

Laporan Praktikum 9

Pengantar Open Source dan Aplikasi

“Mendapatkan Bantuan di Linux”



Muhammad Azhar Rasyad

0110217029

Teknik Informatika 1

Sekolah Tinggi Teknologi Terpadu Nurul Fikri
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Modul IX Mendapatkan Bantuan di Linux

A. Tujuan

1. Mampu menggunakan beberapa alat untuk mendapatkan bantuan dari dalam sistem seperti man dan help.
2. Mampu menggunakan fasilitas dari luar sistem untuk mendapatkan bantuan, seperti howto, chatting, media sosial, mailing list, dll.

B. Teori Singkat

Menurut saya teori singkat mengenai modul ini, yaitu :

Untuk mendapatkan bantuan perintah – perintah yang ingin dijalankan pada sebuah terminal di sistem Linux dapat menggunakan perintah help, man dan info.

C. Langkah – langkah Praktikum

1. Menggunakan perintah help

\$ help

Perintah help untuk menampilkan bantuan perintah – perintah shell yang terdapat pada suatu terminal linux tetapi tidak semua perintah dapat dicari bantuannya melalui perintah help ini.

```
mazharrasyad@Mazharrasyad: ~/modul9$ help
GNU bash, version 4.3.48(1)-release (x86_64-pc-linux-gnu)
These shell commands are defined internally.  Type 'help' to see this list.
Type 'help name' to find out more about the function 'name'.
Use 'info bash' to find out more about the shell in general.
Use 'man -k' or 'info' to find out more about commands not in this list.

A star (*) next to a name means that the command is disabled.

job_spec [&]
(( expression ))
. filename [arguments]
:
[ arg... ]
[[ expression ]]
alias [-p] [name[=value] ... ]
bg [job_spec ...]
bind [-lpsvPSVX] [-m keymap] [-f file]
break [n]
builtin [shell-builtin [arg ...]]
caller [expr]
case WORD in [PATTERN [| PATTERN]...)>
cd [-L|[-P [-e]] [-@]] [dir]
command [-pVv] command [arg ...]
compgen [-abdefgjkusv] [-o option] >
complete [-abdefgjkusv] [-pr] [-DE] >
compopt [-o|+o option] [-DE] [name ..>
continue [n]
coproc [NAME] command [redirections]
declare [-aAfFgIlrtux] [-p] [name[=v>
dirs [-clpv] [+N] [-N]
disown [-h] [-ar] [jobspec ...]
echo [-neE] [arg ...]
enable [-a] [-dnps] [-f filename] [na>
eval [arg ...]
exec [-cl] [-a name] [command [argume>
exit [n]
export [-fn] [name[=value] ...] or ex>
false
fc [-e ename] [-lnr] [first] [last] o>
fg [job_spec]
history [-c] [-d offset] [n] or hist>
if COMMANDS; then COMMANDS; [ elif C>
jobs [-lnprs] [jobspec ...] or jobs >
kill [-s sigspec | -n signum | -sigs>
let arg [arg ...]
local [option] name[=value] ...
logout [n]
mapfile [-n count] [-O origin] [-s c>
popd [-n] [+N | -N]
printf [-v var] format [arguments]
pushd [-n] [+N | -N | dir]
pwd [-LP]
read [-ers] [-a array] [-d delim] [->
readarray [-n count] [-O origin] [-s>
readonly [-aAf] [name[=value] ...] o>
return [n]
select NAME [in WORDS ... ;] do COMM>
set [-abefhkmnptuvxBCHP] [-o option->
shift [n]
shopt [-pqsu] [-o] [optname ...]
source filename [arguments]
suspend [-f]
test [expr]
time [-p] pipeline
times
trap [-lp] [[arg] signal_spec ...]
true
type [-afptP] name [name ...]
typeset [-aAfFgIlrtux] [-p] name[=va>
ulimit [-SHabcdefilmnpqrstuvXT] [lim>
umask [-p] [-S] [mode]
unalias [-a] name [name ...]

for NAME [in WORDS ... ] ; do COMMAND>
for (( exp1; exp2; exp3 )); do COMMAN>
function name { COMMANDS ; } or name >
getopts optstring name [arg]
hash [-lr] [-p pathname] [-dt] [name >
help [-dms] [pattern ...]
mazharrasyad@Mazharrasyad:~/modul9$
```

\$ help set

Menampilkan bantuan yang ada dari perintah set dengan perintah help namun tidak semuanya dijelaskan pada perintah help hanya dasar – dasarnya saja.

```
mazharrasyad@mazharrasyad: ~/modul9
mazharrasyad@mazharrasyad:~/modul9$ help set
set: set [-abefhkmnptuvxBCHP] [-o option-name] [--] [arg ...]
    Set or unset values of shell options and positional parameters.

Change the value of shell attributes and positional parameters, or
display the names and values of shell variables.

Options:
  -a  Mark variables which are modified or created for export.
  -b  Notify of job termination immediately.
  -e  Exit immediately if a command exits with a non-zero status.
  -f  Disable file name generation (globbing).
  -h  Remember the location of commands as they are looked up.
  -k  All assignment arguments are placed in the environment for a
      command, not just those that precede the command name.
  -m  Job control is enabled.
  -n  Read commands but do not execute them.
  -o option-name
      Set the variable corresponding to option-name:
          allexport      same as -a
          braceexpand    same as -B
          emacs          use an emacs-style line editing interface
          errexit        same as -e
          errtrace       same as -E
          functrace      same as -T
          hashall        same as -h
          histexpand     same as -H
          history        enable command history
          ignoreeof      the shell will not exit upon reading EOF
          interactive-comments
                          allow comments to appear in interactive commands
          keyword        same as -k
          monitor        same as -m
          noclobber      same as -C
          noexec         same as -n
          noglob         same as -f
          nolog          currently accepted but ignored
          notify         same as -b
          nounset        same as -u
          onecmd         same as -t
          physical       same as -P
```

pipefail	the return value of a pipeline is the status of the last command to exit with a non-zero status, or zero if no command exited with a non-zero status
posix	change the behavior of bash where the default operation differs from the Posix standard to match the standard
privileged	same as -p
verbose	same as -v
vi	use a vi-style line editing interface
xtrace	same as -x

- p Turned on whenever the real and effective user ids do not match. Disables processing of the \$ENV file and importing of shell functions. Turning this option off causes the effective uid and gid to be set to the real uid and gid.
- t Exit after reading and executing one command.
- u Treat unset variables as an error when substituting.
- v Print shell input lines as they are read.
- x Print commands and their arguments as they are executed.
- B the shell will perform brace expansion
- C If set, disallow existing regular files to be overwritten by redirection of output.
- E If set, the ERR trap is inherited by shell functions.
- H Enable ! style history substitution. This flag is on by default when the shell is interactive.
- P If set, do not resolve symbolic links when executing commands such as cd which change the current directory.
- T If set, the DEBUG trap is inherited by shell functions.
- Assign any remaining arguments to the positional parameters. If there are no remaining arguments, the positional parameters are unset.
- Assign any remaining arguments to the positional parameters. The -x and -v options are turned off.

Using + rather than - causes these flags to be turned off. The flags can also be used upon invocation of the shell. The current set of flags may be found in \$-. The remaining n ARGs are positional parameters and are assigned, in order, to \$1, \$2, .. \$n. If no ARGs are given, all shell variables are printed.

