1. Telescope Start Up

- Main Telescope Power Turned **On**
- "**TR**" to start telescope tracking
- "**DM**" to start dome following
- "**PP**" to find PPM star
- "**UC**" to update coordinates
- "**GGS**" to get guide star
- "**GOS**" and "**GEG**" to calibrate guider
- "**GLK**" to restart guider
- "**GXY**" to move guider probe

2. Mimir Start Up

- Log into **Saturn** computer
- Open an **X11** window
- in that window: "**telnet mimir**"
- log in to **mimir** as **obs72** user
  - Issue "**lois &**"

3. LOIS Set Up

- Guiding must be **OFF**
- Click "**Configure**"
- In Configlois GUI:
  - Select "**Perkins**"
  - Select "**Mimir**"
  - Select "**MimirInst**"
  - Select "**DS9/XPA**"
  - Change User, Institution, as needed
  - Click "**Start**"
- **WAIT!!!** For telescope interface GUI to populate
- Click "**Storage**" and set up directory and file names
- Take a few test images
- For **CoAdds**, must hit <CR> to engage (window -> green)

4. Mimir Commands and Scripts

Mimir/LOIS Scripts – LOIS System window :

- show user buttons: click "**Show User Buttons**"
- two windows of control buttons will appear
- invoking Mimir actions is via clicking buttons
  - e.g., 'Set_H' or 'go_bias'

Slit / Decker / Camera / Filters direct control: in the LOIS system window:

- slit –home (homes the slit)
- slit pos=189 (moves S1 into beam)
- decker –home & decker pos=305 are similar
- filter –status ; puts filter wheel status in other window
- filter wheel=3 –home ; homes HW3
- filter wheel=2 pos=3 ; puts FW2 in pos 3
- hwp –home ; hwp deg=45 (home hwp, sent to 45 deg)
- camera –home
- camera pos= -11700

Problems -> Solutions

Telescope Problems	
Axes halted, dome crazy, lights turned on	System Failure – you must restart MOVE and do a MS (manual startup) of the axes
One axis quit, other works fine	Check axes motor controller units (under RA gear and up on Dec counterweight). If flashing red "20" – tripped current limit – must cycle main telescope power and restart MOVE
Mimir Problems	
Data collection hung	Image transfer interrupted. Press "**White Button**" on back of Mimir computer
LOIS acting odd	Lots of causes. Exit LOIS and restart
LOIS hung or frozen	If waiting 2 minutes doesn't help, look in shell used to launch LOIS. If core dump, restart LOIS. If no core dump: – "ps –ef | grep LOIS" to find job number of running LOIS – "kill -9 that_job_number" – restart LOIS
Scripting failed	Most generally caused by guider reporting problems (no star). You are out of luck. Reposition telescope, do manual moves. Or, create a copy of the script, editing out the portions already accomplished and source then run the new script.
User Set Integration time too long	Click "Abort" button in Mimir IR Camera Control GUI
Scripting didn't do what I wanted it to do	Click "Abort Current Script" in LOIS command window.