

Basic IT

- Email

- If you were a masters/undergrad – set up forwarding!!!
- People will mistakenly send email to it so keep it monitored!
- Sign up to Met Social!!
- <http://www.met.reading.ac.uk/intramet/home/lists/subscribe.php>

IT Help/FAQ pages

- <https://uor.topdesk.net/tas/public/ssp/content/page/knowledgebase>
(useful stuff on met-cluster)
- <https://research.reading.ac.uk/meteorology/intranet/it/>
- <https://research.reading.ac.uk/act/>

Personal webpage

- You all have a personal web page
- There is guidance on IT Met as to how to set this up and edit it:
<https://research.reading.ac.uk/meteorology/intranet/it/met-webpages/>


How to use UNIX

Step 1: Getting there

- So, nowadays you all have windows machines.
- There are two ways of getting on UNIX:
 - No machine (you all have instructions)
 - Moba Xterm

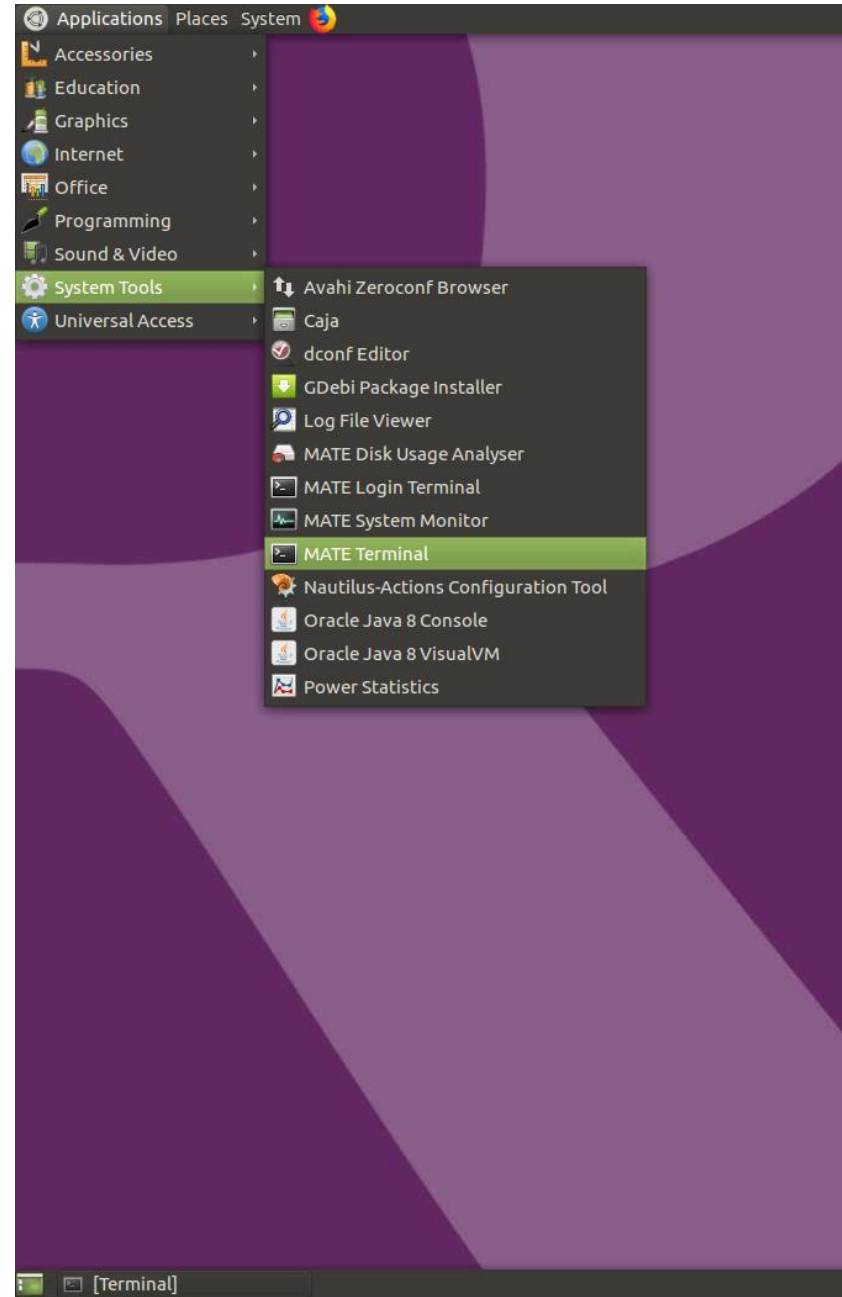
Terminal



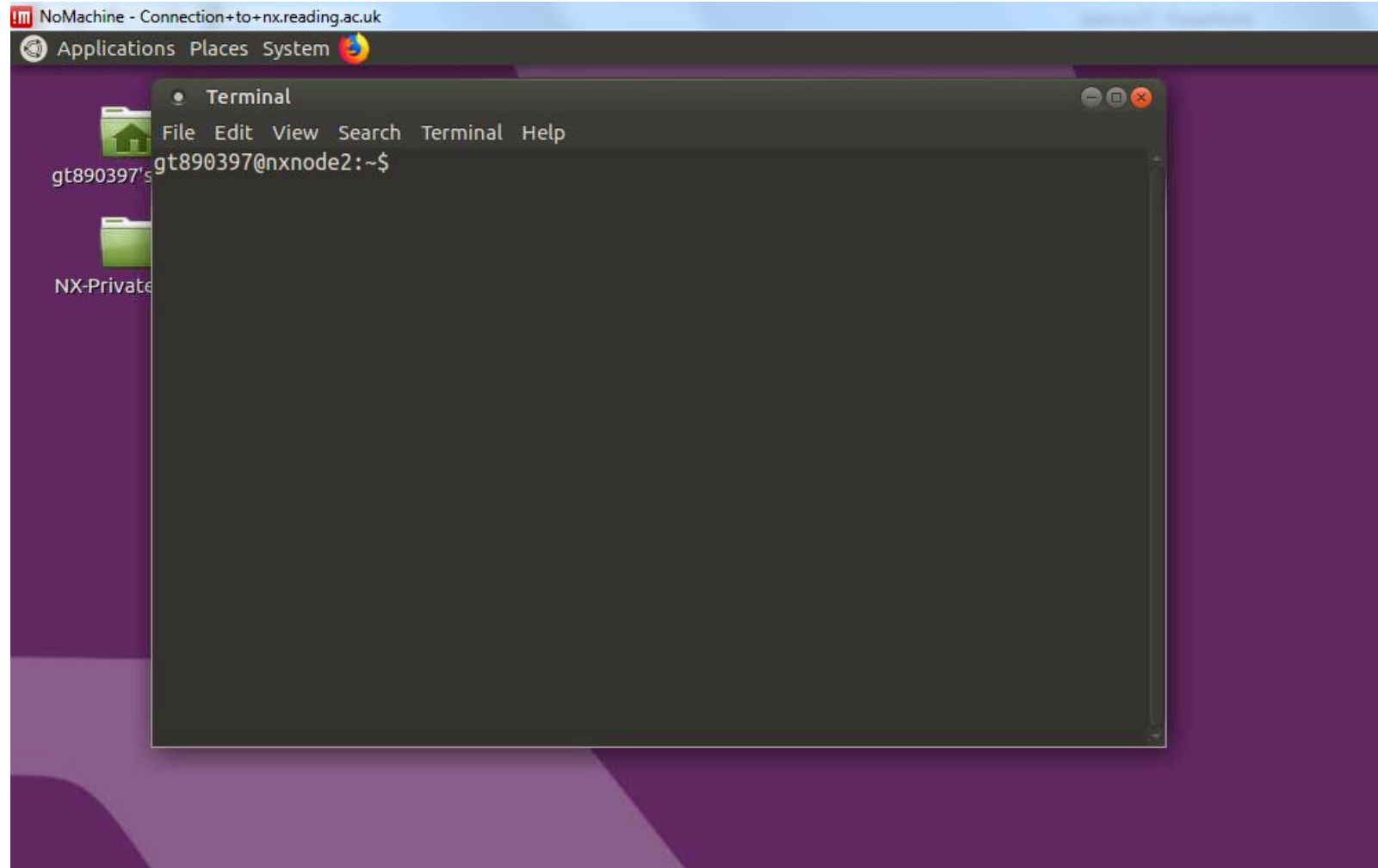
 Start local terminal

Find existing session or server name...

