

Goodman New Blue Computer Cold-Start Procedure:

Updated: May 16th 2017

1. Make sure that the Goodman Camera Electronics are on. This can be checked from the ECS VNC Viewer and Remote Power sub-panel. If the camera electronics are not on, turn them on. If this is successful, you should hear three rapid beeps over the dome microphone. You should also see the Remote Power sub-panel indicator for the camera electronics switch from "off" to "on".

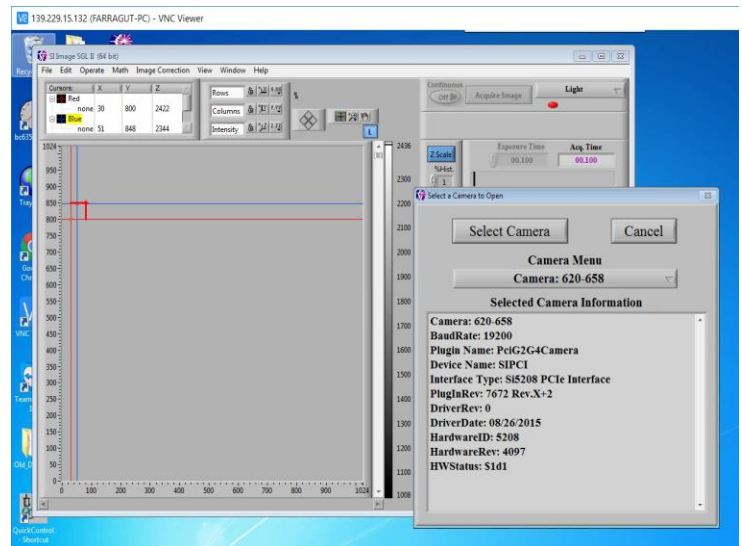
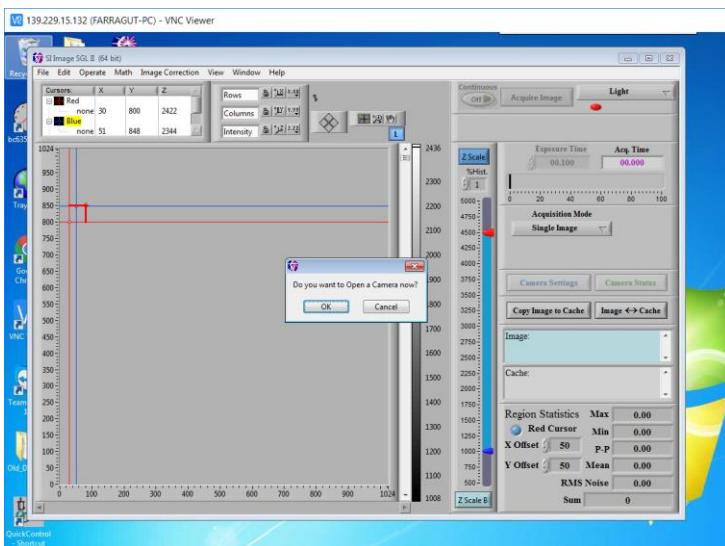
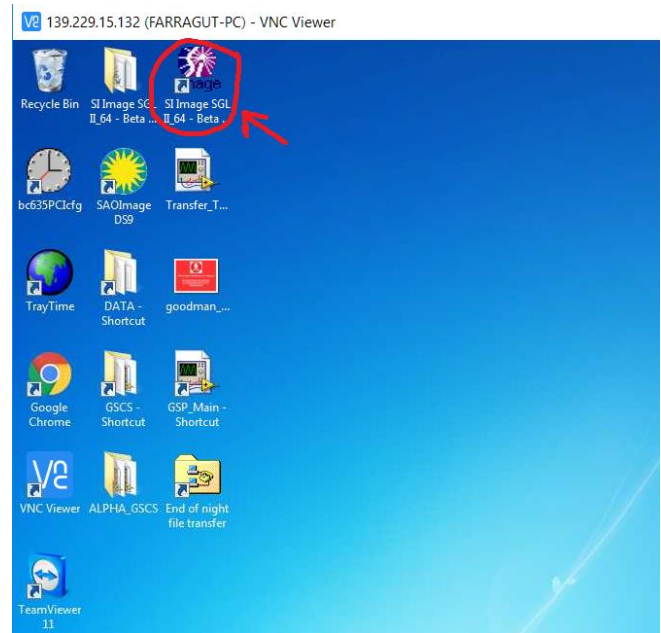
2. Go to Room 109 and log the balance pressure of the CryoTiger. It should be at about 190 psi if the cooling has been turned off. The balance pressure should be around 0 psi if the cooling is on. Log this number and the date on the sheet provided.

