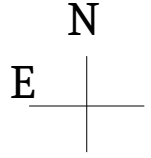


OptiPol Startup

October 2017 at WIRO

Original document: Michael Gordon & Karlen Shahinyan
Revised for WIRO by Chip Kobulnicky

Startup at WIRO and notes (October 2017)



1) Install polarimeter so that filter wheel projects to the east. Then orient is and scale is 0.085 "/pix and FOV is 40" north-south by 80" east-west. Use the power supply attached to the telescope to provide 24 V to the BNC connection on the half wave plate interface.

2) Nominal focus is 0.042 at 22 deg F. Bias level is near 1200. Gain=___ RDN=__ e- at -40C

3) Connect to the Windows Vista computer MLOF1 as administrator using `vncviewer 10.214.214.133:5900` and the admin password

4) Half wave plate is usually on COM1. Camera plugs into front USB, lower slot (COM19?). Filter wheel is on COM14 on rear USB (the only one that works...the lower right)

5) If observing remotely, do not shut down MLOF1 because it cannot be awakened by powering on the PDU#1. It will recover from a sudden power loss.

6) Polarization standards are in polarimeter.cat catalog.

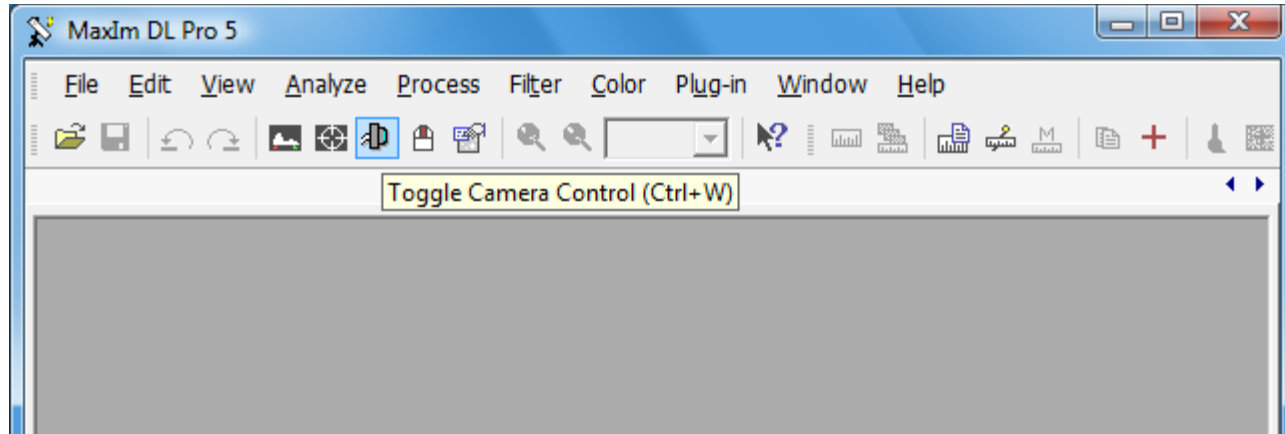
7) Instrumental polarization table.

Band	U	B	V	R	I	cR
P% _{isnr}						
PA _{ins}						

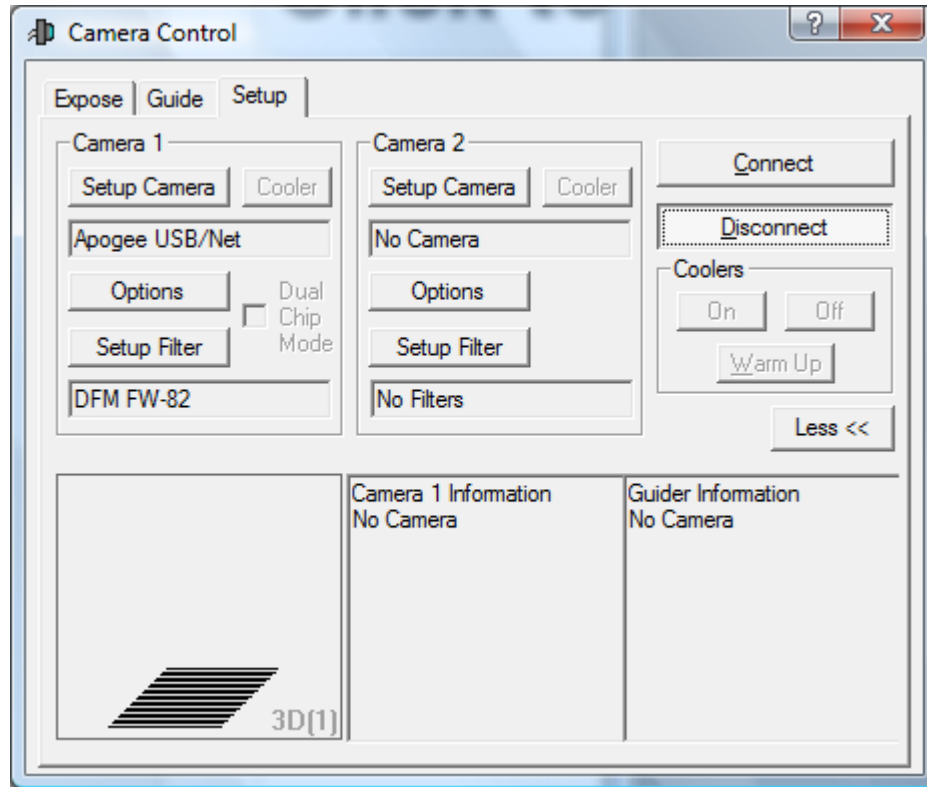
8) Domeflats in BVRI do 10 s at 99%,40%,35%,25% lamp. 30s in U at 99%

