How To:
Use The Histogram Tool

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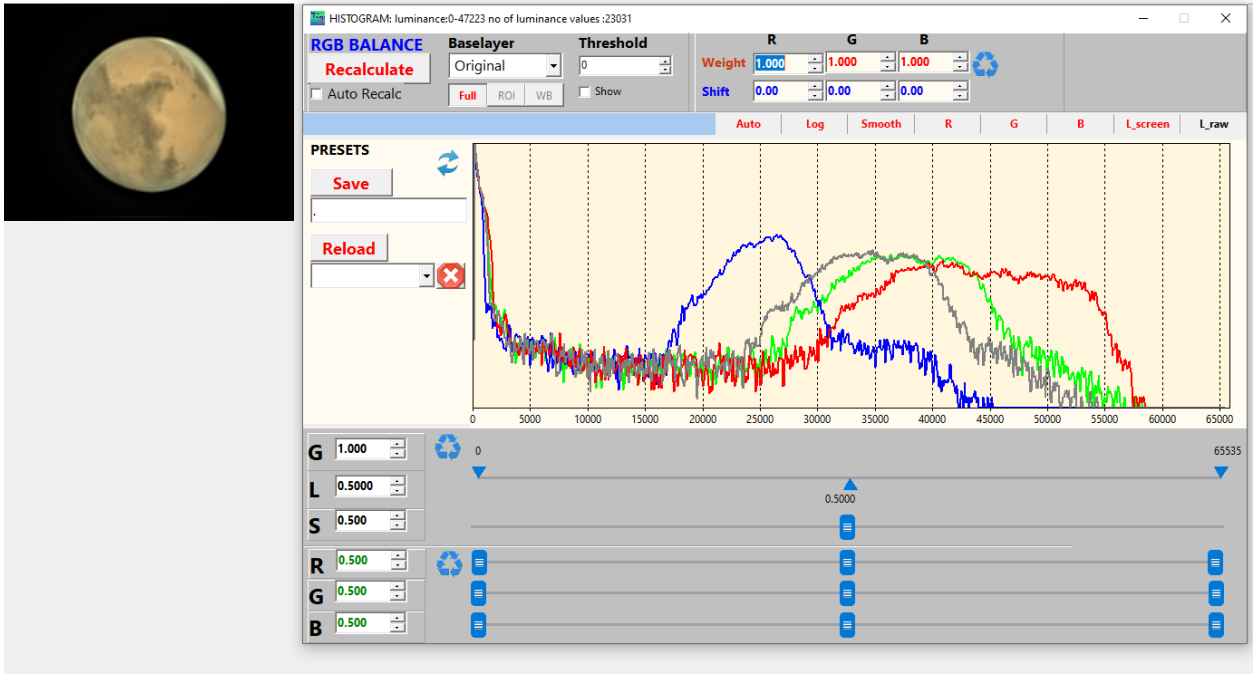
How To Use The Histogram Tool

Once you have sharpened, denoised and otherwise adjusted your image, it’s time to color-correct and optimize the dynamic range. These functions are carried out using the HISTOGRAM tool. It is important all sharpening is executed prior to color and range adjustments as sharpening can have a significant effect upon higher-end histogram values and we want to avoid “white-clipping”.