3. Power up soaric2 (139.229.15.132). If this does not work, somebody will have to go up to the Nasmyth and manually cycle the power on soaric2 in the electronics box.

4. Log on to soaric2 using the vncviewer from some other computer. The linux example is : `vncviewer 139.229.15.132 - Shared &` (the password can be obtained from the TelOps staff: soaropsATctioDOTnoaoDOTedu, or the Instrument Scientist: spointsATctioDOTnoaoDOTedu).

5. Soaric2 should boot directly into the Desktop, there is only one user.

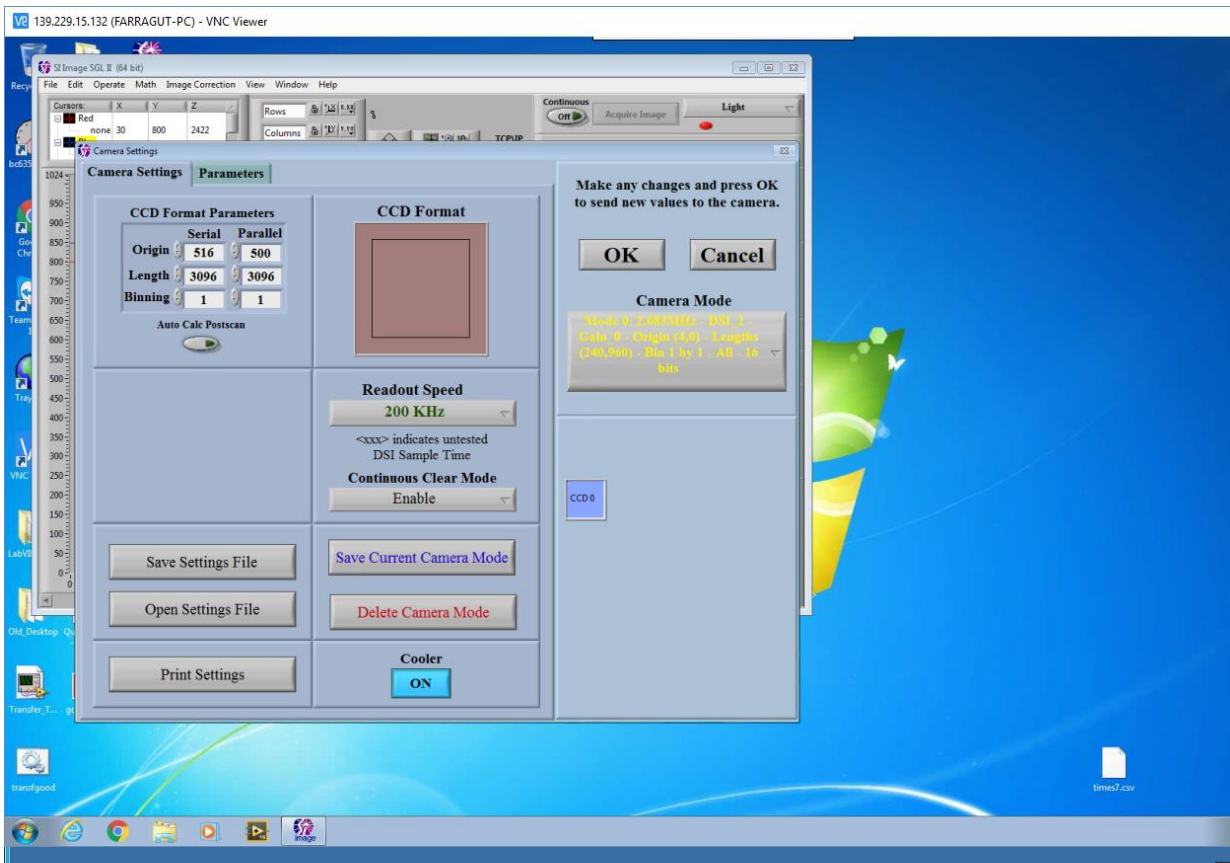
6. **Starting SI Image SGL II:** Start the SI Image SGL II software by double-clicking on the appropriate icon in the Windows desktop of Soaric2. You will immediately be prompted with the pop-up "Do you want to open a camera now?". Select "OK". After a few seconds, the Blue Camera should appear as "Camera: 620-658". Choose "Select Camera". If "Camera 620-658" cannot be found, return to step 1 and verify the camera is on. If it is, and the camera cannot be found, contact the Instrument Scientist.