Welcome to MobaXterm
Press <return> to start a local terminal or type a remote server name



Terminal



Getting around Linux

- ls, ls -l
- mkdir
- rm
- cd
- rmdir
- pwd
- man
- Many many more...

.kshrc and .bashrc

- These are files that gets executed every time you open a shell
- This is a good place to put in alias commands
- You can also e.g. put a “module add python/canopy” command in here to setup python
- Be careful, if you put something in here it can problems down the line

met-cluster

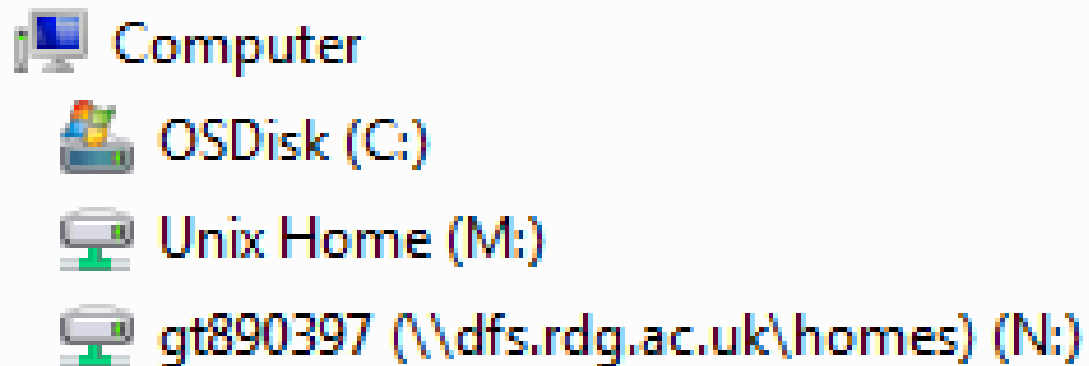
- This is where you (probably) will run all your code
 - `ssh -Y met-cluster`
- `qssh -l project -P scenario`
- Or: `qssh -l shared -P shared`
- Read IT documentation on batch job submission if you are running a long job or want parallel processes
- Ask supervisor!!
- Coming soon: free cluster <https://research.reading.ac.uk/act/free-cluster-available-for-testing/> (older PhDs will not be able to help you with this!)

Remote access

- You can access the University Network from your home computer using a Virtual Private Network (VPN):
 - <https://www.reading.ac.uk/internal/its/help/its-help-networks/webvpn.aspx>
- Under some circumstances, you can get ssh access to a linux computer. This is not recommended though – use the VPN unless this is not possible. Contact Met Dept IT if you need to do this.

Mapping network drive

- If you need to map your linux home dir to your Windows file system:
 - Open file explorer
 - Right click computer -> “Map network drive...”
 - Pick a drive letter
 - Add \\unixhome.act.rdg.ac.uk\homes
- If your N drive is missing you can map this using \\dfs.rdg.ac.uk\homes\<username>



If your M drive disappears suddenly...

- Don't panic, it's not your fault!
- It will come back eventually, you haven't lost anything
- Head to the coffee area to grumble

Linux command resources

- <https://diyhacking.com/linux-commands-for-beginners/>
- <http://www.ee.surrey.ac.uk/Teaching/Unix/>
- <https://www.cheatography.com/davechild/cheat-sheets/linux-command-line/>

Copying files

- You often need to copy files from one computer to another
 - You can use scp to copy individual files
 - rsync can be very handy, although it is more complicated

Killing processes

```
ps -u USERNAME
```

```
kill XXXXXX
```

Very useful for some programming things!

Aliases

- Some commands are stupidly long.
- And you will do them a lot
- Can add commands to `.bashrc`
 - `alias short_command='long command'`
 - `alias data_storage='cd /gluster/.../'`

Text editors

- vim, emacs, gedit, nedit, notepad++, gVim
- There are others
- It's worth exploring and picking what you prefer.
- Syntax highlighting etc.
- Spell check?

