

# Color Image Tool

**Give you flexible control over the brightness, contrast, and color balance of color images, especially raw-format images from DSLR cameras.**

This tool allows you to modify a previously joined color image, or an image from a DSLR Camera, scanner or one-shot color CCD camera. You can also use to pick up where you left off when joining a color image, providing you saved the image as a color FITS file.

**IMPORTANT: This is a very powerful and flexible tool for adjusting color images, and like many such tools, it takes time to acquire skill in using it. Keep playing and experimenting with color images until you get the hang of using it.**

This tool has four tabs:

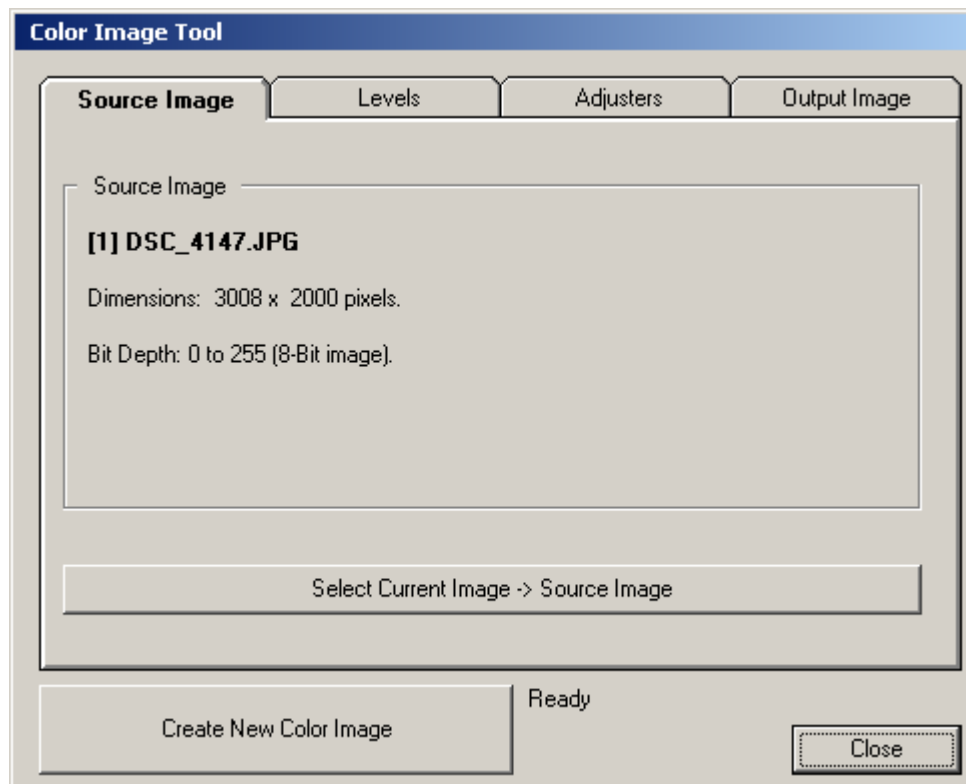
**Source Image** Selects the source image to process.

