

Overview of GNU/Linux Documentation

All Parts

Taken from www.mandrakeuser.org

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What is...

```
whatis [command]
```

names the program's purpose. It queries the man page database (see below), so it only works if the program has a man page. Example:

```
whatis rm
rm (1)      - remove files or directories
```

The number after the command shows which section its man-page is in. Type `q` to leave the summary.

Command line options

Most programs supply a switch offering a short explanation on their usage. Regrettably there's no standard, so you might have to try some switches:

- Commands which require options print a help message if you issue them without options, e.g. 'rpm' or 'tar'.
- Built-in shell commands like 'alias' use the shell's help system: `help [command]`.
- System utilities usually take the `--help` parameter.
- Others will often listen to one of these: `-?`, `-h` or `-help`.

If neither of these work, you have to look elsewhere.

Manuals ('Man' and 'Info' Pages)

Most commands come with either 'man' or 'info' pages:

- `man [command]`
- `info [command]`

Try 'man' first since most programs documented in the info format also have a man-page. These can be quite technical, since they are often written by the very people who wrote the program and some programmers are just not very good at writing documentation. ;-) However, they provide the most competent information about how a program works, which options it accepts and sometimes even examples on how to use them.

Docs In 'doc' Directory

Many programs come with additional documentation like README files, FAQs (Frequently Asked Questions) or even user manuals. You can find them in the '/usr/share/doc' directory (pre-7.2: '/usr/doc').

Usually these documents are part of the package you install. There's one notable exception, though, and that's the Linux kernel. You get this very useful collection of documents either if you install the kernel-sources package (then the documentation resides in '/usr/src/linux/Documentation') or by installing the separate kernel-docs package (then it's '/usr/(share)/doc/kernel-docs-[version]').

HOWTOs, FAQs, E-Books

These documents are maintained by members of the [Linux Documentation Project](#) (LDP). Some of them are available in [languages other than English](#). The HTML version is usually included in ML (except for

7.0) and located in '/usr/share/doc/HOWTO/other-formats/html/' (pre-7.2: '/usr/doc/HOWTO/[...]'). If you prefer another format (ASCII text, PDF, PostScript), you can [download the appropriate package](#) from linuxdoc.

HOWTOs are written by experienced Linux users and currently cover more than 300 topics, like configuring special hardware, setting up and using software, transition from other operating systems, troubleshooting etc. If you don't know how to do something, have a look at them first. Most of them are written in the manner of my pages.

Even if you have the offline version installed, it's a good idea to pay a visit to the [online index](#), since many HOWTOs are updated regularly.

The LDP also maintains other documents, like the [guides](#), which resemble books. They cover broader topics like security, general administration, networking and the Linux kernel. Some of them are written especially with users new to Linux in mind.

A third LDP section contains the [FAQ documents](#) with the indispensable, must-read, can't-do-without [Linux FAQ](#). Many (and I mean many) questions on Linux in general and in particular are answered here.

Books

Reading documents on a computer monitor is quite a hard job for your eyes and your mind. Either you print them, or you get yourself some 'real' books. Nowadays there are tons of books on GNU/Linux available, here is a pitiful collection of them:

- [Linux in a Nutshell](#), by Jessica P. Hekman et al., O'Reilly, 3rd edition, 2000 is a sure bet. It covers all the basic bash shell commands as well as Perl, shell scripting, the editors Emacs and Vi, basic system administration and more. It's the only book on GNU/Linux I use (almost) every day.
- [Running Linux](#) by M. Welsh, M.K. Dalheimer and L. Kaufman, O'Reilly, 3rd edition, 1999, is widely regarded as the best introductory level book on GNU/Linux. Remarkable: it's fun to read.
- [Linux: Installation, Configuration, and Use](#) by Michael Kofler, Addison-Wesley, 2nd edition, 2000. Awarded 'Best of Operating Systems' in 1998, it covers almost everything: basic tasks as well as KDE, Gimp and LyX. Comes with a GNU/Linux distribution on two CDs. It's a multi-purpose book: you might as well learn GNU/Linux with it as - given its size and weight - kill everything up to the size of a grown-up cat. :-)
- Consult the [Linux Reading List HOWTO](#) by E.S. Raymond for a larger list. You may also visit the extensive [Open Source Bibliography](#) by O'Reilly.

