

Setting up NMR Data Transfers

updated: 25 September (hh)

castor2.chem.wisc.edu is the primary server providing access to data from the Chemistry NMR Facility. Connection to it can be made by hardwire connection to the Chemistry building network, or via WiscVPN or ChemVPN.

I. WiscVPN and ChemVPN:

The use of castor follows secure protocols: users with their computer on the Chemistry network (on a wire; wireless is not sufficient) will be able to connect as described below without additional software. Otherwise a VPN client is required. Most should use WiscVPN, following the University [instructions](#) for installing and running the GlobalConnect client.

Use of WiscVPN is highly recommended on a routine basis as it will protect your computer in open networking environments — e.g., browsing at a coffee shop or doing work via a hotel network — by encrypting all your network traffic.

You must be on the hardwired Chemistry network, using WiscVPN, or connected through the Chemistry VPN portal. Castor will not allow a connection otherwise.

II. sFTP:

sFTP is a great alternative to castor server connections. You will have to download the data to your computer to process it, but this a good habit to have regardless of connection type.

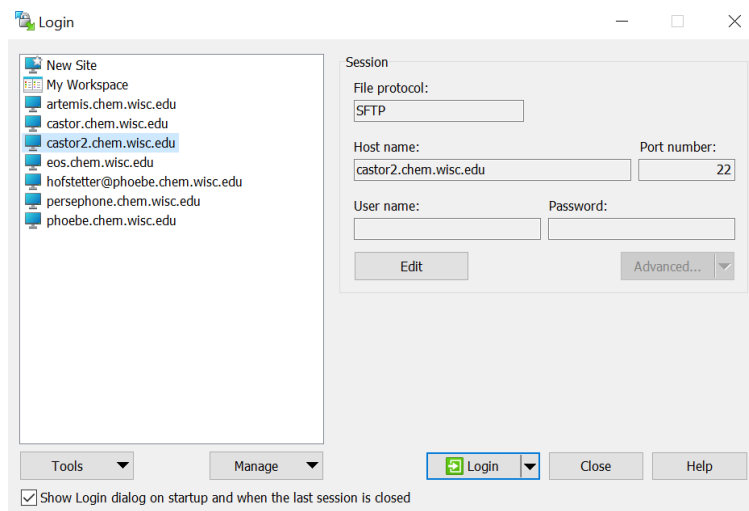
Castor can be accessed using sFTP, secure-(password encrypted)FTP. Non-encrypted (simple) FTP implemented in programs such as FireFTP is not allowed.

FileZilla, CyberDuck, WinSCP and SecureFX are all good sFTP programs. See below.

III. Data transfers from Castor using WinSCP (Windows only):

Download the free version, and setup using SFTP as the client similar to that shown below.

Data can be transferred manually in a straightforward manner by dragging the data you want from the spectrometer folder onto a folder you select on your computer.



IV. Comments on FileZilla (screensaps are from a Windows installation):

At the FileZilla download page, choose the plain FileZilla.

- . open and agree to the license agreement
- . do not allow installation of Additional software (do this twice!)
- . start the software

For the first connection, enter information into the Host: line as shown below. Host = castor2.chem.wisc.edu, and with your username and password. Use Port 22. Click Quickconnect and you should connect.



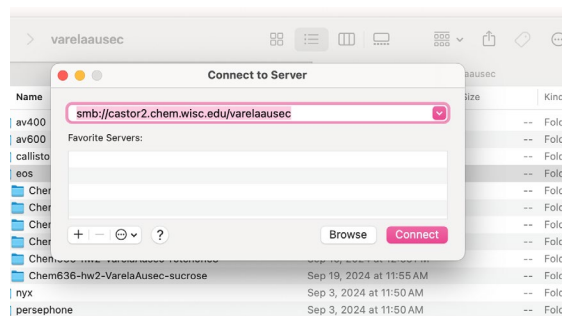
V. Data transfers from Castor to Macs:

See <https://winscp.en.softonic.com/mac/alternatives> for alternatives to WinSCP for Mac users. We have used FileZilla (on Windows), or CyberDuck, both seem to work.

VI. Castor server network drive mapping

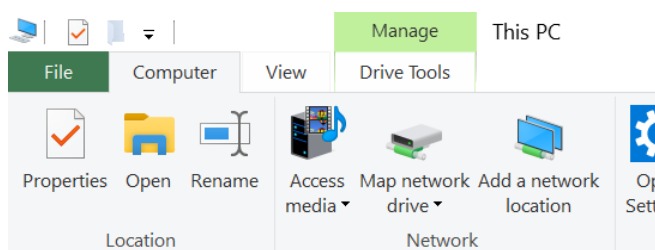
Mac OSX:

1. use the **Finder → Go → Connect to Server**
if you cannot find Go CTRL +K will open the same window
2. NMR data:
 - i) enter: **smb://castor2.chem.wisc.edu/**
Note that the **smb:** must be entered.
 - ii) use your netID **username** and **password** to connect
You will see your home directory with folders for all instruments you have access to.



Windows:

1. open **Windows Explorer** and click on this PC
2. **Tools → Map Network Drive**



3. NMR data:

- i) enter: <\\castor2.chem.wisc.edu\netID>
(user hofstetter would enter \\castor.chem.wisc.edu\hofstetter)
 - ii) check: **Reconnect at sign-in** and **Connect using different credentials**
 - iii) use your *netID@ad.wisc.edu* and *password* to connect
(user hofstetter will connect as hofstetter@ad.wisc.edu)
and click **Remember my credentials**
- You might have to click the green *more choices* and then *use a different account* if you cannot enter your netID.

You will see your home directory with folders for all instruments you have access to.