

Unix/Linux Exercise

The following steps will guide you through the most common Unix/Linux commands. If you are using windows (rooms with XWin32: Dana213, Dana223, Dana214, Dana 306, BrkI164), then start with step 1. If you are using a linux or sun workstation, then start with step 4.

1. Log into Windows with:
Ctrl-Alt-Del → type in your username and your password
2. Start (left bottom) → Programs → Programs Q-Z → Xwin 32
3. Double-click on the blue X (right bottom) → e.g. linuxcomp1 (Graphics)
4. Log into a linux or sun workstation. To do so type after **login:** your username and after **password:** your password. Use the same username as for windows. In case you do not know your password for suns, please ask Mike Harvey.
5. Create a directory of the name “Capstone_s2008” by typing

```
mkdir Capstone_s2008
```

Draw the tree of the directories and files for this step **and all the following steps**.

6. Check the directory name in which you are now by typing (print working directory)

```
pwd
```

answer:

We call this directory (into which you get when you log in) your “home directory”.

7. Check the contents of your current directory (list) with

```
ls
```

answer:

8. Change the current directory. Get into Capstone_s2008

```
cd Capstone_s2008
```

and redo 3.

9. Create a file with filename “unix_logfile” by typing

```
emacs -font10x20 unix_logfile
```

A new window will open up. Emacs is an editor, that means that you can edit files with it (so like word on windows). For more information see the summary sheet with emacs commands. In case you are used to vi or any other editor, feel free to use it instead.

Write into the unix_logfile:

```
Unix commands:  
=====
```

```
mkdir    create directory  
pwd      print current directory  
ls       list contents of current directory
```

Save the contents of the file with **C-x C-s** and quit the editor with **C-x C-c**. You might want to use this file in the future as a reference for unix commands. Add to it new commands whenever you learn them.

10. In this course we will often want to share each others programs (files). Since usually all your files are protected from being read by anyone else but you, you will need to change this permission whenever you would like other people (your classmates and me) to be able to read your file. You do this in this example with:

```
chmod a+r unix_logfile
```

“a” means “all” and “+r” means “add read permission”. With `ls -l` you can check the permissions of any file and directory. The first three digits specify your permissions, the last three digits specify the permissions of everybody else. In each case the digits are for executable, reading and writing. Change the reading and writing permissions of the unix_logfile and check after each change with

```
ls -l unix_logfile
```

11. Check again the contents of the current directory.

answer:

12. Create another file called “tryfile” with content

```
hello
good bye
```

and redo 4.

13. Look at the contents of the tryfile with

```
cat tryfile
```

14. Do the same with the logfile.

15. Next remove (delete) the tryfile with

```
rm -i tryfile
```

You will be asked if you like to remove tryfile. Type **y** for yes. Check again the contents of your current directory. **rm** is a dangerous command. It has together with the wild card **'*** the power of removing all your files in a single command! **Think always twice before you remove a file!**

16. Create a directory with name “trydir”

```
mkdir trydir
```

and get into it with

```
cd trydir
```

17. Get back out of trydir (one step higher in the tree of directories) with

```
cd ..
```

Check in which directory you are.

18. Remove trydir with

```
rmdir trydir
```

19. Get back to your home directory either with

```
cd
```

or with

```
cd ~
```

or with

```
cd ~yourusername
```

(e.g. for me `cd ~kvollmay`). This gets you to anyone's home directory.

20. Look at the contents of your `unix_logfile` with

```
cat ~/Capstone_s2008/unix_logfile
```

We used here the full path of the `unix_logfile`, so it would work from any directory.