CCR Linux Command Reference Card

Login and Logout

Login with ssh	ssh UBITusername@rush.ccr.buffalo.edu
Login with X-Display for graphics	ssh -X UBITusername@rush.ccr.buffalo.edu
Logout	logout
	exit

File Transfer

Secure File Transfer	sftp rush.ccr.buffalo.edu
Upload a file	put file1
Download a file	get file2
Secure Copy	scp file1 UBITusername@rush.ccr.buffalo.edu

Manual Pages

Show manual for a command	
View man page for ls	man ls

Wildcard

The * symbol is used as a wildcard to match files and directories.

File and Directory

List files and directories	ls
List with details	ls -l
List all files, including hidden files	ls -la
List in reverse time order	ls -latr
List all files with .c extension	ls -l *.c
Show current directory pathname	pwd
Change directory	cd dir1
Change to home directory	cd

Change to directory above	`cd ..`
Create a directory	`mkdir dir1`
Copy a file	`cp file1 file2`
Copy a directory	`cp -R dir1 dir2`
Move a file	`mv file1 file2`
Remove a file	`rm file1`
Remove a directory	`rm -R dir1`
Remove an empty directory	`rmdir dir1`
Show file type	`file file1`
Convert DOS file to ASCII	`dos2unix file1`
Display a file to the screen	`cat file1`
copy file with cat	`cat file1 > file2`
append file	`cat file1 >> file2`
Display file with page breaks (use space bar to advance)	`more file1`
Display with forward and backward breaks	`less file1`
Show last 10 tens of a file	`tail file1`
Show last 10 lines with update	`tail -f file1`

Pipe

The | symbol is to take the output of one command as input to another command.

Pipe output of ls to more	`ls -l  | more`

File Permissions

Read (r), write (w) and execute (x) permissions are set for user (u), group (g) and other (o).

Use ls -l to show file and directory permissions.

user permissions	`-`**`rwx`**`rwxrwx`
group permissions	`-rwx`**`rwx`**`rwx`
permissions for all others	`-rwxrwx`**`rwx`**

directory permissions	**d**rwxrwxrwx
Change permissions	chmod ugo+-rwx file1
Add write permissions for group	chmod g+w file1
Remove permissions for other	chmod o-rwx file
for directory and contents	chmod -R o-rwx dir1

Archive and Compression

Create tar archive file	tar -cvf new.tar dir1
List contents of tar file	tar -tvf new.tar
Extract contents of tar file	tar -xvf new.tar
Compress a tar file	gzip new.tar
Expand a compressed file	gunzip new.tar.gz

Edit a file

Use man *editor* for instructions	emacs, nano, gedit, nedit, vi
Edit a file	emacs file1

Searching

Find a pattern in a file	grep pattern file1
Find a patten in command output	cat file1 | grep pattern

Paths and Variables

Set a variable	export VAR1=value
Show a variable	echo $VAR1
Show default path	echo $PATH

Modules

Module files set paths, library paths and variables for specific software applications. Not part of default Linux OS.	
Show all available modules	module avail
Show modules for specific application	module avail module-name
Show details of a module	module show module-name
Load a module	module load module-name

List loaded modules	module list
Unload a module	module unload module-name

Disk Space

Show home directory quota	iquota
Show projects directory quota	iquota -g group
Show space usage	du -s —h
Show filesystem space	df -h

System Information

Show current data and time	date
Show uptime and load	uptime
Display active processes	top
Show processes	ps -f -u UBITusername
Kill a processes (pid is process id)	kill pid
Force the process to terminate	kill -9 pid
Show Linux kernel information	uname -a
Show processor information	cat /proc/cpuinfo
Show memory information	cat /proc/meminfo
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