

Setup and Teardown Procedure

An outline of the essential steps for preparing for an observing run and mopping up afterwards

Before Going Up

- Remember keys — bring laptop that will control the telescope — remember laptop power adaptor

Setting Up

After Arrival

- Unlock the control room
- Unlock the dome
- Put the south shutter down
- Set up small ladder stored in the control room outside the dome
- Clip dome doorway closed from inside
- Put the north shutter down
- Due to excessive friction in north shutter, it needs help descending to its final position — make sure final position is such that there is no finger pinch hazard

Uncovering the Telescope

- Remove bungee and large plastic bag covering telescope and mount
- Remove three fabric shrouds from telescope
- Remove metal covers over primary mirror (use extreme care — nothing stops the metal covers from falling into the primary)

Powering Up and Connecting to TheSky Fusion

- Activate Jackery that provides dome power
- Connect laptop to TheSky Fusion local wifi
- Connect laptop to TheSky Fusion desktop using VNC

Connecting TheSky Fusion to the Mount and Homing the Mount

- In the Telescope tab, under Start Up, hit "Connect Telescope" (this actually connects to the mount)
- Mount will warn that it is not homed — home mount

Connecting TheSky Fusion to the Imaging Train

- Once the mount is quiescent, in the Camera tab, connect to camera
- The preceding step should also cause the filter wheel, the autoguider, and the focuser to connect — the filter wheel has sometimes gotten into a bad state during connection — power cycling the filter wheel by connecting and removing its USB cable remedied this

Checking Pointing and Focus

- In the Find tab's "Search for:" field, type in an easy target
- After checking that target's altitude is positive (above horizon), slew telescope to target
- Within the Camera tab is a Focus tab — use @Focus3 to achieve focus

Obtaining Lights

The planning and execution of the scientific part of an observation run is outside the scope of this document.

Tearing Down

Parking the Mount and Disconnecting TheSky Fusion from the Mount

- In the Telescope tab, under the Shut Down dropdown list, click "Park"
- In the same list, once parking has completed, click "Disconnect Telescope"

Obtaining Flats, Biases, and Darks

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Disconnecting the TheSky Fusion from the Imaging Train

- In the Camera tab, click "Disconnect"
- The preceding step should also cause the filter wheel, the autoguider, and the focuser to disconnect

Powering Down TheSky Fusion

- Quit (using the "Exit" menu item) TheSkyX app running on the TheSky Fusion
- Wirelessly copy images from TheSky Fusion to laptop (alternatively, images can be copied onto a USB stick)
- Use menu item on TheSky Fusion desktop screen to power down TheSky Fusion (you will know TheSky Fusion has powered down when you lose its wifi)
- Wait another 15 seconds and then deactivate the Jackery that provides dome power

Covering the Telescope

- Replace metal covers over primary mirror (again with extreme care)
- Replace three shrouds (over secondary mirror, over trusses, and over the front of the telescope)
- Replace plastic bag and encircle it at a low point with bungee to close off avenues for blowing dust

Preparing for Departure

- Put the north shutter up
- Unclip the dome doorway from inside
- Put exterior small ladder away in control room
- Put south shutter up
- Padlock the dome
- Log any problems or recommendations
- Sweep grit out of control room
- Lock the control room, including any windows that were opened