Exit Status:

Returns success unless an invalid option is given.

mazharrasyad@Mazharrasyad:~/modul9\$

2. Menggunakan perintah man

\$ man man

Menampilkan halaman manual dengan spesifikasi NAME, SYNOPSIS, DESCRIPTION, OPTIONS, ARUGEMENTS, FILES, EXAMPLES, SEE ALSO, DIAGNOTICS, COPY RIGHT, BUGS pada sebuah perintah yang dituliskan untuk mencari manual pagenya. Pada perintah diatas akan menampilkan manual page untuk perintah man.

```
mazharrasyad@Mazharrasyad: ~/modul9
MAN(1)                                Manual pager utils                                MAN(1)

NAME
    man - an interface to the on-line reference manuals

SYNOPSIS
    man [-C file] [-d] [-D] [--warnings[=warnings]] [-R encoding] [-L
    locale] [-m system[,...]] [-M path] [-S list] [-e extension] [-i|-I]
    [--regex|--wildcard] [--names-only] [-a] [-u] [--no-subpages] [-P
    pager] [-r prompt] [-7] [-E encoding] [--no-hyphenation] [--no-justifi-
    cation] [-p string] [-t] [-T[device]] [-H[browser]] [-X[dpi]] [-Z
    [[section] page ...] ...
    man -k [apropos options] regexp ...
    man -K [-w|-W] [-S list] [-i|-I] [--regex] [section] term ...
    man -f [whatis options] page ...
    man -l [-C file] [-d] [-D] [--warnings[=warnings]] [-R encoding] [-L
    locale] [-P pager] [-r prompt] [-7] [-E encoding] [-p string] [-t]
    [-T[device]] [-H[browser]] [-X[dpi]] [-Z file] ...
    man -w|-W [-C file] [-d] [-D] page ...
    man -c [-C file] [-d] [-D] page ...
    man [-?V]

DESCRIPTION
    Manual page man(1) line 1/714 5% (press h for help or q to quit)

SEE ALSO
    apropos(1), groff(1), less(1), manpath(1), nroff(1), troff(1),
    whatis(1), zsoelim(1), setlocale(3), manpath(5), ascii(7), latin1(7),
    man(7), catman(8), mandb(8), the man-db package manual, FSSTND

HISTORY
    1990, 1991 - Originally written by John W. Eaton (jwe@che.utexas.edu).

    Dec 23 1992: Rik Faith (faith@cs.unc.edu) applied bug fixes supplied by
    Willem Kasdorp (wkasdo@nikhef.knikhef.nl).

    30th April 1994 - 23rd February 2000: Wilf. (G.Wilford@ee.surrey.ac.uk)
    has been developing and maintaining this package with the help of a few
    dedicated people.

    30th October 1996 - 30th March 2001: Fabrizio Polacco <fpo-
    lacco@debian.org> maintained and enhanced this package for the Debian
    project, with the help of all the community.

    31st March 2001 - present day: Colin Watson <cjwatson@debian.org> is
    now developing and maintaining man-db.

2.7.5                                2015-11-06                                MAN(1)
    Manual page man(1) line 692/714 (END) (press h for help or q to quit)
```

\$ man passwd

Pada perintah diatas akan menampilkan manual page untuk perintah passwd.

```
mazharrasyad@Mazharrasyad: ~/modul9
PASSWD(1)                                User Commands                                PASSWD(1)

NAME
    passwd - change user password

SYNOPSIS
    passwd [options] [LOGIN]

DESCRIPTION
    The passwd command changes passwords for user accounts. A normal user
    may only change the password for his/her own account, while the
    superuser may change the password for any account. passwd also changes
    the account or associated password validity period.

    Password Changes
    The user is first prompted for his/her old password, if one is present.
    This password is then encrypted and compared against the stored
    password. The user has only one chance to enter the correct password.
    The superuser is permitted to bypass this step so that forgotten
    passwords may be changed.

    After the password has been entered, password aging information is
    checked to see if the user is permitted to change the password at this
    Manual page passwd(1) line 1 (press h for help or q to quit)

    1      permission denied
    2      invalid combination of options
    3      unexpected failure, nothing done
    4      unexpected failure, passwd file missing
    5      passwd file busy, try again
    6      invalid argument to option

SEE ALSO
    chpasswd(8), passwd(5), shadow(5), usermod(8).

shadow-utils 4.2                        05/16/2017                                PASSWD(1)
Manual page passwd(1) line 168/190 (END) (press h for help or q to quit)
```


\$ man 5 passwd

Pada perintah diatas akan menampilkan manual page untuk perintah passwd pada section 5 sesuai dengan yang tersedia di perintah passwd.

```
mazharrasyad@Mazharrasyad: ~/modul9
PASSWD(5)                                File Formats and Conversions                                PASSWD(5)

NAME
    passwd - the password file

DESCRIPTION
    /etc/passwd contains one line for each user account, with seven fields
    delimited by colons (":"). These fields are:

    • login name
    • optional encrypted password
    • numerical user ID
    • numerical group ID
    • user name or comment field
    • user home directory
    • optional user command interpreter

Manual page passwd(5) line 1 (press h for help or q to quit)

language interpreter, or the name of the initial program to execute.
The login program uses this information to set the value of the $SHELL
environmental variable. If this field is empty, it defaults to the
value /bin/sh.

FILES
    /etc/passwd
        User account information.

    /etc/shadow
        optional encrypted password file

    /etc/passwd-
        Backup file for /etc/passwd.

    Note that this file is used by the tools of the shadow toolsuite,
    but not by all user and password management tools.

SEE ALSO
    crypt(3), getent(1), getpwnam(3), login(1), passwd(1), pwck(8),
    pwconv(8), pwunconv(8), shadow(5), su(1), sulogin(8).

shadow-utils 4.2                                05/16/2017                                PASSWD(5)
Manual page passwd(5) line 42/64 (END) (press h for help or q to quit)
```


\$ man -k password

Pada perintah diatas akan menampilkan manual page untuk perintah password dengan option -k untuk mencari keyword yang telah ditentukan yaitu password, maka manual pagenya akan menampilkan bantuan untuk mencari perintah untuk password.

```
mazharrasyad@mazharrasyad: ~/modul9
mazharrasyad@mazharrasyad:~/modul9$ man -k password
apg (1) - generates several random passwords
chage (1) - change user password expiry information
chgpaswd (8) - update group passwords in batch mode
chpasswd (8) - update passwords in batch mode
cpgr (8) - copy with locking the given file to the password or gr...
cppw (8) - copy with locking the given file to the password or gr...
cracklib-check (8) - Check passwords using libcrack2
create-cracklib-dict (8) - Check passwords using libcrack2
crypt (3) - password and data encryption
crypt_r (3) - password and data encryption
endpwent (3) - get password file entry
endspent (3) - get shadow password file entry
expiry (1) - check and enforce password expiration policy
fgetpwent (3) - get password file entry
fgetspent (3) - get shadow password file entry
fgetspent_r (3) - get shadow password file entry
getpass (3) - get a password
getpw (3) - reconstruct password line entry
getpwent (3) - get password file entry
getpwnam (3) - get password file entry
getpwnam_r (3) - get password file entry
getpwuid (3) - get password file entry
getpwuid_r (3) - get password file entry
getspent (3) - get shadow password file entry
getspent_r (3) - get shadow password file entry
getspnam (3) - get shadow password file entry
getspnam_r (3) - get shadow password file entry
grpconv (8) - convert to and from shadow passwords and groups
grpunconv (8) - convert to and from shadow passwords and groups
grub-mkpasswd-pbkdf2 (1) - generate hashed password for GRUB
lckpword (3) - get shadow password file entry
login.defs (5) - shadow password suite configuration
pam_pwhistory (8) - PAM module to remember last passwords
pam_unix (8) - Module for traditional password authentication
passwd (1) - change user password
passwd (1ssl) - compute password hashes
passwd (5) - the password file
passwd2des (3) - RFS password encryption
putpwent (3) - write a password file entry
putspent (3) - get shadow password file entry
pwck (8) - verify integrity of password files
pwconv (8) - convert to and from shadow passwords and groups
pwd.h (7posix) - password structure
pwunconv (8) - convert to and from shadow passwords and groups
seahorse (1) - Passwords and Keys
setpwent (3) - get password file entry
setspent (3) - get shadow password file entry
sgetspent (3) - get shadow password file entry
sgetspent_r (3) - get shadow password file entry
shadow (5) - shadowed password file
shadowconfig (8) - toggle shadow passwords on and off
systemd-ask-password (1) - Query the user for a system password
systemd-ask-password-console.path (8) - Query the user for system passwords o...
systemd-ask-password-console.service (8) - Query the user for system passwords...
systemd-ask-password-wall.path (8) - Query the user for system passwords on t...
systemd-ask-password-wall.service (8) - Query the user for system passwords o...
systemd-tty-ask-password-agent (1) - List or process pending systemd password...
ulckpword (3) - get shadow password file entry
unix_chkpwd (8) - Helper binary that verifies the password of the curren...
unix_update (8) - Helper binary that updates the password of a given user
vigr (8) - edit the password, group, shadow-password or shadow-gr...
vipw (8) - edit the password, group, shadow-password or shadow-gr...
xcrypt (3) - RFS password encryption
xdecrypt (3) - RFS password encryption
xencrypt (3) - RFS password encryption
mazharrasyad@mazharrasyad:~/modul9$
```

