

Dal MSCS Unix Reference Card

Logging In

Type your **username** to the system login prompt.
Type your **password** to the system password prompt.

Logging Out

Type **logout**, or **exit**.

Change Password

Type **passwd**, and answer the system prompts for old password, new password, and verification of new password.

Help

help on a certain subject	man -k subject
help on a certain command	man command
online information	info

Files

The characters **?** and ***** are used for pattern matching. A **?** matches any single character, and a ***** matches an arbitrary number of characters.

Creating

create file **see Editing**

Removing/Renaming/Moving/Copying

remove file	rm filename
rename file	mv filename newname
move file to another directory	mv filename dirname
copy file to another filename	cp filename newfile
copy file to another directory	cp filename dirname

Listing

list file(s)	ls filename(s)
list files sorted by time of last modification	ls -t filenames

Directories

Like filenames, directories use **?** and ***** as pattern matching characters (see *Files*). The current directory and parent directory, are named **.** and **..** respectively.

Creating/Traversing

create/make a directory	mkdir dirname
change directory to home directory	cd
change directory to parent directory	cd ..
change directory to another directory	cd dirname
print working directory	pwd

Removing/Renaming/Moving/Copying

remove empty directory	rmdir dirname
remove directory and contents	rm -r dirname
rename directory, or move directory to another directory	mv dirname newdir
copy directory and contents to another directory	cp -r dirname dir

Listing

list current directory contents	ls
list directory contents	ls dirname
list directory contents sorted by time of last modification	ls -t dirname

I/O Redirection

The standard input/output/error of a command, normally associated with the terminal, may be redirected by appending one the following to the command line:

open file as standard input	<filename
open file as standard output	>filename
open file as standard output and standard error	>&filename
append standard output to file	>>filename
append standard output and standard error to file	>>&filename
pipe standard output of command1 to standard input of command2	cmd1 cmd2

Editing

create/edit file - visual editor	vi filename
create/edit file - emacs editor	emacs filename
create/edit file - line editor	ex filename

Printing

print text file on screen	more filename
print text file on line printer	lpr filename
print text file on laser printer	lpw filename
print tex document on laser printer	lpw -d filename
print troff document on laser printer	lwtroff filename

Formatting Documents

format a tex document	tex filename
format a latex document	latex filename
format and print a troff document	lwtroff filename
format a nroff document	nroff filename

T_EX and **l_AT_EX** files must have **.tex** as a filename extension.
T_EX and **l_AT_EX** produce files with **.dvi** as a filename extension.

Electronic Mail

read mail	mail
send mail to some address	mail address
mail a file to some address	mail address <file

When sending mail: type your message and then enter a **.** or **<ctrl>d** on a line by itself to send it.

News

read news	rn
post news	Pnews

Languages and Compilers

compile C language source file	cc filename
compile Fortran language source file	f77 filename
compile Pascal language source file	pc filename
run Common Lisp interpreter	cl
Awk pattern scanning and processing language	awk -f programfile
S statistical programming language	S

C, Fortran, and Pascal source files must have the extensions **.c**, **.f**, and **.p** respectively.

Commands

calculator	bc
monthly calendar	cal month year
yearly calendar	cal year
current date and time	date
show differences between two files	diff file1 file2
display information about a user	finger username
file transfers to/from a remote host	ftp hostname
find lines matching a specific string	grep string file(s)
find lines not matching a specific string	grep -v string file(s)
show the first num lines of filename	head -num filename
view online manual pages	man command
login to a remote unix host	rlogin hostname
execute a command on a remote unix host	rsh host command
spelling checker	spell filename
show the last num lines of filename	tail -num filename
talk to another user	talk username
connect to a remote host	telnet hostname
display information on the top CPU processes	top
show how long the system has been up	uptime
display number of lines, words, and character in a file	wc filename
show who is on the system	who

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November 1989 v1.0

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Vi Reference Card

Starting Vi

edit an empty buffer **vi**
edit a file **vi filename**

Leaving Vi

write buffer to file **:w**
write buffer to file **filename** **:w filename**
quit **:q**
quit discarding changes **:q!**
write changes and quit **:wq**
write changes and quit **ZZ**

Special Notes

Use the escape key, **<esc>**, to leave insert mode or to cancel an incomplete command.