Open MaxIm DL

Click on 'Toggle Camera Control'

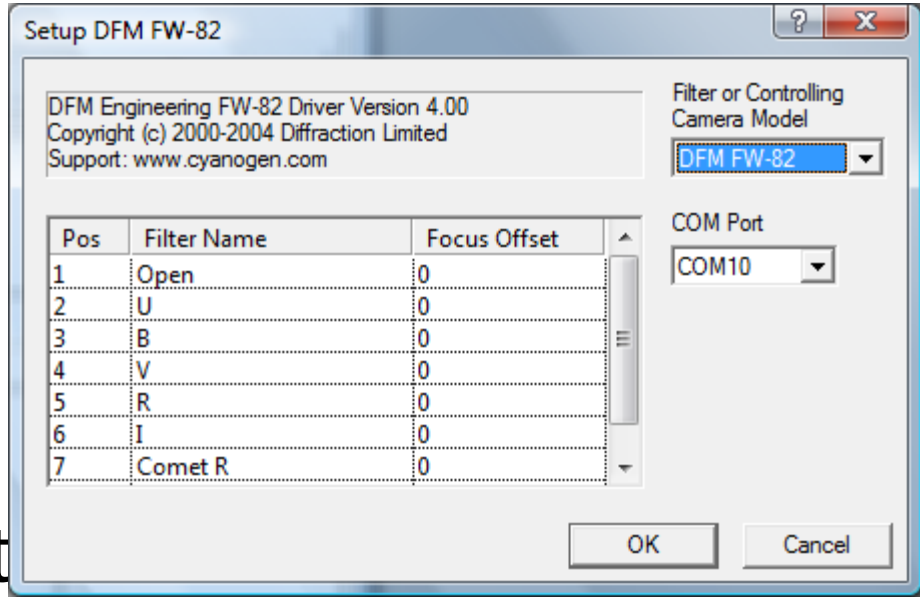


Under Camera 1, select Setup Filter

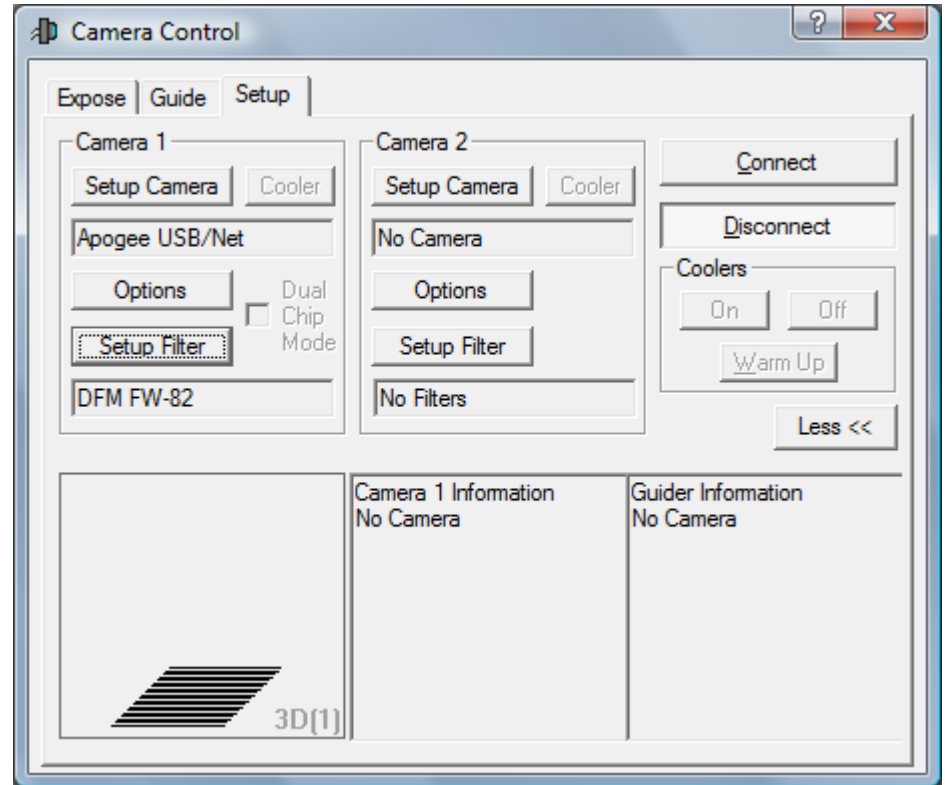


Select DFM FW-82,
