that are brighter.

To use this method go to the 'Blend Mode:' at the bottom right of the Curves panel and select 'Soft Light' then close the Curves. This creates a gentle contrast in your image.

You can also increase or decrease brightness by creating a point on the curve and moving it up or down. Try creating a point in the middle of the curve and moving it, it won't need much tweaking. More about this in the next topic 'S' curves.

That's all you need to do, and it wasn't hard, was it?



Curves – soft light

Before



After



Curves – ‘S’ curve

The most common way of using curves is by creating an S-curve.

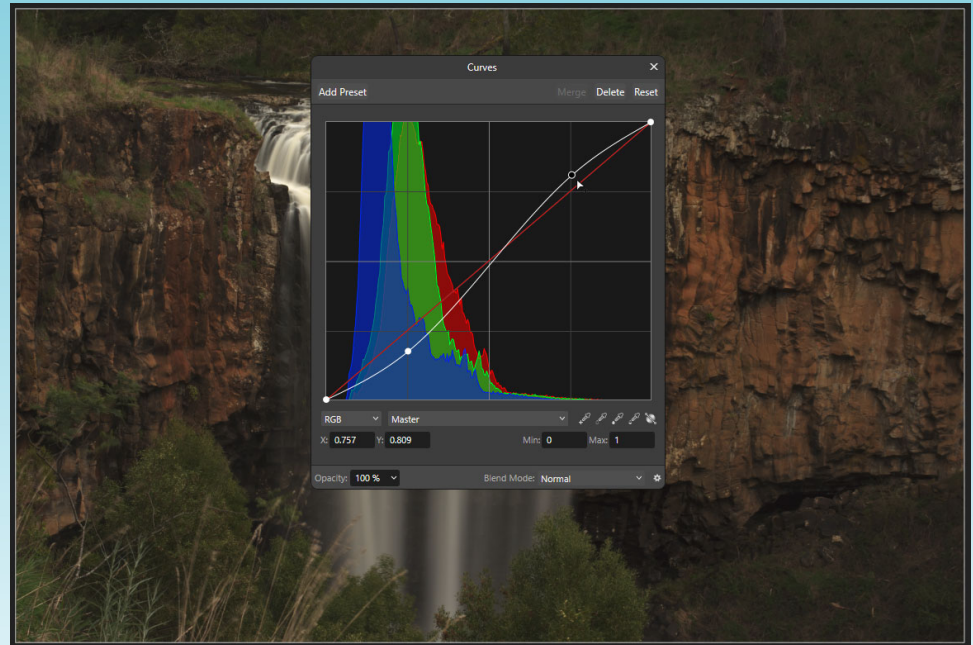
The aim of the S-curves is to darken the shadows and brighten the highlights, thus creating more contrast. This can be done by just using 2 points on the curve as in the image on the right.

A good place to start is using the corner of the square in the curve bottom left and drag it down to darken the shadows. For the highlights, use the curve in the top right square and drag it upwards.

Tip: Create a point in the centre of the line first. This constrains the adjustments for shadows and highlights to below and above mid-grey respectively.

If you're not sure about what you have done you can reset the curves and start again. Or, right click on the point that you're not happy with to delete it.

You are not limited to the number of points you can add to the curve - this can be very useful for fine-tuning an image.



