MIRC new spectral band set-up

1. Setting-up the detector

IRCam must be set to read a larger area of the detector.
The default setting is: rows x cols = 16 x 160, roff x coff = 5 x 38.
The new setting is: rows x cols = 252 x 252, roff x coff = 1 x 1.
nreads = 4, # frames = 100, # frames per reset = 100, coadds = 10.
Update DAQ.
Config detector.

2. Move the prism out of the beam

Start fiberExplorer.
Close all the shutters.
Take a background frame (reset bkgd, take bkgd, use bkgd).
Open the shutters.
Select the Ealing control tab (from fiberExplorer GUI). PR2 controls the position of the prism stage.
Home the prism stage: select home from the pull-down menu (Click 'refresh' to see the current position of the prism stage and check it is moving).
The image is now a line on the detector.

3. Put the Ks band filter in place

Turn ON the filter wheel motors from the APC web page.
Launch the filter wheel GUI (currently: mircdev/python/filterMotor/v2, fm.py).
Note: fm.py homes both filter wheels when launched.
Select Kshort for FW1 and OPEN for FW2.

4. Align the aperture array

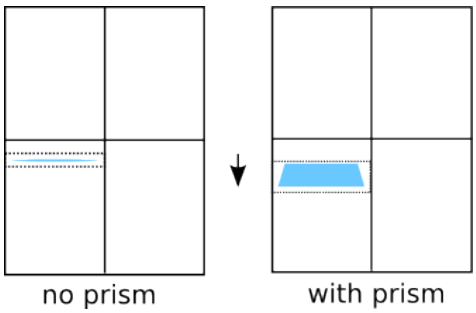
Close the shutters.
Take a background frame (reset bkgd, take bkgd, use bkgd).
Open the shutters.
Check the focus of the image (ought to be one line on the detector).
Move the aperture array (Ealing stage PR1, fiberExplorer GUI):

- home the stage (select home from the PR1 pull-down menu).
- align the slit that is 2 pixel wide with the image (position approx 550000-56000)
- adjust the position until the light from the fibers shines through the slit (position = 549400)

5. Take a new background

6. Put the prism back in the beam

From the PR2 pull-down menu, select 'GOOD'. This will load the prism position from a file, and move the prism into that position.
Note: Inserting the prism in the beam will displace the image on the detector. This displacement will appear as a vertical shift of the image in the IRCam display.



7. EITHER Move the image

Using the pico motors move the dispersed pattern in the sub-array area generally used:

Launch the pico motors GUI (menuPico).
Select the doublet pico motor and move the doublet in the X direction.

8. OR Set the detector to read a different area of the chip

The setting is: rows x cols = 24 x 260, roff x coff = 20 x 38.

9. Change the cpeak values

The cpeak array contains the index of the fringe peaks in the power spectrum and is used when looking for fringes.
The cpeak values can be changed from the pyConfig GUI.
In the present case (from H to Kshort, May 2007), the current values have to be scaled by 2.2/1.65.