

# LArSoft 2020 Workshop Initial Setup Instructions For Windows

November 3, 2020

## 1 Things you'll need beforehand

You will need to know:

1. The machine you're working on e.g. *larsoftws1.blackett.manchester.ac.uk*
2. Your username on that machine e.g. *larsoft1*
3. Your listening port on that machine e.g. *15901*

These will be sent to you via email.

## 2 What to do if something isn't working

Please come along to the connection surgery session that we'll run prior to the workshop, on Monday 9th November between 1pm and 4pm.

## 3 Setting up port-forwarding on your Windows PC

We first need to configure ssh to forward a port for VNC. To do this we recommend that you install PuTTY, the MSI Windows Installer for which you can download from <https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>. When running the downloaded installer you can accept the default options throughout. Once installed, you can run the PuTTY app from the start menu and you should be presented with the window in Fig 1. You should enter the host name of the machine you will be working on, e.g. *larsoftws1.blackett.manchester.ac.uk* as shown in Fig 2.

Next, from the Category pane expand and select the SSH→Auth node found under the Connection branch of the tree, and select the check box 'Allow agent forwarding' under the *Authentication parameters* section, as shown in Fig 3.

Expand the Auth node, select GSSAPI and tick the check box 'Allow GSS-API credential delegation', as shown in Fig 4. Next, select the Tunnels node

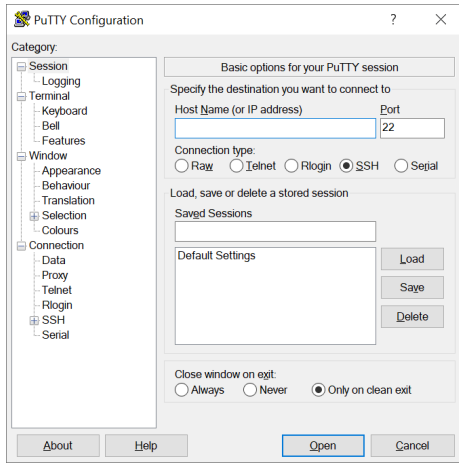


Figure 1: PuTTY interface.

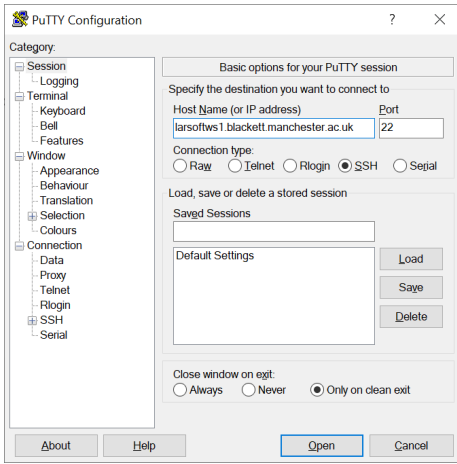


Figure 2: Host name specification.

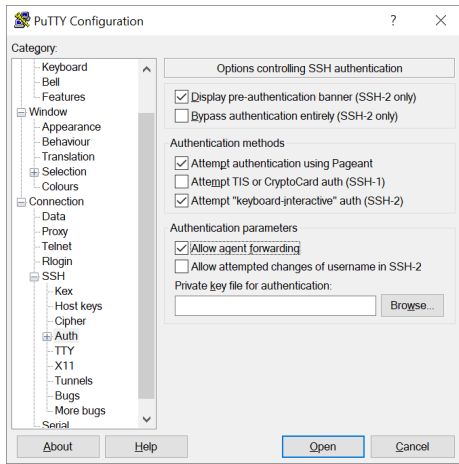


Figure 3: Agent forwarding.

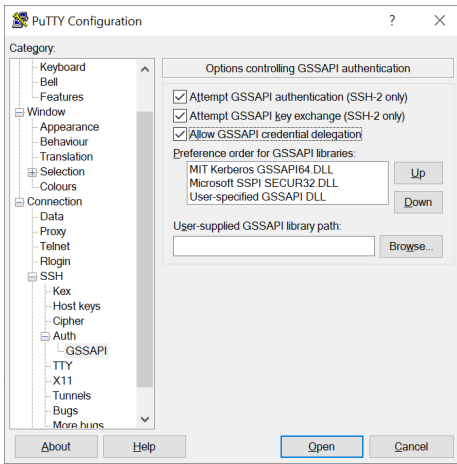


Figure 4: Credential delegation.

under the SSH branch. Set the source port to 5909 and the destination to local-host:15901 (or the listening port you opted for in Section 1), as shown in Fig 5 and click Add.

Finally, return to the Session node, enter a name for the session, e.g. 'VNC SSH', as shown in Fig 6 and click Save. You can then load this session in the future and click Open to initiate the SSH session. This will pop-up a command prompt that will request your username and password.

