

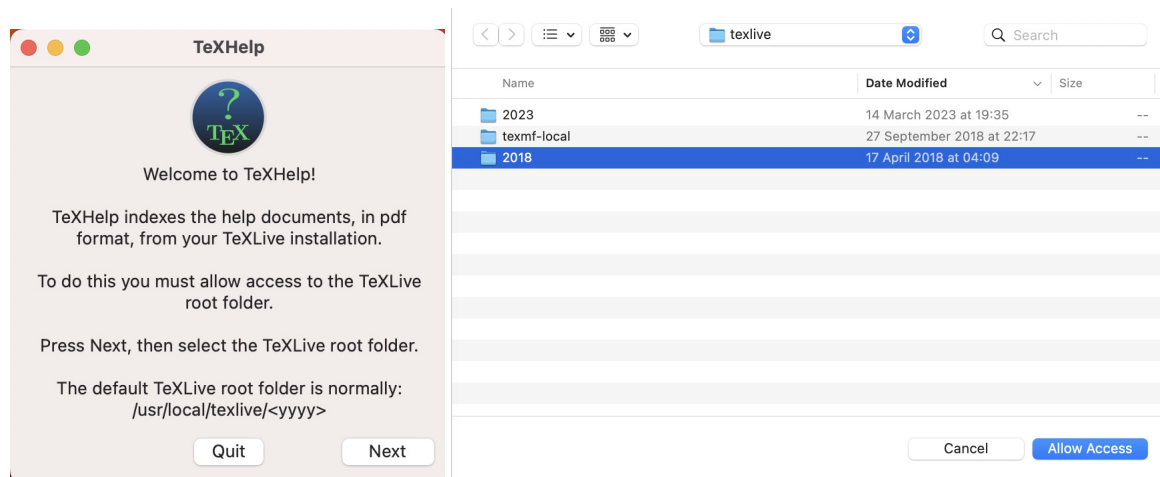
TeXHelp user guide

Neil Sims

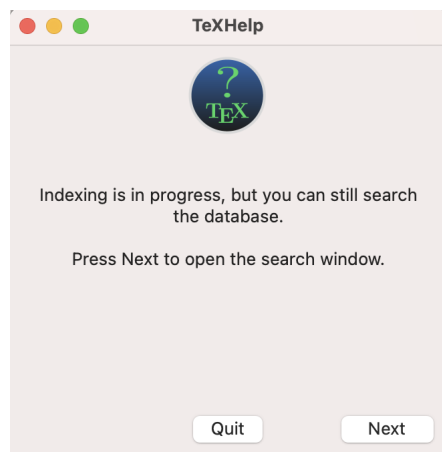
September 13, 2023

1 Initial configuration

When TeXHelp is run for the first time, it needs to search the help documents that are shipped with the TeXLive distribution. To do this, select the root folder of the required TeXLive distribution:



If the folder is configured correctly, then the following message appears:



Click next and the Advanced Search Pane opens. Indexing can take a few hours.

2 Advanced Search

This includes some explanation of how to search, but simple free text search can also be performed. Press enter to perform the search. **When indexing is running, the search action can take some time to complete.**

Advanced Search

Q slide

Completed, 28 items found

With no syntax, a free text word-based search is performed on all fields.

Search query syntax: <fieldName> <Operator> '<Value>[<modifier>]

fieldNames:

title

filename of the pdf document

concatenate

fileURLString

file URL of the pdf document

details

file details according to TeXLive

language

file language according to TeXLive, e.g. 'en' for english

packageName

name of the corresponding TeXLive package

packageShortDescription

short description of the TeXLive package

packageLongDescription

long description of the corresponding TeXLive package

commands

commands within the pdf document - start with two backslash (\) characters; or use word-based searching.

Operators:

==

!=

*

wildcard

Modifiers:

w

word based

c

ignore case

Combiners:

&&

and

||

or

()

Examples:

title == 'pst*' && commands == 'cnode\w

* == 'texlive'

language != *

Document

Package

HA-prosper

ha-prosper

LecturerDem...

lecturer

LecturerDem...

lecturer

LecturerDem...

lecturer

beamerexam...

beamer

beamerexam...

beamer

beamerexam...

beamer

beamerswitch

beamerswitch

beamerswitc...

beamerswitch

beamerswitc...

beamerswitch

beamerswitc...

beamerswitch

beameruserg...