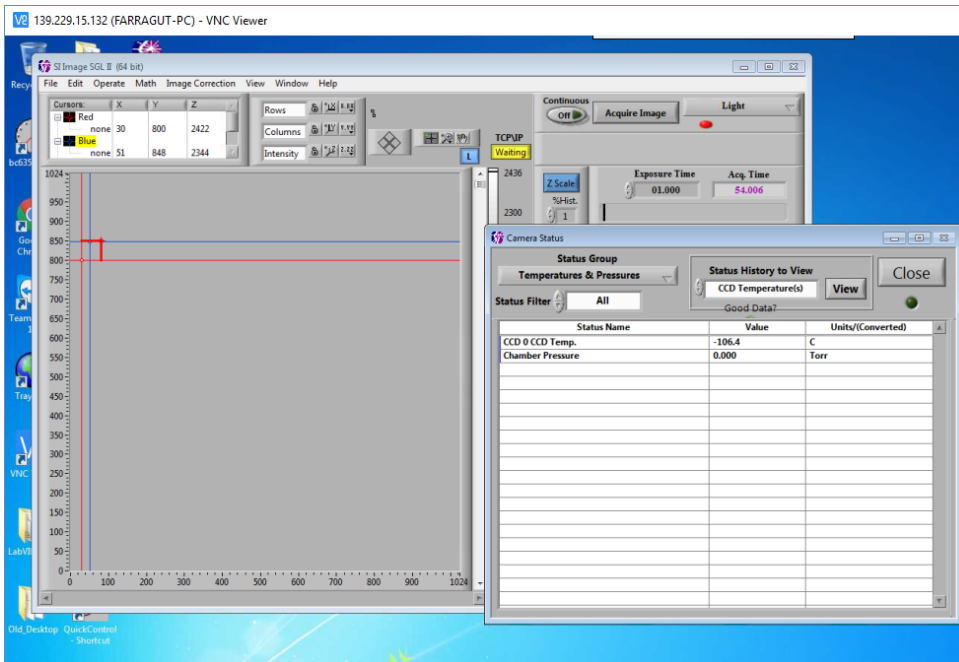
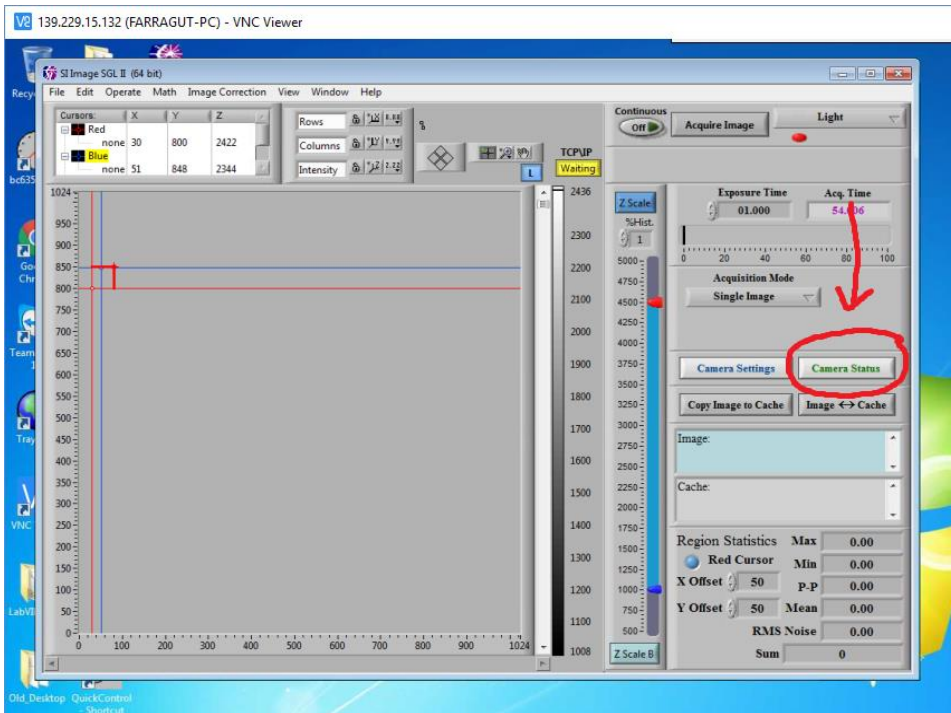
7. Check that the Cooler is ON as indicated in the image below. If it is OFF, Click OK and open the Camera Status Panel. The pressure should be 0 or $\sim < 0.001$ Torr ($\sim < 10^{-3}$ Torr or 1 mTorr), see image below. If not, the Goodman cryostat (camera) needs pumping, which is done by the SOAR day crew, and usually requires a full day or so. **WARNING: DO NOT START COOLING THE CAMERA IF THE VACUUM HAS NOT BEEN REACHED.**

8. Click the “Open Settings File” button and select “Goodman_blue_new.SET” to load in the Blue Camera Set file.

9. Disable the “Auto Calc Postscan” by clicking on the button. Once disabled, the arrow within the button should be greyed out and not illuminated as shown below. Click “OK” in the top right corner of the panel to load in the changes.

