

Common Linux Shell Commands

Almost all the operations that will be required for this class will be performed via shell commands. This includes changing or navigating directories, creating and deleting files, and logging out of the server. Some of the commonly used Shell commands and a few examples of their usage are listed in the table below:

Command	Description	Example usage
exit	Log out of the Linux box	\$ exit
cd	Change directory	\$ cd m: \$ cd /usr/X11R6/bin \$ cd ..
pwd	Show present working directory	\$ pwd
ls	List files.	\$ ls \$ ls -l \$ ls -l ../*.s \$ ls -l ../a?b*.s \$ ls -l ../directory
mkdir	Make new directory	\$ mkdir csa-470
rmdir	Remove empty directory	\$ rmdir csa-570
cp	Copy file or files. You can copy entire directories recursively as well.	\$ cp ../a.s . \$ cp ../a.s bak.s \$ cp ../*.s . \$ cp ../a?b*.s . \$ cp -r ../directory .
mv	Move file or files. You can move directories as well.	\$ mv ../a.s . \$ mv ../a.s bak.s \$ mv ../*.s . \$ mv ../a?b*.s .
rm	Remove files and directories.	\$ rm ../a.s \$ rm a.s bak.s \$ rm ../*.s \$ rm ../a?b*.s \$ rm -rf directory
less	View contents of the file (scroll using arrow keys and press q to quit).	\$ less hello.s
emacs	Editor and development environment.	\$ emacs&
icc	Runs the Intel C compiler program(s)	\$ icc -g -Wall hello.c -o hello
mpicc	Runs the Intel C compiler with options to link in the MPI library as well.	\$ mpicc -g -Wall hello.c -o hello
gdb	Debugger (Typically run from within emacs)	\$ gdb hello

Command	Description	Example usage
man	Display manual page for a command (use cursor keys to navigate and q to quit)	\$ man ls \$ man man
as	Assembler (Convert assembly source to object file)	\$ as --gstabs+ hello.s -o hello.o \$ as --help
ld	Linker (Convert one or more object files into a single executable)	\$ ld -e main hello.o -o hello.exe -lkernel32 \$ ld --help
module	Runs the module management program to load and unload modules on the cluster.	\$ module avail \$ module load java
clear	Clears the current terminal	\$ clear

Most of these commands are going to be frequently used in this class. Consequently, you need to get conversant with them. Spend time to try out each one of the commands yourself.



The `man` (manual) command is your never failing friend! The manuals contain all the information for each of the aforementioned shell commands and include references to other related commands that can be used. If you are not sure how to use a command, the first thing to do is to look up the man pages. You may also find the man pages online (<http://www.linuxmanpages.com/>).