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 unfortunately is written in 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
mschneid@prairienet.org

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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.

find *pathname expression*
find files based on name or other characteristics expressed in the expression. The description of the expression is too long to explain in this reference card. Example, to find files that have .Z extension in current directory and its sub-directories:
`find . -name \*.Z -print`

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 atime (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).

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

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

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

lpstat
check printer status (HP-UX, Solaris)

3. Miscellaneous commands

arch
display the architecture of current machine.

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
display the name, version of the operating system of current machine/

w
check who is doing what

who
who is on-line on this machine

4. Process management

kill *SIGNUM PID*
Send signal *SIGNUM* to process ID *PID*, or kill (terminate) process with process ID number *PID*.

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

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Recommended for running background processes.

ps
check processes. This command depends on the version and variation of your UNIX. Check 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*
exteract 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**"): mcopy, mdel, mdir, mmd, mtype,** etc.

6. Text editors

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

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7. Mail Programs

biff
notify new mail has arrived

elm
read and/or compose e-mail.

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

nn
read news with **nn** (NoNews is good news).

rn
read news with **rn**.

nntidy
cleanup or tidy your .newsrc

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** prgram to perform FTP to/from host *hostname*.

ftptool
X-window (xview) based FTP prgram

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

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*

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rz
receive (upload) files with zmodem

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.)

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

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

gnuplot
a freeware plotting program capable of plotting 2D and 3D plots. It supports a wide variety of output formats.

gs
Ghostscript, a PostScript previewer. It can also be used to convert PostScript into other graphic formats.

pageview
preview PostScript file

ps2epsi *file.ps [file.epsi]*
create Adobe's Encapsulated PostScript Interchange (EPSI) format from a postscript file.

psselect *infile [outfile]*
select pages from a PostScript file.

rplot
plot 2-D data

sxpm
show an XPM (X Pixmap) image.

tgif
an X window drawing tool. It can produce various output formats, including PostScript.

xfig
an X window drawing tool capable of producing fig output

xgraph

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a simple X window graphing program able to produce a bar graph.

xloadimage *filename*
image previewer

xpaint *[filename]*
X window painting program, undrestands various image format including GIF

xv *[files]*
image previewer and manipulation tools for X window. It supports various formats, including GIF, BMP, TIFF, and PostScript.

PBMPLUS
Portable bitmap toolkit. This is a collection of programs that can be used to convert image from one format to another format.

12. Information Systems

archie
search the Archie database for anonymous FTP sites

arena
X-window WWW-broser

gopher
a Gopher client

hytelnet
access various libraries on the Internet

lynx
a text-based WWW-browser

netscape
a WWW browser (X window) with a built in threaded newsreader

sgopher
a simple Gopher client, supports dumb terminal

swais
a text-based WAIS client

willow
a library, Z39.50 and WWW browser

xarchie
X-window interface of **archie**

xgopher
X-window gopher client

xmosaic
X-window WWW-browser

xwais
X-window WAIS client

13. Networking programs

finger *userid@hostname*
check information of *userid* at host *hostname*

irc
Internet Relay Chat, a multi-user chat. Beware, addictive.

lpmudr
an LP MUD client

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.

ping *hostname*
check if host *hostname* is alive

rup *[hostname]*
show status of local machines. Of *hostname* is given, only check that *hostname*

talk *useri@hostname*
talk to *userid* at host *hostname*

tf
Tiny Fugue, a MUD client

traceroute *hostname*
tracing IP packet from this host to *hostname*

write *userid*
write to *userid* screen/session

zlocate *userid*
use Zypher to locate userid (where or which machine the user logs on)

zwrite *userid*
send a personal message to *userid* through zypher.

14. Programming tools and shells

acc *[files]*
Sun's ANSI C compiler

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bash
Born again shell. A **sh** clone, but better.

bison
a GNU implementation of **yacc**

cc
C compiler

CC
Sun's C++ compiler

cpp
C language preprocessor

csh
C-shell

dbx
a debugger program

dbxtool
X window interface to **dbx**

f77
FORTRAN compiler

flex
GNU implementation of lex

g++
GNU C++ compiler

gawk
GNU **awk**

gcc
GNU C compiler

gdb
GNU debugger

gofer
a Haskell implementation

grep *pattern file(s)*
search for a string, pattern, or regular expression in file(s)

imake
C preprocessor interface to the **make** command. Usually it uses file **Imakefile**.

kcl
Kyoto Common Lisp

ksh
Korn shell

lex
lexical analyzer generator

lint
verify a C program

m4
macro language processor

make
maintain, update, compile, and regenerate related files by a set of rules defined in file **Makefile**.

pc
pascal compiler

perl
Practical Extraction and Reporting Language, a powerful programming and scripting language

prolog
a Prolog system

rcs
resource control

sccs
source code control system

sed
stream editor

sh
Bourne shell

sml
New Jersey Standard ML

tclsh
Tcl shell, a Tcl interpreter

tcsh
tcshell, a csh compatible shell but better

wish
a simple windowing shell, a tk/tcl implementation

xcl
ANSI C compiler for AIX

yacc
parsing program generator. Generate C code from a grammar

zsh
Z shell

15. Text processors, typesetters, and previewers

a2ps
converts ASCII to PostScript

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groff
GNU *roff

gtroff
GNU troff

gxditview
display gtroff output files under X window.

latex *filename.tex*
process *filename.tex* with **LaTeX** and generate *filename.dvi* (a DVI file)

lout
a layout or typesetting program

mp
format text, mail, news into a nice PostScript output.

nroff *filename*
process *filename* with **nroff**

pstops
manipulate PostScript files to produce 2-up, 4-up, booklet, rotate and many other functions.

tex *filename.tex*
TeX document processing and typesetting.

troff *filename*
process filename 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

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).

dbflst, **dbfget**, **dbfadd**, **dbfdel**, **dbfpack**, **dbfcreat**, **dbfscan**
DBF package to access DBF-format file (usually generated by xbase program), developed by Brad Eacker <beaker@sgi.com>

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