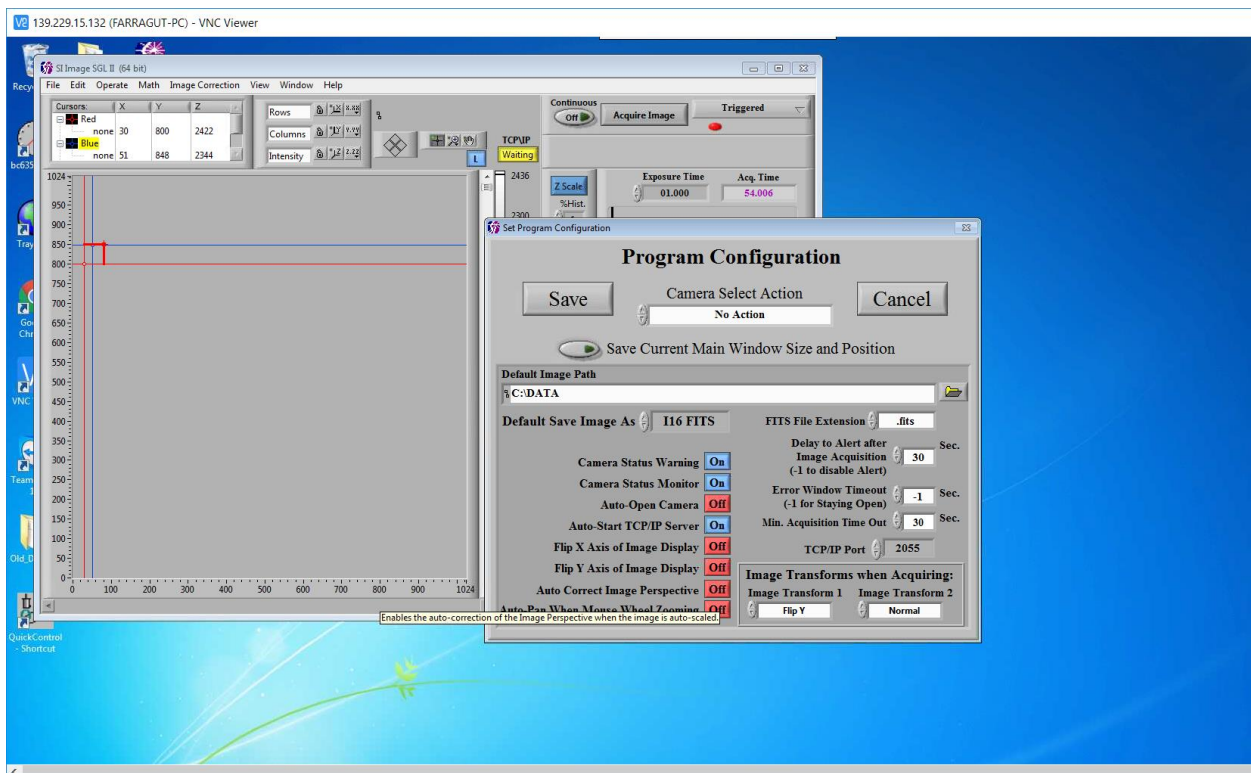


10. From the SI Image front panel, open the Camera Status window to display the current CCD Temperature and Pressure. The operating Temperature and Pressure of the Blue Camera are -106.5 C and 0.000 Torr. Log the Temperature and Pressure