Curves – ‘S’ curve

Before



After



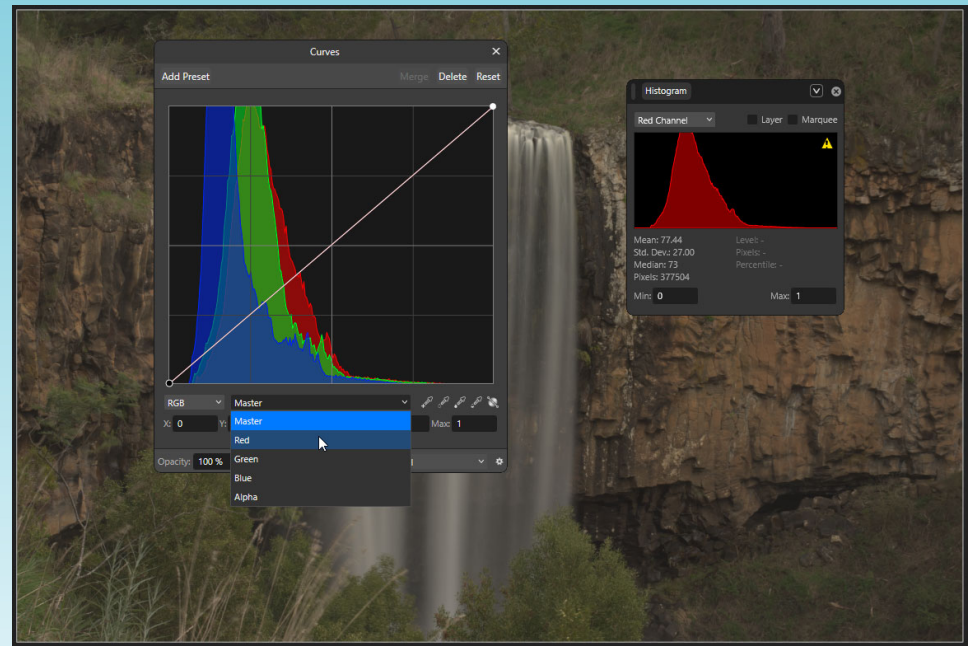
Curves – RGB method

This is my preferred method of using curves, particularly before making any other adjustments. Apart from creating contrast, it can correct the white balance.

It is a little bit more involved, but I think it is worth it. We are going to adjust the red, green and blue channels and maybe, adjust the brightness afterwards.

I will demonstrate on the red channel, the process is the same for the other channels. To assist with showing what we are doing I've also added the histogram panel to the image.

In the middle under the curves is a drop down box that has Master, Red, Green, Blue and Alpha, select Red. NB I've also changed the histogram panel to red so that we can track the changes.



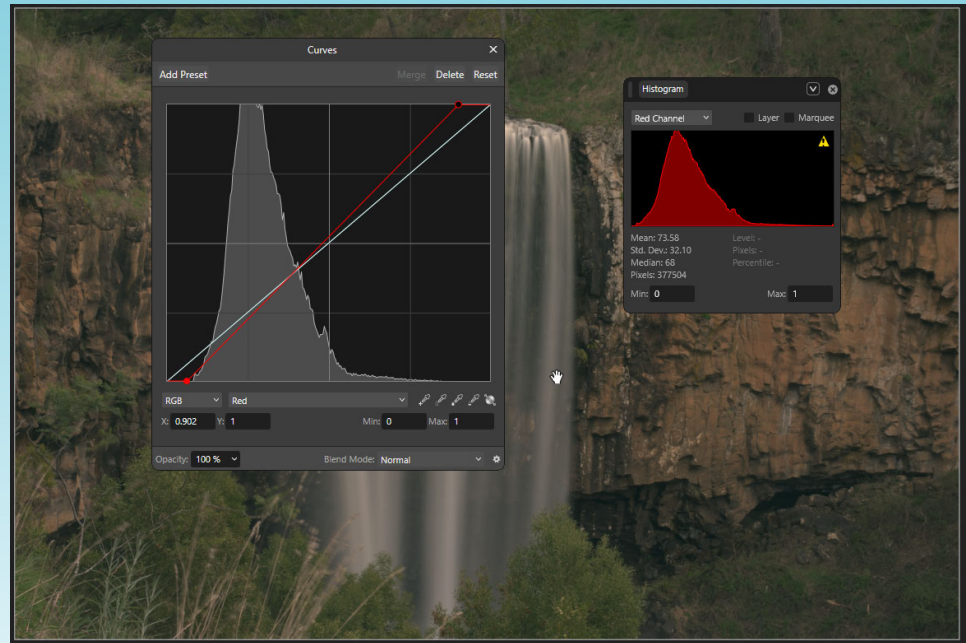
Curves – RGB method (part 2)

When you choose red, you will see two red points appear, bottom left and top right. Click on the one bottom left and move it to the right towards the red curve to where it starts. With the point top right move it left towards the curve. If you look at the histogram the red curve now extends right across the histogram.

Repeat this process with both the green and blue channels.

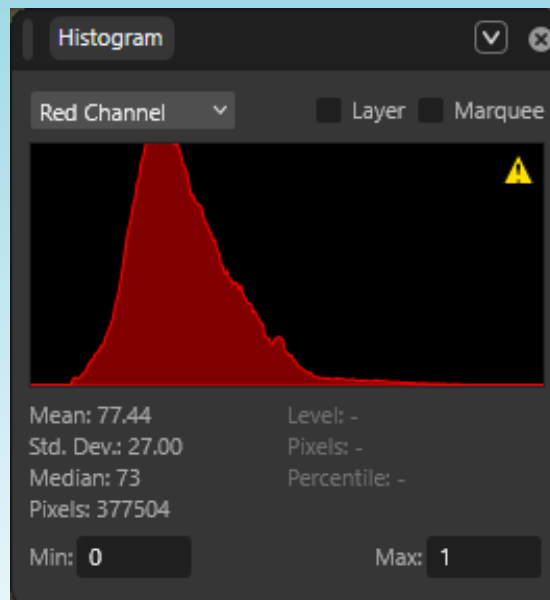
Finally, you may have to go back to Master to tweak the brightness up or down. You can use the same methodology with Master as well, dragging the bottom point to the right and top right left towards the curve.

