

[name](#)[synopsis](#)[description](#)[examples](#)[overview](#)[defaults](#)[options](#)[exit status](#)[environment](#)[files](#)[see also](#)[history](#)[cosmic \(1\) man.1.gz](#)Provided by: [man-db\\_2.8.4-2\\_amd64](#) 

## NAME

man - an interface to the on-line reference manuals

## SYNOPSIS

```
man [-C file] [-d] [-D] [--warnings[=warnings]] [-R system[,...]] [-M path] [-S list] [-e extension] [-  
--names-only] [-a] [-u] [--no-subpages] [-P pager] [-r  
--no-hyphenation] [--no-justification] [-p string] [-t]  
[-X[dpi]] [-Z] [[section] page[.section] ...] ...  
man -k [apropos options] regexp ...  
man -K [-w|-W] [-S list] [-i|-I] [--regex] [section] term ...  
man -f [whatis options] page ...
```

## DESCRIPTION

The table below shows the section numbers of the manual for they contain.

- ```
1 Executable programs or shell commands
2 System calls (functions provided by the kernel)
3 Library calls (functions within program libraries)
4 Special files (usually found in /dev)
5 File formats and conventions eg /etc/passwd
6 Games
7 Miscellaneous (including macro packages and conventions),
8 System administration commands (usually only for root)
9 Kernel routines [Non standard]
```

A manual page consists of several sections.

Conventional section names include **NAME**, **SYNOPSIS**, **CONFIGURATION**, **EXIT STATUS**, **RETURN VALUE**, **ERRORS**, **ENVIRONMENT**, **FILES**, **VERSIONS**, **BUGS**, **EXAMPLE**, **AUTHORS**, and **SEE ALSO**.

The following conventions apply to the **SYNOPSIS** section and ca

other sections.

|                           |                                                    |
|---------------------------|----------------------------------------------------|
| <b>bold text</b>          | type exactly as shown.                             |
| <i>italic text</i>        | replace with appropriate argument.                 |
| <b>[-abc]</b>             | any or all arguments within [ ] are optional       |
| <b>-a -b</b>              | options delimited by   cannot be used together     |
| <u>argument</u> ...       | <u>argument</u> is repeatable.                     |
| [ <u>expression</u> ] ... | entire <u>expression</u> within [ ] is repeatable. |

Exact rendering may vary depending on the output device. For not be able to render italics when running in a terminal underlined or coloured text instead.

The command or function illustration is a pattern that invocations. In some cases it is advisable to illustrate several is shown in the **SYNOPSIS** section of this manual page.

## EXAMPLES

**man** ls

Display the manual page for the item (program) ls.

**man** man.7

Display the manual page for macro package man from section

**man** **-a** intro

Display, in succession, all of the available intro manual. It is possible to quit between successive display

**man** **-t** alias | lpr -Pps

Format the manual page referenced by 'alias', usually a shell default **troff** or **groff** format and pipe it to the printer n for **groff** is usually PostScript. **man --help** should advise bound to the **-t** option.

**man** **-l** **-Tdvi** ./foo.1x.gz > ./foo.1x.dvi

This command will decompress and format the nroff source

a **device independent (dvi)** file. The redirection is necessary for the output to be directed to **stdout** with no pager. The output can then be processed by a program such as **xdvi** or further processed into PostScript **dvips**.

**man -k printf**

Search the short descriptions and manual page names for the given expression. Print out any matches. Equivalent to **apropos**.

**man -f smail**

Lookup the manual pages referenced by smail and print out any found. Equivalent to **whatis smail**.

## OVERVIEW

Many options are available to **man** in order to give as much flexibility as possible to the user. Changes can be made to the search path, section order, behaviours and operations detailed below.

If the **MANPATH** variable is set, various environment variables are interrogated to determine the search path. It is possible to set the 'catch all' variable **\$MANOPT** to any format with the exception that any spaces used as part of the format must be escaped (preceded by a backslash). **man** will parse **\$MANOPT** as the initial command line option. Those options requiring an argument will be overruled by the argument found on the command line. To reset all of the options set by **man**, specify **man** as the initial command line option. This will allow all options specified in **\$MANOPT** although they must still have been specified on the command line.

The manual pager utilities packaged as **man-db** make extensive use of caches. These caches contain information such as where each man page is located in the filesystem and what its whatis (short one line description of the command) is. This allows **man** to run faster than if it had to search the filesystem for each appropriate manual page. If requested using the **-u** option, the caches remain consistent, which can obviate the need to maintain traditional whatis text databases.

