

Introduction to Unix

Jacqui Keane

Pathogen Informatics
Wellcome Sanger Institute
jm15@sanger.ac.uk



CONNECTING
SCIENCE

WT NGS Bioinformatics

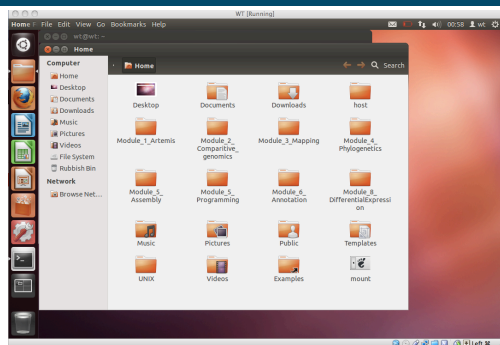
Unix

- ▶ What is Unix?
 - ▶ Standard operating system (alternative to MS Windows, Mac OS)
 - ▶ Provides a way for you to interact with the computer
 - ▶ Many 'flavours' of Unix, using Linux
 - ▶ Originally created to provide a free UNIX-like OS for PCs
- ▶ Why use Unix?
 - ▶ Output of lots of biological research exists in large text files
 - ▶ Very suitable for working with such files
 - ▶ Powerful and flexible commands for processing large text files
 - ▶ Save you time
 - ▶ Widely used in scientific community
 - ▶ Powerful, robust and stable operating system

WT NGS Bioinformatics



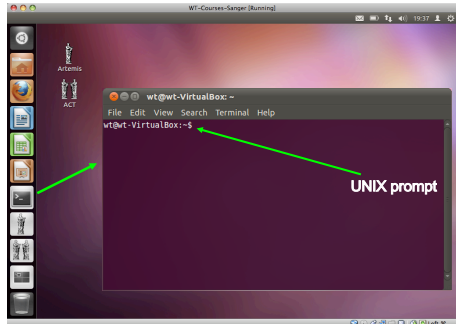
Using Unix



WT NGS Bioinformatics



Terminals and Commandline



WT NGS Bioinformatics



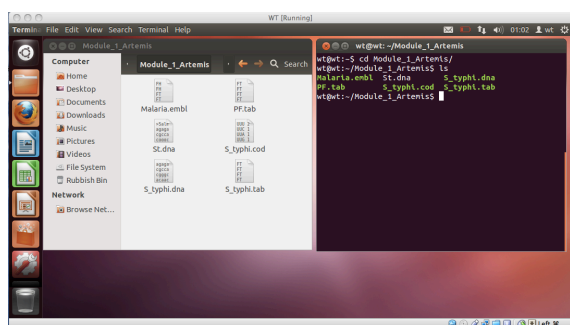
Unix Commands

Command	What it does
ls	List the contents of the current directory
cd	Changes a directory
mv	Moves a file
cp	Copies a file
rm	Remove a file
less	Displays the contents of a file
head	Displays the first ten lines of a file
tail	Displays the last ten lines of a file
cat	Concatenate files together
pwd	Print working directory
mkdir	Make a new directory

WT NGS Bioinformatics



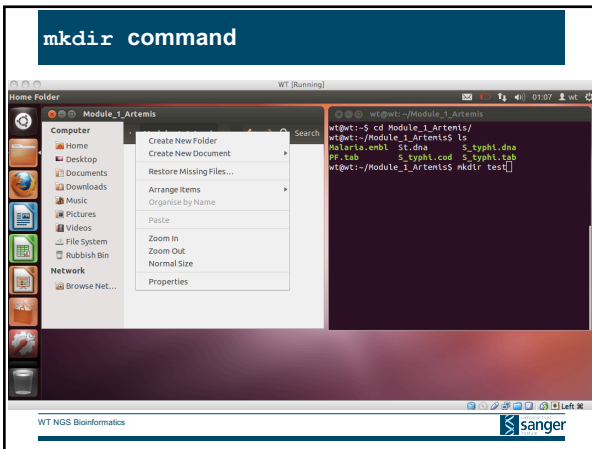
ls command



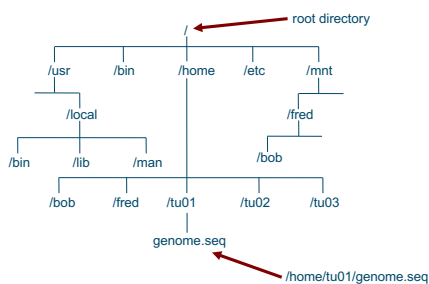
WT NGS Bioinformatics



mkdir command



Directory Structure



WT NGS Bioinformatics



Unix Tips & Tricks

- ▶ Unix is case sensitive
 - ▶ Typing `LS` is NOT the same as typing `ls`
- ▶ You need to put spaces between
 - ▶ a command
 - ▶ the values passed to the command
 - ▶ `mkdir new_dir` will create a new directory
 - ▶ `mkdirnew_dir` will just give an error!
- ▶ Unix is not psychic! If you misspell the name of command or a file it will not understand you

WT NGS Bioinformatics