

Remote Access to the Inova 600 or 500 spectrometers

[updated: 20 Nov 2006]

The first time you use VNC to remotely connect to the Inova 600 spectrometer, you need to follow all steps, as listed below. In following sessions, you will need to follow only the last section, part III.

*In everything below, substitute **vorlon** for **valen** if connecting to the INOVA_500:*

I. Download and Install SSH and VNC software:

For Windows based computers we can use the free program called PuTTY to start an SSH sessions, downloadable at (get the first one listed: putty.exe):

<http://www.chiark.greenend.org.uk/~sgtatham/putty/>

We have been utilizing the Real VNC program for the VNC viewer, downloadable from (you need only the free viewer):

<http://www.realvnc.com/>

After downloading, simple double click on the file, and follow the instructions.

II. First-time Only Setup:

The first time you open an SSH session to a host computer, you need to accept the security keys when prompted.

1. Open putty and type in the host computer name: **valen.chem.wisc.edu**.
[valen is the Sun Blade 1500 host computer for the I600, having Solaris 9 installed]
 - a) Make sure the protocol is set to ssh.
 - b) Name and save the session (e.g., **valen** or uwchem600).
 - c) Click on OPEN.
2. In the ssh window, it will ask you to accept the security keys. Answer yes.
3. Login using your account name and password for the spectrometer.
4. When it asks for a display type, enter **s** and hit return.
5. Type the command: **vncserver**
6. This will prompt you for a new password for VNC. This is the password you will issue from the vnc client. It does not need to be the same as your spectrometer account password (but keeping them the same makes sense).
7. Type the command: **vncserver -kill :1** (one space between -kill and the colon)
8. Type **exit** to close the ssh session.
9. Open putty again, click on the **valen** session, and click on **Load**.

- a) In the Category window (on the left side) click on Connection → SSH → **Tunnels**.
 - b) In the Destination box (near the bottom), enter **127.0.0.1:5951**
 - c) In the Source Port box (just above Destination), enter **5951**
 - d) Click on **Add**
 - e) In the Category window, click on **Session**
 - f) Name and save the session (e.g., **ValenVNC**)
10. Click on **Cancel** to end this 1st-time setup section.

III. Initiating a Session with the INOVA-600:

The steps below are necessary to insure good security into the spectrometer.

- A. *Use SSH to open a tunnel for the VNC connection on the Inova 600 host computer (valen). This helps to increase security.*
 1. Open Putty, then double-click on the **ValenVNC** session.
 2. Enter your account name and password. Enter **s** for the display type.
 3. Type the command: **vncstart**. [This command is optimized for 1280x1024 display resolution.]
 4. Leave this ssh window open.
- B. *Use the VNC viewer to connect to the host computer and use VNMR.*
 5. Open the VNC viewer, type in **127.0.0.1:51** , then click **OK**.
 6. When prompted enter your VNC password.
 7. You should now see the Valen server's Sun CDE display. To get the window full-screen, press the **F8** function key and click on **Full screen**.
 8. Use your account to setup and acquire NMR experiments as normal.
 9. When finished with the spectrometer, exit Vnmr (type **exit**, or click EXIT VNMR). Exit also from Solaris (click on **EXIT** in the CDE tray at the bottom).
 10. To logout of the solaris vnc session, press **F8**, and click on **Close**.
 11. If it is still open, go to the ssh window and type **vncstop**, press Enter, type **exit**, and press Enter.