Dernière mise-à-jour : 2020/01/30 03:27

LUF103 - Aide et Documentation

L'Aide des Commandes Externes au Shell

Les commandes externes au shell sont des binaires exécutables ou des scripts, généralement situés dans /bin, /sbin, /usr/bin ou /usr/sbin :

```
root@ubuntu1804:~# type du
du is /usr/bin/du
```

L'aide d'une commande externe au shell peut être visualisé dans la plupart des cas en passant le paramètre **- -help** en argument à la commande en question :

```
root@ubuntu1804:~# du --help
Usage: du [OPTION]... [FILE]...
  or:  du [OPTION]... --files0-from=F
Summarize disk usage of the set of FILEs, recursively for directories.

Mandatory arguments to long options are mandatory for short options too.
  -0, --null            end each output line with NUL, not newline
  -a, --all             write counts for all files, not just directories
      --apparent-size   print apparent sizes, rather than disk usage; although
                          the apparent size is usually smaller, it may be
                          larger due to holes in ('sparse') files, internal
                          fragmentation, indirect blocks, and the like
  -B, --block-size=SIZE  scale sizes by SIZE before printing them; e.g.,
                           '-BM' prints sizes in units of 1,048,576 bytes;
                           see SIZE format below
  -b, --bytes           equivalent to '--apparent-size --block-size=1'
  -c, --total           produce a grand total
```

```
  -D, --dereference-args  dereference only symlinks that are listed on the
                            command line
  -d, --max-depth=N     print the total for a directory (or file, with --all)
                            only if it is N or fewer levels below the command
                            line argument;  --max-depth=0 is the same as
                            --summarize
      --files0-from=F   summarize disk usage of the
                            NUL-terminated file names specified in file F;
                            if F is -, then read names from standard input
  -H                    equivalent to --dereference-args (-D)
  -h, --human-readable  print sizes in human readable format (e.g., 1K 234M 2G)
      --inodes          list inode usage information instead of block usage
  -k                    like --block-size=1K
  -L, --dereference     dereference all symbolic links
  -l, --count-links     count sizes many times if hard linked
  -m                    like --block-size=1M
  -P, --no-dereference  don't follow any symbolic links (this is the default)
  -S, --separate-dirs   for directories do not include size of subdirectories
      --si              like -h, but use powers of 1000 not 1024
  -s, --summarize       display only a total for each argument
  -t, --threshold=SIZE  exclude entries smaller than SIZE if positive,
                            or entries greater than SIZE if negative
      --time            show time of the last modification of any file in the
                            directory, or any of its subdirectories
      --time=WORD       show time as WORD instead of modification time:
                            atime, access, use, ctime or status
      --time-style=STYLE  show times using STYLE, which can be:
                              full-iso, long-iso, iso, or +FORMAT;
                              FORMAT is interpreted like in 'date'
  -X, --exclude-from=FILE  exclude files that match any pattern in FILE
      --exclude=PATTERN    exclude files that match PATTERN
  -x, --one-file-system    skip directories on different file systems
      --help     display this help and exit
      --version  output version information and exit
```

```
Display values are in units of the first available SIZE from --block-size,
and the DU_BLOCK_SIZE, BLOCK_SIZE and BLOCKSIZE environment variables.
Otherwise, units default to 1024 bytes (or 512 if POSIXLY_CORRECT is set).

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).

GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
Full documentation at: <http://www.gnu.org/software/coreutils/du>
or available locally via: info '(coreutils) du invocation'
```

L'Aide des Commandes Internes du Shell

Les commandes internes au shell sont des commandes telles **type**, **cd** ou **umask**. Pour vérifier le type de commande, il faut utiliser la commande **type** :

```
root@ubuntu1804:~# type type
type is a shell builtin
```

