

texdoc

Find & view documentation in T_EX Live

<http://tug.org/texdoc/>
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1 Quick guide

1.1 Basics

Open a command line¹ and type `texdoc <name>`: the documentation of the `<name>` package will pop up. Of course, replace `<name>` with the actual name of the package you want to learn about. You can also look for the documentation of more than one package at once: just give many names as arguments.

The rest of this section describes the most usual options, like how to see all documentation related to a package or use a different viewer.

1.2 Modes

`texdoc` has different modes that determine how results will be handled. The default mode, called “view” mode, is to open the first (supposedly the best) result in a viewer. It is rather handy when you know what you want to read, and want to access it quickly. On the other hand, there may be other relevant documents for the given `<name>`, which are ignored in view mode.

The so-called “list mode” makes `texdoc` list all relevant documentation and ask you which one you want to view. It is useful when there are other interesting sources of information besides the package’s main documentation.

There is also a “mixed” mode, intended to combine the best of view mode and list mode: if there is only one relevant result, then `texdoc` opens it in a viewer, else it offers you a menu.

Usually, `texdoc` shows you only results it considers relevant. If there are no “good” results, it falls back to less relevant results. You can force `texdoc` to show you also “bad”

¹ On windows, use “Execute” from the Start menu and type `cmd`. On Mac OS X, use the “terminal” icon on Mac OS X. If you are using another flavour of Unix, you probably know what to do.

results even when there are good ones by using the “showall” mode. (This implies using a menu rather than starting a viewer.)

You can select the mode with command-line options: use `texdoc <option> <name>` with one of the following options: `-w` or `--view` for view mode, `-m` or `--mixed` for mixed mode, `-l` or `--list` for list mode, `-s` or `--showall` for showall mode.

If you always (or mostly) use the same mode, it is probably easier to select it in a configuration file than to always use the command-line option. For this, see the next section.

1.3 Configuration files

texdoc use various configuration files, which you can see using the `-f` or `--files` options. The entry marked with a star (*) is the file you should use for your personal preferences as a user; you may need to create it (and the parents directories).

In order to select you favorite mode, just insert a line `mode = <yourmode>` in this files, where `<yourmode>` is one of `view`, `mixed`, `list` or `showall`.

The configuration files can be used to tweak texdoc in many ways, the most useful of which is probably the selection of the viewers for various types of documents, explained in the next section.

1.4 Viewers

texdoc’s mechanism for choosing a viewer varies according to your platform. On Windows and MacOS, it uses your file associations like when you double-click files in the Explorer or the Finder (except for the text viewer, which is always a pager). On Unix, it tries to find a viewer in the path from a list of “known” viewers.

You may want to select a different viewer for some kind of file. This is achieved by the various `viewer_<ext>` configuration options, where `<ext>` is the extension corresponding to the file type. For example, if you want to set `xpdf` as your default PDF viewer, and run it in the background, insert the line `viewer_pdf = xpdf %s &` in your configuration file. Here, `%s` stands for the name of the file to view.

1.5 Conclusion

We have now covered the most common needs. The next part explains how texdoc proceeds to find the best results. The default configuration file tries hard to set appropriate values so that you have a good out-of-the-box experience, but you may want to understand the underlying mechanisms and adapt them to your needs. The final part is a full reference for configuration options, including points omitted in the present part.

Your feedback is very welcome of the [texdoc mailing list](#). Feel free to post comments, bug reports, suggestions for improvements (inc. new aliases), even without subscribing.

2 File search, aliases, score

2.1 An overview of how texdoc works

When you type `texdoc <keyword>`, `texdoc` browses the trees containing documentation (given by the `kpathsea` variable `TEXDOCS`), lists all files containing `<keyword>` in their name (including the directory name) and give them a score based on some simple heuristics. For example, a file named `<keyword>.pdf`, will get a high score, `<keyword>-doc` will be preferred over `<keyword>whatever`, files in a directory named exactly `<keyword>` get a bonus, etc.

There is also some filtering based on extensions: only files with known extensions are listed, and some extensions get a lesser score. Also, there is some score adjustments based on keywords; by default, `Makefile`'s get a very bad score since they are almost never documentation.²

Then, depending on the mode, the file with the highest score is opened in a viewer, or the list of results is shown. Usually, only results with a positive score are displayed, except in `showall` mode. Result with very bad score (-100 and below) are never displayed.

However, this model works only if the documentation for `<keyword>` has `<keyword>` in its name, which is not always true. The documentation of the memoir class is in `memman.pdf`, for example, but it will be found anyway since it is in a directory named `memoir`. But there are more complicated cases: the documentation for `mathptmx` is in `psnfss2e.pdf`, which is quite more complicated to guess.³

Here comes the notion of *alias*: in the default configuration file, `mathptmx` is aliased to `psnfss2e`, so that when you type `texdoc mathptmx`, `texdoc` knows it has to look also for `psnfss2e`. Note that `texdoc` will also look for the original name, and that a name can be aliased to more than one new name (this is new in `texdoc 0.60`).