If **man** cannot find a **mandb** initiated **index** database for the requested command, it will search the filesystem for the command.

hierarchy, it will still search for the requested manual page. If **whatismyindex** it will try to extract information from a traditional whatis

These utilities support compressed source nroff files having of **.Z**, **.z** and **.gz**. It is possible to deal with any compressed information must be known at compile time. Also, by default compressed using **gzip**. Each 'global' manual page hierarchy /usr/X11R6/man may have any directory as its cat page hierarchy. Pages are stored under the same hierarchy as the man pages, but specified in the **File Hierarchy Standard (FHS)**, it may be better. For details on how to do this, please read [manpath\(5\)](#). For details read the standard.

International support is available with this package. National language accessible (if available on your system) via use of locale function support, it is necessary to set either **\$LC\_MESSAGES**, **\$LANG** environment variable to your language locale, usually specified in the format:

```
<language>[_<territory>][.<character-set>[,<version>]]
```

If the desired page is available in your locale, it will use the standard (usually American English) page.

Support for international message catalogues is also featured and activated in the same way, again if available. If you find that the message catalogues supplied with this package are not available and you would like to supply them, please contact the maintainers of such activity.

For information regarding other features and extensions available please read the documents supplied with the package.

## DEFAULTS

**man** will search for the desired manual pages within the index

option is given, a cache consistency check is performed to ensure that the caches reflect the filesystem. If this option is always given, it is run **mandb** after the caches are initially created, unless **mandb** is already running. However, the cache consistency check can be slow on systems with many files installed, so it is not performed by default, and system administrators are encouraged to run **mandb** every week or so to keep the database caches fresh. To avoid outdated caches, **man** will fall back to file globbing if a cache is not present or would if no cache was present.

Once a manual page has been located, a check is performed to see if a preformatted 'cat' file already exists and is newer than the current one. If it is, this preformatted file is (usually) decompressed and the pager is run. The pager can be specified in a number of ways, or the default is used (see option **-P** for details). If no cat file exists, the nroff file, the nroff is filtered through various programs and the pager is run.

If a cat file can be produced (a relative cat directory exists and has the correct permissions), **man** will compress and store the cat file in the cache.

The filters are deciphered by a number of means. Firstly, the environment variable **\$MANROFFSEQ** is interrogated. If it is set, the environment variable is used as the initial line of the preprocessor string. To contain a valid preprocessor string, it must be of the form:

```
'\" <string>
```

where **string** can be any combination of letters described by option **-F**.

If none of the above methods provide any filter information, a default filter is used.

A formatting pipeline is formed from the filters and the preprocessor string, and the pipeline is run with **[tg]roff** with **-t**) and executed. Alternatively, if an executable **mandb\_tfmt** with **-t**) exists in the man tree root, it is executed instead. If the manual source file, the preprocessor string, and optional **-T** or **-E** as arguments.

## OPTIONS

Non argument options that are duplicated either on the command line or in the configuration file are not harmful. For options that require an argument, each duplicate option must be followed by the previous argument value.

### General options

**-C file, --config-file=file**

Use this user configuration file rather than the default.

**-d, --debug**

Print debugging information.

**-D, --default**

This option is normally issued as the very first option to its default. Its use is to reset those options to their default values. Any options that follow **-D** will have their usual effect.

**--warnings[=warnings]**

Enable warnings from groff. This may be used to perform a search of the source text of manual pages. warnings is a comma-separated list of warning names. If it is not supplied, the default is "mac". See the groff manual for a list of available warning names.

### Main modes of operation

**-f, --what-is**

Equivalent to **what-is**. Display a short description of the command or file. See **what-is(1)** for details.

**-k, --a-propos**

Equivalent to **a-propos**. Search the short manual page descriptions for the given text and display any matches. See **a-propos(1)** for details.

**-K, --global-a-propos**

Search for text in all manual pages. This is a brute force search and may take some time; if you can, you should specify a set of manual pages that need to be searched. Search terms may be simple words or regular expressions if the **--regex** option is used.

Note that this searches the sources of the manual pages.

so may include false positives due to things like  
Searching the rendered text would be much slower.

**-l, --local-file**

Activate 'local' mode. Format and display local manual pages through the system's manual collection. Each manual page is interpreted as an nroff source file in the correct format and produced. If '-' is listed as one of the arguments, read from stdin. When this option is not used, and man fails to find a manual page before displaying the error message, it attempts to find the manual page supplied, using the name as a filename and looking for it in the system's manual collection.

**-w, --where, --path, --location**

Don't actually display the manual pages, but do print the names of the nroff files that would be formatted.