The next page shows the red histogram before and after. In the before image there is a gap between the curve and the right an left edges. The after image shows that is now extends all the way across.

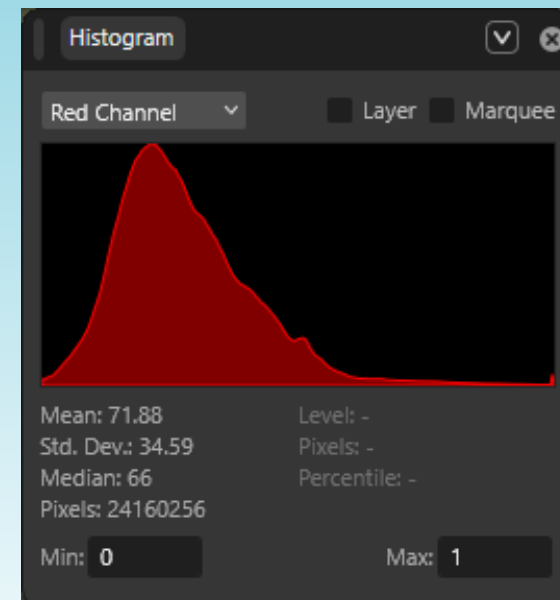


Curves – RGB method red histogram

Before



After



Curves – RGB method

Before



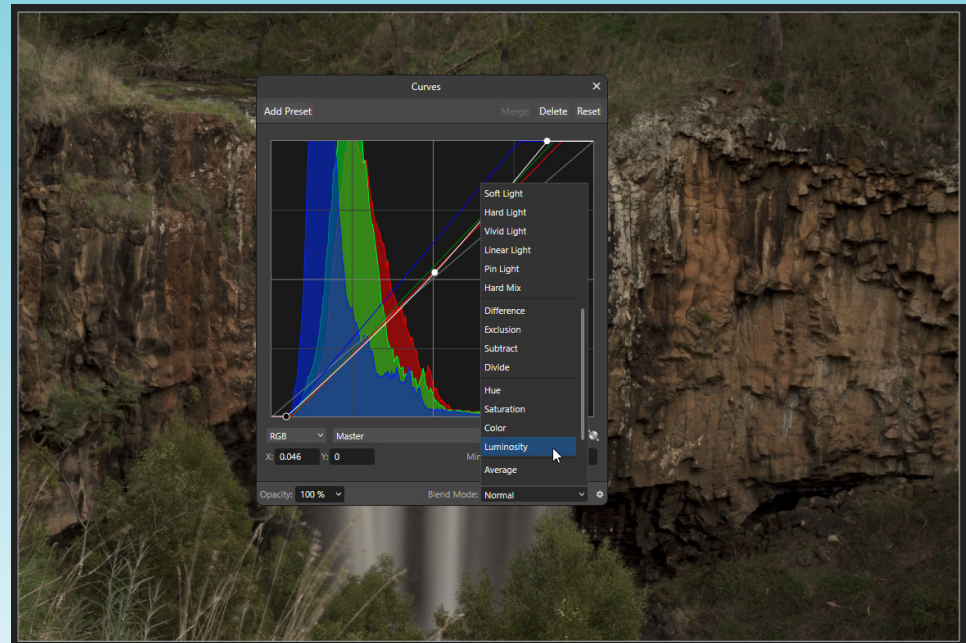
After



Curves tips and tricks – Luminosity blend mode

Editing curves can throw out the colour balance in an image. This is as a result of subtle impacts on hue and saturation. There is a simple fix to this, change the Blend Mode to luminosity.

