

Summary of UNIX commands

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This is a summary of UNIX commands available on most UNIX systems. Depending on the configuration, some of the commands may be unavailable on your site. These commands may be a commercial program, freeware or public domain program that must be installed separately, or probably just not in your search path. Check your local documentation or manual pages for more details (e.g. man programname).

This reference card, obviously, cannot describe all UNIX commands in details, but instead I picked commands that are useful and interesting from a user's point of view.

Most of the commands described in this reference card are explained in my UNIX and Internet book which is written in "Bahasa Indonesia" (Indonesian language.)

Rahardjo, Budi (1994), *Buku Pegangan Sistem Unix dan Internet* Bellingham, WA: OpenPathways, xiv+251pp. Comb-bound, ISBN 1-885130-11-2.

This book is available only by mail order. Send inquiry to Marina Schneider
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Conventions

bold

represents program name

dirname

represents directory name as an argument

filename

represents file name as an argument

[dirname]

optional directory name (or other optional argument) as argument. If it is no given, current directory will be used.

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1. Directory and file commands

bdf

display disk space (HP-UX). See also **df**.

cat filename

display the content of file *filename*

cd [dirname]

change directory to *dirname*. If *dirname* is omitted, change to your home directory.

cp source destination

copy file *source* into file *destination*

df [dirname]

display free disk space. If *dirname* is omitted, display all available disks. The output maybe in blocks or in Kbytes. Use **df -k** in Solaris 2.x

dtree

(visually) display directory structure

du [dirname]

display disk usage.

less *filename*
display *filename* one screenful. A pager similar to (better than) more.

ls [*dirname*]
list the content of directory *dirname*. Options:
-a display hidden files
-l display in long format

mkdir *dirname*
make directory *dirname*

more *filename*
view file *filename* one screenfull at a time

mv *oldname newname*
rename file *oldname* to file *newname*. If *newname* is a directory, then move *oldname* into directory *newname*.

pg *filename*
view *filename* one screenfull at a time (a pager).

pwd
print working directory

rmdir *dirname*
remove directory *dirname* (if *dirname* is empty).

rm *file1 [file2 ...]*
remove files *file1*, *file2*, etc.

rm -r *dirname*

remove *dirname* recursively, removing all files and subdirectories underneath *dirname*.

xless
an X window pager (named after less)

2. Print-related commands

lp
print a file (HP-UX, Solaris 2.x)

lpq [-P*printername*]
query printer queue of the default printer. If *printername* is given, will query printer *printername*. (BSD, SunOS, Linux)

lpr [-P*printername*] *filename*
print *filename* (send *filename* to the default printer). If *printername* is given, will send to *filename* to *printername*. (BSD, SunOS, Linux)

lprm [-P*printername*] *jobnum*
remove printing job number *jobnum* from printer *printername*. (BSD, SunOS, Linux)

lpstat
check printer status (HP-UX, Solaris 2.x)

3. Miscellaneous commands

env
print or alter environment variables

hostname
display host name

man *topic*
display on-line manual on *topic*.

screen
create multiple screen with one physical screen. This program is useful if you have a text-only (e.g. vt100) terminal. Move around with *control-A*.

uname
print system name

users
display all users on-line

w
check who is doing what

which *commandname*
show the location of *commandname*

who
who is on-line on this machine

4. Process management

kill *SIGNAL PID*
Send signal *SIGNAL* to process ID *PID*, or kill (terminate) process with process ID number *PID*. For example:
kill -HUP 5555

nice *programname*
run program *programname* with lower priority (nicer to other users).

ps Recommended for running background processes.

ps check processes. The options for this command depends on the version and variation of your UNIX. Check your local documentation.

top show (continuously) what process(es) is running.

