



Software skills for librarians

Module 1: The Unix shell Prerequisites

Thank you for your interest in this course. Because it is intended that there will be a strong practical component to the course, participants are strongly advised to bring a laptop if possible. If this is likely to be difficult then please contact me before the course as it should be quite acceptable for you to pair up with someone else.

Software installation

To enable the course to run as smoothly as possible, it would be helpful if you can read the following notes below and install any required software before attending. If you are borrowing a laptop, or trying this on a desktop machine in your library, then please make sure that you have the necessary privilege to install software. If you are unsure then please ask your computer officer for advice.

Linux and Mac users

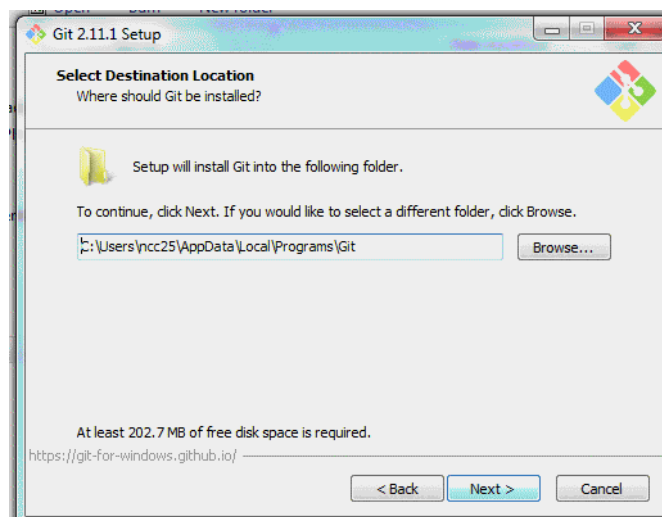
If you are using either Linux or a Mac, then you will not need to install anything for the first session. However, please familiarise yourself with starting the shell (sometimes called a terminal). On a Mac, you can do this by navigating to your applications directory (from the finder press [cmd]-[shift]-A), then look inside the utilities folder for the Terminal application.

On Linux, a terminal window will often open automatically when you log on. If not, look for either an xterm icon on your desktop, or Terminal in your software menu (the exact location and name varies between distributions).

Windows users

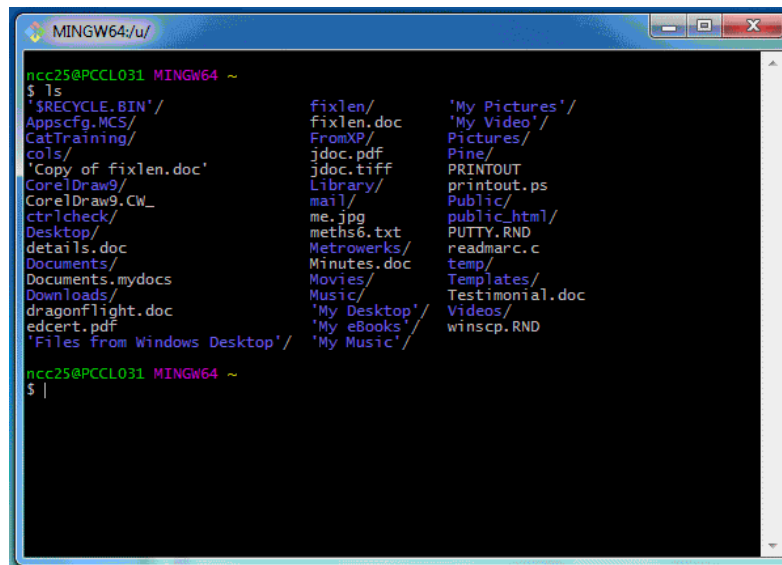
The command line on Windows (like the old MS-DOS prompt) is considerably less flexible than the Unix shell. Accordingly, Windows users will need to install additional software to provide a Unix like command line interface together with a reasonable set of Unix commands.

The recommended option is to install Git Bash (<https://git-for-windows.github.io>). This is a large download, so do this on a good internet connection, such as the CUDN if possible. Click on the download link, and if prompted select the correct version for your machine. Once the download has completed, you can select 'run' if asked, or double click on the file in your downloads folder:



Having accepted the licence terms, the installer will ask you to select where the software will be installed; this can be your Windows home directory if necessary. It should be sufficient to accept the defaults as you are prompted. The term Git refers to a tool for version control, and you don't need to worry about the various options related to this. In particular, you can leave the Git GUI component deselected, and use the default 'use Git from Git Bash only' option (this is the safest option as it does not change the PATH environment variable).

Once installation is complete, you should find an entry for Git Bash on your start menu under programs → Git Bash . Select this and you will see a terminal window with a command prompt. For example:



```
MINGW64/u/
ncc25@PCCL031 MINGW64 ~
$ ls
'$RECYCLE.BIN' /      fixlen/      'My Pictures' /
Appscfg.MCS /       fixlen.doc   'My Video' /
CatTraining /        FromXP /     Pictures /
cols /               jdoc.pdf     Pine /
'Copy of fixlen.doc' jdoc.tiff    PRINTOUT
CorelDraw9 /         Library /    printout.ps
CorelDraw9.CW_ /     mail /       Public /
ctrlcheck /          me.jpg       public_html /
Desktop /             meths6.txt   PUTTY.RND
details.doc /        Metrowerks / readmarc.c
Documents /           Minutes.doc  temp /
Documents.mydocs /   Movies /     Templates /
Downloads /           Music /      Testimonial.doc
dragonFlight.doc /   'My Desktop' / Videos /
edcert.pdf /         'My eBooks' / winscp.RND
'Files from Windows Desktop' / 'My Music' /

ncc25@PCCL031 MINGW64 ~
$ |
```

Another option for Windows users is to connect to a remote Unix machine using ssh (Secure SHell). If you have an account on the Managed Cluster Service, then you will be able to connect to one of the MCS-Linux machines. If you use this option then you will need to install Putty (<http://www.chiark.greenend.org.uk/~sgtatham/putty/>), or a similar ssh client, on your Windows machine first. If you take this option, then please also remember that you will need to be able to connect to the remote machine during the course. If you wish to try this, then use Putty to connect to linux.ds.cam.ac.uk. The username is your crsid, and the password your usual MCS one.

There are further options for windows users who wish to use a Unix like environment, principally Cygwin and the Windows Subsystem for Linux. These are significantly more difficult to install and set up, and are not recommended for this course. However, if you are already using one of these then it will be more than adequate for our purposes.