3. Menggunakan option --help

```
$ ls -help
```

Menampilkan bantuan perintah ls dengan option --help sebagai perintah pendukung bukan perintah utama karena jika perintah help utama kemudian perintah ls pendukungnya maka tidak akan muncul bantuannya.

```
mazharrasyad@Mazharrasyad: ~/modul9
mazharrasyad@Mazharrasyad:~/modul9$ ls --help
Usage: ls [OPTION]... [FILE]...
List information about the FILES (the current directory by default).
Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.

Mandatory arguments to long options are mandatory for short options too.
  -a, --all                        do not ignore entries starting with .
  -A, --almost-all               do not list implied . and ..
      --author                    with -l, print the author of each file
  -b, --escape                    print C-style escapes for nongraphic characters
      --block-size=SIZE          scale sizes by SIZE before printing them; e.g.,
                                '--block-size=M' prints sizes in units of
                                1,048,576 bytes; see SIZE format below
  -B, --ignore-backups            do not list implied entries ending with ~
  -c                              with -lt: sort by, and show, ctime (time of last
                                modification of file status information);
                                with -l: show ctime and sort by name;
                                otherwise: sort by ctime, newest first
  -C                              list entries by columns
      --color[=WHEN]             colorize the output; WHEN can be 'always' (default
                                if omitted), 'auto', or 'never'; more info below
  -d, --directory                list directories themselves, not their contents
  -D, --dired                    generate output designed for Emacs' dired mode
  -f                              do not sort, enable -aU, disable -ls --color
  -F, --classify                 append indicator (one of */=>@|) to entries
      --file-type                likewise, except do not append '*'
      --format=WORD              across -x, commas -m, horizontal -x, long -l,
                                single-column -1, verbose -l, vertical -C
      --full-time                like -l --time-style=full-iso
  -g                              like -l, but do not list owner
      --group-directories-first  group directories before files;
                                can be augmented with a --sort option, but any
                                use of --sort=none (-U) disables grouping
  -G, --no-group                 in a long listing, don't print group names
  -h, --human-readable           with -l and/or -s, print human readable sizes
                                (e.g., 1K 234M 2G)
      --si                       likewise, but use powers of 1000 not 1024
  -H, --dereference-command-line follow symbolic links listed on the command line
      --dereference-command-line-symlink-to-dir follow each command line symbolic link
```

```

        that points to a directory
--hide=PATTERN      do not list implied entries matching shell PATTERN
                    (overridden by -a or -A)
--indicator-style=WORD  append indicator with style WORD to entry names:
                    none (default), slash (-p),
                    file-type (--file-type), classify (-F)
-i, --inode          print the index number of each file
-I, --ignore=PATTERN do not list implied entries matching shell PATTERN
-k, --kibibytes      default to 1024-byte blocks for disk usage
-l                  use a long listing format
-L, --dereference    when showing file information for a symbolic
                    link, show information for the file the link
                    references rather than for the link itself
-m                  fill width with a comma separated list of entries
-n, --numeric-uid-gid like -l, but list numeric user and group IDs
-N, --literal        print raw entry names (don't treat e.g. control
                    characters specially)
-o                  like -l, but do not list group information
-p, --indicator-style=slash  append / indicator to directories
-q, --hide-control-chars  print ? instead of nongraphic characters
--show-control-chars    show nongraphic characters as-is (the default,
                    unless program is 'ls' and output is a terminal)
-Q, --quote-name      enclose entry names in double quotes
--quoting-style=WORD  use quoting style WORD for entry names:
                    literal, locale, shell, shell-always,
                    shell-escape, shell-escape-always, c, escape
-r, --reverse        reverse order while sorting
-R, --recursive      list subdirectories recursively
-s, --size            print the allocated size of each file, in blocks
-S                  sort by file size, largest first
--sort=WORD          sort by WORD instead of name: none (-U), size (-S)
,
                    time (-t), version (-v), extension (-X)
--time=WORD          with -l, show time as WORD instead of default
                    modification time: atime or access or use (-u);
                    ctime or status (-c); also use specified time
                    as sort key if --sort=time (newest first)
--time-style=STYLE  with -l, show times using style STYLE:
                    full-iso, long-iso, iso, locale, or +FORMAT;
                    FORMAT is interpreted like in 'date'; if FORMAT
                    is FORMAT1<newline>FORMAT2, then FORMAT1 applies

```

	to non-recent files and FORMAT2 to recent files;
	if STYLE is prefixed with 'posix-', STYLE
	takes effect only outside the POSIX locale
-t	sort by modification time, newest first
-T, --tabsize=COLS	assume tab stops at each COLS instead of 8
-u	with -lt: sort by, and show, access time;
	with -l: show access time and sort by name;
	otherwise: sort by access time, newest first
-U	do not sort; list entries in directory order
-v	natural sort of (version) numbers within text
-w, --width=COLS	set output width to COLS. 0 means no limit
-x	list entries by lines instead of by columns
-X	sort alphabetically by entry extension
-Z, --context	print any security context of each file
-1	list one file per line. Avoid '\n' with -q or -b
--help	display this help and exit
--version	output version information and exit

The SIZE argument is an integer and optional unit (example: 10K is 10*1024). Units are K,M,G,T,P,E,Z,Y (powers of 1024) or KB,MB,... (powers of 1000).

Using color to distinguish file types is disabled both by default and with --color=never. With --color=auto, ls emits color codes only when standard output is connected to a terminal. The LS_COLORS environment variable can change the settings. Use the dircolors command to set it.

Exit status:

- 0 if OK,
- 1 if minor problems (e.g., cannot access subdirectory),
- 2 if serious trouble (e.g., cannot access command-line argument).

GNU coreutils online help: <<http://www.gnu.org/software/coreutils/>>

Full documentation at: <<http://www.gnu.org/software/coreutils/ls>>

or available locally via: info '(coreutils) ls invocation'

mazharrasyad@mazharrasyad:~/modul9\$

\$ passwd --help

Menampilkan bantuan perintah passwd dengan option --help sebagai perintah pendukung bukan perintah utama karena jika perintah help utama kemudian perintah ls pendukungnya maka tidak akan muncul bantuannya.

```
mazharrasyad@Mazharrasyad: ~/modul9
mazharrasyad@Mazharrasyad:~/modul9$ passwd --help
Usage: passwd [options] [LOGIN]

Options:
  -a, --all                report password status on all accounts
  -d, --delete             delete the password for the named account
  -e, --expire             force expire the password for the named account
  -h, --help              display this help message and exit
  -k, --keep-tokens        change password only if expired
  -i, --inactive INACTIVE set password inactive after expiration
                           to INACTIVE
  -l, --lock               lock the password of the named account
  -n, --mindays MIN_DAYS  set minimum number of days before password
                           change to MIN_DAYS
  -q, --quiet             quiet mode
  -r, --repository REPOSITORY change password in REPOSITORY repository
  -R, --root CHROOT_DIR   directory to chroot into
  -S, --status             report password status on the named account
  -u, --unlock            unlock the password of the named account
  -w, --warndays WARN_DAYS set expiration warning days to WARN_DAYS
  -x, --maxdays MAX_DAYS set maximum number of days before password
                           change to MAX_DAYS

mazharrasyad@Mazharrasyad:~/modul9$
```