5. File archive and compression

compress filename
make *filename* smaller (compression). *filename* will be replaced by *filename.Z* (a .Z extension is added).

gunzip filename.gz
expand *filename.gz* into its original form (size) and remove the .gz extension. This is GNU unzip.

gzip filename
compress *filename* with GNU zip (gzip) and add .gz extension

mt magnetic tape control program.

tar combine files into one tar file, or extract files from a tar file. A tar file could be a device (magnetic tape as /dev/rst0) or a plain file.
To extract *filename.tar*
tar xvf filename.tar

To combine all files under *dirname* into *filename.tar*:
tar cvf filename.tar dirname

uncompress filename.Z
expand *filename.Z* into its original size and remove the .Z extension

unarj filename.arj
extract files from an ARJ archive

unzip filename.zip
extract files from *filename.zip*. The reverse of zip command.

zip zipname files
create an archive file (and compress it) called *zipname.zip* which contains *files*.

MTOOLS

There is a set of commands to access MS-DOS disks on systems equipped with floppy disk. Most DOS file commands are available (prefixed with "m"): **mcoppy**, **mdel**, **mdir**, **mmd**, **mtype**, etc.

6. Text editors

asWedit
HTML editor

axe
a simple X window text editor

ee
easy edit: emacs with a help menu

elvis
a vi clone

emacs
start emacs. A more extensive documentation is available on-line. Reference card for GNU emacs is also available from FSF GNU emacs distribution.

jed
jed text editor

joe [filename]
a WordStar-like editor

nedit
a Motif-based text editor

pico
a simple text editor distributed as part of **pine**

sqhm
SoftQuad's HoTMetaL HTML editor.

textedit [filename]
OpenWindow's text editor

vi [filename]
vi editor

vile [filename]
a vi-clone

vim [filename]
a vi-clone

xcoral
a multiwindow X window text editor that can be used to browse C functions and C++ classes.

xedit
a simple X window text editor

xemacs
X window Emacs (formerly Lucid Emacs)

7. Mail Programs

biff
notify new mail has arrived

elm
read and/or compose e-mail.

fastmail
quick batch mail (part of Elm)

from
list senders of mails in your mailbox

frm [*foldername*]
similar to **from**, but has a better output. If *foldername* is present, it will list senders in folder *foldername* instead your incoming mailbox. This program is distributed as part of the **elm** package.

mail [*userid*]
read mail. If *userid* is given in the command line, it will be used in compose mode. After done, mail will be sent to *userid*

mailtool
OpenWindows mail program

mush
mail user shell. Similar to **mail**, but has a better user interface.

newmail

notify new mail has arrived (part of **elm** package)

pine
mail reader and composer.

xwafemail
X window interface of mail written in **wafe+perl**.

There are also other e-mail packages, such as MH, which come with their own commands. For example, MH has the following commands (and more):

inc
incorporate mail into inbox folder.

scan
scan mailbox/folder

show
show current selected e-mail.

emacs, for example has its own mail reader **M-x rmail** and also **M-x mh**, within emacs window.

8. Usenet news

knews
interactive X window-based news reader

nn
read news with **nn** (NoNews is good news.) Can be used to read through NNTP or spool.

nntidy
cleanup or tidy your .newsrsrc

rn
read news with **rn**.

slrn
NNTP-based newsreader (can display color ANSI).

tin
newsreader

trn
threaded **rn** newsreader

xrn
X window-based news reader

xvnews
Xview-based newsreader

xwafenews
X window-based newsreader written in wafe+perl

9. File transfer and remote access

bftp
batch FTP

ftp *hostname*
Using the **ftp** program to perform FTP to/from host *hostname*.

ftptool
X-window (xview) based FTP program

kermit

send or receive files with kermi
 protovol.
kermi -s filename
 to send filename
kermi -r filename
 to receive filename

minicom
 communication package similar to
 Procomm

ncftp hostname
 a user-friendly FTP program

rlogin hostname [-l userid]
 remote login to host *hostname*. If *-l*
userid is given, will login as *userid*

rsh hostname
 remote shell to host *hostname*

rz
 receive (upload) files with zmodem

seyon
 X window communication package

sz [-r] files
 send (download) files with zmodem

telnet hostname [portnum]
 connect to *hostname* with telnet. If
portnum is specified, connect to port
portnum. (Usually *portnum* is
 required if you want to connect to
 various services such as IRC or
 MUD.)