**Levels** Displays and controls histograms of the color channels.

**Adjusters** Sets color saturation, gamma, and other parameters.

**Output Image** Selects properties of the output image.

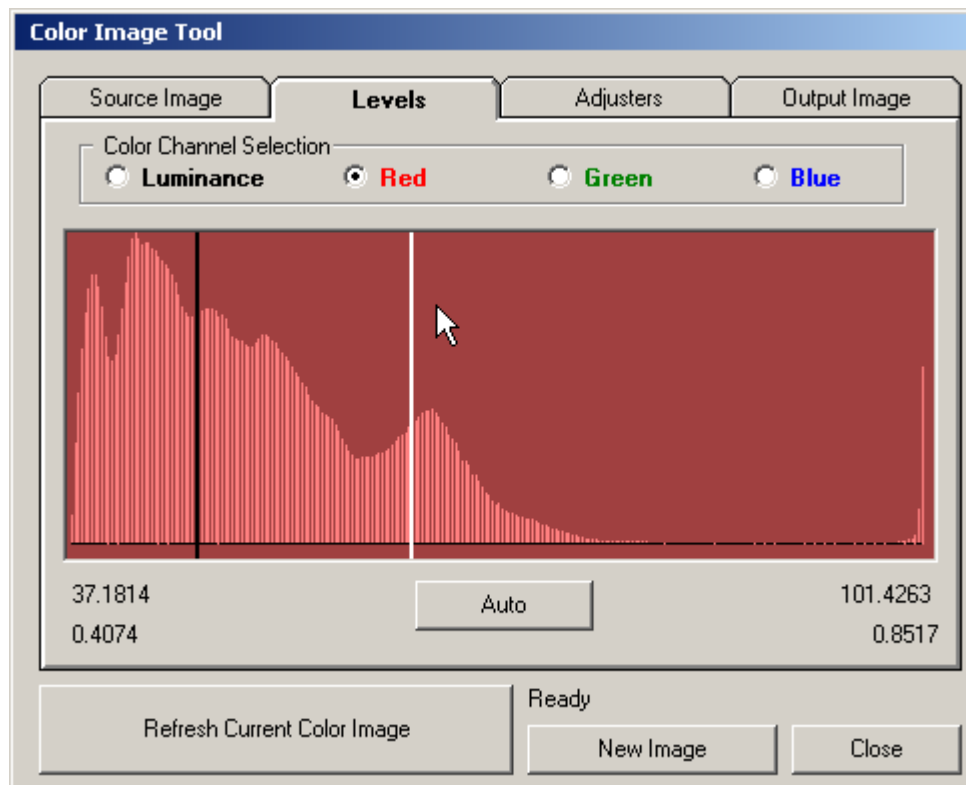
Here is what you can do with each tab:



## Source Image Tab

This tab is active when you open the Color Image Tool. It displays the name of the current image, its dimensions, and its bit depth.

**Select Current Image > Source Image** If you wish to select a different source image, select the image and click this button. It will set that image as the new source image.



## Levels Tab

### Color Channel Selection

**Luminance** Displays the luminance histogram (luminance a combination of the red, green, and blue color channels)

**Red** Displays the red channel histogram.

**Green** Displays the green channel histogram.

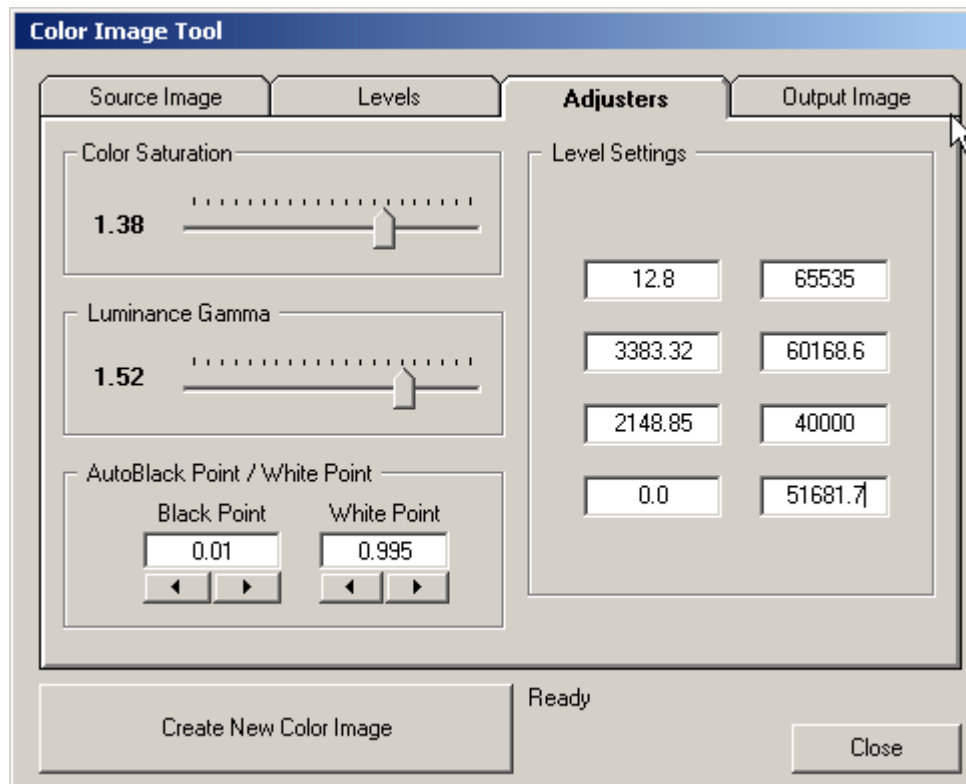
**Blue** Displays the blue channel histogram.