COM Port = 14(?)

Make sure the
Filter Names read as
shown (Pos 8 = Comet
Click Ok

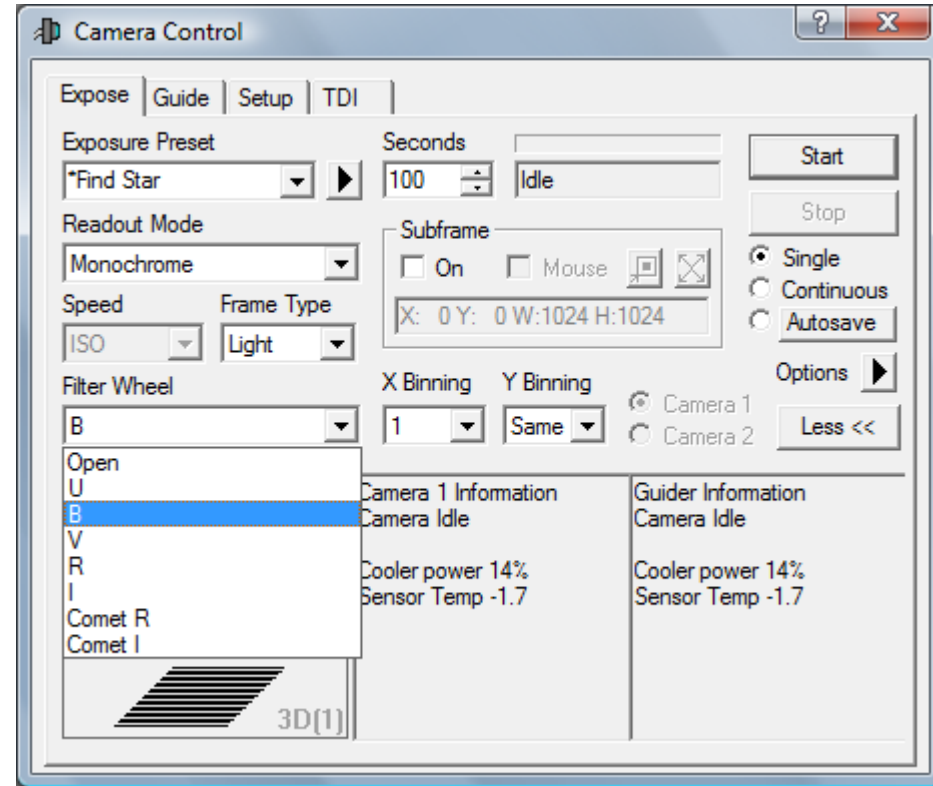


Make sure the camera and the filter wheel are ON and hit 'Connect'

