

TROUBLESHOOTING MERCURY 400 AND VARIAN VNMRS 500 RUNNING VnmrJ 4.2

To start VnmrJ if it is not running

Click on the VnmrJ icon on the desktop to start VnmrJ, then log in when prompted.



Figure 1: VnmrJ icon on desktop.

Shimming

If the shims aren't good enough:

Go to Start / Shim / Read default shims, then try gradient shimming.

If gradient shimming fails:

If gradient shimming does not exit and you get a spectrum that looks like Figure 2, then either start the Study again, or click on "Proton" (in the Experiment Selector) and then run "Auto lock" and then "Gradient shim". (Note that correct behaviour of gradient shimming is the display of two "top hat" profiles (spectra), which then disappear.)

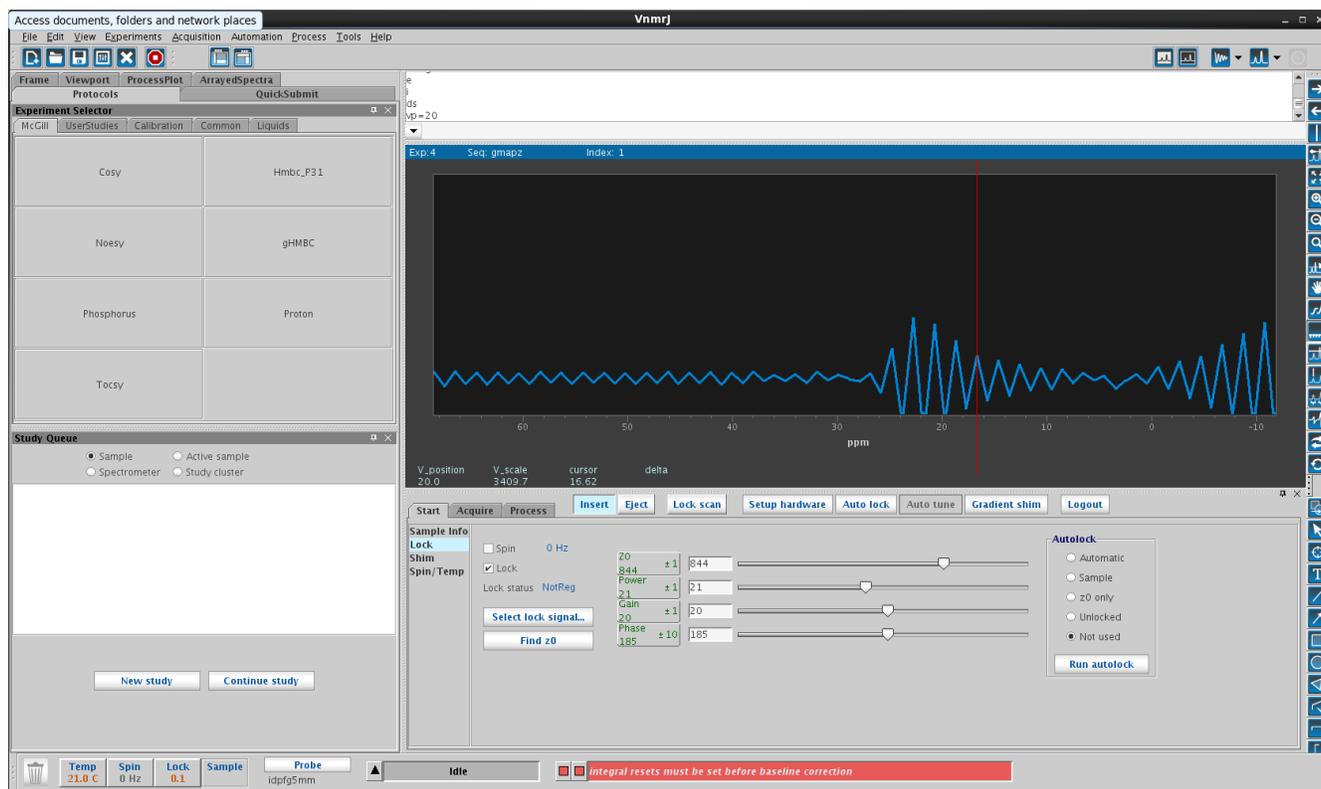


Figure 2: Failure of gradient shimming to exit: in this case, either start the Study over again, or choose "Proton" from the experiment list, run "Auto lock" and then try "Gradient shim" again.

If a sample breaks outside the magnet

Please clean it up using the broom and dustpan near the sink in room 35 and the glass disposal box in room 37.

If a sample breaks inside the magnet

Report this to Robin as soon as possible in person, by email (robin.stein@mcgill.ca), or by phone (x6219). Tell her what kind of sample it was and whether any special safety precautions are necessary. Use FACES to block out some time and put a note near the spectrometer that the spectrometer is unusable.

Queue errors

In case of errors like "Error: samples in current autodir" or failure to submit a sample, then try:

1. In the Automation menu, go to Background acquisition / New background run
2. If this fails to clear the current experiment so that you still cannot submit a new experiment,

go to the Automation menu again, and choose Background acquisition / Stop/Discard/Resume. Now go to step 1.