\$ useradd --help

Menampilkan bantuan perintah useradd dengan option --help sebagai perintah pendukung bukan perintah utama karena jika perintah help utama kemudian perintah ls pendukungnya maka tidak akan muncul bantuannya.

```
mazharrasyad@Mazharrasyad: ~/modul9
mazharrasyad@Mazharrasyad:~/modul9$ useradd --help
Usage: useradd [options] LOGIN
       useradd -D
       useradd -D [options]

Options:
  -b, --base-dir BASE_DIR      base directory for the home directory of the
                               new account
  -c, --comment COMMENT        GECOS field of the new account
  -d, --home-dir HOME_DIR      home directory of the new account
  -D, --defaults                print or change default useradd configuration
  -e, --expiredate EXPIRE_DATE expiration date of the new account
  -f, --inactive INACTIVE      password inactivity period of the new account
  -g, --gid GROUP              name or ID of the primary group of the new
                               account
  -G, --groups GROUPS          list of supplementary groups of the new
                               account
  -h, --help                   display this help message and exit
  -k, --skel SKEL_DIR          use this alternative skeleton directory
  -K, --key KEY=VALUE          override /etc/login.defs defaults
  -l, --no-log-init            do not add the user to the lastlog and
                               faillog databases
  -m, --create-home            create the user's home directory
  -M, --no-create-home         do not create the user's home directory
  -N, --no-user-group          do not create a group with the same name as
                               the user
  -o, --non-unique             allow to create users with duplicate
                               (non-unique) UID
  -p, --password PASSWORD      encrypted password of the new account
  -r, --system                create a system account
  -R, --root CHROOT_DIR        directory to chroot into
  -s, --shell SHELL            login shell of the new account
  -u, --uid UID                user ID of the new account
  -U, --user-group             create a group with the same name as the user
  -Z, --selinux-user SEUSER    use a specific SEUSER for the SELinux user mapping

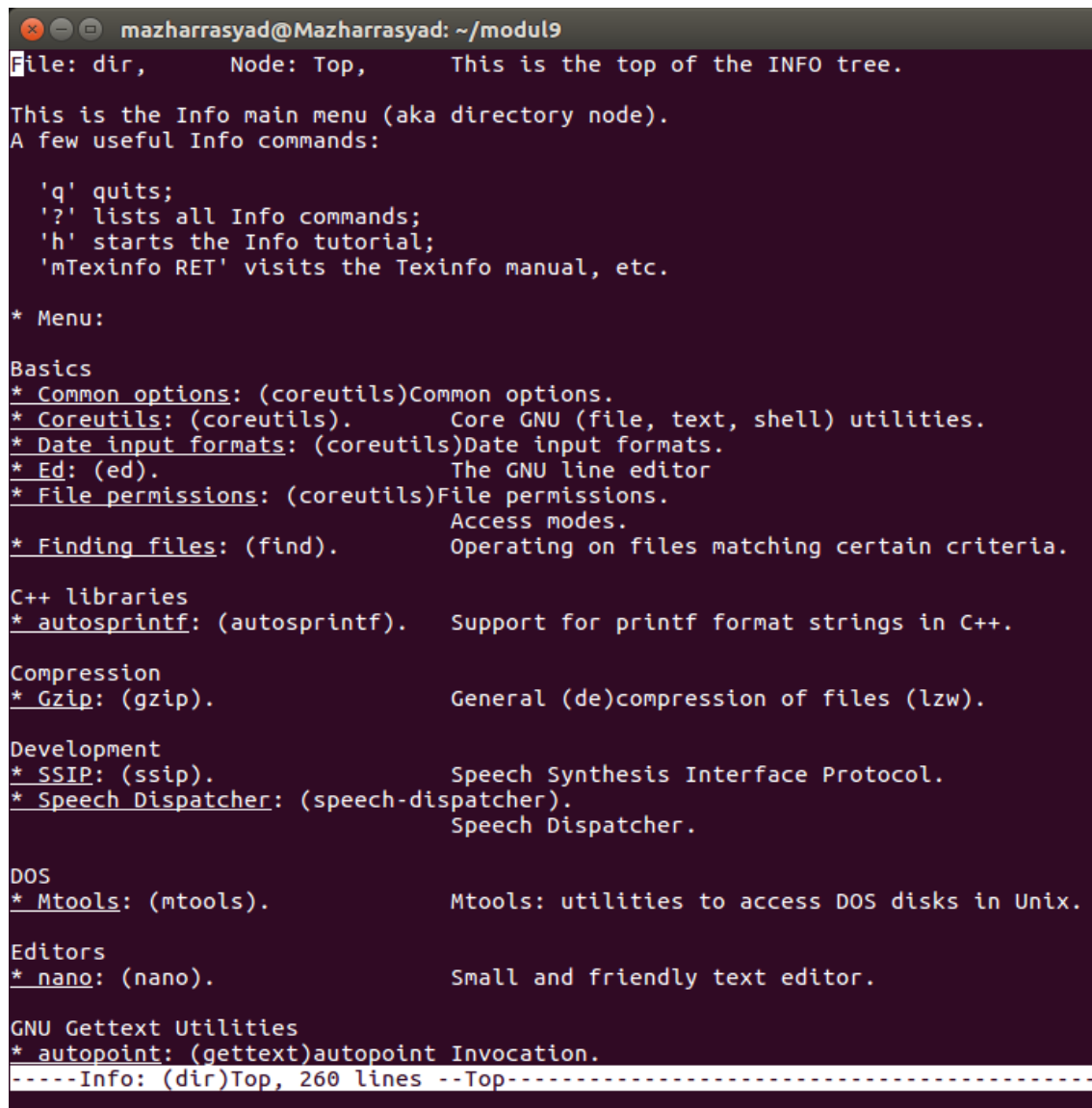
  --extrausers                Use the extra users database

mazharrasyad@Mazharrasyad:~/modul9$
```

4. Menggunakan perintah info

\$ info

Perintah info digunakan untuk menampilkan bantuan dengan lebih kompleks serta berformat hypertext artinya jika halaman info dari suatu perintah telah habis maka halaman info akan berubah menjadi halaman info perintah lain.



```
mazharrasyad@Mazharrasyad: ~/modul9
File: dir,      Node: Top,      This is the top of the INFO tree.

This is the Info main menu (aka directory node).
A few useful Info commands:

  'q' quits;
  '?' lists all Info commands;
  'h' starts the Info tutorial;
  'mTexinfo RET' visits the Texinfo manual, etc.

* Menu:

Basics
* Common options: (coreutils)Common options.
* Coreutils: (coreutils).      Core GNU (file, text, shell) utilities.
* Date input formats: (coreutils)Date input formats.
* Ed: (ed).                    The GNU line editor
* File permissions: (coreutils)File permissions.
                                Access modes.
* Finding files: (find).        Operating on files matching certain criteria.

C++ libraries
* autosprintf: (autosprintf).  Support for printf format strings in C++.

Compression
* Gzip: (gzip).                General (de)compression of files (lzw).

Development
* SSIP: (ssip).                Speech Synthesis Interface Protocol.
* Speech Dispatcher: (speech-dispatcher).
                                Speech Dispatcher.

DOS
* Mtools: (mtools).            Mtools: utilities to access DOS disks in Unix.

Editors
* nano: (nano).                Small and friendly text editor.

GNU Gettext Utilities
* autopoint: (gettext)autopoint Invocation.
-----Info: (dir)Top, 260 lines --Top-----
```



```
* zmore: (gzip)Overview.                                Decompression output by pages.

Kernel
* grub-dev: (grub-dev).                                The GRand Unified Bootloader Dev
* grub-install: (grub)Invoking grub-install.           Install GRUB on your drive
* grub-mkconfig: (grub)Invoking grub-mkconfig.         Generate GRUB configuration
* grub-mkpasswd-pbkdf2: (grub)Invoking grub-mkpasswd-pbkdf2.
* grub-mkrelpath: (grub)Invoking grub-mkrelpath.
* grub-mkrescue: (grub)Invoking grub-mkrescue.         Make a GRUB rescue image
* grub-mount: (grub)Invoking grub-mount.              Mount a file system using GRUB
* grub-probe: (grub)Invoking grub-probe.              Probe device information
* grub-script-check: (grub)Invoking grub-script-check.
* GRUB: (grub).                                       The GRand Unified Bootloader

Libraries
* RLuserman: (rluserman).                             The GNU readline library User's Manual.

Math
* bc: (bc).                                           An arbitrary precision calculator language.
* dc: (dc).                                           Arbitrary precision RPN "Desktop Calculator".

Network applications
* Wget: (wget).                                       Non-interactive network downloader.

Sound
* SSIP: (ssip).                                       Speech Synthesis Interface Protocol.
* Say for Speech Dispatcher: (spd-say).              Say.
* Speech Dispatcher: (speech-dispatcher).           Speech Dispatcher.

Text creation and manipulation
* Diffutils: (diffutils).                           Comparing and merging files.
* grep: (grep).                                       Print lines matching a pattern.
* sed: (sed).                                         Stream Editor.
-----Info: (dir)Top, 260 lines --Bot-----
```