Viewing things

- Pdfs: evince and acroread
- Images: eog, xv, gv

Background and foreground

- Add & to end to run in background
- Or ctrl+z and then bg/fg

Using Python

- `module add python/canopy`
- `ipython /spyder/PyCharm`
- Can then run in terminal or as you choose.
- See a list of modules using `module avail`
- Resources:
 - <http://www.johnny-lin.com/index.shtml>
 - <https://software-carpentry.org/lessons/>

Using matlab

- Using UI slows down the servers
- Write in a text document and set it to run in a terminal
- `setup matlab`
- `matlab -nodesktop`

Saving stuff

- You only have limited space in your home directory
- You will probably have storage elsewhere
- Your home directory is backed up – the rest is not.
- Do not save to `.temp`.

LaTeX vs Word

- ~~There is no right answer.~~ LaTeX is extremely useful. PhD students often hold strong opinions on this.
- Pick what works for you. Most journals will accept either, and thesis and other reports are fine in either.
- Pick referencing software to go with it. Use from beginning.
- People in office will have templates – in particular we will send around a LaTeX template for your first monitoring committee report when it's time for us all to start writing them.

Printing (1)

- Managed print service – tap card against printer and print!
- Black and white or colour (FollowMe)
- Printing is free but monitored – don't print too much in colour.
- Print direct from terminal
 - `lp -f FollowMe-Colour filename.pdf`

Printing (2)

- FollowMe-BW/FollowMe-Colour weren't set up for some. You can add them by going to Home->Devices and Printers, then:
 - Add a printer
 - Add a network, wireless or Bluetooth printer
 - The printer that I want isn't listed
 - Choose "Select a shared printer by name" and enter: [\\uorprint\FollowMe-BW](#)
 - Repeat for Colour.
- and you should be able to print again.

Loads of other things

- xconv, ncview, ncdump...
- grep
- Shell scripting
- Git (version control), use this!!!
- Explore!

Git

- Why use git?
 - Save complete history of your code/text files
 - Helps back up code remotely
 - Lets you collaborate with other people
 - Looks good on your CV

Git

- On met system use: `/usr/bin/git`
- Or use IDE with integrated Git (e.g. PyCharm)
- Tutorials:
 - Interactive: <https://try.github.io/levels/1/challenges/1>
 - Github: <https://guides.github.com/activities/hello-world/>
- Docs:
 - Official: <https://git-scm.com/doc>
 - Cheat sheet: <https://services.github.com/on-demand/downloads/github-git-cheat-sheet.pdf>

Random points...

- You can install Dropbox on them without admin rights
- You can install PyCharm
- You can install Spotify
- LaTeX: Machines have TeXworks, or use Overleaf online
- On nomachine:
If your display looks slightly blurry, try going into the nomachine settings (Ctrl+Alt+0) and display settings, and put quality to max
Capture keyboard makes Alt+tab work (in settings)

Who to contact

- Your buddy
- Your office mates
- Google (technical problems)
- Met-phd mailing list
- Maria or Eric
- Central IT support (raise a ticket)
- Bill Collins (not for technical problems, if you need to request more storage etc.)

Timetables/blackboard

- You can access your personal timetable here:
 - <https://timetable.reading.ac.uk/CMISGo/Web/Timetable>
 - This will fill up with times when you start modules!
- Many modules make heavy use of blackboard – your module convener will let you know about this
 - <https://www.bb.reading.ac.uk/>

RISIS

- You will use this to:
 - Re-enrol every year
 - Choose your RRDPs
 - Update your personal details (so you can get paid!)

Social Stuff!

- Sappo – sign up to met-social!
- Runners – Aga: Agnieszka.Walenkiewicz@pgr.reading.ac.uk
- Squash
- Croquet
- Book group
- Cakes/ baking/ viva cake
- Prayer group
- Badminton – Ross: r.j.herbert@reading.ac.uk
- Panto, Met ball, BBQ
- Football – Javier: j.amezcuaespinosa@reading.ac.uk
- Cricket - Jon: j.beverley@pgr.reading.ac.uk
- Met choir – Kaja: k.m.milczewska@pgr.reading.ac.uk