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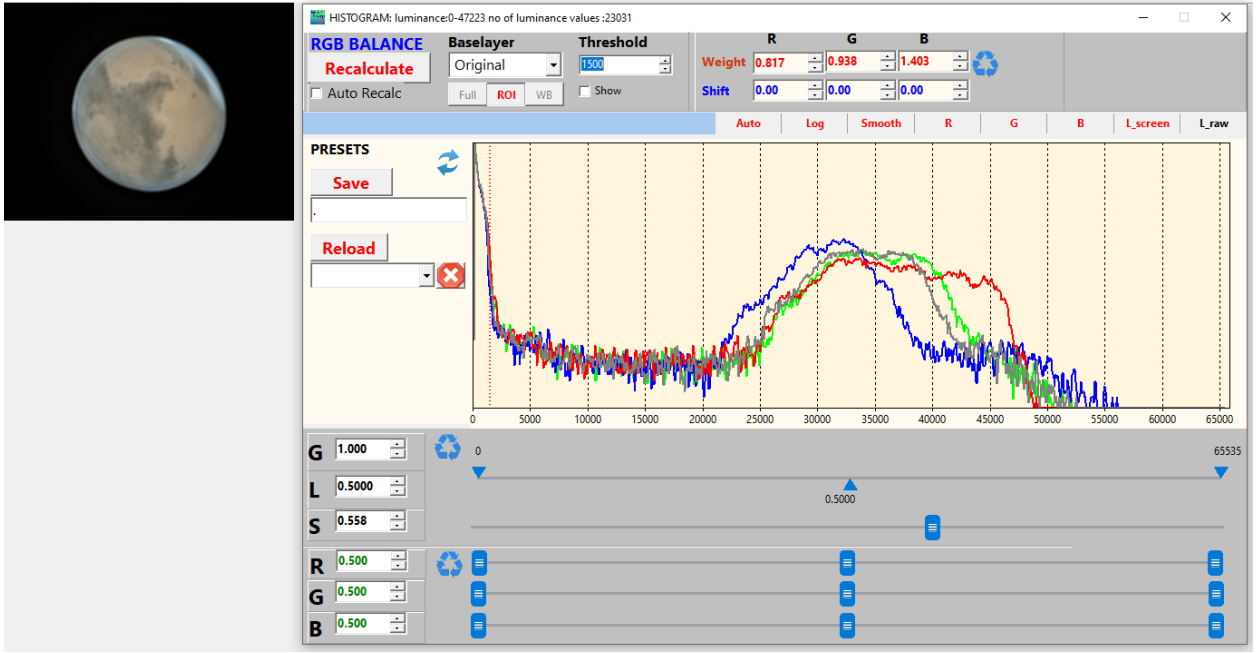
The first activity we would carry out is to get a better color balance compared to whatever out-of-the-camera color ratios have been captured. Many OSC cameras render a slightly washed-out appearance, lacking in vibrancy/saturation. Such images often benefit from a slight saturation boost. This is easily accomplished by dragging the saturation slider a little to the right:



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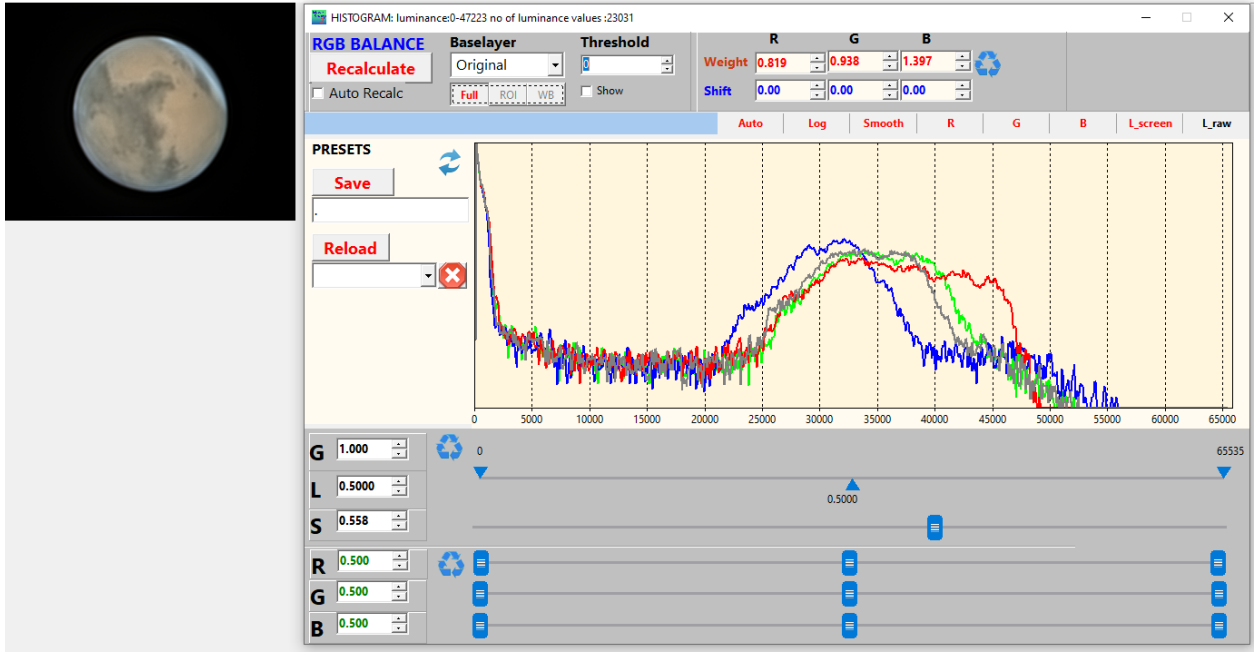
In order to better balance the colors, the quickest and easiest action to take is simply to click on ‘Recalculate’ near the top left. With the accompanying ‘Full’ setting below the base layer of ‘Original’, this will calculate a color balance based on the entire image (including background). Note that while the background may appear black, in practice it very rarely is truly black. There will likely be a subtle color cast which will skew the calculation.