**-W, --where-cat, --location-cat**

Don't actually display the manual pages, but do print the names of the files that would be displayed. If -w and -W are both used, the names are separated by a space.

**-c, --catman**

This option is not for general use and should only be used by the catman package.

**-R encoding, --recode=encoding**

Instead of formatting the manual page in the usual way, format it to the specified encoding. If you already know the encoding, you can also use `manconv(1)` directly. However, this option can convert several manual pages to a single encoding without having to specify the encoding of each, provided that they were already installed in a manual page hierarchy.

**Finding manual pages****-L locale, --locale=locale**

`man` will normally determine your current locale by a call to `setlocale(3)` which interrogates various environment variables like `$LC_MESSAGES` and `$LANG`. To temporarily override the default option to supply a locale string directly to `man`, use the `-L` option. The effect lasts until the search for pages actually begins. Output is in the current locale.



will always be displayed in the initially determined lo

**-m** system[,...], **--systems=**system[,...]

If this system has access to other operating system accessed using this option. To search for a manual pag collection, use the option **-m NewOS**.

The system specified can be a combination of comm names. To include a search of the native operating sys the system name **man** in the argument string. This opti environment variable.

**-M** path, **--manpath=**path

Specify an alternate manpath to use. By default, **man** u determine the path to search. This option overri variable and causes option **-m** to be ignored.

A path specified as a manpath must be the root of structured into sections as described in the man-db ma system"). To view manual pages outside such hierarchie

**-S** list, **-s** list, **--sections=**list

List is a colon- or comma-separated list of `order spe search. This option overrides the **\$MANSECT** environment is for compatibility with System V.)

**-e** sub-extension, **--extension=**sub-extension

Some systems incorporate large packages of manual p accompany the **Tcl** package, into the main manual page h problem of having two manual pages with the same name pages were usually all assigned to section **1**. As th possible to put the pages in the correct section, `extension' to them, in this case, **exit(3tcl)**. Unde display **exit(3)** in preference to **exit(3tcl)**. To negoti avoid having to know which section the page you r possible to give **man** a sub-extension string indicating belong to. Using the above example, supplying t restrict the search to pages having an extension of **\*tc**

**-i, --ignore-case**

Ignore case when searching for manual pages. This is t

**-I, --match-case**

Search for manual pages case-sensitively.

**--regex**

Show all pages with any part of either their names or t  
each page argument as a regular expression, as with  
usually no reasonable way to pick a "best" page when  
expression, this option implies **-a**.

**--wildcard**

Show all pages with any part of either their names or  
each page argument using shell-style wildcards, as with  
page argument must match the entire name or des  
boundaries in the description. Since there is usually  
"best" page when searching for a wildcard, this option

**--names-only**

If the **--regex** or **--wildcard** option is used, mat  
descriptions, as with **whatIs(1)**. Otherwise, no effect.

**-a, --all**

By default, **man** will exit after displaying the most sui  
Using this option forces **man** to display all the manual  
the search criteria.

**-u, --update**

This option causes **man** to perform an `inode level'  
database caches to ensure that they are an accu  
filesystem. It will only have a useful effect if **man** i  
bit set.

**--no-subpages**

By default, **man** will try to interpret pairs of ma  
command line as equivalent to a single manual page name  
underscore. This supports the common pattern of prog  
of subcommands, allowing them to provide manual pages f

using similar syntax as would be used to invoke the example:

```
$ man -aw git diff
/usr/share/man/man1/git-diff.1.gz
```

To disable this behaviour, use the **--no-subpages** option

```
$ man -aw --no-subpages git diff
/usr/share/man/man1/git.1.gz
/usr/share/man/man3/Git.3pm.gz
/usr/share/man/man1/diff.1.gz
```

### Controlling formatted output

#### **-P pager, --pager=pager**

Specify which output pager to use. By default, **man** use if **pager** is not found or is not executable. This option overrides the environment variable, which in turn overrides the **\$PAGE** if **\$PAGE** is not used in conjunction with **-f** or **-k**.

The value may be a simple command name or a command shell quoting (backslashes, single quotes, or double quotes) to connect multiple commands; if you need that, use **sh -c** to take the file to display either as an argument or on standard input.

#### **-r prompt, --prompt=prompt**

If a recent version of **less** is used as the pager, **man** uses **less** prompt and some sensible options. The default prompt is **Man page**.

**Man page name(sec) line x**

where name denotes the manual page name, sec denotes the section number and x the current line number. This is achieved by using the **MAN\_PN** variable.