We will soon see how you can configure this, but let's give a few definitions about how a file can match keyword first (all matching is case-insensitive):

1. The keyword is a substring of the file name.
2. The keyword is a "subword" of the file name; words are defined as a sequence of alphanumeric characters delimited by punctuation characters (there is no space in file names in `TEX Live`) and a subword is a substring both ends of which are a word boundary.
3. The keyword can match "exactly" the file name: that is, the file name is the keyword plus an extension.

² They often end up in the doc tree, since the source of documentation is often in the same directory as the documentation itself in `TEX Live`. Other source files are discriminated by extension.

³ But not totally impossible: using the `TEX Live` database, `texdoc` can know which documentation files are associated with a given `.sty` file. Here, it could guess that the documentation is either `psfonts.pdf` or `psnfss2e.pdf`. This will probably be done in a future version.

2.2 Alias directives

```
alias <original keyword> = <name>
alias(<score>) <original keyword> = <name>
```

You can define your own aliases in texdoc's configuration files (see 1.3 or 3.1). For example, insert⁴

```
alias mathptmx = psnfss2e
```

in order to alias mathptmx to psnfss2e. Precisely, it means that files matching exactly psnfss2e will be added to the result list when you look for mathptmx, and get a score of 10 (default score for alias results). This is greater than the results of heuristic scoring: it means that results found via aliases will always rank before results associated to the original keyword.

If you want the results associated to a particular alias to have a custom score instead of the default 10, you can use the optional argument to the alias directive. This can be useful if you associate many aliases to a keyword and want one of them to show up first.

You can have a look at the configuration file provided (the last shown by `texdoc -f`) for examples. If you feel one of the aliases you defined locally should be added to the default configuration, please share it on the [texdoc mailing list](#).

Please note that aliasing is case-insensitive, and the aliases don't cascade: only aliases associated to the original keyword are used. Aliases are additive: if you define your own aliases for a keyword in your configuration file, and there are also aliases for the same keyword in the default configuration, they will add up. You can prevent the default aliases from being applied for a particular keyword by saying `stopalias <keyword>` in your personal configuration file. It will keep the aliases defined before this directive (if any) and prevent all further aliasing on this keyword.

2.3 Score directives

```
adjscore <pattern> = <score adjustment>
adjscore(<keyword>) <pattern> = <score adjustment>
```

It is possible to adjust the score of results containing some pattern as a subword, either globally (for the result of all searches) or only when searching with a particular keyword. This is done in the configuration file (1.3 or 3.1) using the `adjscore` directive. Here are a few examples from the default configuration file.

```
adjscore /Makefile = -1000
adjscore /tex-virtual-academy-pl/ = -50
adjscore(tex) texdoc = -10
```

All files named `Makefile` (and also files named `Makefile-foo` if there are any): are "killed" : by adjusting their score with such a large negative value, their final score

⁴ Actually, you don't need to do this, the default configuration file already includes this directive.

will most probably be less than -100, so they will never be displayed. Files from the `tex-virtual-academy-pl` directory, on the other hand, are not killed but just get a malus, since they are a common source of “fake” matches which hide better results (even for the lucky ones who can read polish).

The third directive gives a malus for results containing `texdoc` only if the search keyword is `tex`. Otherwise, such results would get a high score because the heuristic scoring would think `texdoc` is the name of T_EX’s documentation. The value -10 is enough to ensure that those results will have a negative score, so will not be displayed unless “showall” mode is active.

Warning: Values of scores (like the default score for aliases, the range of heuristic scoring, etc.) may change in a future version of `texdoc`. Scoring is quite new and may need some adjustments. So, don’t be surprised if you need to adapt your scoring directives after a future update of `texdoc`. This warning will disappear at some point.

2.4 File extensions

The allowed file extensions are defined by the configuration item `ext_list` (default: pdf, html, txt, ps, dvi, no extension). You can configure it with a line `ext_list = <your, list>` in a configuration file. Be aware that it will completely override the default list, not add to it. An empty string in the list means files without extension (no dot in the name), while a star means any extension.

For scoring purposes, there is also a `badext_list` parameter: files whose extension is “bad” according to this list will get a lesser score (currently 0). This only affect heuristic scoring (results found from the original keyword, not from aliases).

3 Full reference

3.1 Precedence of configuration sources

Values for a particular setting can come from several sources. They are treated in the following order, where first value found is always used:

1. Command-line options.
2. Environment variables ending with `_texdoc`.
3. Other environment variables.
4. Values from configuration files, read in the same order as they are printed by `texdoc --files`.
5. Hard-coded defaults that may depend on the current platform or the current value of another setting.