3. If steps 1 and 2 fail:

- a. open a terminal window (at the top of the screen) and type `su acqproc`
- b. after a few seconds, the status in the VnmrJ window at the bottom of the window will say "Inactive"
- c. Once the cursor reappears in the terminal window, type `su acqproc` again. The status will change back to "Idle"
- d. Go to spin/temp and click on "Reset VT controller"
- e. Now go to step 1. It should now be possible to run a new sample

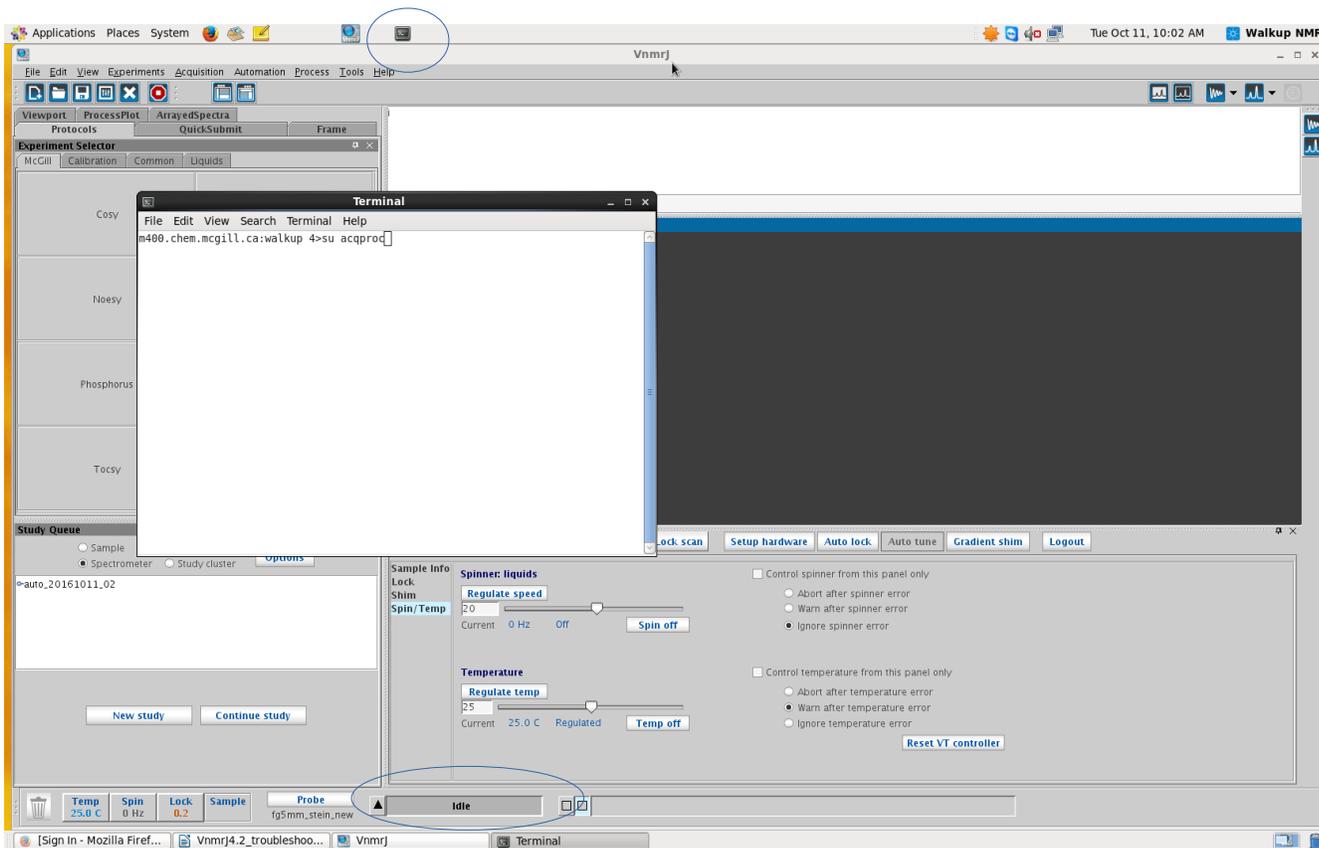


Figure 3: Terminal window (note black square icon at top of screen) showing `su acqproc` command. Note also the "Idle" status at the bottom of the VnmrJ window.

4. If steps 1, 2, and 3 fail:

- a. open a terminal window (at the top of the screen) and type `su acqproc`

b. after a few seconds, the status in the VnmrJ window at the bottom of the window will say “Inactive”

c. reset the console.

i. on the Mercury 400, do this by opening the console door (the black door on the equipment just to the left of the desk) and pressing the red button marked “System Reset”



Figure 4: Door of Varian Mercury console.



Figure 5: Reset button on Varian Mercury 400.

ii. on the VNMRS 500, do this by opening the right hand console door (you will have to go behind the desk to do this) and pressing the button labeled “PRESS ME”



Figure 7: Door of Varian VNMRS console. Open by kicking the yellow panel on the right door.



Figure 6: Reset button on Varian VNMRS 500.

d. Go back to the computer. Type `su acqproc` again. The status will change back to

“Idle”

e. Go to spin/temp and click on “Reset VT controller”

f. Now go to step 1. It should now be possible to run a new sample