If a command doesn't work, try hitting **<esc>** and entering the command again.

Motion commands

move up one line **k**
move down one line **j**
move left one character **h**
move right one character **l**
scroll up one line **<ctrl>y**
scroll down one line **<ctrl>e**
scroll up (default is a half page) **<ctrl>u**
scroll down (default is a half page) **<ctrl>d**
show next page page **<ctrl>f**
show previous page page **<ctrl>b**
move to beginning of next line **+**
move to beginning of previous line **-**
move to beginning of first screen line **H**
move to middle line of screen **M**
move to last line of screen **L**
move to the **n**th line **nG**
move to the **n**th line **:n**
move to the next occurrence of **c** on the current line **f c**
move to the character in front of the next occurrence of **c** on the current line **t c**
move forward to the next word **w**
move forward to the end of the next word **e**
move backward to the previous word **b**

All commands except **M**, **nG**, and **:n** can be preceded by an integer to indicate the distance to move.

Text entering commands

append text at end of line **A**
append text after cursor **a**
insert text at beginning of line **I**
insert text before cursor **i**
open a new line above cursor **O**
open a new line below cursor **o**

All commands must be terminated with an **<esc>** after the text has been entered.

Text deletion commands

delete character left of cursor **X**
delete character under cursor **x**
delete rest of word **dw**
delete rest of sentence **d)**
delete rest of paragraph **d}**
delete to beginning of current line **d^**
delete to end of current line **d\$**
delete line containing cursor **dd**
delete the current line upto and including **c** **dfc**
delete the current line upto **c** **dtc**

All commands can be preceded by an integer to indicate the number of characters, words, lines etc. to be deleted.

Text alteration commands

replace text **R**
replace character with **c** **rc**
transpose two characters **xp**
join the next line to the end of the current line **J**
undo last change **u**
undo last change to current line **U**
change rest of word **cw**
change rest of sentence **c)**
change rest of paragraph **c}**

The commands **R**, **cw**, **c)** and **c}** must be terminated with an **<esc>** after the new text has been entered. All commands, except **xp**, **u**, and **U**, can be preceded by an integer to indicate the amount of alteration to perform.

Text moving commands

yank a copy of the current line and place it in a buffer **yy**
put the last item yanked or deleted before the cursor **P**
put the last item yanked or deleted after the cursor **p**
yank a copy of the current line and place it in buffer **c** **"cY**
put contents of buffer **c** on a new line above the cursor **"cP**
put contents of buffer **c** on a new line below the cursor **"cp**

The commands **Y** and **"cY** can be preceded by an integer to indicate the number of lines to copy.

Search Commands

search forward for pattern **/pattern/**
search forward for pattern **/pattern/**
search backward for pattern **?pattern?**
search backward for pattern **?pattern?**
delete the next line containing **pat1** **:/pat1/d**
substitute the next occurrence of **pat1** with **pat2** **:/pat1/s/pat1/pat2**
repeat the last search **n**
repeat the last search in opposite direction **N**

Global parameter

substitute **pat2** for **pat1** **:/pat1/s/pat1/pat2**
delete all occurrences of **pat1** **:/pat1/d**
print all occurrences of **pat1** **:/pat1/p**

Addresses

the **n**th line **n**
lines **n** through **k** **n,k**
the current line **.**
the last line **\$**
n lines after the current line **+n**
n lines before the current line **-n**
the last **n+1** lines **-\$-n,\$**

Instructions

delete lines **n** through **k** **:n,k d**
copy lines **n** through **k** after line **j** **:n,k co j**
move lines **n** through **k** after line **j** **:n,k mo j**
substitute first occurrence of **pat1** with **pat2** on the last 8 lines **:\$-8,\$ s/pat1/pat2/**

Miscellaneous

read file **filename** into the buffer after the current line **:r filename**
read the output of command **cmd** into the buffer after the current line **:r !cmd**
write the buffer to file **filename** replacing its previous contents **:w! filename**
write the buffer to the end of file **filename** **:w >> filename**
turn on line numbering **:set number**
turn off line numbering **:set nonumber**
turn on auto indenting **:set autoindent**
turn off auto indenting **:set noautoindent**

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January 1994 v1.1

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