Connecting to the Stat Network using Windows using SSH

The easiest way to connect to the Statistics Department network and to your UNIX account is to use "Secure Shell Client" program, which also supports drag-and-drop file transfer. If you do not have SSH Secure Shell Client installed you can get it at https://management.owlnet.rice.edu/swdist/windows/ssh.com/. You will be required to provide your UNIX username and password to authenticate your affiliation with Rice University.

To start the SSH Secure Shell Client go to Start ? Programs ? SSH Secure Shell ? Secure Shell Client. Once the program is started, if you press enter or the space bar, you should be prompted for three things, a ``Host Name'', a ``Username'' and a ``Password''. For the hostname, enter ``thor.stat.rice.edu'', enter your Unix account username and password and press enter.
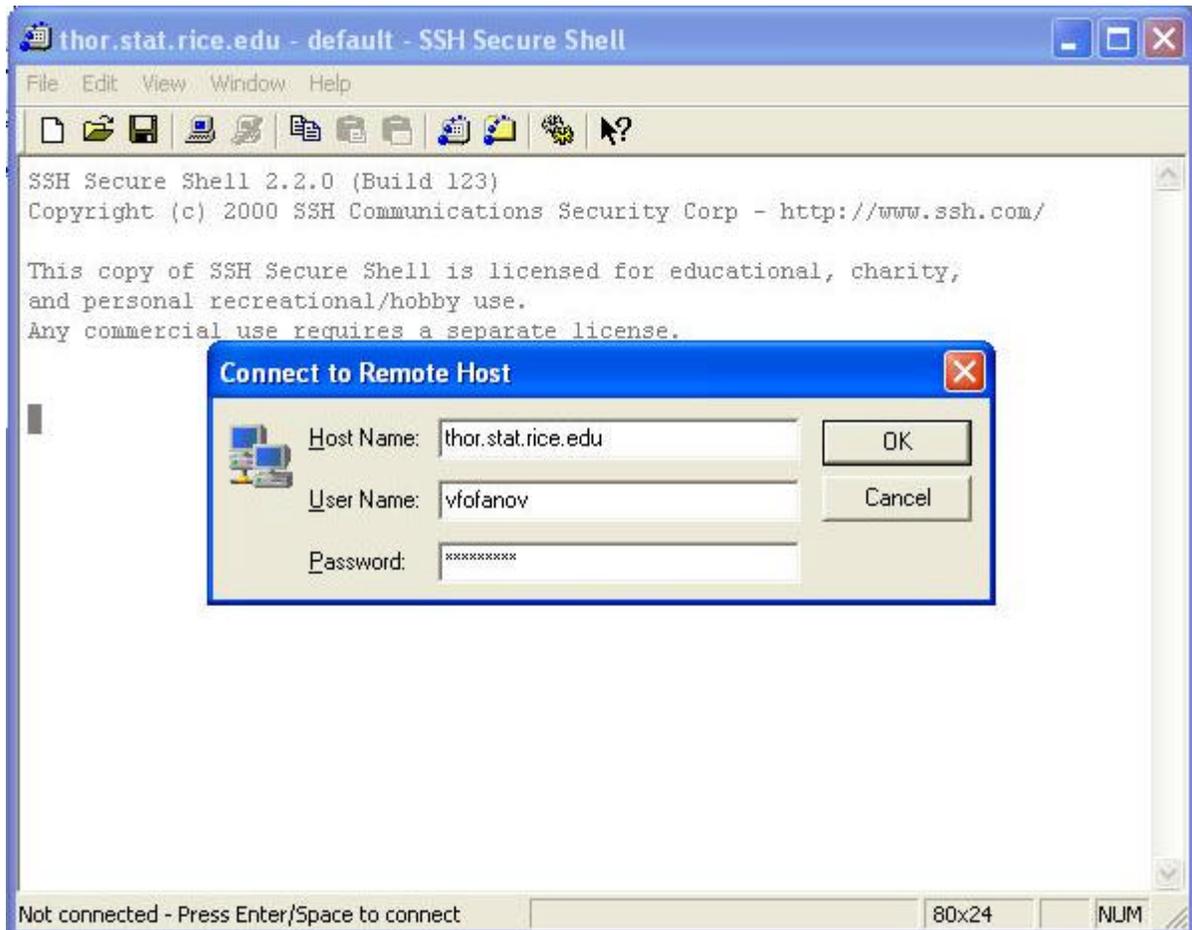