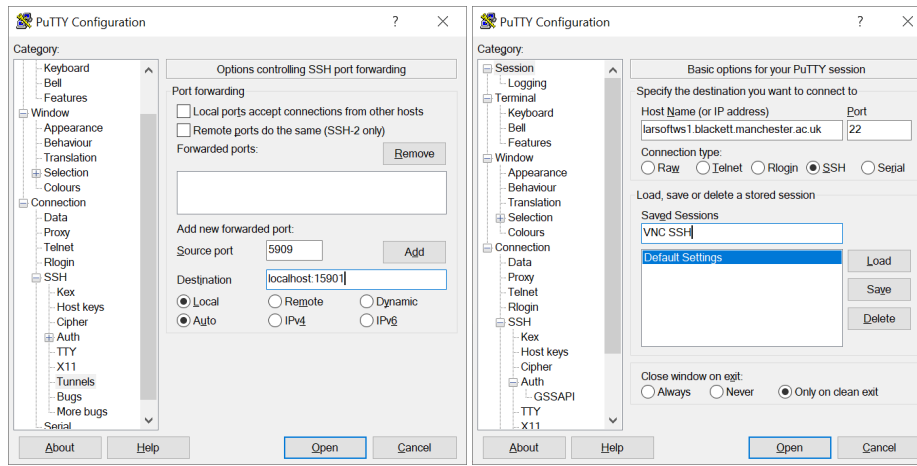


Figure 5: Tunnelling.

Figure 6: Saving the details.

## 4 Installing VNC Viewer on your PC

We suggest that you use VNC Viewer to provide the GUI for using the Manchester machine, which can be downloaded from <https://www.realvnc.com/en/connect/download/viewer/>. As with PuTTY, you can run this installer with the default settings and then run the VNC Viewer app from the Start menu. From the window that pops up, select File→New connection... and then enter localhost:5909 as the VNC server and enter a name for your connection, e.g. 'LArSoft Workshop' as shown in Fig 7, which should produce a new connection in the main window of VNC, as shown in Fig 8.

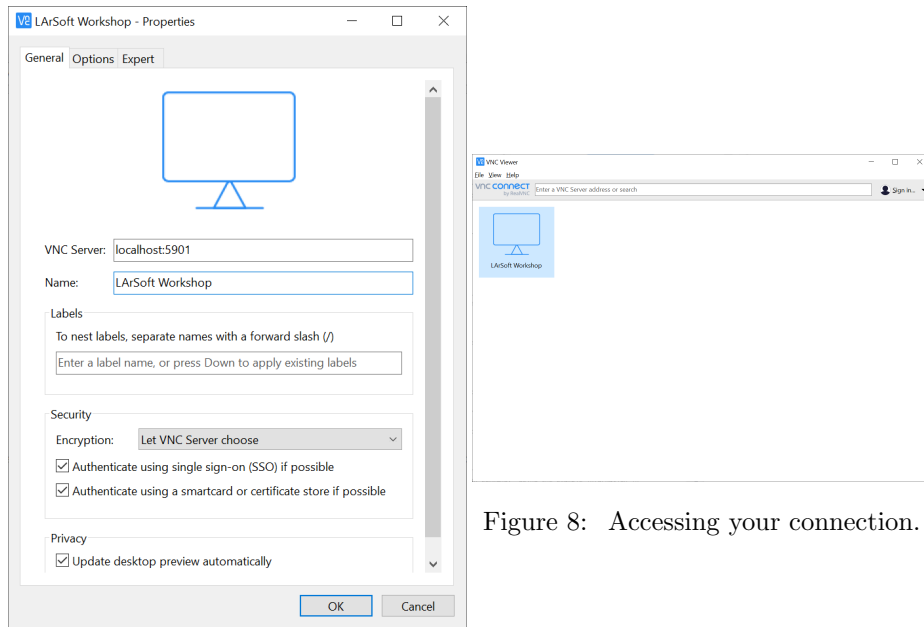


Figure 8: Accessing your connection.

Figure 7: Setting up a new connection.

## 5 Testing your VNC connection on the Manchester machine

To test your VNC connection, ensure that your SSH PuTTY session is open, and then double-click the connection you created in the VNC Viewer to login to the Manchester machine. Enter your VNC password into the password prompt. The VNC window to the Manchester machine should now be visible. To test that everything is working correctly, move back to your PuTTY command prompt (the one with the active ssh connection) and open emacs. The command is

```
emacs
```

If an emacs window appears in the VNC window then everything is configured correctly and you're all set for the workshop.

## 6 Setting up at the start of the workshop

Open PuTTY and load your connection for the workshop and click open. Open VNC Viewer and double-click the connection for the workshop.