

Advanced Linux Reference Sheet (Author: Jack L. Watkin)

Korn Shell metacharacters	
#	Start of a comment
;	Command separator
~	Home directory
*	match any characters; alone expands to all files in current directory
?	Match any single character
	Pipe or logical "or" between patterns
\	Escapes next character Allows for commands to be split across lines
'...'	Protect from shell interpretation (all characters)
"..."	Protect from shell interpretation Except: \$, \, "...", \$(...), or '...'

Kernel metacharacters	
erase (^?)	Deletes previous character
kill (^U)	Deletes entire line
eof (^D)	End of file
intr (^C)	Kills current foreground process
suspend (^Z)	Suspend current foreground process
stop (^S)	Stop all terminal output
start (^Q)	Start all terminal output
lnext (^V)	Literal next, Escapes special meaning of following kernel metacharacter
stty -a	Displays current kernel metacharacter
tset	Initialize terminal

File Permissions	
r read	view and copy access
w write	modify and erase access
x execute	Execute and <code>cd</code> (directories) access
chmod	Change the permissions of a file
chgrp	Change the group ownership of a file
File Permissions	[rwx][rwx][rwx] (usr)(grp)(oth)
Octal Bits	Permission Off/On - 0/1 11111000 = 770
Examples	<code>chmod 770 file.txt</code> <code>chgrp cps444 file.txt</code>

grep - Search utility	
grep	<code><flags> <pattern> <file></code>
format	grep searches a file, directory, or stdin for a specified pattern, prints lines that match.
-E	Use extended regular expressions in match
-v	Print everything not matched
-r	Search directory (and all subdirectories)

find - searching utility	
find	<code><dir> <flags> <expr></code>
format	Search for files in a directory or hierarchy
-type	Flag for file type d - directory f - file
-name	Flag for file name
-exec	Flag for exec a programming on the output
Example	<code>find \ -name '*.txt' -exec rm {}</code> -Remove all .txt files in the home directory

sed - Stream Editor	
sed	<code><flags> <code> <file></code>
format	sed will read from stdin if no files are provided
-n	Suppress printing of the pattern space
-r	Use extended regular expressions
<code> format	<code> can either be a script file or a string of the containing commands
<addr> format	Location on stream to edit <m>, <n> - Lines <m> to <n> Address is optional (global when not specified)
Search and Replace	<code><addr>s/regex/replace/</code> -replace matches to regex with replace
Delete	<code>/regex/<addr>d</code> -Delete lines containing regex.
Print	<code>/regex/<addr>p</code> -Print lines containing regex.

Filter Utilities	
tr	Translate or delete characters from stdin, writing to standard output.
sort	Sort lines of text in a file or from stdin (style of sort can be changed with flags), writing to standard out
uniq	Filter out adjacent duplicate lines text in a file or from stdin, writing to standard out
join	Join lines of two files on a common field
cut	Remove sections from each line of files
paste	Merge lines of files
awk	Handles column data