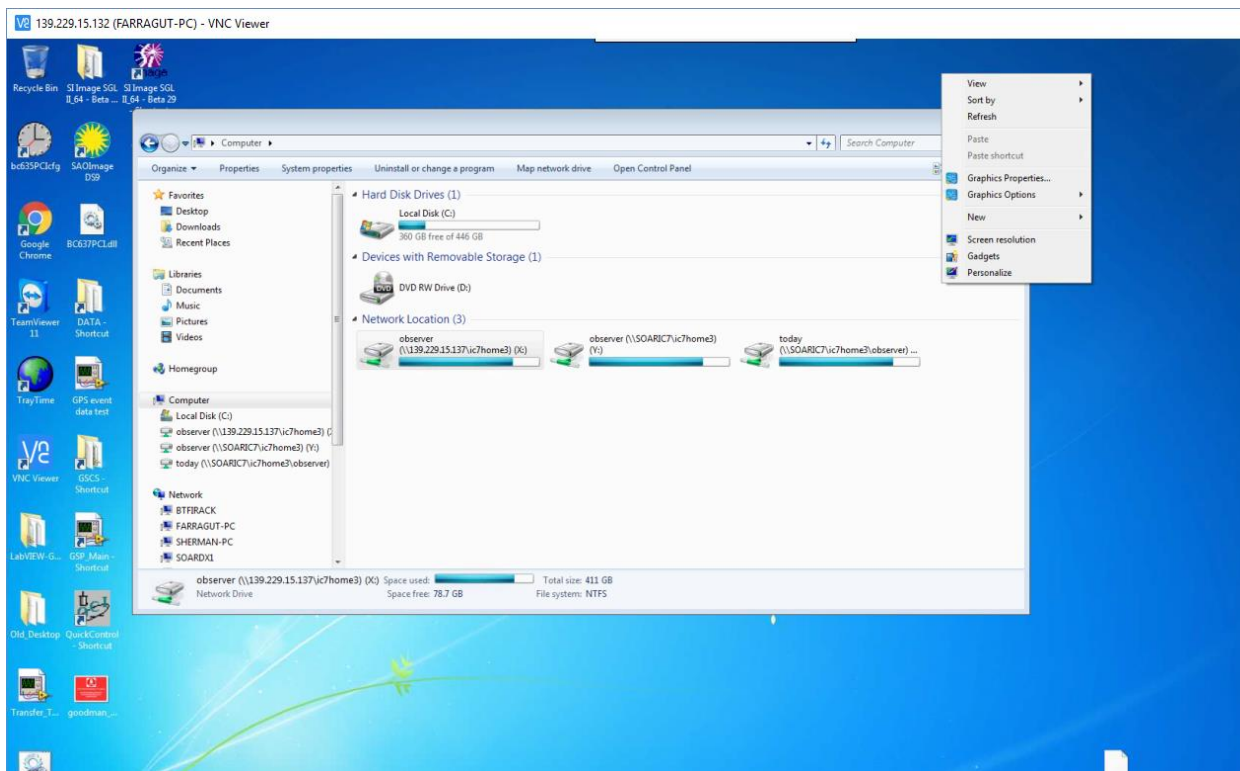
11. If the Chamber pressure is above 1.000 Torr, the camera head will need pumping which can only be done by the SOAR day crew. Do not proceed to step 9 until the chamber pressure is below 1.000 Torr.

12. Under the "Operate" Menu , enable the TCP/IP server so that it shows up as a yellow box with the status "Waiting". Also under the "Operate" Menu open the "Configure" panel. Check that the "Min. Acquisition Time Out" is set to 30 seconds as shown below. Check that Image Transform 1 is set to "Flip Y". Save the settings. Finally, change the acquisition mode in the top right corner of SI Image from "Light" to "Triggered".