You should be at the UNIX prompt. Once there you can do anything you would be able while sitting in front of the UNIX machine. You can check your email, using your favorite e-mail client, run S-Plus or R, and many other programs. If you would like to transfer files between your machine and your UNIX account you will need to activate SSH file transfer client. In order to do that, go to Window ? New File Transfer. You should see a Windows Explorer style window (see below) that you can use for drag and drop file transfer.
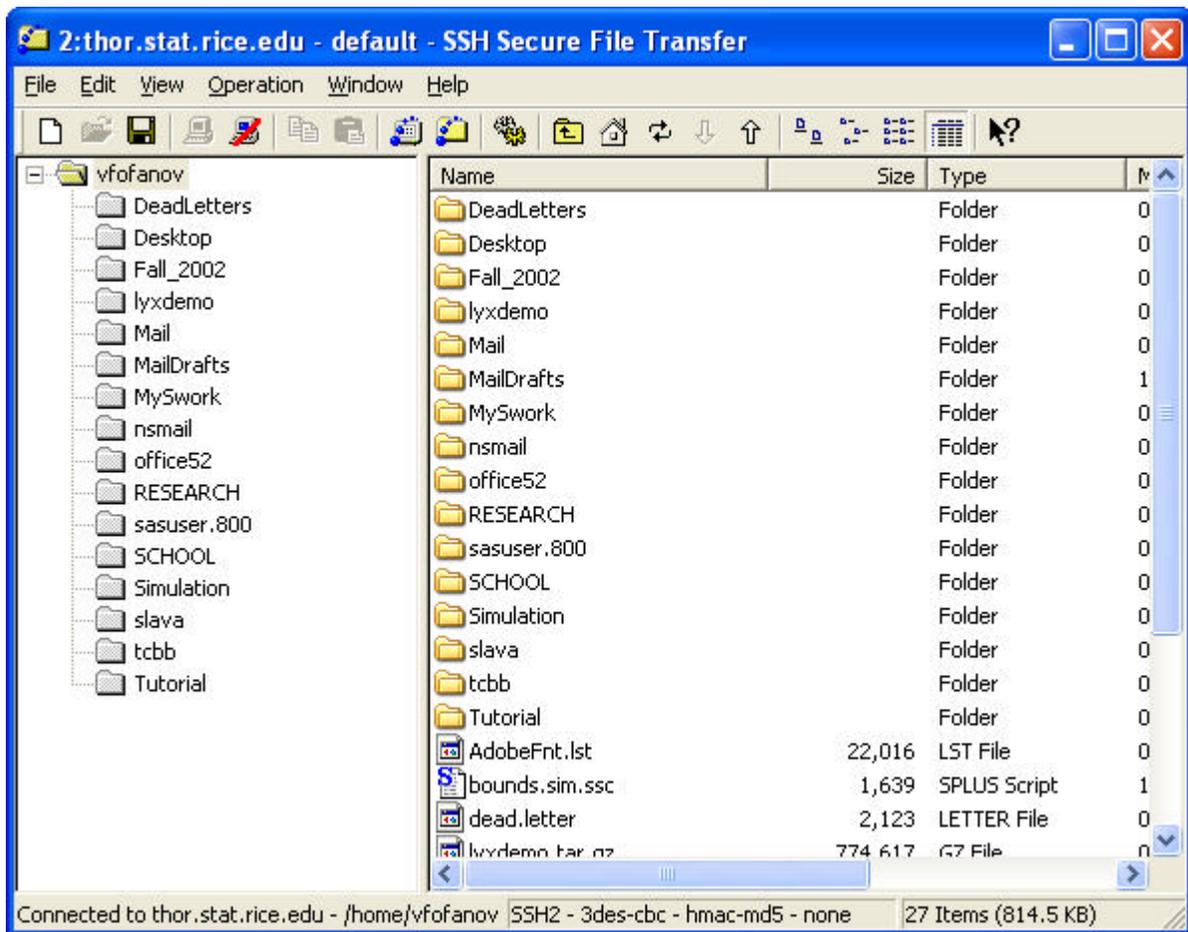
If your machine does not have Secure Shell Client and/or you do not wish to install it, you have the option of going with free third-party SSH programs. For SSH and Telnet client that offers performance comparable to SSH Secure Shell Client I recommend PuTTY, which you can download from http://the.earth.li/~sgtatham/putty/latest/x86/putty.exe. For file transfer client, a freeware AceFTP is very good. You can find it at http://www.tucows.com/preview/195118.html.

