Connecting to HPC

Introduction

The USQ's HPC Facility is Linux based therefore all logins, passwords and commands are case sensitive. Once you have obtained an account, the only method available to connect to the HPC is to use a **secure shell (ssh)** client, no matter what operating system you are using.

Connecting to HPC from Linux

To connect to the HPC from a Linux based computer, open a terminal window and simply type **ssh usqhpc** and then press <ENTER>. If you are connecting to the HPC for the first time you will be asked if you wish to save usqhpc's ssh identifying key, simply type in **yes** and press <ENTER>, and you won't be asked this question again. You will then be asked for your login/password details.

Connecting to HPC from Off Campus

Access to USQ's HPC from off-campus is available for staff and research students who are enrolled in a Research program via USQ's VPN service. There are separate VPN services for staff and students. Staff should review the *Ask USQ* VPN document. HDR and course based research students **do not** have access to a VPN and need to request an account. This can be done by emailing HPC Admin the details below. Each request will be assessed on a case by case basis.

- Name

- Student Number

- Supervisor

- Course

- Nature of Research

- Why VPN access is required

Once connected to the VPN service, normal login and connection procedures can be used.

Connecting to HPC from Windows

To connect to the HPC from a computer using Microsoft Windows requires the use of a SSH client, e.g. PuTTY.

Windows Software Links

FileZilla

FileZilla is an open source free SFTP client and FTP client for Windows. Legacy SCP protocol is also supported. Its main function is safe copying of files between a local and a remote computers.

The installer can be downloaded from FileZilla.

Note: There are other applications that allow users to transfer data/files to and from the HPC, e.g. WinSCP, however FileZilla has been found to be the most efficient and is recommended.

PuTTY

PuTTY is a free implementation of Telnet and SSH for Windows platforms. It also implements an xterm terminal emulator.

The installer can be downloaded from the main PuTTY site.

Note: For most applications the 32bit should work under 64bit Windows but if you have an problems a 64bit installer can be downloaded from here

Notepad++

Notepad++ is a free source code editor and Notepad replacement. It supports many programming languages with syntax highlighting and tags.

The installer can be downloaded from the Notepad++ site.

XMing

Xming is an X Window Server for Microsoft XP/2008/Windows7. It is fully featured, small and fast, and simple to install. XMing is built from the X.Org canonical X-server software with modifications so that it can run under Windows. XMing can be used to remotely run Linux programs and display their X-Window output under Windows.
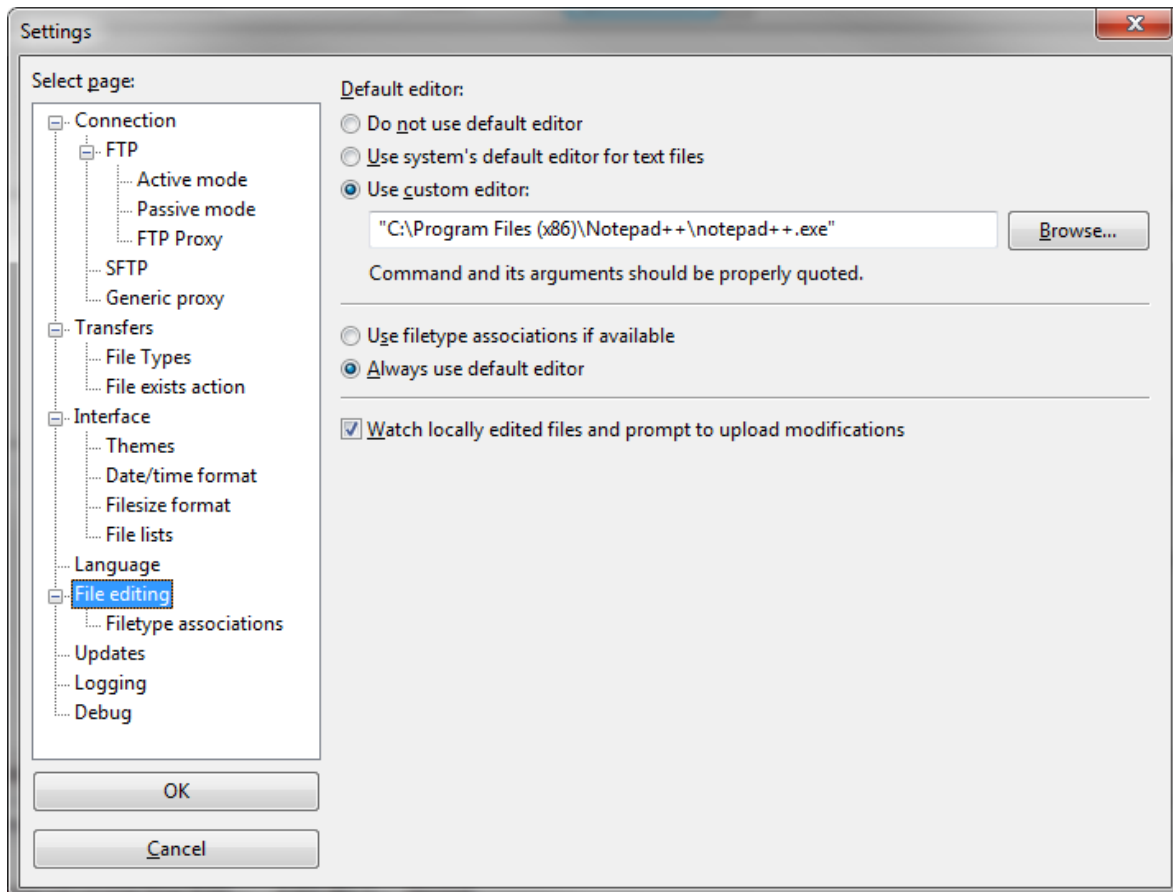
The installer and fonts can be downloaded from the XMing site.