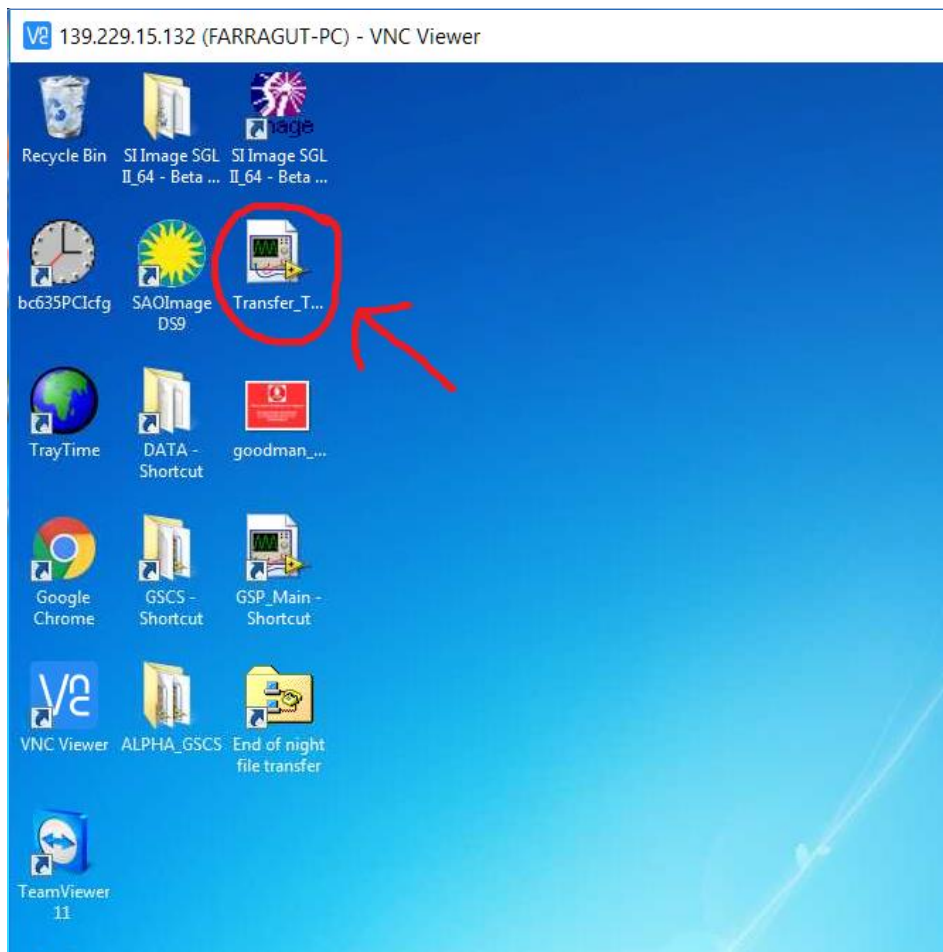


13. Minimize the SI Image SGL GUI. DO NOT CLICK ON THE RED “X” Button since this will exit the GUI. SI Image SGL II is now configured and should continue to be run in the background.

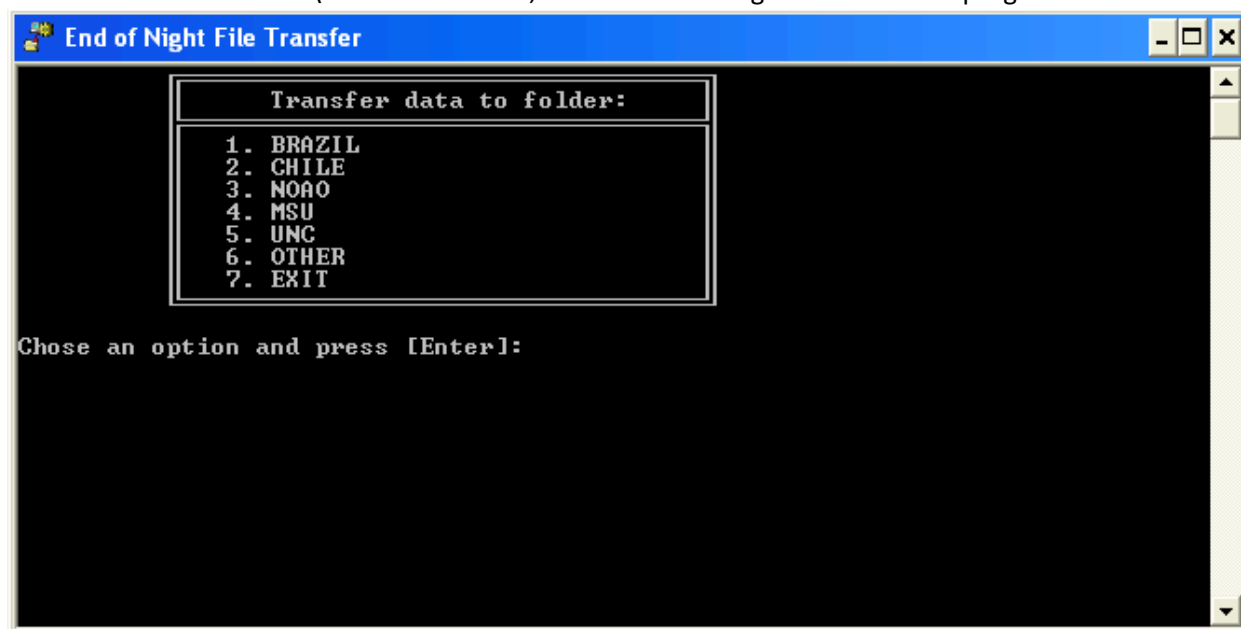
14. Check the **SAMBA** server connection between soaric2 and soaric7: Open Computer on the Desktop. Under “Network Locations” you should find the three soarci7 folders cross-mounted. If the network drives show Red X’s, click on each drive on the left panel the window to ensure connection until they are all green.