beamer

cursolatex

cursolatex

example

fancyslides

fancvelidae

fancvelidae

Package: beamer

Document details: Package documentation

Language: none

Package details: A LaTeX class for producing presentations and slides

The beamer LaTeX class can be used for producing slides. The class works in both PostScript and direct PDF output modes, using the pdf graphics system for visual effects. Content is created in the frame environment, and each frame can be made up of a number of slides using a simple notation for specifying material to appear on each slide within a frame. Short versions of title, authors, institute can also be specified as optional parameters. Whole frame graphics are supported by plain frames. The class supports figure and table environments, transparency effects, varying slide transitions and animations. Beamer also provides compatibility with other packages like prosper. The package now incorporates the functionality of the former translator package, which is used for customising the package for use in other language environments. Beamer depends on the following other packages: atbegshi, etoolbox, hyperref, ifpdf, pgf, and translator.

The BEAMER class

User Guide for version 3.69.

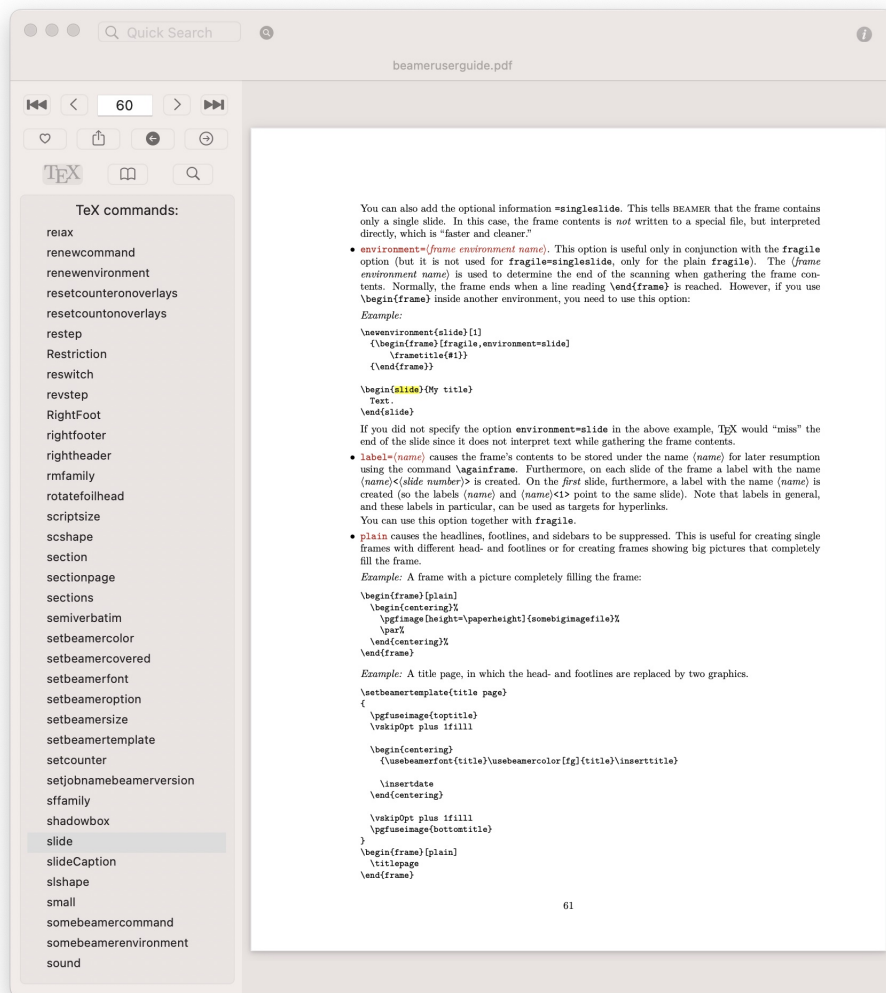
There is No Largest Prime Number

There is No Largest Prime Number

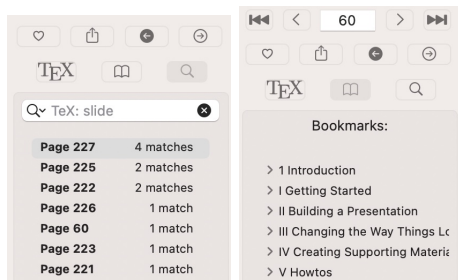
Double-clicking on a search result opens the Help Document window.