Configuring Software

Configuring FileZilla

To configure FileZilla to use Notepad++ as its default editor, select the *Edit->Settings* menu option, then *File editing* which will display the window below:
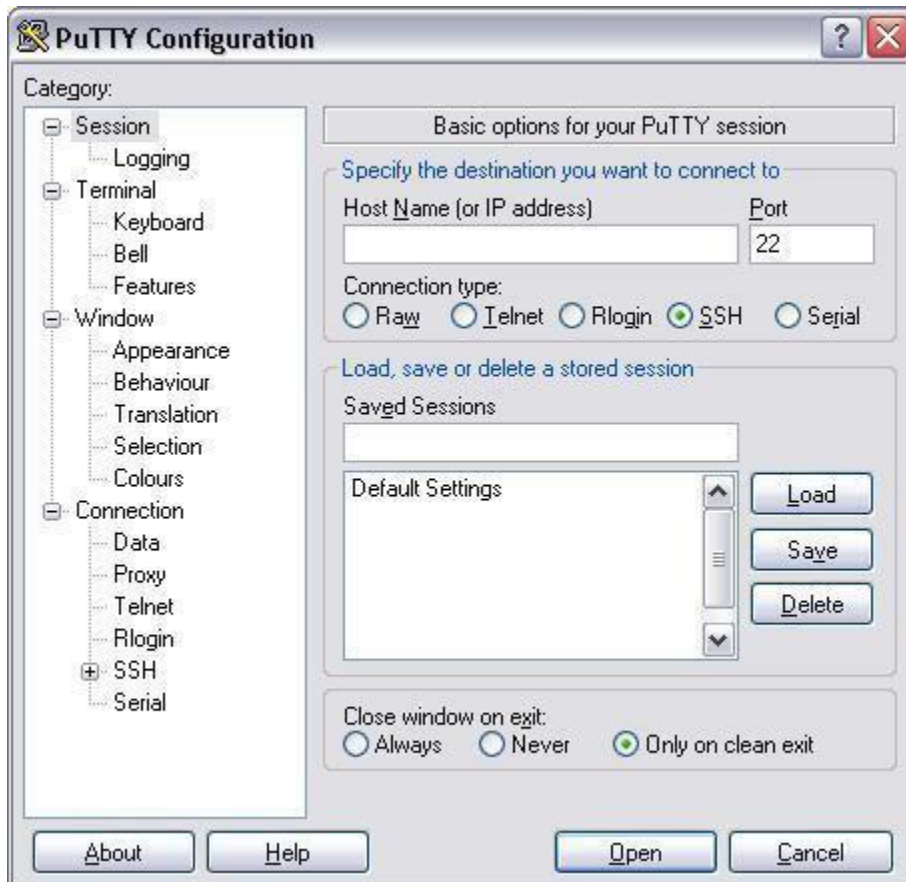

Simply *Use custom editor* press the [Browse] button, and browse to the location of the Notepad++ executable and then press [Open]. Once added, it will become the default editor.

Configuring Putty

When PuTTY is started the configuration screen is displayed, as shown in the screenshot below.


To connect to an SSH host you need to enter the hostname of the SSH server into the "Host name or IP Address" box and change the radio button for the protocol to "SSH", which will automatically change the port number to 22 (the default port 23 is for telnet sessions).

