

Basic Linux navigation

Some programs that are installed on a Linux can be opened by ways of **Applications** menu. Matlab, Mathematica and Emacs are among those. Others, such as R, can not. To get at those, you have to open a terminal window through **Applications** → **Accessories** → **Terminal** and enter the world of textual interface.

When you open a terminal window you end up in your home folder/directory. Type **ls** at the prompt to list all files and sub-folders. To create a new folder (say, "work") type **mkdir work** (stands for "make directory"). To remove this folder, type **rm -r work**. To go to this folder type **cd work** (stands for "change directory"). To go back up to your home directory, type **cd ..** (you go one step up the folder tree) or **cd ~ /** (moves you to your home directory no matter where you are). To go to a folder that is not a direct sub-folder to you current position you need to give the whole path to the **cd** command. So, if you have a folder **project1** under **work** you can get there by typing **cd ~/work/project1** or just **cd work/project1** if you are in your home directory. A useful key to remember is "Tab". If you start entering a file/directory name and press tab the system will finish the name for you. You can have several terminal windows open at the same time.

To start a program from terminal you have to type its name, preferably followed by a & sign. So, to start Matlab, you type **matlab &**, to start Mathematica you type **mathematica &** and to start R you type **R**. Observe that R does not have an own interface but will run in the same terminal you started it from. The & sign is not necessary but will allow you to keep using this particular terminal window instead of opening a new one. A useful program to know is **gedit**, which is a text editor of a simpler, and more manageable, kind than Emacs.

Getting a C program is a bit more complicated. First, you write your code in a **filename.c** file using some text editor. Then you have to compile it. Can be done with several options but **gcc -lm filename.c -o filename** tends to work. To run your program, type **./filename**.