xc
 xcomm communication package

xftp

X-window interface to FTP

10. X window

openwin
 start OpenWindows

startx
 start X window

Window manager

The following programs (window managers)
 are usually started when you type **openwin**
 or **startx**. It is usually in your .xinitrc file.

fvwm
 feeble window manager

mwm
 Motif window manager

olvwm
 OpenLook virtual window manager

olwm
 OpenLook window manager

twm
 tab window manager

X window programs

filemgr
 OpenWindows file manager

oclock
 display clock

xcalc

calculator

xclock
 display clock

xfm
 file manager

xlock
 lock your screen

xodo
 odometer, track the distance your
 mouse travel

xterm
 a terminal or shell session

11. Graph, Plot, and Image Processing Tools

coreldraw
 start CorelDraw (commercial
 drawing program)

corelpaint
 start Corel Paint program (a
 commercial painting program)

ghostview
 a front-end of ghostscript (**gs**).

giftrans
 converts GIF image to transparant
 GIF.

gimp
 image processing tool/drawing
 program with filters (plug-ins) to
 manipulate image.

gnuplot	a freeware plotting program capable of plotting 2D and 3D plots. It supports a wide variety of output formats.	xgraph	a simple X window graphing program able to produce a bar graph.	hytelnet	access various libraries on the Internet
gs	Ghostscript, a PostScript previewer. It can also be used to convert PostScript into other graphic formats.	xloadimage <i>filename</i>	image previewer	lynx	a text-based WWW-browser
pageview	preview PostScript file	xpaint [<i>filename</i>]	X window painting program, understands various image format including GIF	Mosaic	NCSA X window WWW-browser
ps2epsi <i>file.ps</i> [<i>file.epsi</i>]	create Adobe's Encapsulated PostScript Interchange (EPSI) format from a postscript file.	xv [<i>files</i>]	image previewer and manipulation tools for X window. It supports various formats, including GIF, BMP, TIFF, and PostScript.	netscape	a WWW browser (X window) with a built in threaded newsreader
psselect <i>infile</i> [<i>outfile</i>]	select pages from a PostScript file.	12. Information Systems			
pstoedit	converts PostScript to tgif format for editing	archie	search the Archie database for anonymous FTP sites	swais	a text-based WAIS client
rplot	plot 2-D data	arena	X-window WWW-browser which understands HTML 3.0.	tkwww	Tk-based WWW browser
sxpm	show an XPM (X Pixmap) image.	chimera	X-window WWW-browser	willow	a library, Z39.50 and WWW browser
tgif	an X window drawing tool. It can produce various output formats, including PostScript.	gopher	a Gopher client	xarchie	X-window interface of archie
xfig	an X window drawing tool capable of producing fig output	hotjava	WWW browser that understands Java language	xgopher	X-window gopher client
		hypermail	converts mail into HTML	xmosaic	X-window WWW-browser
				xwais	X-window WAIS client
				13. Networking programs	
				finger	<i>userid@hostname</i>

