

SpeX Observer's Crib Sheet (v. Aug. 2014)

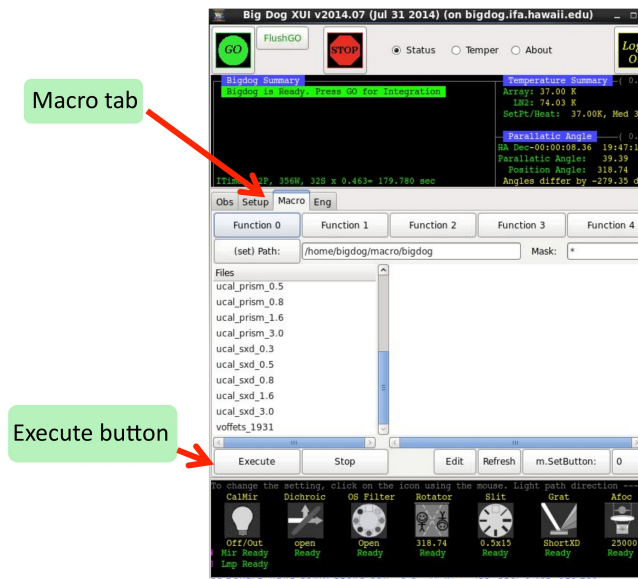
Start-up

- Ask your operator for the daily VNC password.
- Start your VNC client, and bring up Stefan.ifa.hawaii.edu:1 (bigdog) and :2 (guidedog). -
- Enter your program number, then log in using the password from your proposal.

Bigdog

- To determine maximum exposure time:
 - 1) Set itime=1, NDR=1, click GO
 - 2) Find brightest pixel in the spectrum, this is the count rate in DN/s
 - 3) Calculate maximum itime= 20,000/(2*rate)
 - 4) Set NDR=32, set itime to the calculated maximum itime or 2-3 minutes (in the 1-2.5 micron region), which ever is shorter.
 - 5) Start science exposures

- Calibration macros can be found under the macro tab
- **Don't forget to set autosave to on!**
- To nod along the slit, set Beam.pattern to AB
- If you need to stop an integration, hit the "stop" button at the top of the window.
- To run a calibration macro, click on the macro tab, choose the appropriate macro, then execute the macro by hitting the 'execute' button.
- Gain = 1.5 e-/DN

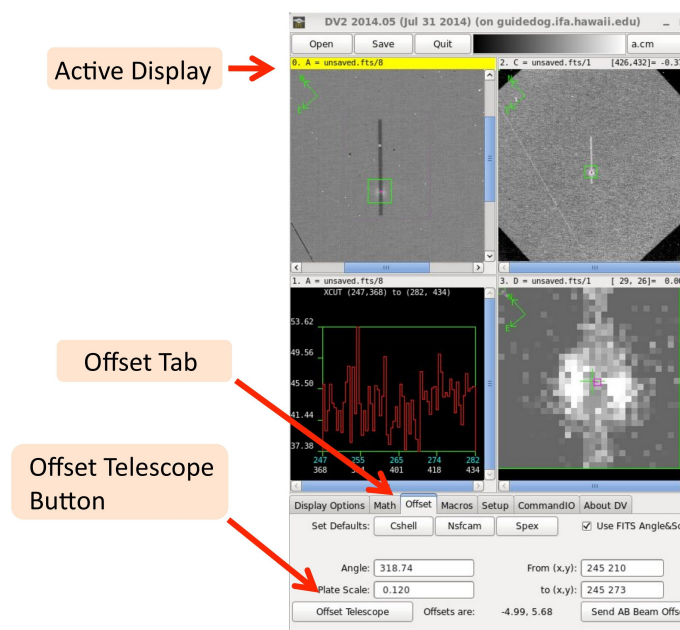


Guidedog

- **Keep counts below 4000 DN for photometry.** Slight saturation is okay for guiding.
- Plate scale: 0.12 arcsec per pixel
- Field of view: 60 arcseconds across
- When guiding, we usually set autosave to off.
- Click "auto guidebox set up" to set up guider boxes.
- If you have moved the image rotator, click on "auto guidebox set up" again. Clicking this also tells the TCS if you have changed the rotator angle. If you don't click on this, then the telescope won't know the new slit orientation, and the star will nod off of the slit.

DV

- Click on the title bar or the number of the display to make it the active display (the active display has a yellow title bar)
- To draw a line: first click and hold the middle mouse button, then press shift, then drag the



cursor (you may need to hold down shift then click the middle mouse button)

-To make a small offset: Draw a line in DV from where your target is to where you want it to go. Click on the TCS offset tab in DV (towards the bottom of the window), then click "offset telescope" *or* click the guide paddle in tc3remote to make offsets.

- To draw a box: click and hold middle mouse button only, then drag the cursor.

- To do a line cut:

1) Draw a line across the image where you want the cut (Example: buffer A is in display 0)

2) Set another display to that data buffer (Example: point display 3 to buffer A)

3) In that other display (in this example, display #3), set the display type to X Line Cut

4) Click "set endpoints from line". To fit with a gaussian and get a FWHM estimate, click on "gaussian fit".

Focusing:

- Ask the operator to run the autofocus sequence.

- Make small focus adjustments using the focus offset buttons in the t3remote window, ~0.02 focus units at a time.

Common Observing Modes

Mode	CalMir	Dichroic	OS Filter	Rotator	Slit	Grat
Prism guider=guidedog	Off/out	open	open	parallactic	any	prism
Prism guider=MORIS	Off/out	0.8	open	parallactic	any	prism
Short Cross Dispersed, guider=guidedog	Off/out	open	open	parallactic	any	ShortXD
Short Cross Dispersed, guider=MORIS	Off/out	0.8	open	parallactic	any	ShortXD

Starcat

To start starcat:

1) Go to or open an xterm.

2) cd to your guest account directory where you have your starcat file.

3) type "starcat" or "starcat &".

Load user target list

1) Click on the "userlist" tab towards the bottom of the GUI.

2) Enter the path and file name of your target list.

To send a target to the TCS:

1) Click on the target to highlight it in blue.

2) Click on the "Send to TCS" button.

T3remote (TCS display)

- To start a t3remote window, click on t3remote button on desktop

- "Next" tab can be used to enter coordinates to send to TCS.

Shut-down

- Set Lamp/Mirror to off/in

- Set order sorting filter to blank

- Click "Log Out" in upper right corner of GUIs