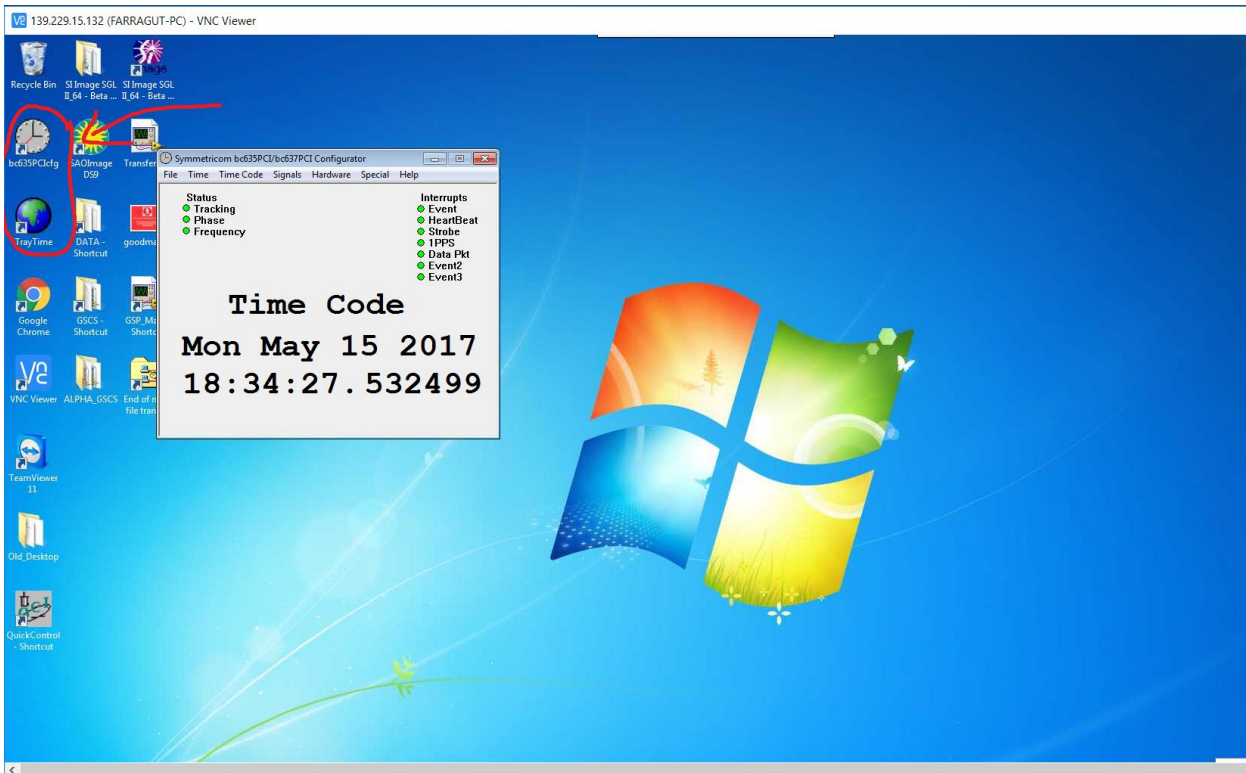
15. **Start the automatic file transfer program:** click on the “Transfer_To_ic7” icon on the soaric2 desktop.



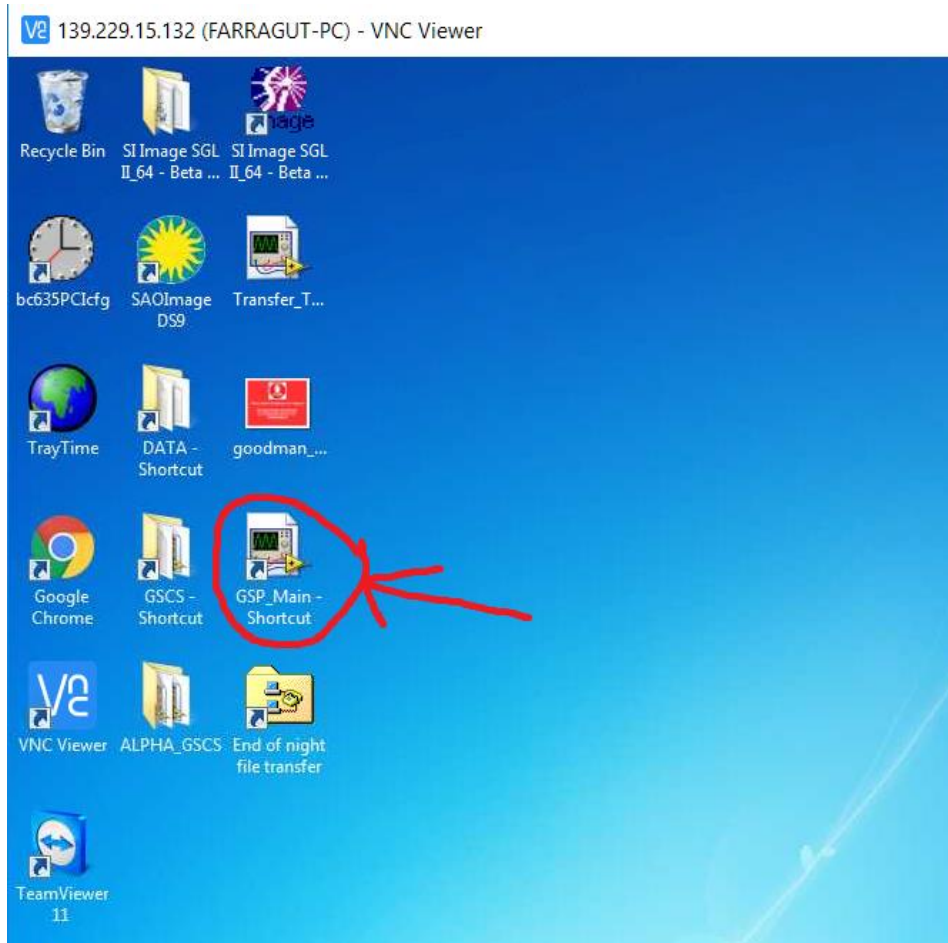
16. **Check whether the files from the latest observation night were transferred to soaric7.** If they are still in soaric2 you should see them in the C:\DATA folder. If so, run the End-of-Night-Transfer DOS program on soaric2.