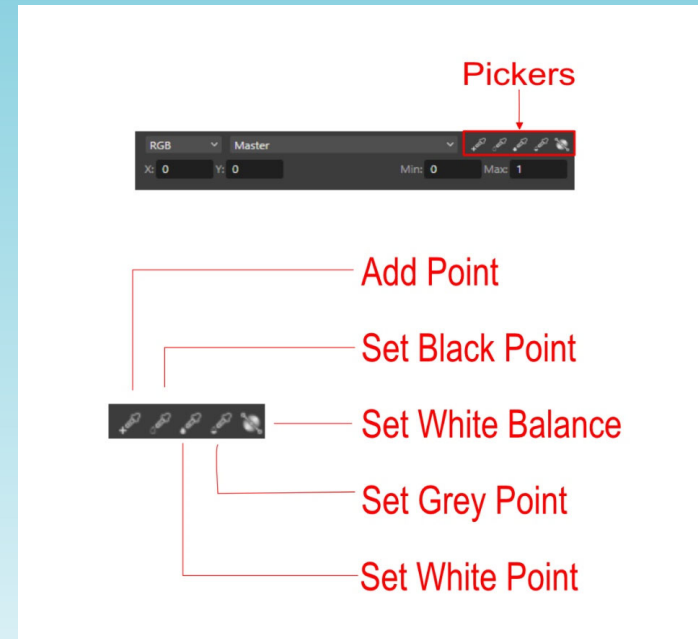
Luminosity blend mode works in two ways, it adjusts the brightness within an image without impacting hue and saturation, it also mimics the human eye by weighting – basically, it prioritises green, red then blue channels.



Curves tips and tricks – pickers

Affinity has for a long time had a picker that allows you to select part of your image to create points on the curve, with V3.3 this has been further expanded, the picker now includes, setting the black point, white point, grey point, even the white balance.

To demonstrate how it works, we'll set the white point.

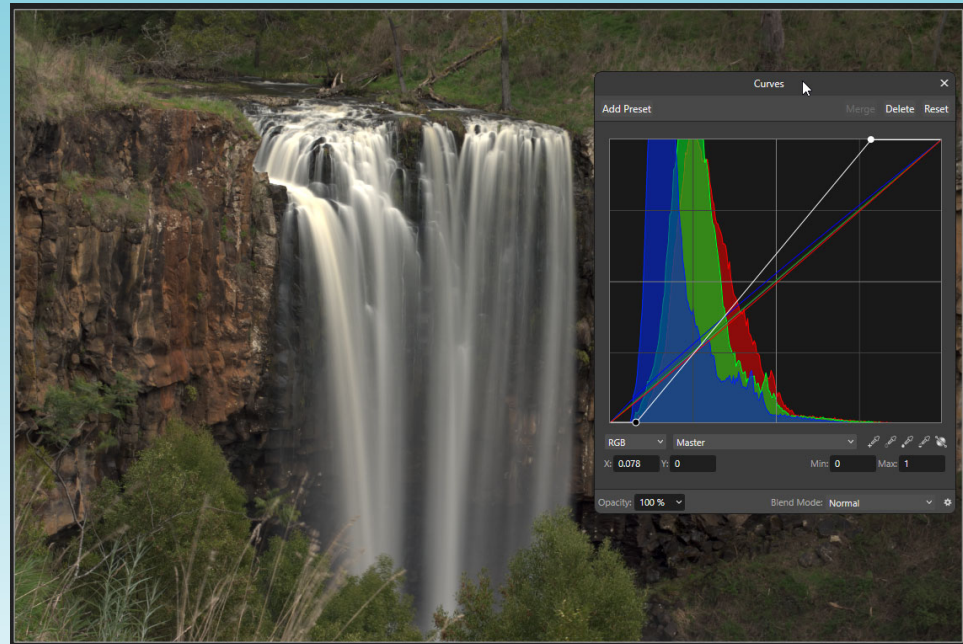


Curves tips and tricks – pickers, set white point.

To set the white point, click on the 'Set White Point' picker (the middle one). You will see a cross, move this to the point that should be white and click on it.

In the image to the right, I've set; the white point, white dot top right of image; black point, bottom left; and the grey point, this has added red, blue and green lines that go through the middle.

As I mentioned these are new in V3.3, so I haven't had the chance to see how they will change they way I edit.