\$ info info

Perintah diatas akan menampilkan perintah info dengan perintah bantuan info.

```
mazharrasyad@Mazharrasyad: ~/modul9
File: dir,      Node: Top,      This is the top of the INFO tree.

This is the Info main menu (aka directory node).
A few useful Info commands:

  'q' quits;
  '?' lists all Info commands;
  'h' starts the Info tutorial;
  'mTexinfo RET' visits the Texinfo manual, etc.

* Menu:

Basics
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* Ed: (ed).                    The GNU line editor
* File permissions: (coreutils)File permissions.
                                Access modes.
* Finding files: (find).        Operating on files matching certain criteria.

C++ libraries
* autosprintf: (autosprintf).  Support for printf format strings in C++.

Compression
* Gzip: (gzip).                General (de)compression of files (lzw).

Development
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                                Speech Dispatcher.

DOS
* Mtools: (mtools).            Mtools: utilities to access DOS disks in Unix.

Editors
* nano: (nano).                Small and friendly text editor.

GNU Gettext Utilities
* autopoint: (gettext)autopoint Invocation.
-----Info: (dir)Top, 260 lines --Top-----
No 'Prev' or 'Up' for this node within this document.
```

```

* zmore: (gzip)Overview.                                Decompression output by pages.

Kernel
* grub-dev: (grub-dev).                                The GRand Unified Bootloader Dev
* grub-install: (grub)Invoking grub-install.            Install GRUB on your drive
* grub-mkconfig: (grub)Invoking grub-mkconfig.          Generate GRUB configuration
* grub-mkpasswd-pbkdf2: (grub)Invoking grub-mkpasswd-pbkdf2.
* grub-mkrelpath: (grub)Invoking grub-mkrelpath.
* grub-mkrescue: (grub)Invoking grub-mkrescue.          Make a GRUB rescue image
* grub-mount: (grub)Invoking grub-mount.               Mount a file system using GRUB
* grub-probe: (grub)Invoking grub-probe.               Probe device information
* grub-script-check: (grub)Invoking grub-script-check.
* GRUB: (grub).                                         The GRand Unified Bootloader

Libraries
* RLuserman: (rluserman).                               The GNU readline library User's Manual.

Math
* bc: (bc).                                             An arbitrary precision calculator language.
* dc: (dc).                                             Arbitrary precision RPN "Desktop Calculator".

Network applications
* Wget: (wget).                                         Non-interactive network downloader.

Sound
* SSIP: (ssip).                                         Speech Synthesis Interface Protocol.
* Say for Speech Dispatcher: (spd-say).                Say.
* Speech Dispatcher: (speech-dispatcher).             Speech Dispatcher.

Text creation and manipulation
* Diffutils: (diffutils).                             Comparing and merging files.
* grep: (grep).                                         Print lines matching a pattern.
* sed: (sed).                                           Stream Editor.
-----Info: (dir)Top, 260 lines --Bot-----
No more nodes within this document.

```

\$ info ls

Perintah diatas akan menampilkan perintah ls dengan perintah bantuan info.

```
mazharrasyad@Mazharrasyad: ~/modul9
Next: dir invocation, Up: Directory listing

10.1 'ls': List directory contents
=====

The 'ls' program lists information about files (of any type, including
directories). Options and file arguments can be intermixed arbitrarily,
as usual.

For non-option command-line arguments that are directories, by
default 'ls' lists the contents of directories, not recursively, and
omitting files with names beginning with '.'. For other non-option
arguments, by default 'ls' lists just the file name. If no non-option
argument is specified, 'ls' operates on the current directory, acting as
if it had been invoked with a single argument of '.'.

By default, the output is sorted alphabetically, according to the
locale settings in effect.(1) If standard output is a terminal, the
output is in columns (sorted vertically) and control characters are
output as question marks; otherwise, the output is listed one per line
and control characters are output as-is.

Because 'ls' is such a fundamental program, it has accumulated many
options over the years. They are described in the subsections below;
within each section, options are listed alphabetically (ignoring case).
The division of options into the subsections is not absolute, since some
options affect more than one aspect of 'ls''s operation.

Exit status:

0 success
1 minor problems (e.g., failure to access a file or directory not
specified as a command line argument. This happens when listing a
directory in which entries are actively being removed or renamed.)
2 serious trouble (e.g., memory exhausted, invalid option, failure
to access a file or directory specified as a command line argument
or a directory loop)

Also see *note Common options::.

-----Info: (coreutils.info.gz)ls invocation, 57 lines --Top-----
Welcome to Info version 6.1. Type H for help, h for tutorial.
```

```

* VERSION CONTROL <3>: mv invocation. (line 59)
* VERSION CONTROL <4>: ln invocation. (line 80)
* vertical sorted files in columns: General output formatting. (line 16)
* vtN: Output. (line 59)
* wc: wc invocation. (line 6)
* week in date strings: Relative items in date strings. (line 15)
* werase: Characters. (line 63)
* who: who invocation. (line 6)
* who am i: who invocation. (line 21)
* whoami: whoami invocation. (line 6)
* word count: wc invocation. (line 6)
* working context: Working context. (line 6)
* working directory, printing: pwd invocation. (line 6)
* wrap data: base64 invocation. (line 23)
* wrapping long input lines: fold invocation. (line 6)
* writable file check: Access permission tests. (line 21)
* write permission: Mode Structure. (line 14)
* write permission, symbolic: Setting Permissions. (line 54)
* write, allowed: who invocation. (line 94)
* wtmp: users invocation. (line 14)
* wtmp <1>: who invocation. (line 15)
* xcase: Local. (line 36)
* xdigit: Character sets. (line 110)
* xfs file system type: df invocation. (line 211)
* XON/XOFF flow control: Input. (line 40)
* year in date strings: Relative items in date strings. (line 15)
* yes: yes invocation. (line 6)
* yesterday: Options for date. (line 11)
* yesterday in date strings: Relative items in date strings. (line 29)
* yottabyte, definition of: Block size. (line 116)
* Youmans, B.: Introduction. (line 29)
* zero-length string check: String tests. (line 15)
* zettabyte, definition of: Block size. (line 111)

```

```

-----Info: (coreutils.info.gz)Concept index, 3007 lines --Bot-----

```

D. Tugas

1. Tampilkan halaman manual tentang file konfigurasi crontab !

man crontab

```
mazharrasyad@Mazharrasyad: ~
CRONTAB(1)                                General Commands Manual                                CRONTAB(1)

NAME
    crontab - maintain crontab files for individual users (Vixie Cron)

SYNOPSIS
    crontab [ -u user ] file
    crontab [ -u user ] [ -i ] { -e | -l | -r }

DESCRIPTION
    crontab is the program used to install, deinstall or list the tables
    used to drive the cron(8) daemon in Vixie Cron. Each user can have
    their own crontab, and though these are files in
    /var/spool/cron/crontabs, they are not intended to be edited directly.

    If the /etc/cron.allow file exists, then you must be listed (one user
    per line) therein in order to be allowed to use this command. If the
    /etc/cron.allow file does not exist but the /etc/cron.deny file does
    exist, then you must not be listed in the /etc/cron.deny file in order
    to use this command.

    If neither of these files exists, then depending on site-dependent con-
    figuration parameters, only the super user will be allowed to use this
    command, or all users will be able to use this command.

    If both files exist then /etc/cron.allow takes precedence. Which means
    that /etc/cron.deny is not considered and your user must be listed in
    /etc/cron.allow in order to be able to use the crontab.

    Regardless of the existance of any of these files, the root administra-
    tive user is always allowed to setup a crontab. For standard Debian
    systems, all users may use this command.

    If the -u option is given, it specifies the name of the user whose
    crontab is to be used (when listing) or modified (when editing). If
    this option is not given, crontab examines "your" crontab, i.e., the
    crontab of the person executing the command. Note that su(8) can con-
    fuse crontab and that if you are running inside of su(8) you should
    always use the -u option for safety's sake.

    The first form of this command is used to install a new crontab from
    Manual page crontab(1) line 1/108 42% (press h for help or q to quit)
```


some named file or standard input if the pseudo-filename '-' is given.

The `-l` option causes the current crontab to be displayed on standard output. See the note under **DEBIAN SPECIFIC** below.

The `-r` option causes the current crontab to be removed.

The `-e` option is used to edit the current crontab using the editor specified by the `VISUAL` or `EDITOR` environment variables. After you exit from the editor, the modified crontab will be installed automatically. If neither of the environment variables is defined, then the default editor `/usr/bin/editor` is used.

The `-i` option modifies the `-r` option to prompt the user for a 'y/Y' response before actually removing the crontab.

DEBIAN SPECIFIC

The "out-of-the-box" behaviour for `crontab -l` is to display the three line "DO NOT EDIT THIS FILE" header that is placed at the beginning of the crontab when it is installed. The problem is that it makes the sequence

```
crontab -l | crontab -
```

non-idempotent -- you keep adding copies of the header. This causes pain to scripts that use `sed` to edit a crontab. Therefore, the default behaviour of the `-l` option has been changed to not output such header. You may obtain the original behaviour by setting the environment variable `CRONTAB_NOHEADER` to 'N', which will cause the `crontab -l` command to emit the extraneous header.