Le shell possède la commande **help**. Utilisée seule, cette commande fournit la liste des commandes internes :

```
root@ubuntu1804:~# help
GNU bash, version 4.4.19(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 [&]                            history [-c] [-d offset] [n] or hist>
 (( expression ))                        if COMMANDS; then COMMANDS; [ elif C>
```

```
. filename [arguments]                  jobs [-lnprs] [jobspec ...] or jobs >
:                                       kill [-s sigspec | -n signum | -sigs>
[ arg... ]                              let arg [arg ...]
[[ expression ]]                        local [option] name[=value] ...
alias [-p] [name[=value] ... ]          logout [n]
bg [job_spec ...]                       mapfile [-d delim] [-n count] [-O or>
bind [-lpsvPSVX] [-m keymap] [-f file>  popd [-n] [+N | -N]
break [n]                               printf [-v var] format [arguments]
builtin [shell-builtin [arg ...]]       pushd [-n] [+N | -N | dir]
caller [expr]                           pwd [-LP]
case WORD in [PATTERN [| PATTERN]...)>  read [-ers] [-a array] [-d delim] [->
cd [-L|[-P [-e]] [-@]] [dir]            readarray [-n count] [-O origin] [-s>
command [-pVv] command [arg ...]        readonly [-aAf] [name[=value] ...] o>
compgen [-abcdefgjksuv] [-o option] [>  return [n]
complete [-abcdefgjksuv] [-pr] [-DE] >  select NAME [in WORDS ... ;] do COMM>
compopt [-o|+o option] [-DE] [name ..>  set [-abefhkmnptuvxBCHP] [-o option->
continue [n]                            shift [n]
coproc [NAME] command [redirections]    shopt [-pqsu] [-o] [optname ...]
declare [-aAfFgilnrtux] [-p] [name[=v>  source filename [arguments]
dirs [-clpv] [+N] [-N]                  suspend [-f]
disown [-h] [-ar] [jobspec ... | pid >  test [expr]
echo [-neE] [arg ...]                   time [-p] pipeline
enable [-a] [-dnps] [-f filename] [na>  times
eval [arg ...]                          trap [-lp] [[arg] signal_spec ...]
exec [-cl] [-a name] [command [argume>  true
exit [n]                                type [-afptP] name [name ...]
export [-fn] [name[=value] ...] or ex>  typeset [-aAfFgilnrtux] [-p] name[=v>
false                                   ulimit [-SHabcdefiklmnpqrstuvxPT] [l>
fc [-e ename] [-lnr] [first] [last] o>  umask [-p] [-S] [mode]
fg [job_spec]                           unalias [-a] name [name ...]
for NAME [in WORDS ... ] ; do COMMAND>  unset [-f] [-v] [-n] [name ...]
for (( exp1; exp2; exp3 )); do COMMAN>  until COMMANDS; do COMMANDS; done
function name { COMMANDS ; } or name >  variables - Names and meanings of so>
getopts optstring name [arg]            wait [-n] [id ...]
```

```
 hash [-lr] [-p pathname] [-dt] [name >  while COMMANDS; do COMMANDS; done
 help [-dms] [pattern ...]               { COMMANDS ; }
```

L'aide concernant une commande spécifique peut être obtenu en passant la commande concernée en argument à la commande **help** :

```
root@ubuntu1804:~# help type
type: type [-afptP] name [name ...]
    Display information about command type.
    For each NAME, indicate how it would be interpreted if used as a
    command name.
    Options:
      -a    display all locations containing an executable named NAME;
            includes aliases, builtins, and functions, if and only if
            the `-p' option is not also used
      -f    suppress shell function lookup
      -P    force a PATH search for each NAME, even if it is an alias,
            builtin, or function, and returns the name of the disk file
            that would be executed
      -p    returns either the name of the disk file that would be executed,
            or nothing if `type -t NAME' would not return `file'
      -t    output a single word which is one of `alias', `keyword',
            `function', `builtin', `file' or `', if NAME is an alias,
            shell reserved word, shell function, shell builtin, disk file,
            or not found, respectively
    Arguments:
      NAME  Command name to be interpreted.
    Exit Status:
    Returns success if all of the NAMEs are found; fails if any are not found.
```

La Commande man

La commande man donne accès au manuel de la commande passée en argument. Par exemple **man passwd** :

```
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 time. If not,
       passwd refuses to change the password and exits.

       The user is then prompted twice for a replacement password. The second entry is compared against the first
and both are required to match in order for the
       password to be changed.

       Then, the password is tested for complexity. As a general guideline, passwords should consist of 6 to 8
characters including one or more characters from each
       of the following sets:

       ·   lower case alphabetics
```

```
       ·   digits 0 thru 9

       ·   punctuation marks

       Care must be taken not to include the system default erase or kill characters.  passwd will reject any
password which is not suitably complex.

   Hints for user passwords
       The security of a password depends upon the strength of the encryption algorithm and the size of the key
space. The legacy UNIX System encryption method is
       based on the NBS DES algorithm. More recent methods are now recommended (see ENCRYPT_METHOD). The size of
the key space depends upon the randomness of the
       password which is selected.

       Compromises in password security normally result from careless password selection or handling. For this
reason, you should not select a password which
 Manual page passwd(1) line 1 (press h for help or q to quit)
```