The list of configuration files may include entries which depend on the current platform, like `texdoc-x86-64-linux.cnf` for instance. Those files are meant to be used in when a single T_EX Live installation is shared across machines with different architectures needing different settings. Their use is not recommended in any other situation.

Finally, the special file `texdoc-dist.cnf` allows you to install a newer version of `texdoc` (including its default configuration file) in your home: see [the web page](#) for instructions on running the development version.

3.2 Command-line options

All command-line options (except the first three below) correspond to configuration item that can be set in the configuration files: we refer the reader to the corresponding section for the meaning of this configuration item.

- 3.2.1 `-h, --help` — Show a quick help message (namely a list of command-line options) and exit successfully.
- 3.2.2 `-V, --version` — Show the current version of the program and exit successfully.
- 3.2.3 `-f, --files` — Show the list of the configuration files for the current installation and platform, with their status (active, not found, or disabled (see 3.4.15)) and exit successfully.
- 3.2.4 `-w, --view, -l, --list, -m, --mixed, -s, --showall` — Set `mode` to the given value, see 3.4.2.
- 3.2.5 `-i, --interact, -I, --nointeract` — Set `interact_switch` to true (resp. false), see 3.4.3.
- 3.2.6 `-M, --machine` — Set `machine_switch` to true, see 3.4.11.
- 3.2.7 `-q, --quiet` — Set `verbosity_level` to minimum, see 3.4.8.
- 3.2.8 `-v, --verbose` — Set `verbosity_level` to maximum, see 3.4.8.

3.2.9 `-d`, `-d=<list>`, `--debug`, `--debug=<list>` — Set `debug_list`, see 3.4.9. If not list is given, activates all available debug items.

3.3 Environment variables

They all correspond to some `viewer_<ext>` setting, and the reader is referred to 3.4.7 for details. Also, environment variables used by older versions of `texdoc` are accepted. You can append `_texdoc` to every name in the first column: this wins over every other name.

New name	Old name 1	Old name 2	Config. item
PAGER	TEXDOCVIEW_txt	TEXDOC_VIEWER_TXT	viewer_txt
BROWSER	TEXDOCVIEW_html	TEXDOC_VIEWER_HTML	viewer_html
DVIVIEWER	TEXDOCVIEW_dvi	TEXDOC_VIEWER_DVI	viewer_dvi
PSVIEWER	TEXDOCVIEW_ps	TEXDOC_VIEWER_PS	viewer_ps
PDFVIEWER	TEXDOCVIEW_pdf	TEXDOC_VIEWER_PDF	viewer_pdf

3.4 Configuration items

3.4.1 *Structure of configuration files.* — Configuration files are line-oriented text files. Comments begin with a `#` and run to the end of line. Lines containing only space are ignored. Space at the beginning or end of a line, as well as around an `=` sign, is ignored. Apart from comments and empty lines, each line must be of one of the following forms.

```
<configuration item> = <value>
alias <original keyword> = <name>
alias(<score>) <original keyword> = <name>
stopalias <original keyword>
adjscore <pattern> = <score adjustment>
adjscore(<keyword>) <pattern> = <score adjustment>
```

We will concentrate on the `<configuration item>` part here, since other directives have already been presented (2.2 and 2.3).

In the above, `<value>` never needs to be quoted: quotes would be interpreted as part of the value, not as quotation marks (this also holds for the other directives).

Lines which do not obey these rules raise a warning, as well as unrecognised values of `<configuration item>`. The `<value>` can be an arbitrary string, except when the name of the `<configuration item>` ends with:

1. `_list`, then `<value>` is a coma-separated list of strings. Space around commas is ignored. Two consecutive comas or a coma at the beginning or end of the list means the empty string at the corresponding place.
2. `_switch`, then `<value>` must be either `true` or `false` (lowercase).
3. `_level`, then `<value>` is an integer.

In these cases, an improper `<value>` will raise a warning too.

- 3.4.2 `mode = <view, list, mixed, showall>` — Set the mode to the given value. Default is `view`. The various modes have been presented in 1.2.
- 3.4.3 `interact_switch = <true, false>` — Turn on or off interaction. Default is on. Turning interaction off prevents texdoc to ask you to choose a file to view when there are multiple choices, so it just prints the list of files found.
- 3.4.4 `alias_switch = <true, false>` — Turn on or off aliasing. Default is on.
- 3.4.5 `ext_list = <list>` — Set the list of recognised extensions to `<list>`. Default is
- ```
pdf, html, txt, dvi, ps,
```

This list is used to filter and sort the results that have the same score (with the default value: pdf first, etc). Two special values are recognised:

- *The empty element.* This means files without extensions, or more precisely without a dot in their name. This is meant for files like `README`, etc. The file is assumed to be plain text for viewing purpose.
- `*` means any extension. Of course if it is present in the list, it can be the only element!