SEE ALSO

`crontab(5)`, `cron(8)`

FILES

```
/etc/cron.allow
/etc/cron.deny
/var/spool/cron/crontabs
```

There is one file for each user's crontab under the
Manual page crontab(1) line 42/108 75% (press h for help or q to quit)

`/var/spool/cron/crontabs` directory. Users are not allowed to edit the files under that directory directly to ensure that only users allowed by the system to run periodic tasks can add them, and only syntactically correct crontabs will be written there. This is enforced by having the directory writable only by the `crontab` group and configuring `crontab` command with the `setgid` bit set for that specific group.

STANDARDS

The `crontab` command conforms to IEEE Std1003.2-1992 ('POSIX'). This new command syntax differs from previous versions of Vixie Cron, as well as from the classic SVR3 syntax.

DIAGNOSTICS

A fairly informative usage message appears if you run it with a bad command line.

`cron` requires that each entry in a crontab end in a newline character. If the last entry in a crontab is missing the newline, `cron` will consider the crontab (at least partially) broken and refuse to install it.

AUTHOR

Paul Vixie <paul@vix.com> is the author of `cron` and original creator of this manual page. This page has also been modified for Debian by Steve Greenland, Javier Fernandez-Sanguino and Christian Kastner.

Manual page crontab(1) line 83/108 99% (press h for help or q to quit)


```
mazharrasyad@Mazharrasyad: ~  
CRONTAB(5) File Formats Manual CRONTAB(5)  
  
NAME  
    crontab - tables for driving cron  
  
DESCRIPTION  
    A crontab file contains instructions to the cron(8) daemon of the general form: ``run this command at this time on this date''. Each user has their own crontab, and commands in any given crontab will be executed as the user who owns the crontab. Uucp and News will usually have their own crontabs, eliminating the need for explicitly running su(1) as part of a cron command.  
  
    Blank lines and leading spaces and tabs are ignored. Lines whose first non-space character is a hash-sign (#) are comments, and are ignored. Note that comments are not allowed on the same line as cron commands, since they will be taken to be part of the command. Similarly, comments are not allowed on the same line as environment variable settings.  
  
    An active line in a crontab will be either an environment setting or a cron command. The crontab file is parsed from top to bottom, so any environment settings will affect only the cron commands below them in the file. An environment setting is of the form,  
  
        name = value  
  
    where the spaces around the equal-sign (=) are optional, and any subsequent non-leading spaces in value will be part of the value assigned to name. The value string may be placed in quotes (single or double, but matching) to preserve leading or trailing blanks. To define an empty variable, quotes must be used. The value string is not parsed for environmental substitutions or replacement of variables, thus lines like  
  
        PATH = $HOME/bin:$PATH  
  
    will not work as you might expect. And neither will this work  
  
        A=1  
        B=2  
        C=$A $B  
Manual page crontab(5) line 1/269 14% (press h for help or q to quit)
```

There will not be any substitution for the defined variables in the last value.

An alternative for setting up the commands path is using the fact that many shells will treat the tilde(~) as substitution of \$HOME, so if you use bash for your tasks you can use this:

```
SHELL=/bin/bash
PATH=~:/bin:/usr/bin/~/bin
```

Several environment variables are set up automatically by the cron(8) daemon. SHELL is set to /bin/sh, and LOGNAME and HOME are set from the /etc/passwd line of the crontab's owner. PATH is set to "/usr/bin:/bin". HOME, SHELL, and PATH may be overridden by settings in the crontab; LOGNAME is the user that the job is running from, and may not be changed.

(Another note: the LOGNAME variable is sometimes called USER on BSD systems... on these systems, USER will be set also.)

In addition to LOGNAME, HOME, and SHELL, cron(8) will look at MAILTO if it has any reason to send mail as a result of running commands in ``this'' crontab. If MAILTO is defined (and non-empty), mail is sent to the user so named. MAILTO may also be used to direct mail to multiple recipients by separating recipient users with a comma. If MAILTO is defined but empty (MAILTO=""), no mail will be sent. Otherwise mail is sent to the owner of the crontab.

On the Debian GNU/Linux system, cron supports the pam_env module, and loads the environment specified by /etc/environment and /etc/security/pam_env.conf. It also reads locale information from /etc/default/locale. However, the PAM settings do NOT override the settings described above nor any settings in the crontab file itself. Note in particular that if you want a PATH other than "/usr/bin:/bin", you will need to set it in the crontab file.

By default, cron will send mail using the mail "Content-Type:" header of "text/plain" with the "charset=" parameter set to the charmap / codeset of the locale in which cron(8) is started up - ie. either the default system locale, if no LC * environment variables are set, or the

locale specified by the LC_* environment variables (see `locale(7)`). You can use different character encodings for mailed cron job output by setting the CONTENT_TYPE and CONTENT_TRANSFER_ENCODING variables in crontabs, to the correct values of the mail headers of those names.

The format of a cron command is very much the V7 standard, with a number of upward-compatible extensions. Each line has five time and date fields, followed by a command, followed by a newline character ('\n'). The system crontab (/etc/crontab) uses the same format, except that the username for the command is specified after the time and date fields and before the command. The fields may be separated by spaces or tabs. The maximum permitted length for the command field is 998 characters.

Commands are executed by `cron(8)` when the minute, hour, and month of year fields match the current time, and when at least one of the two day fields (day of month, or day of week) match the current time (see ``Note'' below). `cron(8)` examines cron entries once every minute. The time and date fields are:

field	allowed values
-----	-----
minute	0-59
hour	0-23
day of month	1-31
month	1-12 (or names, see below)
day of week	0-7 (0 or 7 is Sun, or use names)

A field may be an asterisk (*), which always stands for ``first-last''.

Ranges of numbers are allowed. Ranges are two numbers separated with a hyphen. The specified range is inclusive. For example, 8-11 for an ``hours'' entry specifies execution at hours 8, 9, 10 and 11.

Lists are allowed. A list is a set of numbers (or ranges) separated by commas. Examples: ``1,2,5,9'', ``0-4,8-12''.

Step values can be used in conjunction with ranges. Following a range with ``/<number>' specifies skips of the number's value through the range. For example, ``0-23/2'' can be used in the hours field to specify command execution every other hour (the alternative in the V7 standard is ``0,2,4,6,8,10,12,14,16,18,20,22''). Steps are also permitted

after an asterisk, so if you want to say ``every two hours'', just use ``*/2''.

Names can also be used for the ``month'' and ``day of week'' fields. Use the first three letters of the particular day or month (case doesn't matter). Ranges or lists of names are not allowed.

The ``sixth'' field (the rest of the line) specifies the command to be run. The entire command portion of the line, up to a newline or % character, will be executed by /bin/sh or by the shell specified in the SHELL variable of the crontab file. Percent-signs (%) in the command, unless escaped with backslash (\), will be changed into newline characters, and all data after the first % will be sent to the command as standard input. There is no way to split a single command line onto multiple lines, like the shell's trailing "\".

Note: The day of a command's execution can be specified by two fields - day of month, and day of week. If both fields are restricted (i.e., aren't *), the command will be run when either field matches the current time. For example, ``30 4 1,15 * 5'' would cause a command to be run at 4:30 am on the 1st and 15th of each month, plus every Friday. One can, however, achieve the desired result by adding a test to the command (see the last example in EXAMPLE CRON FILE below).

Instead of the first five fields, one of eight special strings may appear:

string	meaning
-----	-----
@reboot	Run once, at startup.
@yearly	Run once a year, "0 0 1 1 *".
@annually	(same as @yearly)
@monthly	Run once a month, "0 0 1 * *".
@weekly	Run once a week, "0 0 * * 0".
@daily	Run once a day, "0 0 * * *".
@midnight	(same as @daily)
@hourly	Run once an hour, "0 * * * *".

Please note that startup, as far as @reboot is concerned, is the time when the cron(8) daemon startup. In particular, it may be before some

Manual page crontab(5) line 124/269 63% (press h for help or q to quit)

system daemons, or other facilities, were startup. This is due to the boot order sequence of the machine.