**The Histogram** Shows the histogram of the color channel you have selected. Use your mouse to set the **Black Slider** and **White Slider** on the histogram display.

**Auto** Clicking this button automatically sets the Black Slider and White Slider endpoints to the values shown on the Adjusters tab.

The **Pixel Value** and **Cumulative Histogram** values for the Black and White point are

shown under the histogram.



### Adjusters Tab.

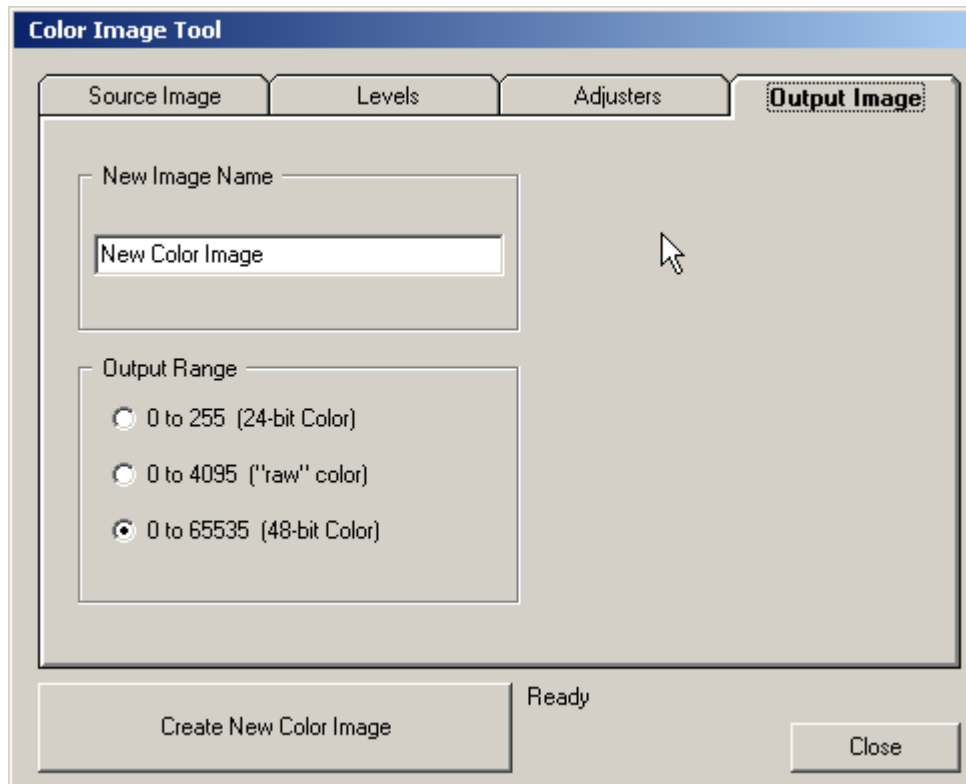
**Color Saturation** Use the slider to set the Color Saturation of the image. A value of 1.00 is normal saturation. Lower values result in lower saturation (less color) and higher values result in higher saturation (stronger colors).

**Luminance Gamma** Use the slider to set the gamma applied to the image luminance. This controls the brightness of the middle tones in the image. A value of 1.00 is normal middle tones. Lower values darken the image; higher value lighten the image.

**Auto Black Point / White Point** Set these value to determine what percentiles of black and white pixels you wish to allow in each color channel. Values of 0.01 (1%) and 0.995 (99.5%) generally work well for astronomical images.

**Level Settings** This array of text boxes allows you to set exact Black and White pixel

values for each color channel.



## Output Image Tab

**New Image Name** Enter a name for the processed color image that you are creating.

### Output Range

**0 to 255 (24-bit Color)** Creates an image in standard 24-bit color, that is, 8 bits for each of the color channels. Can result in loss of subtle image information. Use to export images for use on the web, etc., where bit-depth is not important.

**0 to 4095 ("raw" color)** Produces an image with same bit-depth as most "raw" camera files.

**0 to 65535 (48-bit Color)** Creates an image in 48-bit color. You can save an image with this bit-depth as a "16-bit" TIFF image for export to other image processing programs with essentially no loss of information.

**Make Color Image / Refresh Current Color Image** Once you have adjusted setting, click this button to create new color image or the refresh the current color image with the new parameters you have set.

**New Image** If you like a color image you have created but wish to continue experimenting with settings, click this button to create a new image. The previous color image will remain on the screen for comparison.

**Close** Close this tool.