Pointing

You must initialize the telescope pointing at the beginning of every night for accurate pointing. The operator knows how to do this. There is a fixed offset distance between the center of CCD 1 and the center of the focal plane. Dave Harvey wrote commands to use in TCS to move between these two points.

90Prime mode (4 CCDs in use):

- center bright star on CCD1
- offset to center of entire focal plane (hard to see because you're in gaps, but there's code for this so don't worry)
- tell operator to initialize pointing
- The embedded WCS is reasonably accurate. You can see RA/DEC in quick look or by loading an image in DS9 (as opposed to using IRAF commands to load the image).

90PrimeOne mode (1 CCD in use):

- Center on chip1
- tell operator to initialize (no offset)
- The embedded WCS is OK

If you do not want your special object to fall on the intersection of 4 amps, you might set up and initialize somewhere else on CCD 1. All bets are off for the embedded WCS.

WCS

For many uses (coadding of data, automatic detection of standards, etc) you'll likely want to improve the embedded WCS. There are IRAF routines, for example to do this. Even if you use IDL or something else, you can learn a lot by saying "help mscguide" in IRAF's MSCRED. Even better is the website http://iraf.noao.edu/projects/ccdmosaic/reductions/adaa/valdes2.ps and http://iraf.noao.edu/projects/ccdmosaic/generic/generic.html. Note that users regularly use mscred in iraf to reduce 90prime data easily.

Flexure Map

On 24/25 Jan 2011, Dave Harvey, Dennis Means, Mike Lesser, and Edward Olszewski derived a new pointing map, and the pointing is much improved.

If you see, after careful start-of-night setup and initialization, that the pointing is off by ˜arcmin as you move through the sky, please let us know. This MAY indicate a mechanical problem that we would need to find and fix.