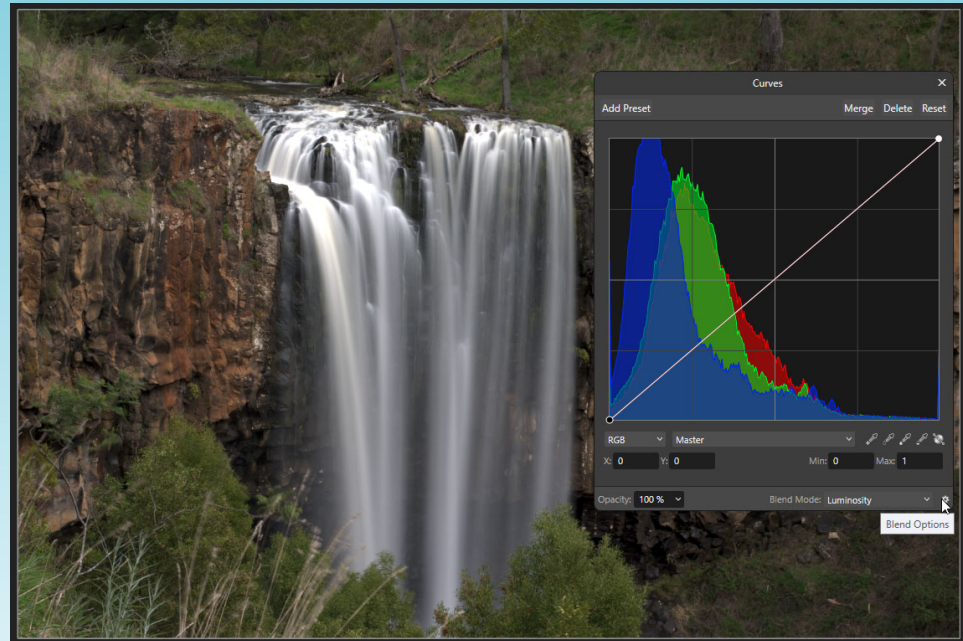


Luma curves - advanced.

This is a technique that I purloined from James Ritson, the Affinity Photo product expert at Canva.

It requires creating three separate curves using the luminosity blend mode. Each curve then has different blend options set up. One curve is just for shadows, one for midtones and one for highlights. This allows for very fine tuning at the end of an edit.

I have created a macro that generates the Luma curves structure including blend modes to speed up my work flow.

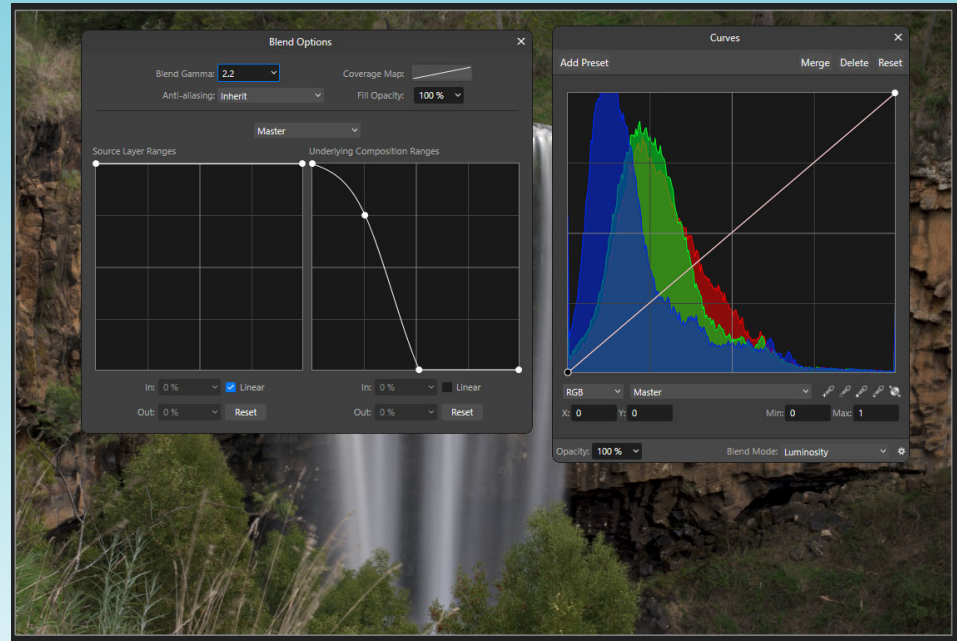


Luma curves – blend options.

This is the setup for the **Shadows** luma curve.

NB. Blend Options (BO) is Affinity's equivalent to PS's Blend If.

If you look at the BO in the image to the right, the Underlying Composition Ranges has been set so that the curve has full effect for the shadows, this decreases to zero at mid-grey and beyond. Ok, what does this mean? The Curves on the right will only impact parts of the image darker than mid-grey, it will have no effect on mid-grey or the highlights. The strength of this technique is that shadows, midtones and highlights are adjusted separately, giving you more control over the final image.



Luma curves – blend options.

Here are the separate BOs for shadows, greys and highlights.

That's it for a guide on curves, we've covered a lot from simple soft light curves to advanced luminosity curves. I hope along the way I've shown you something that you can use in your workflow.

The key with any of this is to experiment, see what works for you.

My Luma macro is [here](#). I will also make it available on MRPS' site.

Affinity has a very good guide to curves [here](#).

