New Astronomy Press

Documentation for One-Shot Color Flat Maker Plug-in

Installation

This document and a plug-in file are copied to this folder:

\Program Files\colorFlatMaker

The same plug-in file works with both CCDSoft v5 and MaxIm DL.

NOTE: Always make sure you are using the latest version of MaxIm DL and/or CCDSoft. Earlier versions of these programs may not work with this plug-in!

Installation for MaxIm DL

- Start MaxIm DL version 3 or 4.
- Click the Plug-in | Add/Remove Plug-in menu item.
- Click the Browse button
- A File dialog opens. Navigate to and highlight this file:

  \Program Files\colorFlatMaker\colorFlat.dll
- Click Open, which close the File dialog.
- Click Close to close the Add/Remove Plug-in dialog.

The plug-in will now be available on the Plug-in menu in MaxIm DL. To use the plug-in, taken a flat-field image (or open a file that you took previously), and click the Plug-in | Newastro Color Flat Maker menu item.

Installation for CCDSoft

- Copy the following file:

  \Program Files\colorFlatMaker\colorFlat.dll

  To this location:

  \Program Files\Software Bisque\CCDSoft Version 5\Image Processing Plug Ins

Create the above folder if it does not already exist. The plug-in will now be available on the Image | Plug-ins menu in CCDSoft. To use the plug-in, taken a flat-field image (or open a file that you took previously), and click the Image | Plug-ins | Newastro Color Flat Maker menu item.

Using the One-Shot Color Flat Maker Plug-in

The plug-in is only functional if an image file is open.

In MaxIm DL, use this menu item to open the plug-in:

Plug-in | Newastro Color Flat Maker

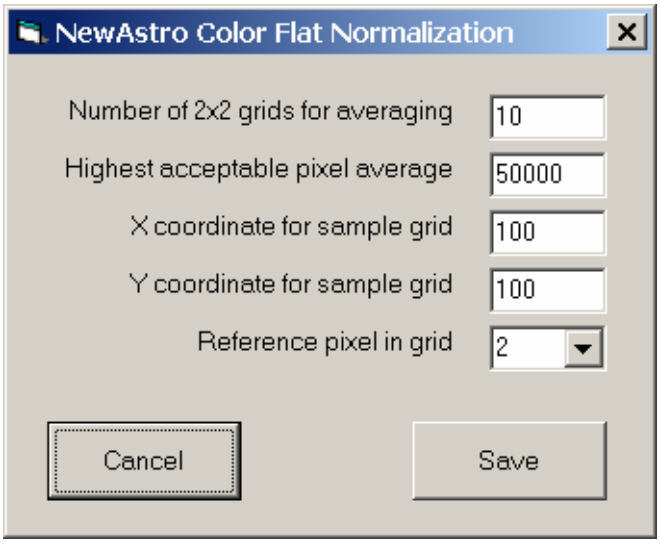
In CCDSoft, use this menu item to open the plug-in:

Image | Plug-ins | Newastro Color Flat Maker

In both cases, this opens the plug-in window, which looks like this:

The plug-in is easy to use. To create a flat from the raw one-shot color image, click the "Make Flat" button. The progress of the operation is shown above the button in the status box. When the process is complete, click the Done button to exit the plug-in.

You can configure the plug-in using the Setup button. Click the Setup button to display this dialog:



For most users, you will not need to make any changes to these settings. You can use the settings to fine-tune how the plug-in operates:

Number of 2x2 grids for averaging	The Bayer pattern used for one-shot color cameras is a 2x2 grid. The plug-in samples several such patterns to determine the values to use for creating the flat. A larger number of grids produces a more accurate result. For most users, using 10 grids will be more than sufficient.
Highest acceptable pixel average	If the flat is too bright, or even if only one of the colors is too bright, the flat cannot be normalized. For most cameras, a value of 50000 will prevent

	this type of problem from occurring. However, if your camera has a low saturation value, you may need to lower this value. You should never need to raise it above 50000; doing so could lead to flats that are not accurate.
X coordinate for sample grid	Where to start the grid sample. Stay away from edges, which can have biased values.
Y coordinate for sample grid	Where to start the grid sample. Stay away from edges, which can have biased values.
Reference pixel in grid	This is the pixel that will be used as the reference for the other three pixels when normalizing. Ideally, this should be a green pixel, but in most cases you do not know the color of individual pixels in the grid. If you get poor results (too high or too low), try a different reference pixel number.
Cancel button	Cancel the operation. Settings will not be saved to the registry.
Save button	Saves the settings to the registry.