MaxPHD - User Guide

Purpose of the Software

MaxPHD is a software to perform dithering using Maxim DL as imaging software and PHD Guiding as guiding software. For those who do not know what dithering is about: it is the action of moving the image randomly of a few pixels from one frame to another so that the sensor noise is scattered and statistically reduced during the stack of the frames when doing the image processing.

MaxPHD Parameters

Sequence #: number of iterations through the filters
Filter Checkbox: select the filter, starting from the first position in the filter wheel.
Exposure(sec): exposure time for a single frame
Suffix: sequence of characters to be added to the base filename to indicate the filter used.
Binning: binning of the frame
 # Frames: number of frames to be captured per single filter.
Directory: folder to save the frames.
File prefix: prefix for each frame filename
Dithering Radius (pixels): the maximum radius of random dithering allowed.
Dithering Stability (pixels): the maximum oscillation of the guide star before to start a new image
Dithering Timout (sec): idle time allowed for the guide to settle in after dithering.
PHD exposure (sec): guide exposure time previously set on PHD Guiding.
Start button: starts the imaging sequence.
Quit button: it closes the window after a session is completed. Does nothing otherwise.
Donate! button: redirects the user to the PayPal webpage where you may donate if you like.
CTRL+ALT+x : stops the imaging sequence and quits the window.
Status window: provides some details regarding what MaxPHD is doing.

MaxPHD quick start

1) Open PHD Guiding, go to menu bar, and select Tools->Enable Server
2) Make sure on PHD Guiding that the camera and the guiding method are correctly configured
3) Issue the usual PHD calibration phase with the selected guide star
4) Run MaxPHD and set all needed parameters
5) Hit Start

Bug report/Suggestion for improvements should be sent to
omega.centauri@gmail.com