Loading and Saving PuTTY Configuration Settings

The PuTTY configuration settings can be saved at any time by entering a name into the "Saved Sessions" text box (highlighted in red below) and then clicking the *[Save]* button. The name can be anything you want and doesn't necessarily need to reflect the hostname of the SSH server, as shown in the screenshot below.
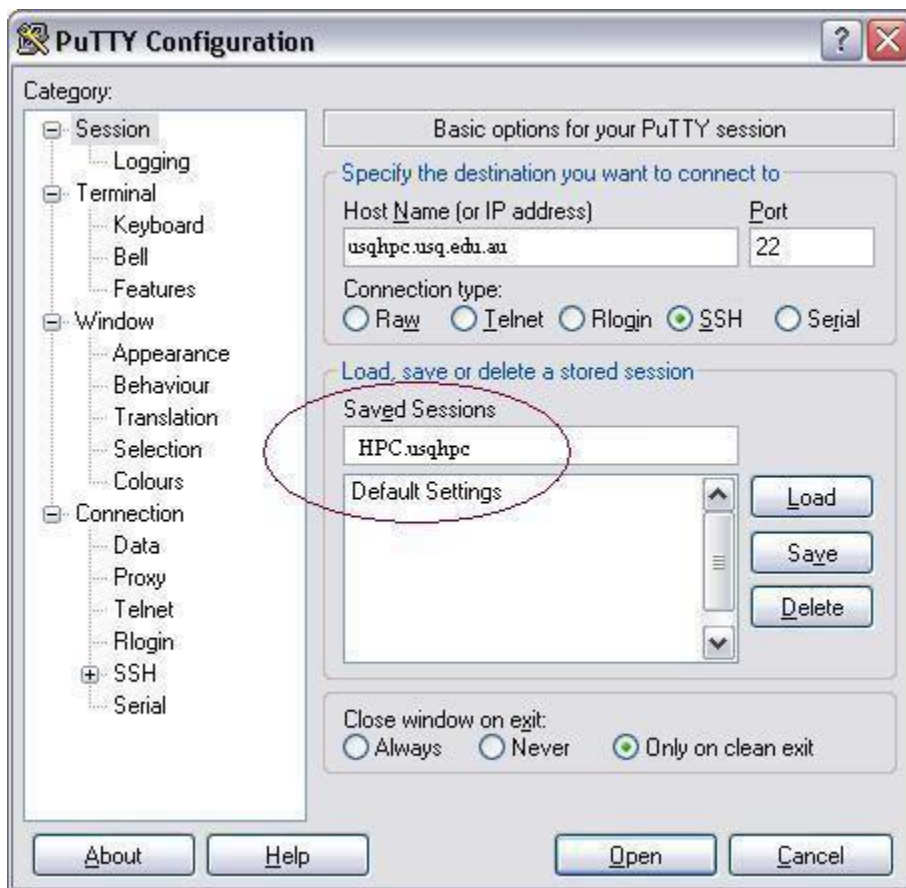
To load a saved PuTTY configuration, select it from the list of saved settings and click the *[Load]* button, as shown in the screenshot below. Note also the *[Open]* button is highlighted; this is what you click to actually connect to the SSH server.
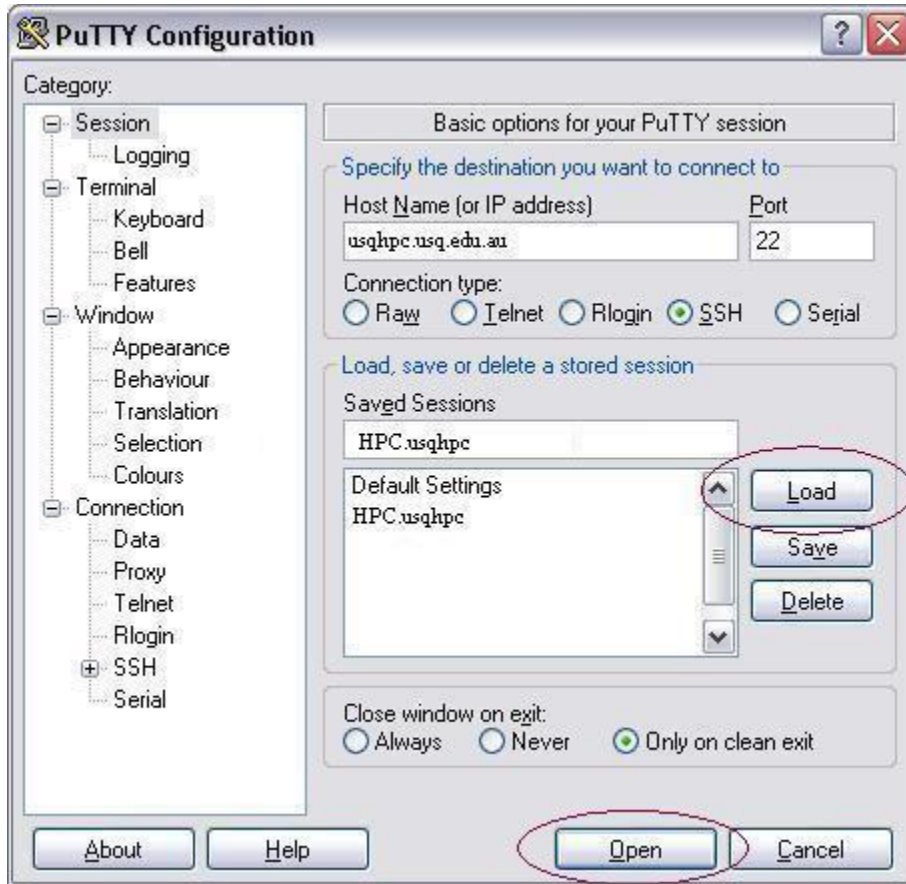
PuTTY Security Alert

After clicking the *[Open]* button to connect to the SSH server you may get a warning like the one in the screenshot below. Click the *[Yes]* button and you will connect to the SSH server. SSH clients store the server's host key and because PuTTY does not already have a copy of the host key it shows the warning.

Updated by the *HPC Team* on the 6/03/17