Une page de manuel peut contenir plusieurs sections :

Section	**Contenu**
NOM	Nom et rôle de la commande
SYNOPSIS	Syntaxe de la commande, paramètres et arguments
DESCRIPTION	Mode d'emploi et les arguments principaux
OPTIONS	Descriptions détaillées de chaque paramètre
EXEMPLES / EXAMPLES	Exemples d'utilisation de la commande
ENVIRONNEMENT / ENVIRONMENT VARIABLES	Fonctionnement selon l'environnement du shell
CONFORMITÉ / STANDARDS / CONFORMING TO	Éventuelles normes auxquelles la commande se conforme
BOGUES / BUGS/TO DO	Éventuelles bogues connues
DIAGNOSTICS/RETOUR / EXIT STATUS/RETURN VALUE	Codes d'erreur et leur signification
VOIR AUSSI / SEE ALSO	Commandes liées à celle du manuel actuel

La navigation dans la page de manuel se fait grâce à l'utilisation de certaines touches :

Touche	Fonction
Espace	Faire défiler une page complète
Entrée	Faire défiler la page ligne par ligne
↑	Faire défiler la page une ligne vers le haut
↓	Faire défiler la page une ligne vers le bas
PageHaut	Faire défiler une demi-page vers le haut
PageBas	Faire défiler une demi-page vers le bas
Début	Se positionner au début du manuel
Fin	Se positionner à la fin du manuel
/	Rechercher la chaîne qui suit la touche /. La touche n recherche l'occurrence suivante. La touche N recherche l'occurrence précédente
Q	Quitter le manuel

Un manuel complet est fait de plusieurs sections :

Section	Contenu
1	Instructions exécutables ou commandes shell
2	Appels système
3	Appels des bibliothèques
4	Fichiers spéciaux
5	Format des fichiers
6	Jeux, économiseurs d'écrans, gadgets
7	Divers et commandes non standard
8	Commandes d'administration du système Linux
9	Sous-programmes du noyau

Les différentes sections disponibles sont visibles grâce à l'utilisation de la commande **whereis** :

```
root@ubuntu1804:~# whereis passwd
passwd: /usr/bin/passwd /etc/passwd /usr/share/man/man5/passwd.5.gz /usr/share/man/man1/passwd.1ssl.gz
/usr/share/man/man1/passwd.1.gz
```

Pour visualiser une section spécifique, il convient de préciser son numéro :

```
$ man 5 passwd [Entrée]
```

L'option **-k** de la commande man permet de rechercher la chaîne passée en argument dans la liste des manuels disponibles :

```
root@ubuntu1804:~# man -k passwd
chgpasswd (8)        - update group passwords in batch mode
chpasswd (8)         - update passwords in batch mode
gpasswd (1)          - administer /etc/group and /etc/gshadow
grub-mkpasswd-pbkdf2 (1) - generate hashed password for GRUB
openssl-passwd (1ssl) - compute password hashes
pam_localuser (8)    - require users to be listed in /etc/passwd
passwd (1)           - change user password
passwd (1ssl)        - compute password hashes
passwd (5)           - the password file
update-passwd (8)    - safely update /etc/passwd, /etc/shadow and /etc/group
```

Le résultat est une liste de commandes suivies par une description brève de celles-ci.

Important - Notez que les numéros entre parenthèses indiquent les sections disponibles.