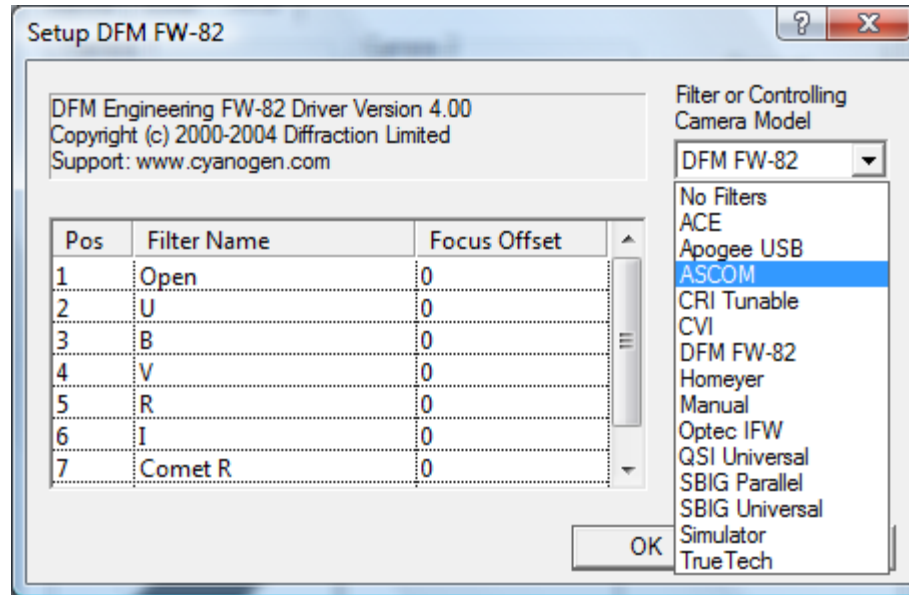


Switch to the 'Expose' tab and select the desired filter from the Filter Wheel dropdown

When Filter is selected, switch back to 'Setup' tab and hit 'Disconnect'

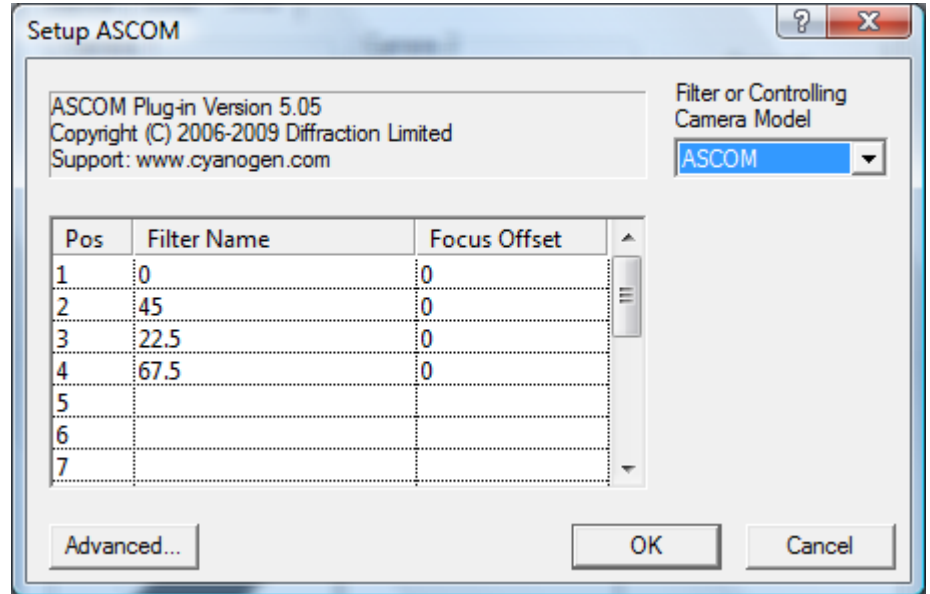


Select 'Setup Filter' again for Camera 1 and choose ASCOM.



Make sure the positions and filter names match the image below.

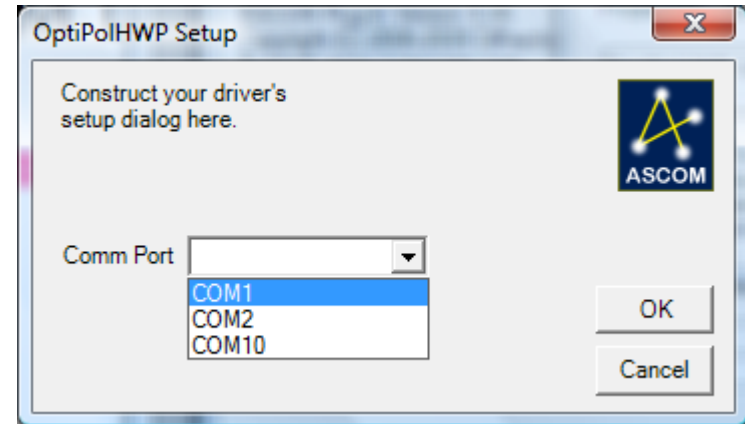
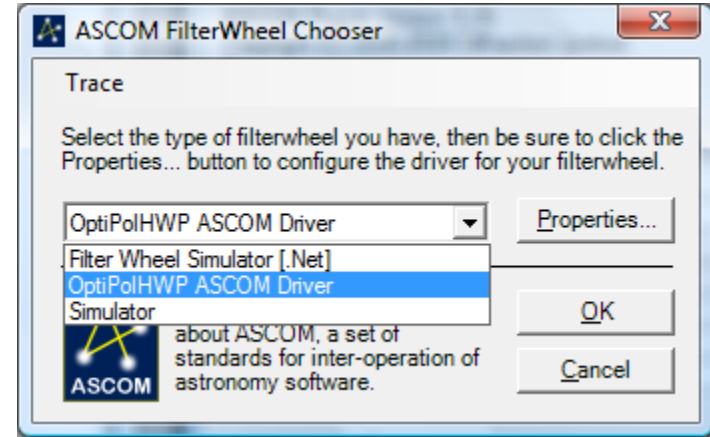
Press 'Advanced...'