Distribution Manuals

There are - of course - [Mandrake's own manuals](#), available in English, German, French, Spanish and Italian: The *Installation Guide* and the *User Guide and Reference Manual*.

You find a local copy in '/usr/doc/(share)/mandrake/' after installation, of course it is also accessible via the desktop menu.

Red Hat also provides some excellent documentation in different formats. These are useful for older (pre-7.0) versions of ML: The [Red Hat Linux Installation Guide v6.0](#) and the [Red Hat Linux Getting Started Guide v6.0](#).

Finding Documentation

If you want to find out which documentation is included in an RPM run:

`rpm -qld [program name]` if the package is already installed or
`rpm -qpld [package name]` if not.

Example:

```
$ rpm -qld rpm
/usr/share/doc/rpm-4.0/GROUPS
/usr/share/doc/rpm-4.0/RPM-PGP-KEY
/usr/share/man/man8/rpm.8.bz2
/usr/share/man/man8/rpm2cpio.8.bz2
[etc]
```

Please refer to the [article on RPM](#) if have difficulties with this (e.g. don't know which package a command belongs to).

If you want to load all these documents in a pager for reading, you can do that, too:

```
less $(rpm -qld rpm)
```

(This is called [command substitution](#).)

Notice however, that you will have troubles reading HTML or man pages in 'less'. Better use suitable programs for them.

Handling 'man'

Some important command line options are:

- `-a` . Displays all pages that match a pattern. For example: `whatis man` displays this:

```
man (1) - format and display the on-line manual pages
man (7) - macros to format man pages
man.config (5) - configuration data for man
```

However `man man` only displays the *first* entry, `man (1)`. Using `man -a man` will display the second, `man (7)`, after having closed the first.

This is because man pages are organized in directories according to content: 'man1' contains pages belonging to user commands, 'man2' system calls, 'man3' C functions, 'man4' file formats and device files, 'man5' configuration files, 'man6' games, 'man7' misc., 'man8' system administration, 'man9' kernel functions and 'mann' new commands. To get a man page from a specific section, use

```
man [section] [command]
```

e.g. `man 7 man`.

- `-k`. Searches the first few lines of all man pages for a keyword. Similar to the `apropos [command]` command.
- `-K`. Full text search on all man pages for a given string. This may take *quite* a while...

man pages use the program `less` for display. Therefore you can use all navigational shortcuts of `less` like scrolling with `SPACE` or `RETURN`, bookmarking with `m`, searching forward with `/[pattern]` and backward with `?[pattern]`, jumping from pattern to pattern using `n` or `N`. It is important to get used to these, since man pages can be very long. Type `h` in 'less' to get an overview on all available navigational commands.

You can use a lesser form of command line completion with the `man` command. Type: `man tcl` and hit first the ESC key and then '!'. The command will be completed to `man tclsh`. If the first letters of the man page aren't unambiguous or if there isn't a man page starting with these letters, nothing happens. This works with info pages, too.

man pages are stored in subdirectories of `/usr/(share/)man` and other places. As long as a man page is in one of these directories, 'man' will find it by looking at `/etc/man.config`. If you want to read a man page in a non-standard location, you have to supply the path to that file to the 'man' command, or use programs which are capable of rendering the 'man' macro language, like 'mc'.

Handling 'info'

info files provide multi-level manuals which can be browsed by links. These links are marked by an asterisk (*). Put the cursor on one of them and hit ENTER to follow this link.

Info pages are organized by 'nodes', i.e. all pages are part of one hierarchical structure. You can display the top of this structure by typing just `info`.

The most important navigational shortcuts are:

- SPACE (scrolling down page wise),
- BACKSPACE (scrolling up page wise),
- `b` and `e` (jump to beginning or end of node),
- TAB (jump to next link in text) and
- ENTER (follow link).

You can also navigate by nodes and levels:

- `n` (next node),
- `p` (previous node),
- `u` (one level up),
- `l` (back to previously displayed page).

`h` will give you detailed help and `?` a list of available info commands.