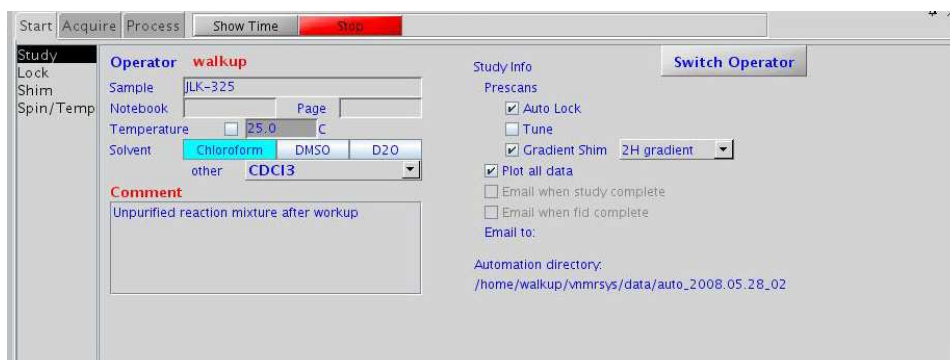
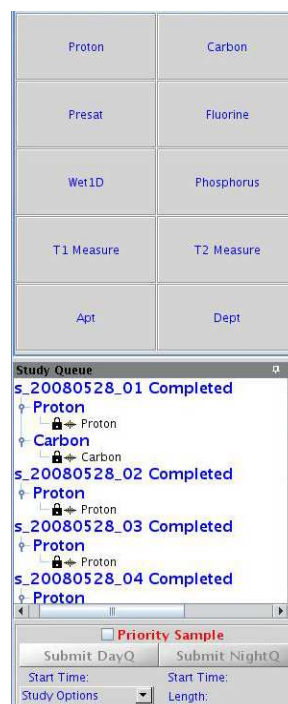


NMR Instructions

1. Log onto the computer (Linux OS) by using Login = walkup
Password = keyes208 (no spaces)
2. If VNMRJ is not open, double-click the VNMRJ icon to open the NMR program. *Only one copy of VNMRJ can be open – VNMRJ will not function with multiple copies open.*
3. If you have not already done so, place your sample into a spinner to the proper height using the depth gauge and gently insert your sample into the autosampler in an empty position (you may use positions 1-8. Do not use position 9)
4. Go to File → New Automation Run (pull-down menu, top-right of window). *Always do this before setting up a new queue.*
5. Using the large buttons on the left panel, select one or more experiments (usually ‘proton’ or ‘carbon’).
6. Select the circle that matches the position of your sample in the autosampler. That position should become highlighted.
7. In the lower window, press the “Start” tab and then select “Study”. Select your solvent, and fill in any other needed information such as your sample name (see graphic below). **Unclick “tune” for a much faster experiment (tuning is usually unnecessary!).**
8. At the bottom of the screen, press “Submit DayQ”.
9. Repeat steps 5-8 for each additional sample.
10. After your final sample (even if you have only one), run a proton spectrum on the standard tube in position 9 by repeating steps 5-8 again (and selecting position 9, CHCl₃ as the solvent). **Unclick “plot all data” to save paper before submitting!**







Open/Load Your Spectrum

1. Go to File → Open (pull-down menu, top-right of window)
2. Find your file and double-click on it to open. In general you will have to:
 - Go up several levels to the “data” folder just below the “VNMRJ” folder
 - Double-click your date code folder
 - Double-click your experiment number code folder
 - Double-click the “data” folder
 - Double-click your experiment file: your solvent name with the extension “.fid”

Manipulate Your Spectrum

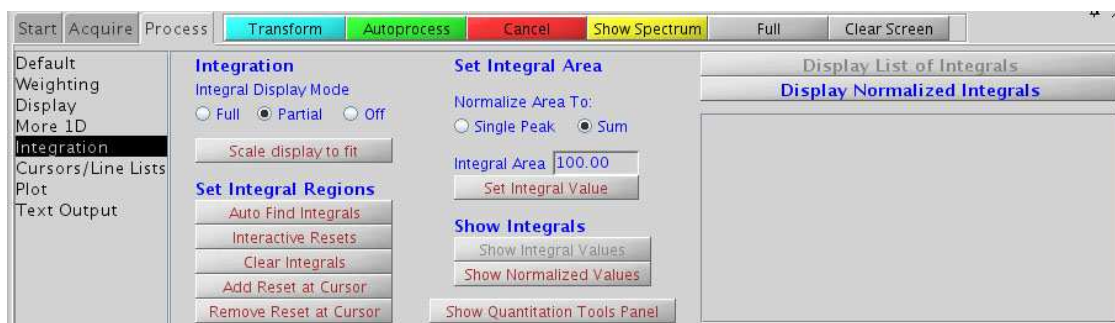
The cursor bar (right of this page) will appear at the upper right side of the screen. You will need to use these buttons and the mouse/cursor to manipulate your spectrum.



Expand/zoom on the x-axis – use the left and right mouse buttons to define a region on your spectrum between the two red vertical lines (you may need to press the  button first). Press the (+)-magnifying glass button  to zoom to the defined region. Press the (-)-magnifying glass button  to zoom back out, or the  button to view the entire spectrum.

Expand/zoom on the y-axis – place the cursor over a peak that you wish to expand, and then press the middle mouse button – your spectrum will expand the peak vertically to match the position of the cursor.

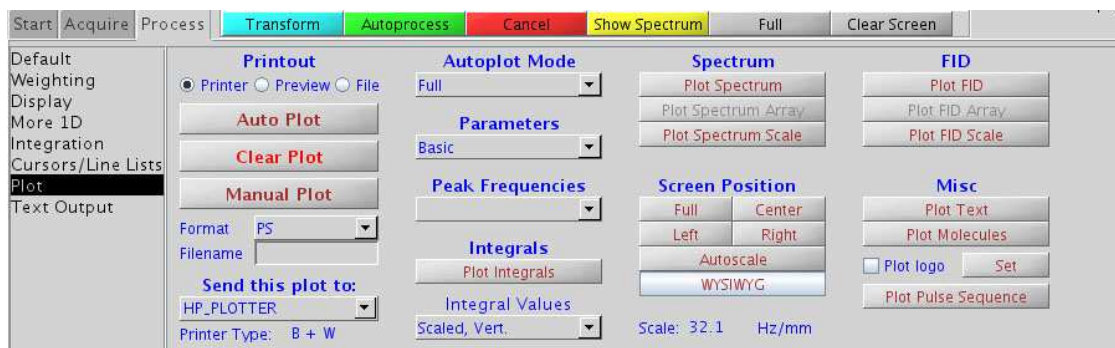


Integration



In the lower-right window, press the “process” tab and then select integration from the menu. First press the integration button  until the integral line is visible on the spectrum (you may have to press it twice). Then press “clear all integrals” followed by “interactive resets”. Define your integral regions (where you want it to integrate) by pressing the left mouse button on either side of the region that you wish to integrate. Repeat for each integral region. When you are done, press the integration button  to turn the integrals off (the integrals should no longer be visible).

Printing your spectrum



Make sure that the region you wish to plot is displayed on the screen. In the lower-right window, press the “Process” tab and then select the “Plot” page. Change the Autoplot Mode to “As Displayed” and the click the Auto Plot button. Alternatively you can specify what is plotted. For example, press the following five buttons (in order): “plot spectrum”; “plot spectrum scale”; “plot text”; “plot integrals”; then the “Manual Plot” button.