Options de la commande

Les options de cette commande sont :

```
root@ubuntu1804:~# man --help
Usage: man [OPTION...] [SECTION] PAGE...

  -C, --config-file=FILE     use this user configuration file
  -d, --debug                emit debugging messages
```

```
 -D, --default               reset all options to their default values
     --warnings[=WARNINGS]   enable warnings from groff

Main modes of operation:
 -f, --whatis                equivalent to whatis
 -k, --apropos               equivalent to apropos
 -K, --global-apropos        search for text in all pages
 -l, --local-file            interpret PAGE argument(s) as local filename(s)
 -w, --where, --path, --location
                             print physical location of man page(s)
 -W, --where-cat, --location-cat
                             print physical location of cat file(s)

 -c, --catman                used by catman to reformat out of date cat pages
 -R, --recode=ENCODING       output source page encoded in ENCODING

Finding manual pages:
 -L, --locale=LOCALE         define the locale for this particular man search
 -m, --systems=SYSTEM        use manual pages from other systems
 -M, --manpath=PATH          set search path for manual pages to PATH

 -S, -s, --sections=LIST     use colon separated section list

 -e, --extension=EXTENSION   limit search to extension type EXTENSION

 -i, --ignore-case           look for pages case-insensitively (default)
 -I, --match-case            look for pages case-sensitively

     --regex                 show all pages matching regex
     --wildcard              show all pages matching wildcard

     --names-only            make --regex and --wildcard match page names only,
                             not descriptions
```

```
  -a, --all                   find all matching manual pages
  -u, --update                force a cache consistency check

      --no-subpages           don't try subpages, e.g. 'man foo bar' => 'man
                              foo-bar'

 Controlling formatted output:
  -P, --pager=PAGER           use program PAGER to display output
  -r, --prompt=STRING         provide the `less' pager with a prompt

  -7, --ascii                 display ASCII translation of certain latin1 chars
  -E, --encoding=ENCODING     use selected output encoding
      --no-hyphenation, --nh  turn off hyphenation
      --no-justification,                              --nj   turn off justification
  -p, --preprocessor=STRING   STRING indicates which preprocessors to run:
                              e - [n]eqn, p - pic, t - tbl,
g - grap, r - refer, v - vgrind

  -t, --troff                 use groff to format pages
  -T, --troff-device[=DEVICE]   use groff with selected device

  -H, --html[=BROWSER]        use www-browser or BROWSER to display HTML output
  -X, --gxditview[=RESOLUTION]   use groff and display through gxditview
                              (X11):
                              -X = -TX75, -X100 = -TX100, -X100-12 = -TX100-12
  -Z, --ditroff               use groff and force it to produce ditroff

  -?, --help                  give this help list
      --usage                 give a short usage message
  -V, --version               print program version

Mandatory or optional arguments to long options are also mandatory or optional
for any corresponding short options.
```

```
Report bugs to cjwatson@debian.org.
```

La Commande apropos

La commande **apropos** cherche dans la base de données **whatis** la chaine de caractères passée en argument à la commande. Sans option, la sortie obtenue est identique à la commande **man -k** :

```
root@ubuntu1804:~# apropos passwd
chgpasswd (8)        - update group passwords in batch mode
chpasswd (8)         - update passwords in batch mode
gpasswd (1)          - administer /etc/group and /etc/gshadow
grub-mkpasswd-pbkdf2 (1) - generate hashed password for GRUB
openssl-passwd (1ssl) - compute password hashes
pam_localuser (8)    - require users to be listed in /etc/passwd
passwd (1)           - change user password
passwd (1ssl)        - compute password hashes
passwd (5)           - the password file
update-passwd (8)    - safely update /etc/passwd, /etc/shadow and /etc/group
```

Options de la commande

Les options de cette commande sont :

```
root@ubuntu1804:~# apropos --help
Usage: apropos [OPTION...] KEYWORD...

  -d, --debug               emit debugging messages
  -v, --verbose             print verbose warning messages
  -e, --exact               search each keyword for exact match
  -r, --regex               interpret each keyword as a regex
  -w, --wildcard            the keyword(s) contain wildcards
```

```
  -a, --and                  require all keywords to match
  -l, --long                 do not trim output to terminal width
  -C, --config-file=FILE     use this user configuration file
  -L, --locale=LOCALE        define the locale for this search
  -m, --systems=SYSTEM       use manual pages from other systems
  -M, --manpath=PATH         set search path for manual pages to PATH
  -s, --sections=LIST, --section=LIST
                             search only these sections (colon-separated)
  -?, --help                 give this help list
      --usage                give a short usage message
  -V, --version              print program version

Mandatory or optional arguments to long options are also mandatory or optional
for any corresponding short options.

The --regex option is enabled by default.

Report bugs to cjwatson@debian.org.
```

Les Commandes mandb et whatis

Sous Ubuntu 18.04, la base de données peut être maintenue manuellement par root en invoquant l'exécutable **/bin/mandb** ou **/usr/bin/mandb**.