Supplying **-r** with a string will override this default. The string text **\$MAN\_PN** which will be expanded to the name of the section name surrounded by **`('** and **`)'**. The string could be expressed as

```
\ Manual\ page\ \ $MAN_PN\ ?ltline\ %lt?L/%L.:
byte\ %bB?s/%s..?\ (END):?pB\ %pB\\%..
(press h for help or q to quit)
```

It is broken into three lines here for the sake of r meaning see the [less\(1\)](#) manual page. The prompt stri shell. All double quotes, back-quotes and backslash escaped by a preceding backslash. The prompt string m may be followed by further options for less. By default

The **\$MANLESS** environment variable described below may b prompt string if none is supplied on the command line.

### **-7, --ascii**

When viewing a pure [ascii\(7\)](#) manual page on a 7 bit te some characters may not display correctly when u description with **GNU nroff**. This option allows p displayed in [ascii](#) with the [latin1](#) device. It will not The following table shows the translations performed: displayed properly when using **GNU nroff's** [latin1\(7\)](#) dev

| Description         | Octal | latin1 | ascii |
|---------------------|-------|--------|-------|
| continuation hyphen | 255   | -      | -     |
| bullet (middle dot) | 267   | .      | o     |
| acute accent        | 264   | '      | '     |
| multiplication sign | 327   | ×      | x     |

If the [latin1](#) column displays correctly, your terminal characters and this option is not necessary. If the identical, you are reading this page using this option page using the [latin1](#) device description. If the corrupt, you may need to view manual pages with this op

This option is ignored when using options **-t**, **-H**, **-T**, o **nroff** other than **GNU's**.

### **-E encoding, --encoding=encoding**

Generate output for a character encoding other than the default. For compatibility, encoding may be an **nroff** device such as **troff**, as well as a true character encoding such as **UTF-8**.

**--no-hyphenation, --nh**

Normally, **nroff** will automatically hyphenate text at line boundaries. If lines do not contain hyphens, if it is necessary to do so to avoid excessive spacing. This option disables automatic hyphenation; text will only be hyphenated if they already contain hyphens.

If you are writing a manual page and simply want to prevent a word from being hyphenated at an inappropriate point, do not use this option in the documentation instead; for instance, you can put "\%" in the text to indicate that it may be hyphenated at that point, or put "\N" to prevent it from being hyphenated.

**--no-justification, --nj**

Normally, **nroff** will automatically justify text to both margins. This option disables full justification, leaving justified only text called "ragged-right" text.

If you are writing a manual page and simply want to prevent certain paragraphs from being justified, do not use this option, but control the justification of individual paragraphs instead; for instance, you can use the ".na", ".nf", ".sp" options to temporarily disable adjusting and filling.

**-p string, --preprocessor=string**

Specify the sequence of preprocessors to run before **nroff**. Most installations will have a full set of preprocessors. Some of the letters used to designate them are: **eqn** (e), **grap** (g), **tbl** (t), **refer** (r). This option overrides the **\$MANROFF** environment variable. **zsoelim** is always run as the very first preprocessor.

**-t, --troff**

Use **groff** **-mandoc** to format the manual page to stdout. This option is in conjunction with **-H**, **-T**, or **-Z**.

**-T[device], --troff-device[=device]**

This option is used to change **groff** (or possibly **troff**)

a device other than the default. It implies **-t** (Groff-1.17) include **dvi**, **latin1**, **ps**, **utf8**, **X75** and **X100**

**-H[browser], --html[=browser]**

This option will cause **groff** to produce HTML output, and in a web browser. The choice of browser is determined if one is provided, by the **\$BROWSER** environment variable if that is unset (usually **lynx**). This only works with **GNU troff**.

**-X[dpi], --gxditview[=dpi]**

This option displays the output of **groff** in a graphical program. The dpi (dots per inch) may be 75, 75-12, 175; the -12 variants use a 12-point base font. This option works with X75, X75-12, X100, or X100-12 device respectively.

**-Z, --ditroff**

**groff** will run **troff** and then use an appropriate post-processor suitable for the chosen device. If **groff -mandoc** is given, it will suppress the use of a post-processor.

### Getting help

**-, --help**

Print a help message and exit.

**--usage**

Print a short usage message and exit.

**-V, --version**

Display version information.

## EXIT STATUS

|          |                                            |
|----------|--------------------------------------------|
| <b>0</b> | Successful program execution.              |
| <b>1</b> | Usage, syntax or configuration file error. |

- 2 Operational error.
- 3 A child process returned a non-zero exit status.
- 16 At least one of the pages/files/keywords didn't exist o

## ENVIRONMENT

### MANPATH

If **\$MANPATH** is set, its value is used as the path to se

### MANROFFOPT

The contents of **\$MANROFFOPT** are added to the command the formatter (**nroff**, **troff**, or **groff**).