PuTTY is an executable file and thus does not require installation. Note if you <u>are not</u> running Windows 95, 98, ME, NT, 2000 and XP on Intel x86 you may need and different version of the executable; these can be found at http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html. AceFTP does require installation (if you don't have the necessary privileges to install this software, please write to problem@rice.edu and one of the system administrators will do it for you). You will still need to provide "Host Name", "Username", and "Password". In addition if you are asked, connection type is "ssh" and port number is 22.
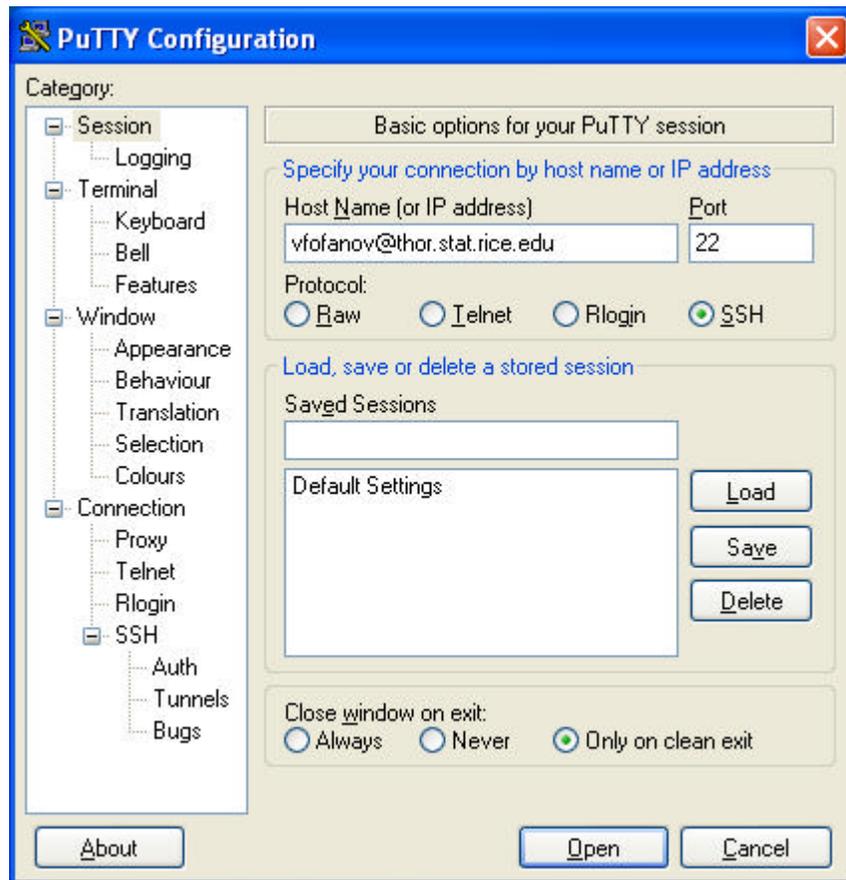
Running UNIX-based programs under windows

Secure Shell Client offers a connection to a UNIX prompt and ftp services but in order to run UNIX-based graphical services, like Ghostscript, Emacs, and lyx you will need something extra and that is X-Win32 Service. X-Win32 Version 6.0 is StarNet's latest X terminal application for Windows 95, 98, NT4.0 and even Windows 2000. X-

Win32 allows Windows users to connect to Linux/Unix servers on a network and run the applications from those servers on their Windows desktop, right along side popular Windows applications. Users can even copy and paste data between the X and Windows applications.

To run UNIX applications you will need to download and activate the X service. If you see a blue X on the bottom-right corner of your screen (in the taskbar) than you are ok; X-Win32 is installed on your machine and is activated.

If not, you may need to activate it, go to Start ? Programs ? X-Win32 [version] ? X-Win32, where [version] is the version number of your X client (don't worry if it is not 6.0, mine is 5.3 and it operates fine). If you cannot find it in this location you will need to download it and install it. If your machine is administered by the IT department then the easiest thing to do is to write to problem and everything will be taken care for you. However, if you administering your own machine or want to install the X client on your home machine or a laptop you will need to download the software at https://management.owlnet.rice.edu/swdist/windows/xwin32/ and email Laurencetta Watson at larry@rice.edu for X-Win32 product key.