L'utilisation de **mandb** est très simple :

```
root@ubuntu1804:~# mandb
Purging old database entries in /usr/share/man...
Processing manual pages under /usr/share/man...
Purging old database entries in /usr/share/man/ru...
Processing manual pages under /usr/share/man/ru...
Purging old database entries in /usr/share/man/pt_BR...
Processing manual pages under /usr/share/man/pt_BR...
```

```
Purging old database entries in /usr/share/man/fr...
Processing manual pages under /usr/share/man/fr...
Purging old database entries in /usr/share/man/nl...
Processing manual pages under /usr/share/man/nl...
Purging old database entries in /usr/share/man/ja...
Processing manual pages under /usr/share/man/ja...
Purging old database entries in /usr/share/man/ko...
Processing manual pages under /usr/share/man/ko...
Purging old database entries in /usr/share/man/zh_CN...
Processing manual pages under /usr/share/man/zh_CN...
Purging old database entries in /usr/share/man/pl...
Processing manual pages under /usr/share/man/pl...
Purging old database entries in /usr/share/man/pt...
Processing manual pages under /usr/share/man/pt...
Purging old database entries in /usr/share/man/fr.ISO8859-1...
Processing manual pages under /usr/share/man/fr.ISO8859-1...
Purging old database entries in /usr/share/man/de...
Processing manual pages under /usr/share/man/de...
Purging old database entries in /usr/share/man/sr...
Processing manual pages under /usr/share/man/sr...
Purging old database entries in /usr/share/man/sl...
Processing manual pages under /usr/share/man/sl...
Purging old database entries in /usr/share/man/id...
Processing manual pages under /usr/share/man/id...
Purging old database entries in /usr/share/man/tr...
Processing manual pages under /usr/share/man/tr...
Purging old database entries in /usr/share/man/zh_TW...
Processing manual pages under /usr/share/man/zh_TW...
Purging old database entries in /usr/share/man/sv...
Processing manual pages under /usr/share/man/sv...
Purging old database entries in /usr/share/man/es...
Processing manual pages under /usr/share/man/es...
Purging old database entries in /usr/share/man/da...
Processing manual pages under /usr/share/man/da...
```

```
Purging old database entries in /usr/share/man/fr.UTF-8...
Processing manual pages under /usr/share/man/fr.UTF-8...
Purging old database entries in /usr/share/man/hu...
Processing manual pages under /usr/share/man/hu...
Purging old database entries in /usr/share/man/fi...
Processing manual pages under /usr/share/man/fi...
Purging old database entries in /usr/share/man/it...
Processing manual pages under /usr/share/man/it...
Purging old database entries in /usr/share/man/cs...
Processing manual pages under /usr/share/man/cs...
Processing manual pages under /usr/local/man...
0 man subdirectories contained newer manual pages.
0 manual pages were added.
0 stray cats were added.
2 old database entries were purged.
```

La commande **whatis** peut maintenant être utilisée pour identifier les sections des manuels disponibles pour une commande donnée :

```
root@ubuntu1804:~# whatis passwd
passwd (1)           - change user password
passwd (1ssl)        - compute password hashes
passwd (5)           - the password file
```

Options des commandes

Les options de la commande **mandb** sont :

```
root@ubuntu1804:~# mandb --help
Usage: mandb [OPTION...] [MANPATH]

  -c, --create               create dbs from scratch, rather than updating
  -C, --config-file=FILE     use this user configuration file
  -d, --debug                emit debugging messages
```

```
  -f, --filename=FILENAME    update just the entry for this filename
  -p, --no-purge             don't purge obsolete entries from the dbs
  -q, --quiet                work quietly, except for 'bogus' warning
  -s, --no-straycats         don't look for or add stray cats to the dbs
  -t, --test                 check manual pages for correctness
  -u, --user-db              produce user databases only
  -?, --help                 give this help list
      --usage                give a short usage message
  -V, --version              print program version

Mandatory or optional arguments to long options are also mandatory or optional
for any corresponding short options.

Report bugs to cjwatson@debian.org.
```

Les options de la commande **whatis** sont :

```
root@ubuntu1804:~# whatis --help
Usage: whatis [OPTION...] KEYWORD...

  -d, --debug                emit debugging messages
  -v, --verbose              print verbose warning messages
  -r, --regex                interpret each keyword as a regex
  -w, --wildcard             the keyword(s) contain wildcards
  -l, --long                 do not trim output to terminal width
  -C, --config-file=FILE     use this user configuration file
  -L, --locale=LOCALE        define the locale for this search
  -m, --systems=SYSTEM       use manual pages from other systems
  -M, --manpath=PATH         set search path for manual pages to PATH
  -s, --sections=LIST, --section=LIST
                             search only these sections (colon-separated)
  -?, --help                 give this help list
      --usage                give a short usage message
  -V, --version              print program version
```

```
Mandatory or optional arguments to long options are also mandatory or optional
for any corresponding short options.

Report bugs to cjwatson@debian.org.
```

La Commande info

En plus du système des manuels, des informations concernant des exécutables peuvent être trouvées dans le système **info**. De l'information détaillée, des exemples et des tutoriels peuvent être absents du système des manuels. Pour cette raison le système **info** a été créé.

Dans le système **info**, de multiples pages d'informations concernant un exécutable, appelées nœuds, sont regroupées. La navigation entre nœuds est simple et utilise un système de liens hypertexte.

Afin de faciliter la navigation chaque page contient une entête qui inclut de l'information sur le nœud courant, le nœud parent, le nœud précédent et le nœud suivant. Pour naviguer entre les nœuds il convient d'utiliser les touches suivantes :

Touch	**Fonction**
n	Nœud suivant.
p	Nœud précédent.
u	Nœud parent.
Espace	Défiler une page vers le bas.
Suppr	Défiler une page vers le haut.
b	Retour au début du nœud courant.
Tab ⇆	Sélectionner le lien hypertexte suivant.
m <lien>	Aller au sous-nœud spécifié. En appuyant sur [Tab], on obtient la liste de tous les sous-nœuds.
↵ Entrée	Suivre le lien hypertexte courant. Un lien hypertexte commence avec un astérisque et se termine avec le caractère **:**.
q	Quitter le système **info**.

Pour accéder au premier nœud, utilisez la commande suivante :

```
root@ubuntu1804:~# info
...
```

```
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;
  'H' 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.
* File permissions: (coreutils)File permissions.
                                Access modes.
* Ed: (ed).                     The GNU line editor
* 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.

-----Info: (dir)Top, 256 lines --Top-----------------------------------------------------------------------
-------------------------------------------------------
Welcome to Info version 6.5.  Type H for help, h for tutorial.
```

Options de la commande

Les options de cette commande sont :

```
root@ubuntu1804:~# info --help
Usage: info [OPTION]... [MENU-ITEM...]

Read documentation in Info format.

Frequently-used options:
  -a, --all                   use all matching manuals
  -k, --apropos=STRING        look up STRING in all indices of all manuals
  -d, --directory=DIR         add DIR to INFOPATH
  -f, --file=MANUAL           specify Info manual to visit
  -h, --help                  display this help and exit
      --index-search=STRING   go to node pointed by index entry STRING
  -n, --node=NODENAME         specify nodes in first visited Info file
  -o, --output=FILE           output selected nodes to FILE
  -O, --show-options, --usage  go to command-line options node
      --subnodes              recursively output menu items
  -v, --variable VAR=VALUE    assign VALUE to Info variable VAR
      --version               display version information and exit
  -w, --where, --location     print physical location of Info file

The first non-option argument, if present, is the menu entry to start from;
it is searched for in all 'dir' files along INFOPATH.
```

```
If it is not present, info merges all 'dir' files and shows the result.
Any remaining arguments are treated as the names of menu
items relative to the initial node visited.

For a summary of key bindings, type H within Info.

Examples:
  info                         show top-level dir menu
  info info-stnd               show the manual for this Info program
  info emacs                   start at emacs node from top-level dir
  info emacs buffers           select buffers menu entry in emacs manual
  info emacs -n Files          start at Files node within emacs manual
  info '(emacs)Files'          alternative way to start at Files node
  info --show-options emacs    start at node with emacs' command line options
  info --subnodes -o out.txt emacs
                               dump entire emacs manual to out.txt
  info -f ./foo.info           show file ./foo.info, not searching dir

Email bug reports to bug-texinfo@gnu.org,
general questions and discussion to help-texinfo@gnu.org.
Texinfo home page: http://www.gnu.org/software/texinfo/
```

<html>

</html>