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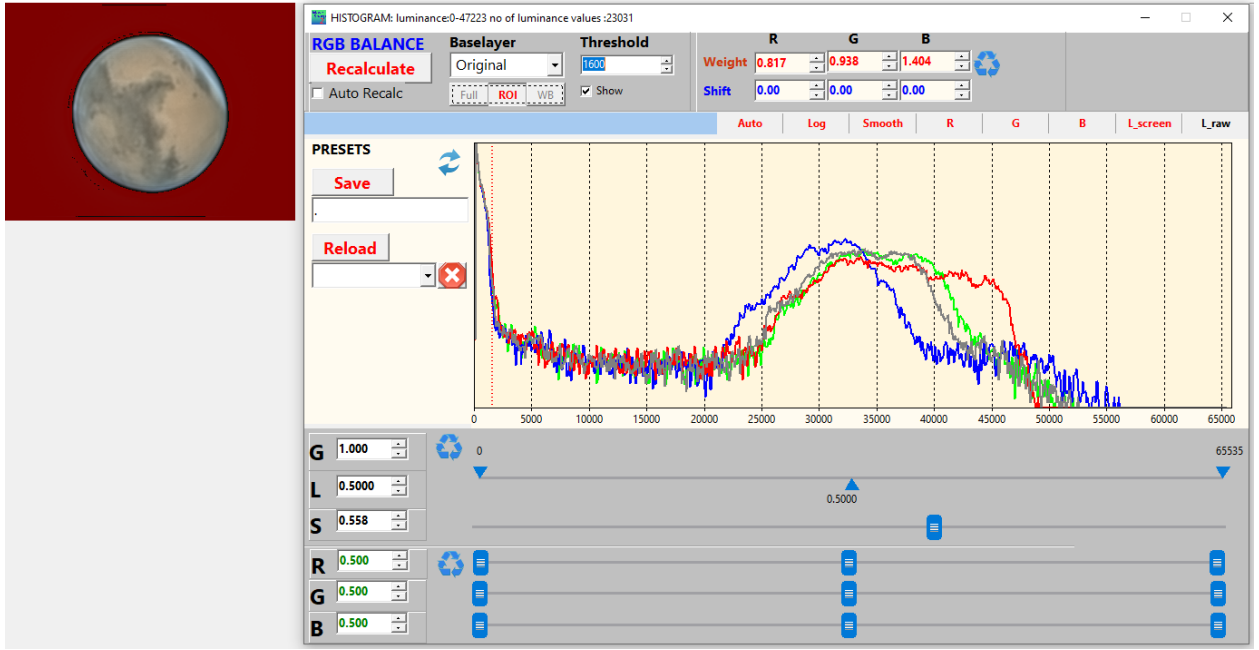
In order to eliminate the background from this calculation, one can click on ‘ROI’ and also enable the ‘Show’ checkbox to its right. This activates the threshold control, which dictates a cut-off threshold for the background portion to be excluded from the calculation. Try incrementing the threshold in steps of 100 and see the red (excluded) area covering more and more of the background:



Closing out the histogram window will remove the red area, but maintain the color balance achieved when it was activated.

