

Using latexmk With T_EXShop

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What is latexmk?

The latexmk program is written in Perl by John Collins¹. By default it first runs (pdf)latex on a source file, examines the .aux file produced by the run and then automatically runs bibtex and/or makeindex, if needed, and the correct number of additional runs of (pdf)latex to generate the bibliography, index and cross-references.

What is here?

Besides the latest latexmk distribution (3.08n), with its documentation for those interested, there are a set of files that allow its simple use within T_EXShop. There are a set of three .engine files to be placed in ~/Library/TeXShop/Engines/. A second set of four files goes into ~/Library/TeXShop/bin/ and consists of the latexmk program and three initialization files used by the three .engine files.

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There are three .engine files; one for running latex (with a final run through dvips and ps2pdf13) [latexmk.engine], one for using pdf_latex [pdf_latexmk.engine] and one for xelatex [xelatexmk.engine]. The exact form of the commands and options used are in the corresponding rc file (e.g., latexmkrc for latexmk.engine) in ~/Library/TeXShop/bin/.

You can use these engine files by using the drop down menu on the source tool bar or placing the line

```
%!TEX TS-program = pdflatexmk
```

(for using pdf_latex—similar lines for latex and xelatex) at the top of your document; then simply using Typeset (⌘-T) will automatically run the proper engine.

I have *not* tested these engines with distributed documents (which include other files using \include commands) but I believe latexmk is supposed to deal with them properly.

What these engines won't do, etc.

There are many features of latexmk that aren't used in these simple .engine files. See the documentation for latexmk in the supplied full distribution.

¹The latexmk web site is <<http://www.phys.psu.edu/~collins/software/latexmk-jcc/>>. You can get the latest version of latexmk, presently 3.08n, at <<http://www.phys.psu.edu/~collins/software/latexmk-jcc/versions.html>>.

In addition, the placement of the `latexmk` program in `~/Library/TeXShop/bin/` is non-standard; that directory is not on the standard path. It is possible to put the program in `/usr/local/bin/` and it will then be usable from the command line. If you install the program there you should modify the `.engine` files to reflect the change in location.

`Latexmk` doesn't know about the `multibib` or `multind` packages at this time. John Collins has informed me that he will be working on having `latexmk` recognize and do the right thing with these packages. Hopefully it will also be able to deal with the `glossary` and `nomenc1` packages in the future.

The contents of the `rc` files corresponds to the the settings for commands for `TeXShop` on my system. They are simply text files. Please read the `latexmk` documentation before changing the contents.

Because of the way `latexmk` gets the default path² for `bib` files it will often generate an inconsequential error message; the `bib` file will be found by `bibtex` if it is along the standard path for `bib` files supplied by `kpsewhich`. To suppress the spurious error message the `engine` files supplied build a *temporary* `BIBINPUTS` environment variable by appending the output of `'kpsewhich --show-path=bib | sed -e "s/!\!//g"'` to a possibly predefined `BIBINPUTS` variable. If there is a problem with long waits for searches over a network you can edit each of the `engine` files and customize the setting of the `BIBINPUTS` environment variable.

²It tries to get it from the `BIBINPUTS` environment variable which isn't defined for most Mac OS X `TeX` distributions.