


THE TWO PAGE *UNIX* MANUAL

Connexion to the CRPBI server using CygWin™



Double-click on this icon , and on the prompt type `ssh -X username@crpbio.crp-sante.healthnet.lu`

At the end of the connexion, type `exit` once for ending the ssh connexion and once for quitting CygWin™.

Moving, copying, deleting, viewing & editing files

| | |
|------------------------------------|---|
| <code>ls -l</code> | List files in current directory using long format |
| <code>ls -al</code> | List all files in current directory using long format |
| <code>pwd</code> | Display the absolute name of the current directory |
| <code>cd /home/amuller/</code> | Change the current directory to /home/amuller/ |
| <code>mkdir dirname</code> | Create a directory called dirname |
| <code>rm filename</code> | Remove a file called filename |
| <code>rm -rf dirname</code> | Kill off an entire directory and all it's included files and subdirectories |
| <code>rmdir dirname</code> | Remove an empty directory called dirname |
| <code>cp file /home/dirname</code> | Copy the file called filename to the /home/dirname directory |
| <code>mv file /home/dirname</code> | Move the file called filename to the /home/dirname directory |
| <code>more filetoview</code> | Display the file called filetoview one page at a time, proceed to next page using <code><spacebar></code> , exit using <code><q></code> |
| <code>head filetoview</code> | Display the (10) first lines of the file called filetoview |
| <code>head -20 filetoview</code> | Display the 20 first lines of the file called filetoview |
| <code>tail filetoview</code> | Display the (10) last lines of the file called filetoview |
| <code>tail -20 filetoview</code> | Display the 20 last lines of the file called filetoview |
| <code>emacs filename &</code> | Will open a graphical text editor into a new window |

Little usefull tips and tricks

| | |
|--------------------------------|--|
| <code>.</code> | Shortcut to the current directory. eg. <code>more ./filename</code> will display the file called filename localized in the current directory (same as: <code>more filename</code>) |
| <code>..</code> | Shortcut to the parent directory. eg. <code>cd ..</code> will change the current directory to it's parent directory |
| <code>*</code> | wildcard – represents everything. eg. <code>rm *</code> will remove all files in the current directory |
| <code>?</code> | Single character wildcard. eg. <code>ls result_?.blast</code> will list all the following files: <code>result_0.blast</code> , <code>result_1.blast</code> , <code>result_2.blast</code> , <code>result_3.blast</code> , <code>result_4.blast</code> ... |
| <code>[xyz]</code> | Choice of character wildcar. eg. <code>ls [xyz]*</code> will list all files in the current directory starting with the letter x, y or z. |
| <code>ps</code> | List current process. eg. <code>ps -ef grep username</code> will list all process (PID) corresponding to the user called username |
| <code>kill 123</code> | Kill a process with the process ID (PID) 123 |
| <code>quota -v username</code> | Display disk space quota of user username |

Finding files and text within files

`find / -name fname` Starting with the root directory, look for the file called `fname`
`find / -name "*fname*"` Starting with the root directory, look for the file containing the string `fname`
`grep stringtofind /dir` Starting from the directory called `/dir`, look for and list all files containing `textstringtofind`

File permissions

| | Owner | Group | Others |
|--|-------|-------|--------|
| | r w x | r w x | r w x |

Diagram illustrating file permissions: `d` (File type), `r` (Read), `w` (Write), `x` (Execute).

File type
- = file
d = directory
l = link

Execute
Write
Read

If the command `ls -l` is given, a long list of file names is displayed. The first column in this list details the permissions applying to the file. If a permission is missing for a owner, group of other, it is represented by `-`. eg. `drwxr-x-x`

`chmod +x filename` Make the file called `filename` executable to all user

Shortcuts & tips

`<tab>` Expand automatically the file name. eg. If you have a file called `veryveryverylongfilename` and you want to display it, just type `more v<tab>` It will automatically display `more veryveryverylongfilename` in the prompt. (`<tab>` stops when there is more then 1 occurrence)

`<left click>` Will copy the selection (in the X window)
`<center click>` Will paste the selection
`<right click in the lift region>` Will lift up
`<left click in the lift region>` Will lift down
`<wheel button>` Will lift up/down
`<up arrow><down arrow>` History – Display last/previous command typed in the prompt

Importing/exporting files trough PCs and CRPBIO Unix server

To copy a file from a PC to the CRPBIO Unix server.

In an X window, not connected to the server, move to/locate your local file to export using `cd`, `pwd`, `ls ...` and type:

```
scp localfilename username@crpbio.crp-  
sante.healthnet.lu:pathforthefile/filename
```

To copy a file from the CRPBIO Unix server to a PC.

In an X window, not connected to the server, type:

```
scp username@crpbio.crp-sante.healthnet.lu:pathforthefiletocopy/filename  
filename
```

Help

`man commandname` Display manual pages for the `commandname`
`helpbioinfo` Display a web based help page for the bioinformatics platform