3 Help Document Window

The usual pdf-viewing commands are available along with the built-in (Preview.app) context menus. However, the left menu also provides a list of the indexed \LaTeX commands that were found within the pdf file. This only appears for files that had ‘Index All’ enabled (see Settings). Single-clicking a command will navigate to the page where this command was most commonly found.

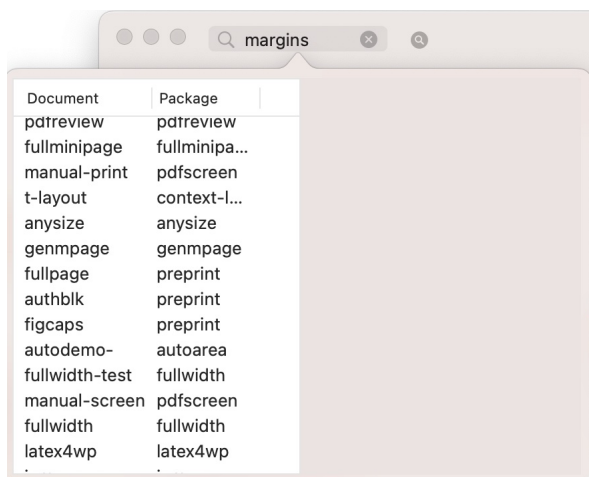


Double clicking a command brings up a more detailed search result, and the other tabs reveal a normal search interface and the pdf bookmarks:



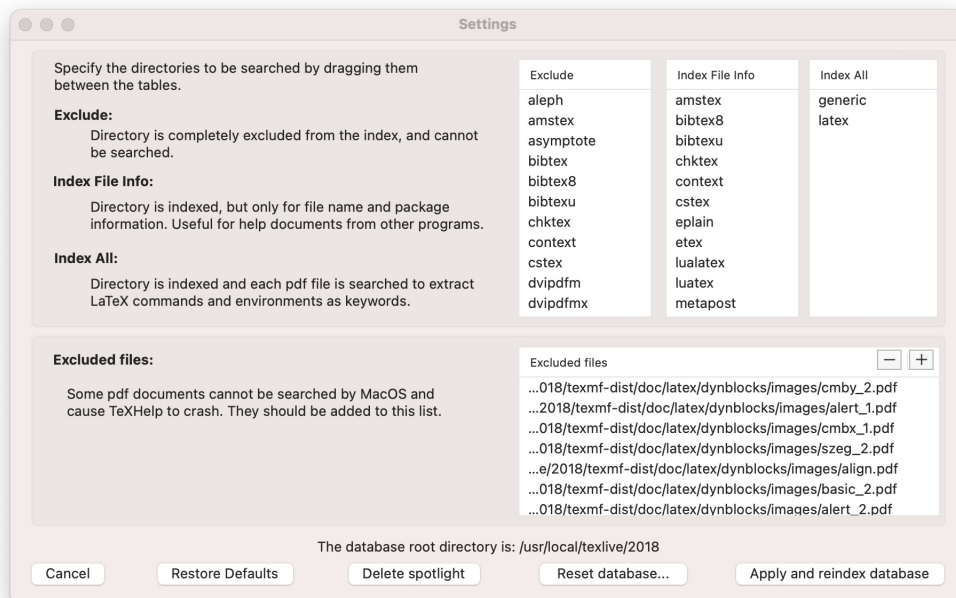
Finally, the search bar at the top of the Help Document Window provides a quick search

interface to look for other documents:



4 Settings

TeXLive ships with an extensive number of help documents in pdf format. Not all of these directories will be useful for all users, so the settings window allows customisation of the search. For ‘Index File Info’ directories, only the package information is stored in the database. This makes indexing the database faster, and reduces the database size. For ‘Index All’ directories then the pdf file contents are also searched, and an attempt is made to identify TeXcommands that might feature within the pdf document. This is not perfect, but provides a means of searching the documentation for specific commands, without knowing which package they reside in. Finally, with so many files in the TeXLive distribution, there is no guarantee that all the pdf documents will be searchable (or even open-able) by the built-in pdf engines. Therefore, the indexer will automatically add files the ‘Excluded files’ list as the indexing is performed.



Various configuration commands are available:

- ‘Restore Defaults’ will reset the lists of excluded / included directories, and the excluded files, to the factory settings.
- ‘Delete spotlight’ will remove all the database entries that are within the built-in Spotlight index. This is sometimes helpful if there is a problem with searching.
- ‘Reset database’ will remove the entire database (as well as the spotlight index). This allows a new database to be generated, for example based upon a different \TeX Live distribution.
- ