

Dernière mise-à-jour : 2020/08/06 15:27

LDF103 - Aide et Documentation

Contenu du Module

- **LRF103 - Aide et Documentation**
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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@debian9:~# type ifconfig
ifconfig is /sbin/ifconfig
```

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@debian9:~# du --help | more
Usage: du [OPTION]... [FILE]...
  or:  du [OPTION]... --files0-from=F
Summarize disk usage of each FILE, 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
--More--
```

Cependant dans certains cas, cette option n'est pas admise :

```
root@debian9:~# type --help
-su: type: --: invalid option
type: usage: type [-afptP] name [name ...]
```

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@debian9:~# type type
type is a shell builtin
```

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

```
root@debian9:~# help | more
GNU bash, version 4.3.30(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 filename] >
break [n]
builtin [shell-builtin [arg ...]]
caller [expr]
case WORD in [PATTERN [| PATTERN]...) COMMA>
cd [-L|[-P [-e]] [-@]] [dir]
command [-pVv] command [arg ...]
--More--
history [-c] [-d offset] [n] or history -a>
if COMMANDS; then COMMANDS; [ elif COMMAND>
jobs [-lnprs] [jobspec ...] or jobs -x com>
kill [-s sigspec | -n signum | -sigspec] p>
let arg [arg ...]
local [option] name[=value] ...
logout [n]
mapfile [-n count] [-O origin] [-s count] >
popd [-n] [+N | -N]
printf [-v var] format [arguments]
pushd [-n] [+N | -N | dir]
pwd [-LP]
read [-ers] [-a array] [-d delim] [-i text>
readarray [-n count] [-O origin] [-s count>
readonly [-aAf] [name[=value] ...] or read>
```

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

```
root@debian9:~# 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** produit la sortie suivante :

```
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 alphabetic
- 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 appears in a dictionary or which must be written down. The password should also not be a proper name, your license number, birth date, or street address.

Any of these may be used as guesses to violate system security.

You can find advices on how to choose a strong password on http://en.wikipedia.org/wiki/Password_strength

OPTIONS

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@debian9:~# whereis passwd
passwd: /usr/bin/passwd /etc/passwd /usr/share/man/man1/passwd.1ssl.gz /usr/share/man/man1/passwd.1.gz
/usr/share/man/man5/passwd.5.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@debian9:~# man -k passwd
chgpaswd (8)      - update group passwords in batch mode
chpasswd (8)     - update passwords in batch mode
exim4_passwd (5) - Files in use by the Debian exim4 packages
exim4_passwd_client (5) - Files in use by the Debian exim4 packages
gpaswd (1)      - administer /etc/group and /etc/gshadow
grub-mkpasswd-pbkdf2 (1) - generate hashed password for GRUB
lppaswd (1)     - add, change, or delete digest passwords.
mkpasswd (1)    - Overfeatured front end to crypt(3)
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/groupword
```

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@debian9:~# 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 chaîne de caractères passée en argument à la commande. Sans option, la sortie obtenue est identique à la commande **man -k** :

```
root@debian9:~# apropos passwd
chpasswd (8)          - update group passwords in batch mode
chpasswd (8)          - update passwords in batch mode
exim4_passwd (5)     - Files in use by the Debian exim4 packages
exim4_passwd_client (5) - Files in use by the Debian exim4 packages
gpasswd (1)          - administer /etc/group and /etc/gshadow
grub-mkpasswd-pbkdf2 (1) - generate hashed password for GRUB
lppasswd (1)         - add, change, or delete digest passwords.
mkpasswd (1)         - Overfeatured front end to crypt(3)
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@debian9:~# 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 Debian 6, 7, 8 et 9 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@debian9:~# mandb
Purging old database entries in /usr/share/man...
```

```
Processing manual pages under /usr/share/man...
Purging old database entries in /usr/share/man/ug...
Processing manual pages under /usr/share/man/ug...
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/el...
Processing manual pages under /usr/share/man/el...
Purging old database entries in /usr/share/man/ja...
Processing manual pages under /usr/share/man/ja...
...
0 man subdirectories contained newer manual pages.
0 manual pages were added.
0 stray cats were added.
0 old database entries were purged.
```

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

```
root@debian9:~# whatis passwd
passwd (1)          - change user password
passwd (5)          - the password file
passwd (1ssl)      - compute password hashes
```

Options des commandes

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

```
root@debian9:~# 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@debian9:~# 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 exécutable 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@debian9:~# info
...
```

```
File: dir,      Node: Top      This is the top of the INFO tree
```

```
This (the Directory node) gives a menu of major topics.  
Typing "q" exits, "?" lists all Info commands, "d" returns here,  
"h" gives a primer for first-timers,  
"mEmacs<Return>" visits the Emacs manual, etc.
```

```
In Emacs, you can click mouse button 2 on a menu item or cross reference  
to select it.
```

```
* 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.
- * Finding files: (find). Operating on files matching certain criteria.

Compression

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

```
-----Info: (dir)Top, 197 lines --Top-----  
Welcome to Info version 5.2. Type h for help, m for menu item.
```

Options de la commande

Les options de cette commande sont :

```
root@debian9:~# info --help  
Usage: info [OPTION]... [MENU-ITEM...]
```

Read documentation in Info format.

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.
--dribble=FILE	remember user keystrokes in FILENAME.
-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.
-R, --raw-escapes	output "raw" ANSI escapes (default).
--no-raw-escapes	output escapes as literal text.
--restore=FILE	read initial keystrokes from FILE.
-O, --show-options, --usage	go to command-line options node.
--strict-node-location	(for debugging) use Info file pointers as-is.
--subnodes	recursively output menu items.
-v, --variable VAR=VALUE	assign VALUE to Info variable VAR.
--vi-keys	use vi-like and less-like key bindings.
--version	display version information and exit.
-w, --where, --location	print physical location of Info file.
-x, --debug=NUMBER	set debugging level (-1 for all).

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	show the general manual for Info readers

```
info info-stdnd      show the manual specific to this Info program
info emacs           start at emacs node from top-level dir
info emacs buffers   start at buffers node within emacs manual
info --show-options emacs start at node with emacs' command line options
info --subnodes -o out.txt emacs dump entire 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/>

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