EXAMPLE CRON FILE

The following lists an example of a user crontab file.

```
# use /bin/bash to run commands, instead of the default /bin/sh
SHELL=/bin/bash
# mail any output to 'paul', no matter whose crontab this is
MAILTO=paul
#
# run five minutes after midnight, every day
5 0 * * *      $HOME/bin/daily.job >> $HOME/tmp/out 2>&1
# run at 2:15pm on the first of every month -- output mailed to paul
15 14 1 * *    $HOME/bin/monthly
# run at 10 pm on weekdays, annoy Joe
0 22 * * 1-5    mail -s "It's 10pm" joe%Joe,%%Where are your kids?%
23 0-23/2 * * * echo "run 23 minutes after midn, 2am, 4am ..., everyday

5 4 * * sun     echo "run at 5 after 4 every sunday"
# Run on every second Saturday of the month
0 4 8-14 * *    test $(date +%u) -eq 6 && echo "2nd Saturday"
```

EXAMPLE SYSTEM CRON FILE

The following lists the content of a regular system-wide crontab file. Unlike a user's crontab, this file has the username field, as used by /etc/crontab.

```
# /etc/crontab: system-wide crontab
# Unlike any other crontab you don't have to run the `crontab'
# command to install the new version when you edit this file
# and files in /etc/cron.d. These files also have username fields,
# that none of the other crontabs do.

SHELL=/bin/sh
PATH=/usr/local/sbin:/usr/local/bin:/sbin:/bin:/usr/sbin:/usr/bin

# m h dom mon dow usercommand
17 * * * * root cd / && run-parts --report /etc/cron.hourly
25 6 * * * root test -x /usr/sbin/anacron || ( cd / && run-parts --re
port /etc/cron.daily )
```

Manual page crontab(5) line 165/269 76% (press h for help or q to quit)


```
port /etc/cron.daily )
    47 6 * * 7 root test -x /usr/sbin/anacron || ( cd / && run-parts --re
port /etc/cron.weekly )
    52 6 1 * * root test -x /usr/sbin/anacron || ( cd / && run-parts --re
port /etc/cron.monthly )
    #
```

SEE ALSO

cron(8), crontab(1)

EXTENSIONS

When specifying day of week, both day 0 and day 7 will be considered Sunday. BSD and AT&T seem to disagree about this.

Lists and ranges are allowed to co-exist in the same field. "1-3,7-9" would be rejected by AT&T or BSD cron -- they want to see "1-3" or "7,8,9" ONLY.

Ranges can include "steps", so "1-9/2" is the same as "1,3,5,7,9".

Months or days of the week can be specified by name.

Environment variables can be set in the crontab. In BSD or AT&T, the environment handed to child processes is basically the one from /etc/rc.

Command output is mailed to the crontab owner (BSD can't do this), can be mailed to a person other than the crontab owner (SysV can't do this), or the feature can be turned off and no mail will be sent at all (SysV can't do this either).

All of the '@' commands that can appear in place of the first five fields are extensions.

LIMITATIONS

The cron daemon runs with a defined timezone. It currently does not support per-user timezones. All the tasks: system's and user's will be run based on the configured timezone. Even if a user specifies the tz environment variable in his crontab this will affect only the commands executed in the crontab, not the execution of the crontab tasks themselves.

Manual page crontab(5) line 203/269 89% (press h for help or q to quit)

The crontab syntax does not make it possible to define all possible periods one could image off. For example, it is not straightforward to define the last weekday of a month. If a task needs to be run in a specific period of time that cannot be defined in the crontab syntaxs the best approach would be to have the program itself check the date and time information and continue execution only if the period matches the desired one.

If the program itself cannot do the checks then a wrapper script would be required. Useful tools that could be used for date analysis are ncal or calendar. For example, to run a program the last Saturday of every month you could use the following wrapper code:

```
0 4 * * Sat [ "$(date +%e)" = "`ncal | grep $(date +%a | sed -e 's/.$
//') | sed -e 's/^.*\s\([0-9]\+\)\s*$/\1/'`" ] && echo "Last Saturday" && progra
m_to_run
```

DIAGNOSTICS

cron requires that each entry in a crontab end in a newline character. If the last entry in a crontab is missing a newline (ie, terminated by EOF), cron will consider the crontab (at least partially) broken. A warning will be written to syslog.

AUTHOR

Paul Vixie <paul@vix.com> is the author of cron and original creator of this manual page. This page has also been modified for Debian by Steve Greenland, Javier Fernandez-Sanguino and Christian Kastner.

4th Berkeley Distribution 19 April 2010 CRONTAB(5)
Manual page crontab(5) line 242/269 (END) (press h for help or q to quit)

2. Tampilkan halaman manual apa saja yang berkaitan dengan proses (process) !

```
mazharrasyad@Mazharrasyad: ~  
mazharrasyad@Mazharrasyad:~$ man -k process  
_Exit (2) - terminate the calling process  
_Exit (3posix) - terminate a process  
__clone2 (2) - create a child process  
__ppc_mdoio (3) - Hint the processor to release shared resources  
__ppc_mdooom (3) - Hint the processor to release shared resources  
__ppc_yield (3) - Hint the processor to release shared resources  
_exit (2) - terminate the calling process  
abort (3) - cause abnormal process termination  
abort (3posix) - generate an abnormal process abort  
acct (2) - switch process accounting on or off  
acct (5) - process accounting file  
atexit (3) - register a function to be called at normal process ter...  
atexit (3posix) - register a function to run at process termination  
awk (1) - pattern scanning and text processing language  
awk (1posix) - pattern scanning and processing language  
boot (7) - System bootup process based on UNIX System V Release 4  
bootup (7) - System bootup process  
chrt (1) - manipulate the real-time attributes of a process  
clock (3) - determine processor time  
clock_getcpuclockid (3) - obtain ID of a process CPU-time clock  
clock_getcpuclockid (3posix) - access a process CPU-time clock (ADVANCED REAL...  
clone (2) - create a child process  
clone2 (2) - create a child process  
cpp (1) - The C Preprocessor  
cpp-5 (1) - The C Preprocessor  
cpuset (7) - confine processes to processor and memory node subsets  
credentials (7) - process identifiers  
dbus-run-session (1) - start a process as a new D-Bus session  
Dpkg::Compression::Process (3) - run compression/decompression processes  
dsa (1ssl) - DSA key processing  
ec (1ssl) - EC key processing  
exit (2) - terminate the calling process  
exit (3) - cause normal process termination  
exit (3posix) - terminate a process  
exit_group (2) - exit all threads in a process  
faked (1) - daemon that remembers fake ownership/permissions of fi...  
faked-sysv (1) - daemon that remembers fake ownership/permissions of fi...  
faked-tcp (1) - daemon that remembers fake ownership/permissions of fi...  
fc (1posix) - process the command history list  
fork (2) - create a child process  
fork (3am) - basic process management
```


fork (3posix)	- create a new process
fuser (1)	- identify processes using files or sockets
fuser (1posix)	- list process IDs of all processes that have one or mor...
gawk (1)	- pattern scanning and processing language
get_nprocs (3)	- get number of processors
get_nprocs_conf (3)	- get number of processors
getpcaps (1)	- List Process Capabilities
getpgid (2)	- set/get process group
getpgid (3posix)	- get the process group ID for a process
getpgrp (2)	- set/get process group
getpgrp (3posix)	- get the process group ID of the calling process
getpid (2)	- get process identification
getpid (3posix)	- get the process ID
getppid (2)	- get process identification
getppid (3posix)	- get the parent process ID
getsid (3posix)	- get the process group ID of a session leader
gnome-system-monitor (1)	- view and control processes
group_member (3)	- test whether a process is in a group
HTTP::Status (3pm)	- HTTP Status code processing
idle (2)	- make process 0 idle
io_submit (2)	- submit asynchronous I/O blocks for processing
ionice (1)	- set or get process I/O scheduling class and priority
ip-netns (8)	- process network namespace management
ipc (5)	- System V interprocess communication mechanisms
ipcs (1posix)	- report XSI interprocess communication facilities status
irqbalance (1)	- distribute hardware interrupts across processors on a ...
kcmp (2)	- compare two processes to determine if they share a ker...
kdeinit4 (8)	- KDE process launcher.
kill (1)	- send a signal to a process
kill (1posix)	- terminate or signal processes
kill (2)	- send signal to a process
kill (3posix)	- send a signal to a process or a group of processes
killall (1)	- kill processes by name
killall5 (8)	- send a signal to all processes.
killpg (2)	- send signal to a process group
killpg (3posix)	- send a signal to a process group
LastKnownRequestProcessed (3)	- Display macros and functions
lessfile (1)	- "input preprocessor" for less.
lesspipe (1)	- "input preprocessor" for less.
m4 (1posix)	- macro processor
mailx (1posix)	- process messages
mawk (1)	- pattern scanning and text processing language