check information of <i>userid</i> at host <i>hostname</i>	write to <i>userid</i> screen/session	X window interface to dbx
host <i>domainname</i> find information about <i>domainname</i> , such as its MX record or IP address	zlocate <i>userid</i> use Zyper to locate <i>userid</i> (where or which machine the user logs on)	f77 FORTRAN compiler
irc Internet Relay Chat, a multi-user chat. Beware, addictive!	zwrite <i>userid</i> send a personal message to <i>userid</i> through zypher.	flex GNU implementation of lex
lpmudr an LP MUD client. Beware, addictive!	14. Programming tools and shells	g77 GNU Fortran compiler
nslookup query information about a specific host through a domain name server. For example you can find IP address of a machine, MX record of a domain.	acc [<i>files</i>] Sun's ANSI C compiler	g++ GNU C++ compiler
ping <i>hostname</i> check if host <i>hostname</i> is alive	bash Born again shell. Ash clone, but better	gawk GNU awk
rup [<i>hostname</i>] show status of local machines. Of <i>hostname</i> is given, only check that <i>hostname</i>	bison a GNU implementation of yacc	gcc GNU C compiler
talk <i>useri@hostname</i> talk to <i>userid</i> at host <i>hostname</i>	byacc Berkeley yacc	gcl GNU Common Lisp
tf Tiny Fugue, a MUD client	cc C compiler	gdb GNU debugger
traceroute <i>hostname</i> tracing IP packet from this host to <i>hostname</i>	CC Sun's C++ compiler	gofer a Haskell implementation
write <i>userid</i>	cpp C language preprocessor	grep <i>pattern file(s)</i> search for a string, pattern, or regular expression in file(s)
	cs C-shell	imake C preprocessor interface to the make command. Usually it uses file Imakefile .
	dbx a debugger program	kcl Kyoto Common Lisp
	dbxtool	ksh Korn shell

lex	lexical analyzer generator	tcsh	Tcl shell, a Tcl interpreter	GNU troff
lint	verify a C program	tcsh	tcshell, a csh compatible shell but better	gxditview display gtroff output files under X window.
m4	macro language processor	tgrind	reformat source code to make it pretty for printout	ispell <i>filename</i> interactive spelling program
make	maintain, update, compile, and regenerate related files by a set of rules defined in file Makefile .	wish	a simple windowing shell, a tk/tcl implementation	latex <i>filename.tex</i> process <i>filename.tex</i> with LaTeX and generate <i>filename.dvi</i> (a DVI file)
nm	print name list of object file	xcl	ANSI C compiler for AIX	lout a layout or typesetting program
pc	pascal compiler	yacc	parsing program generator. Generate C code from a grammar	mp format text, mail, news into a nice PostScript output.
perl	<i>Practical Extraction and Reporting Language</i> , a powerful programming and scripting language	zsh	Z shell	nroff <i>filename</i> process <i>filename</i> with nroff
prolog	a Prolog system	15. Text processors, typesetters, and previewers		
rcs	resource / version control	a2ps	converts ASCII to PostScript	psnup manipulate PostScript file to have <i>n</i> pages on one side
sccs	source code control system	grodvi	convert troff to TeX DVI	pstops manipulate PostScript files to produce 2-up, 4-up, booklet, rotate and many other functions.
sed	stream editor	groff	GNU *roff	spell <i>filename</i> spell the contents of <i>filename</i>
sh	Bourne shell	grops	convert troff to PostScript	tex <i>filename.tex</i> TeX document processing and typesetting.
sml	New Jersey Standard ML	gtroff		troff <i>filename</i> process <i>filename</i> with troff

xdvi *filename.dvi*
preview DVI file (*filename.dvi*)

xtex *filename.dvi*
preview *filename.dvi*

16. Wordprocessors

ez
Andrew Toolkit wordprocessor
(free).

imaker
start an international version of
FrameMaker

maker
start FrameMaker

tps
start Interleaf

wp
start Word Perfect

17. Spreadsheets

oleo
GNU spreadsheet

sc
spreadsheet calculator

xspread
X window version of **sc**

18. Databases

isql
connect to Sybase server

jinx
a curses, perl-based database

sybperl
access Sybase server with **perl**
(script).

dbf1st, **dbfget**, **dbfadd**, **dbfdel**, **dbfpack**, **dbfcreat**,
dbfscan
DBF package to access DBF-format
file (usually generated by xbase
program), developed by Brad Eacker
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