There is a very special case: if the searched `<name>` has `.sty` extension, texdoc enters a special search mode for `.sty` files (not located in the same place as real documentation files) for this `<name>`, independantly of the current value of `ext_list` and `mode`. In an ideal world, this wouldn't be necessary since every sty file would have a proper documentation in pdf, html or plain text, but...

For each `<ext>` in `ext_list` there should be a corresponding `viewer_<ext>` value set. Defaults are defined corresponding to the default `ext_list`, but you can add values if you want. For example, if you want texdoc to be able to find man pages and display them with the `man` command, you can use

```
ext_list = pdf, html, 1, 5, txt, dvi, ps,
viewer_1 = man
viewer_5 = man
```

- 3.4.6 `badext_list = <list>` — Set the list of “bad” extensions to `<list>`. Default is “txt,”. Files with those extensions get a heuristic score of 0.
- 3.4.7 `viewer_<ext> = <cmd>` — Set the viewer command for files with extension `<ext>` to `<cmd>`. For files without extension, `viewer_txt` is used, and there's no `viewer_` variable. In `<cmd>`, `%s` can be used as a placeholder for the file name, which is otherwise inserted at the end of the command. The command can be a arbitrary shell construct.
- 3.4.8 `verbosity_level = <n>` — Set the verbosity level to `<n>` (default: 2). 3 means errors, warnings and informational messages will be printed (on stderr); 2 means only errors and warnings, 1 only errors and 0 nothing except internal errors (obviously not recommended).



- 3.4.9 `debug_list = <list>` — Set the list of activated debug items (default: none; if the option is used without arguments, the list defaults to all known debug items). Implies `--verbose`. Debug information is printed on standard error.
- 3.4.10 `max_lines = <number>` — Set the maximum number of results to be printed without confirmation in list, mixed or showall mode (default: 20). This setting has no effect if interaction is disabled.
- 3.4.11 `machine_switch = <true, false>` — Turn on or off machine-readable output (default: off). With this option active, the value of `interact_switch` is forced to `false`, and each line of output is

`<argument>\t<score>\t<filename>`

where `<argument>` is the name of the argument to which the results correspond (mainly useful if there were many arguments), `\t` is the tab (ascii 9) character, and the other entries are pretty self-explanatory. Nothing else is printed on stdout, except if a internal error occurs (in which case exit code will be 1). In the future, more tab-separated fields may be added at the end of the line, but the first 3 fields will remain unchanged.

Currently, there are two additional fields: a two-letter language code, and an unstructured description, both taken from the CTAN catalogue (via the TeX Live database). These fields may be empty and they are not guaranteed to keep the same meaning in future versions of texdoc.

- 3.4.12 `zipext_list = <list>` — List of supported extensions for zipped files (default: empty). Allows compressed files with names like `foobar.<zip>`, with `<zip>` in the given `<list>`, to be found and unzipped before the viewer is launched (the temporary file will be destroyed right after).

**Warning.** Support for zipped documentation is not meant to work on windows, a Unix shell is assumed! If you add anything to this list, please make sure that you also set a corresponding `unzip=<ext>` value for each `<ext>` in the list. Also make sure you are using blocking (i.e. not returning immediately) viewers.

*Remark.* TeX Live doesn't ship compressed documentation files, so this option is mainly useful with re-packaged version of TeX Live that do, for example in Linux distributions.

- 3.4.13 `unzip_<zipext> = <command>` — The unzipping command for zipped files with extension `<zipext>` (default: no default). Define one for each item in `zipext_list`. The command must print the result on stdout, like `gzip -d -c` does.

`rm_file = <command>`

- 3.4.14 `rm_dir = <command>` — Commands for removing files (resp. directories) on your system (defaults: `rm -f` and `rmdir`). Only useful for zipped documents (see `zipext_list`).

- 3.4.15 `lastfile_switch = <true, false>` — If set to true, prevents texdoc from reading any other configuration file after this one (they will be reported as “disabled” by `texdoc -f`). Mainly useful for installing a newer version of texdoc in your home and preventing the

default configuration file from older versions to be used (see the [web site](#) for instructions on how to do so).

### 3.5 Exit codes

The current exit codes are:

0. Success.
1. Internal error.
2. Usage error.

## 4 Licence

The current texdoc program and its documentation are copyright 2008, 2009 Manuel Pégourié-Gonnard.

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Previous work (texdoc program) in the public domain:

- Contributions from Reinhard Kotucha (2008).
- First texlua versions by Frank Küster (2007).
- Original shell script by Thomas Esser, David Aspinall, and Simon Wilkinson.

**Happy TeXing!**