migrate_pages (2)	- move all pages in a process to another set of nodes
mlock (3posix)	- lock or unlock a range of process address space (REALTIME)
mlockall (3posix)	- lock/unlock the address space of a process (REALTIME)
modify_ldt (2)	- get or set a per-process LDT entry
move_pages (2)	- move individual pages of a process to another node
mq_notify (3posix)	- notify process that a message is available (REALTIME)
msgexec (1)	- process translations of message catalog
munlock (3posix)	- unlock a range of process address space
munlockall (3posix)	- unlock the address space of a process
nawk (1)	- pattern scanning and text processing language
nice (2)	- change process priority
nice (3posix)	- change the nice value of a process
nproc (1)	- print the number of processing units available
nsenter (1)	- run program with namespaces of other processes
on_exit (3)	- register a function to be called at normal process termination
openproc (3)	- initialize process information from /proc/
pam_loginuid (8)	- Record user's login uid to the process attribute
Pango::Context (3pm)	- Pango object that stores global information used to control Pango
pclose (3)	- pipe stream to or from a process
pclose (3posix)	- close a pipe stream to or from a process
peekfd (1)	- peek at file descriptors of running processes
personality (2)	- set the process execution domain
pgrep (1)	- look up or signal processes based on name and other attributes
pidof (8)	- find the process ID of a running program.
pipe (3posix)	- create an interprocess channel
pkcheck (1)	- Check whether a process is authorized
pkey (1ssl)	- public or private key processing tool
pkeyparam (1ssl)	- public key algorithm parameter processing tool
pkill (1)	- look up or signal processes based on name and other attributes
pldd (1)	- display dynamic shared objects linked into a process
pmap (1)	- report memory map of a process
popen (3)	- pipe stream to or from a process
popen (3posix)	- initiate pipe streams to or from a process
posix_spawn (3posix)	- spawn a process (ADVANCED REALTIME)
posix_spawnnp (3posix)	- spawn a process (ADVANCED REALTIME)
posix_trace_create (3posix)	- trace stream initialization, flush, and shutdown
posix_trace_flush (3posix)	- trace stream flush from a process (TRACING)
posix_trace_shutdown (3posix)	- trace stream shutdown from a process (TRACING)
prctl (2)	- operations on a process
prlimit (1)	- get and set process resource limits
proc (5)	- process information pseudo-filesystem
process_vm_readv (2)	- transfer data between process address spaces

```
process_vm_writev (2) - transfer data between process address spaces
procfs (5) - process information pseudo-filesystem
prtstat (1) - print statistics of a process
ps (1) - report a snapshot of the current processes.
ps (1posix) - report process status
pstree (1) - display a tree of processes
pstree.x11 (1) - display a tree of processes
pthread_barrierattr_getpshared (3posix) - get and set the process-shared attr...
pthread_barrierattr_setpshared (3posix) - set the process-shared attribute of...
pthread_condattr_getpshared (3posix) - get and set the process-shared conditi...
pthread_condattr_setpshared (3posix) - set the process-shared condition varia...
pthread_kill_other_threads_np (3) - terminate all other threads in process
pthread_mutexattr_getpshared (3posix) - get and set the process-shared attribute
pthread_mutexattr_setpshared (3posix) - set the process-shared attribute
pthread_rwlockattr_getpshared (3posix) - get and set the process-shared attri...
pthread_rwlockattr_setpshared (3posix) - set the process-shared attribute of ...
pthread_yield (3) - yield the processor
ptrace (2) - process trace
pwdx (1) - report current working directory of a process
raise (3posix) - send a signal to the executing process
readproctab (3) - read information for all current processes at once
renice (1) - alter priority of running processes
renice (1posix) - set nice values of running processes
revtwoWay (3am) - Reverse strings sample two-way processor extension
rsa (1ssl) - RSA key processing tool
sched_rr_get_interval (2) - get the SCHED_RR interval for the named process
sched_yield (2) - yield the processor
sched_yield (3posix) - yield the processor
seccomp (2) - operate on Secure Computing state of the process
setpgid (2) - set/get process group
setpgid (3posix) - set process group ID for job control
setpgrp (2) - set/get process group
setpgrp (3posix) - set the process group ID
setsid (2) - creates a session and sets the process group ID
setsid (3posix) - create session and set process group ID
sigqueue (2) - queue a signal and data to a process
sigqueue (3) - queue a signal and data to a process
sigqueue (3posix) - queue a signal to a process
skill (1) - send a signal or report process status
snice (1) - send a signal or report process status
speech-dispatcher (1) - server process managing speech requests in Speech Dis...
svipc (7) - System V interprocess communication mechanisms
```

```

sys_ipc.h (7posix) - XSI interprocess communication access structure
systemd-tty-ask-password-agent (1) - List or process pending systemd password...
systemd.kill (5) - Process killing procedure configuration
taskset (1) - set or retrieve a process's CPU affinity
tcgetpgrp (3) - get and set terminal foreground process group
tcgetpgrp (3posix) - get the foreground process group ID
tcgetsid (3posix) - get the process group ID for the session leader for th...
tcsetpgrp (3) - get and set terminal foreground process group
tcsetpgrp (3posix) - set the foreground process group ID
timer_create (2) - create a POSIX per-process timer
timer_create (3posix) - create a per-process timer
timer_delete (2) - delete a POSIX per-process timer
timer_delete (3posix) - delete a per-process timer
timer_getoverrun (2) - get overrun count for a POSIX per-process timer
timer_getoverrun (3posix) - per-process timers
timer_gettime (2) - arm/disarm and fetch state of POSIX per-process timer
timer_settime (2) - arm/disarm and fetch state of POSIX per-process timer
times (1posix) - write process times
times (2) - get process times
times (3posix) - get process and waited-for child process times
top (1) - display Linux processes
troff (1) - the troff processor of the groff text formatting system
ulimit (3posix) - get and set process limits
unix (7) - sockets for local interprocess communication
unshare (2) - disassociate parts of the process execution context
upstart (8) - Upstart process management daemon
vfork (2) - create a child process and block parent
wait (1posix) - await process completion
wait (2) - wait for process to change state
wait (3posix) - wait for a child process to stop or terminate
wait3 (2) - wait for process to change state, BSD style
wait4 (2) - wait for process to change state, BSD style
waitid (2) - wait for process to change state
waitid (3posix) - wait for a child process to change state
waitpid (2) - wait for process to change state
waitpid (3posix) - wait for a child process to stop or terminate
x86_64-linux-gnu-cpp (1) - The C Preprocessor
x86_64-linux-gnu-cpp-5 (1) - The C Preprocessor
XkbOutOfRangeGroupInfo (3) - Returns only the out-of-range processing informa...
XML::Twig (3pm) - A perl module for processing huge XML documents in tre...
XProcessInternalConnection (3) - handle Xlib internal connections
mazharrasyad@mazharrasyad:~$

```

3. Tampilkan halaman info dari perintah date !

```
Next: arch invocation, Up: System context

21.1 'date': Print or set system date and time
=====

Synopsis:

    date [OPTION]... [+FORMAT]
    date [-u|--utc|--universal] [ MMDDhhmm[[CC]YY][.ss] ]

    Invoking 'date' with no FORMAT argument is equivalent to invoking it
    with a default format that depends on the 'LC_TIME' locale category.  In
    the default C locale, this format is '+%a %b %e %H:%M:%S %Z %Y', so
    the output looks like 'Thu Mar  3 13:47:51 PST 2005'.

    Normally, 'date' uses the time zone rules indicated by the 'TZ'
    environment variable, or the system default rules if 'TZ' is not set.
    *Note Specifying the Time Zone with 'TZ': (libc)TZ Variable.

    If given an argument that starts with a '+', 'date' prints the
    current date and time (or the date and time specified by the '--date'
    option, see below) in the format defined by that argument, which is
    similar to that of the 'strftime' function.  Except for conversion
    specifiers, which start with '%', characters in the format string are
    printed unchanged.  The conversion specifiers are described below.

    An exit status of zero indicates success, and a nonzero value
    indicates failure.

* Menu:

* Time conversion specifiers::      %[HIkLMNpPrRsSTXzZ]
* Date conversion specifiers::      %[aAbBcCdDeFgGhJmuUVwWxyY]
* Literal conversion specifiers::    %[%nt]
* Padding and other flags::          Pad with zeros, spaces, etc.
* Setting the time::                 Changing the system clock.
* Options for date::                 Instead of the current time.
* Date input formats::               Specifying date strings.
* Examples of date::                 Examples.

-----Info: (coreutils.info.gz)date invocation, 40 lines --All-----
Welcome to Info version 6.1.  Type H for help, h for tutorial.
```

Kesimpulan

Pada sistem linux terdapat banyak perintah – perintah untuk menjalankan sistem linux tersebut maka dari itu diperlukan bantuan untuk menjalankan perintah – perintahnya, diantara panduan untuk mendapatkan bantuan perintah – perintahnya yaitu help, man dan info.