BRIEF PRIMER ON UNIX

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The following few pages will describe some of the most important commands used in UNIX and Linux. This is not intended to be a complete list; whole books have been written on UNIX commands. Feel free to ask either of us if there's something you'd like to do that we don't describe here; if we don't know the answer, we'll do what we can to help you find more information.

Log into a UNIX terminal using your username and password which have already been assigned to you. After you have logged into the console, you'll need to open up a terminal window. To do that, right click anywhere on the desktop, then go to Tools, and then to Terminal. This will place you at a text prompt in your home directory. The following commands are all designed to be run at a command prompt. Any useful switches will be described following each command.

MOVING AROUND THE FILE SYSTEM

ls – This is the command designed to show you the contents of a directory.
ls -l – outputs a "long" listing, which gives more detailed information on each file

cd – Changes the directory. You can either type in the full path name or a subdirectory.
cd .. – This will move you one directory up (toward the root)
cd / – Takes you to the root directory
cd (no arguments) – Returns you to your home directory

***** – The wildcard character; it will take the place of zero or more characters in a filename.
ls a* – This will list all files which start with the letter a
ls n*w – This will list all files which start with n and end with w

MOVING AND MANIPULATING FILES AND FOLDERS

cp – Copies a file, either from one location to another, or to another file name
cp *file1 file2* – This will create a copy of *file1* and name it *file2* in the current directory
cp *file1* /home/you – puts an exact copy of *file1* in the /home/you directory

mv – Moves a file to a new location, or renames a file in a given directory
mv *file1 file2* – This changes the name of *file1* to *file2* in the current directory
mv *file1* /home/you – This moves *file1* into the selected directory (/home/you in this case)

rm – Deletes a file from the current directory.
rm -i – This will ask you to confirm that you want to delete each file with a yes/no option

mkdir – Creates a subdirectory in the current directory.

rmdir – Removes a subdirectory.
Note: rm does not remove directories; you must use rmdir

OPENING THE CONTENTS OF TEXT FILES

head – displays the first lines of a file. The default is to show the first 10 lines.

head -*N* – This will display the first *N* lines of a given file

tail – displays the last lines of a file. The default is to show the last 10 lines.
tail -*N* – This will display the last *N* lines of a given file

more – Prints the contents of an file to the terminal window, stopping for each new page full of data. To move ahead one line, press RETURN; to move ahead a full page, press the SPACEBAR. Note: In some versions of more (especially on Linux), you have to press "q" to get out of the viewer.

emacs – Your basic text editor. This is the most comparable to what you're familiar with in Windows. This can be used to create FORTRAN programs, shell scripts, text notes, and anything else you want to do with it. There are quite a few keyboard shortcuts, but mouse control is good enough for most users. To open a file, type "emacs *filename*" at the prompt (without the quotes). If the file exists, it will open it; if the file does not exist, it will create a new file called *filename* in the current directory.

VIEWING PICTURES AND IMAGES

gv – Designed to view PostScript (.ps) files, which are often created by GEMPAK. Simply type gv and then the filename, and it will open up the image.
gv -land – This will automatically rotate the plot to the landscape view (which is how GEMPAK outputs images)

xv – This viewer can be used for .gif, .jpg, .tif, and most other image formats. Like gv, images open by typing "xv *filename*" at the command prompt.

xanim – This will animate a group of files given in a directory. You can either list each file one by one, or use a wildcard (e.g. xanim 199804*.jpg will loop all files which fit that description in alphabetical and numerical order).

MISCELLANEOUS

man – Opens the manual page (help file) for UNIX commands. Type man *command* at the prompt.

history – brings up a list of the commands you've previously run.
history *N* – Brings up only the last *N* commands

!*N* – ! is called the "Bang" character. It re-runs the command from the history list with the given number.

middle-click – If you select text on the screen (by dragging and holding the left mouse button), you can click the middle mouse button and it will paste the information to wherever you click. Note: If your mouse does not have a middle button, clicking the left and right mouse buttons simultaneously will do the same thing.