### MANROFFSEQ

If **\$MANROFFSEQ** is set, its value is used to determine t pass each manual page through. The default preprocesso

### MANSECT

If **\$MANSECT** is set, its value is a colon-delimited lis to determine which manual sections to search and in wha n l 8 3 2 3posix 3pm 3perl 3am 5 4 9 6 7", unle directive in </etc/manpath.config>.

### MANPAGER, PAGER

If **\$MANPAGER** or **\$PAGER** is set (**\$MANPAGER** is used in pre as the name of the program used to display the manual used, falling back to **cat** if **pager** is not found or is n

The value may be a simple command name or a command wit shell quoting (backslashes, single quotes, or double qu to connect multiple commands; if you need that, use a take the file to display either as an argument or on st

### MANLESS

If **\$MANLESS** is set, its value will be used as the d

**less** pager, as if it had been passed using the **-r** option (text **\$MAN\_PN** will be expanded in the same way). For the prompt string unconditionally to "my prompt **'-Psm my prompt string'**". Using the **-r** option overrides t

#### **BROWSER**

If **\$BROWSER** is set, its value is a colon-delimited list in turn is used to try to start a web browser for **man** - is replaced by a filename containing the HTML output of a single percent sign (%), and **%c** is replaced by a colo

**SYSTEM** If **\$SYSTEM** is set, it will have the same effect as if it argument to the **-m** option.

**MANOPT** If **\$MANOPT** is set, it will be parsed prior to **man's** command line in a similar format. As all of the other **man** specific be expressed as command line options, and are thus can be **\$MANOPT** it is expected that they will become obsolete should be interpreted as part of an option's argument m

#### **MANWIDTH**

If **\$MANWIDTH** is set, its value is used as the line length should be formatted. If it is not set, manual pages will length appropriate to the current terminal (using **ioctl(2)** if available, or falling back to 80 characters. Cat pages will only be saved when the default formatting the terminal line length is between 66 and 80 character

#### **MAN\_KEEP\_FORMATTING**

Normally, when output is not being directed to a terminal (pipe), formatting characters are discarded to make without special tools. However, if **\$MAN\_KEEP\_FORMATTING** value, these formatting characters are retained. This around **man** that can interpret formatting characters.

#### **MAN\_KEEP\_STDERR**

Normally, when output is being directed to a terminal (error output from the command used to produce formatted discarded to avoid interfering with the pager's display



often produce relatively minor error messages about ty poor alignment, which are unsightly and generally confu with the manual page. However, some users want \$**MAN\_KEEP\_STDERR** is set to any non-empty value, error o usual.

### **LANG, LC\_MESSAGES**

Depending on system and implementation, either or bo will be interrogated for the current message locale. m in that locale (if available). See [setlocale\(3\)](#) for pr

## FILES

[/etc/manpath.config](#)

man-db configuration file.

[/usr/share/man](#)

A global manual page hierarchy.

[/usr/share/man/index.\(bt|db|dir|pag\)](#)

A traditional global index database cache.

[/var/cache/man/index.\(bt|db|dir|pag\)](#)

An FHS compliant global index database cache.

## SEE ALSO

[apropos\(1\)](#), [groff\(1\)](#), [less\(1\)](#), [manpath\(1\)](#), [nroff\(1\)](#), [trof](#)  
[setlocale\(3\)](#), [manpath\(5\)](#), [ascii\(7\)](#), [latin1\(7\)](#), [man\(7\)](#), [catman](#)  
package manual, **FSSTND**

## HISTORY

1990, 1991 – Originally written by John W. Eaton ([jwe@che.utex](mailto:jwe@che.utex))

Dec 23 1992: Rik Faith ([faith@cs.unc.edu](mailto:faith@cs.unc.edu)) applied bug fixe  
([wkasdo@nikhef.nikef.nl](mailto:wkasdo@nikhef.nikef.nl)).

30th April 1994 – 23rd February 2000: Wilf. ([G.Wilford](mailto:G.Wilford))  
developing and maintaining this package with the help of a few

30th October 1996 – 30th March 2001: Fabrizio Polacco <[fpolacc](mailto:fpolacc)>  
enhanced this package for the Debian project, with the help of

31st March 2001 – present day: Colin Watson <[cjwatson@debian.o](mailto:cjwatson@debian.o)>  
maintaining man-db.

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