Once you have the software and the key you can install it on your machine. Note, you will probably need to activate X service every time you log onto you machine, in that case follow the steps above.

Once X-Win32 service is activated you will need to enable tunneling in your SSH Secure Shell Client. This is a onetime deal, so you do not have to do this every time you wish to run a UNIX graphical application on you Windows machine. To do that, open SSH Secure Shell Client go to Edit ? Settings click on "Tunneling" and check the "Tunnel X11 connections" as shown in the figure below.

If instead of SSH Secure Shell Client you are using PuTTy to connect to your account go to tunneling options in the original window that you see right after you started PuTTy (choose tunnel on the left-hand side of the box) and click "Enable X11 forwarding" as shown below.
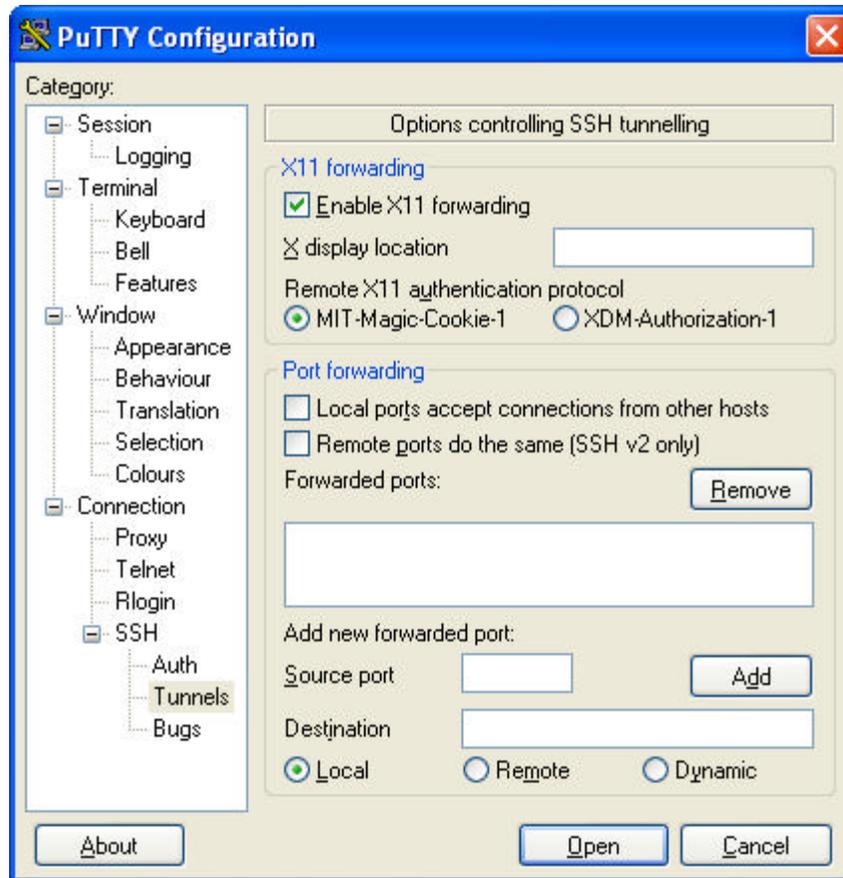
Now if you start a UNIX graphical program, a window will pop up on your windows machine with whatever program you have started. Once you are done working with the program simply save and close the windows as you would with any other window. Note if you want to retain the ability to use command prompt make sure to use the ampersand '&' after the name of the program. For example:

File Edit View Window Help

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Last login: Thu Aug 12 2004 22:12:30 from stat-dun-20-168.

The Department of Statistics Network
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Unauthorized use is prohibited.

This computer system is for authorized users only.  Individuals using this
system without authority or in excess of their authority are subject to
having all their activities on this system monitored and recorded or
examined by any authorized person, including law enforcement, as system
personnel deem appropriate.  In the course of monitoring individuals
improperly using the system or in the course of system maintenance, the
activities of authorized users may also be monitored and recorded.  Any
material so recorded may be disclosed as appropriate.  Anyone using this
system consents to these terms.

Problems and/or questions should be submitted via the problem tracking
system form: http://problem.rice.edu/ - if this is not possible, send
mail to problem@rice.edu.

This machine may be rebooted with short notice on Saturday.

You have mail.
thor.stat.rice.edu% lyx &
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Connected to thor.stat.rice.edu   SSH2 - 3des-cbc - hmac-md5 - none   80x24   NUM