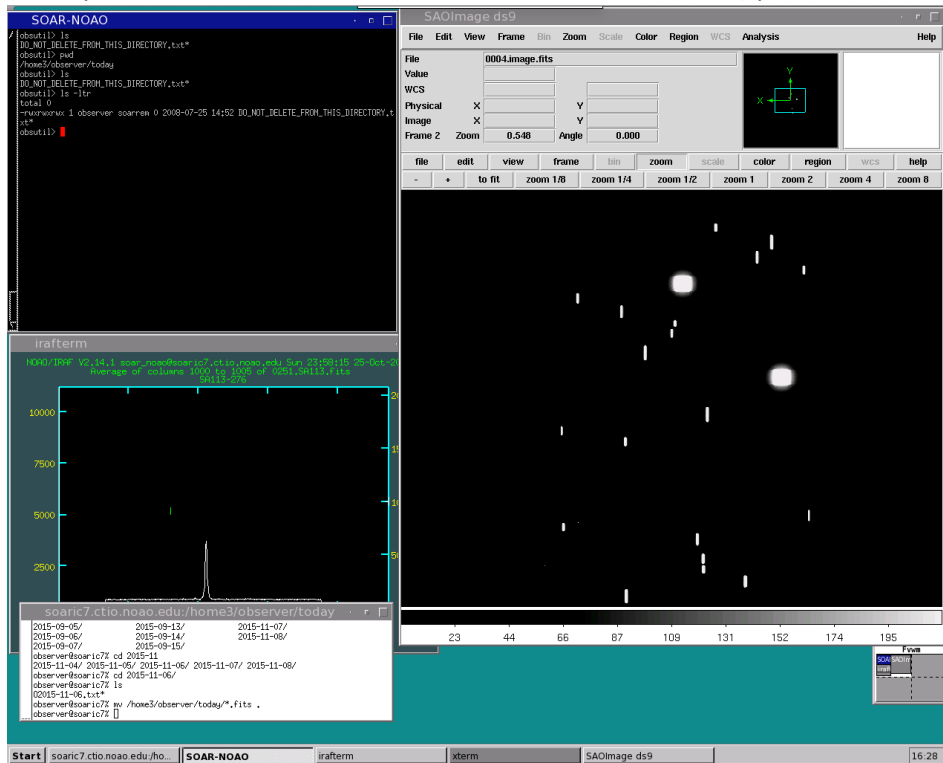
17. **Start the Symmetricom GPS Real Time clock and Tray Time program.** Symmetricom should be minimized and left running. The Tray Time program will run in the background and appear as a small globe in the tray in the bottom right of the desktop. These programs will ensure the GPS time signal will be recorded in the Goodman FITS image headers.



18. Double check with the Telescope Operator or day crew that nobody is working inside the instrument and the Nasmyth rotator angle is ok. After these checks, ask the Telescope Operator to turn on the Goodman electronics, and start the Goodman GUI.



19. Log on to soaric7 using the vncviewer that is appropriate for your program. The linux example is: `vncviewer 139.229.15.137:<n> -Shared &` .The display number <n> and password can be obtained from the TelOps staff (soaropsATctioDOTnoaoDOTedu) or the Instrument Scientist (spointsATctioDOTnoaoDOTedu).



20. Check the disk space on soaric4 by double-clicking on the "My Computer" icon. Highlight "Local Disk (C:)". Right-click and select "Properties". If the disk is almost full, please contact TelOps (soaropsATctioDOTnoaoDOTedu) or the Instrument Scientist (spointsATctio.DOTnoaoDOTedu) so they can delete older data.

21. Check the disk space on soaric7 by issuing the command "df -h" from a terminal prompt. If the /home3/observer disk is close to full, contact TelOps staff (soaropsATctioDOTnoaoDOTedu) or the Instrument Scientist (spointsATctioDOTnoaoDOTedu).