From the dropdown menu, select 'OptiPolHWP ASCOM Driver'

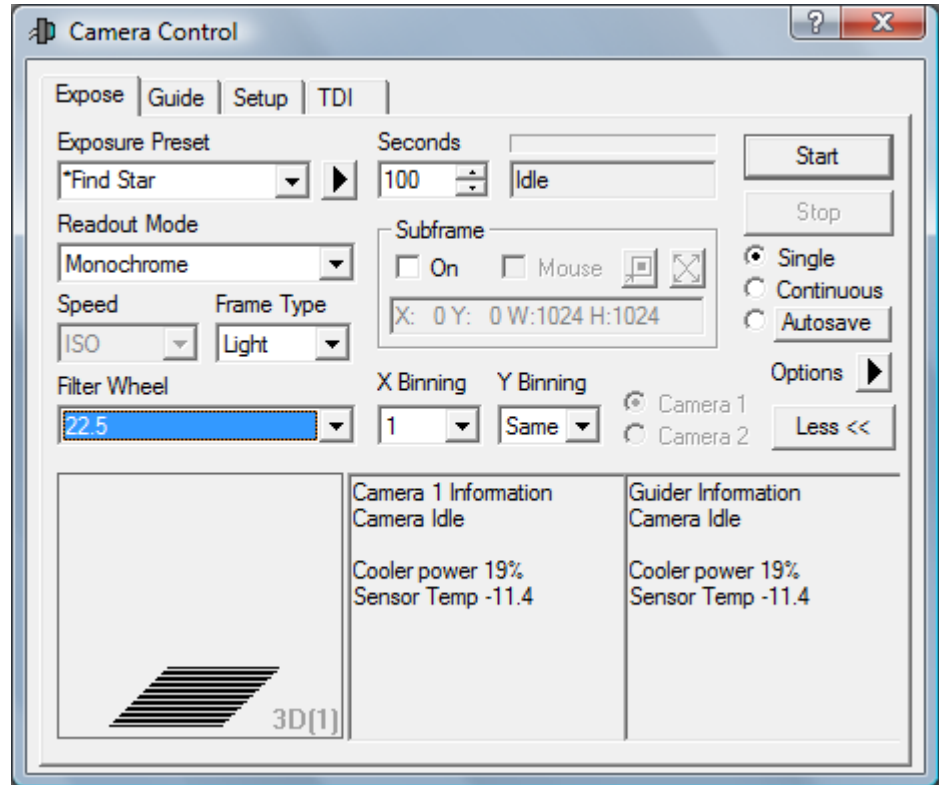
Click 'Properties'
Select 'COM1' as the
Comm Port.

Press OK, and OK again to
return to the Camera menu



Press 'Connect' in the Setup tab and return to the Expose tab

The HWP position can now be selected from the Filter Wheel dropdown



Demo sequence (in autosave):

Autosave Setup

Autosave Filename: Mrk501

Estimated Duration: 30m 21s

Delay First: 2

Delay Between: 1

Dither: Off, Via Guider, Via Mount. Max. Deviation (pixels): 0

Mosaic: Capture. Setup

Astrometric Resync: Off, Sync Telescope, Correct via Slew, Solve Only. Interval: 1

Bin 2x2: . Interval: 1

Buttons: OK, Cancel, Apply, Options

Slot	Type	Filter	Suffix	Exposure	Binning	ISO Spd	Readout Mode	Repeat	Script
1	Light	0	_000	90	1	N/A	Monochrome	5	...
2	Light	45	_045	90	1	N/A	Monochrome	5	...
3	Light	22.5	_022	90	1	N/A	Monochrome	5	...
4	Light	67.5	_067	90	1	N/A	Monochrome	5	...
5	Dark	0	_120	120	1	N/A	Monochrome	10	...
6	Dark		_60	60	1	N/A	Monochrome	10	...

This sequence is saved as 'Mrk501' and estimated to take 30m 21s. The 'Delay First' and 'Delay Between' allow extra time for the camera to move

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