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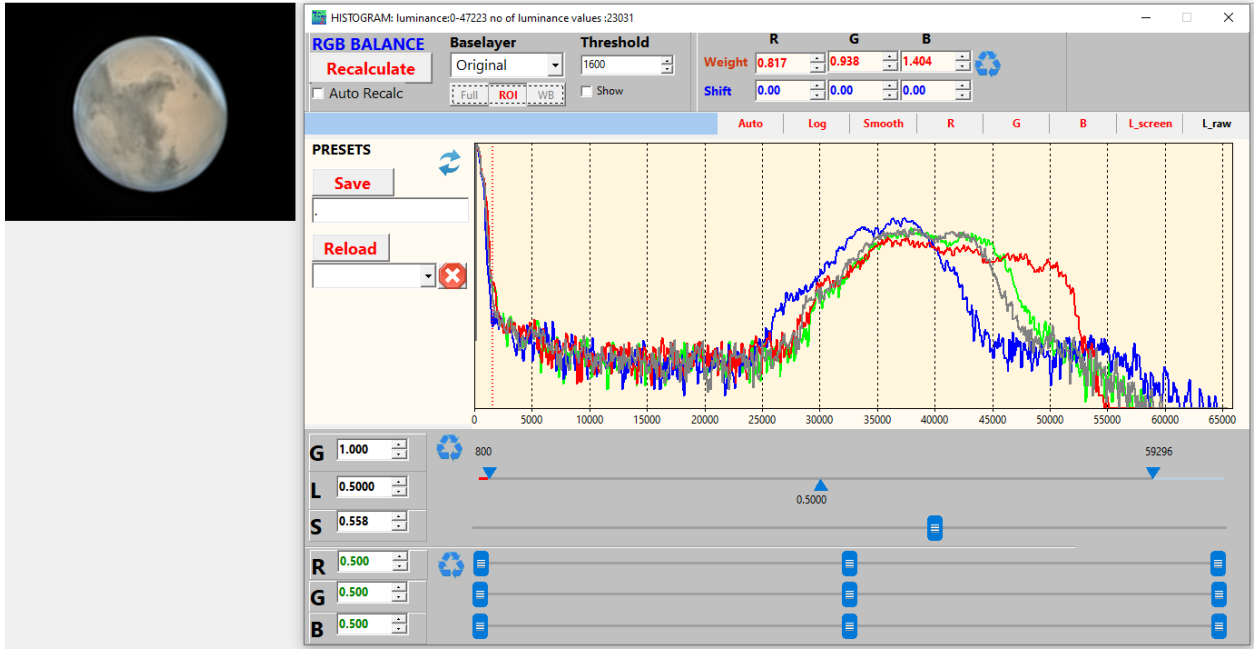
One can improve the dynamic range of the image by moving the leftmost luminosity slider a little toward the right, and the rightmost luminosity slider a little toward the center. Be very careful to only lose background with the former and to not “white-clip” while performing the latter:



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The remaining controls are fairly intuitive, with some being more useful than others. The row of tabs (Auto, Log, Smooth, R, G, B, L_screen and L_raw) are rarely touched, as L_raw is the default and conveys the most information.

On the left, the gamma control (numeric only) is directly above the Luminosity and Saturation controls but with a well-captured image stack, there should be little need to use it. Individual R, G and B controls exist on the bottom of the Histogram tool, and give fine control over each of the three primary colors. The majority of the time, these will go untouched.

If you intend to process many similar images, it can be useful to save and restore presets for the histogram controls – this is achieved using the Save and Reload options on the left.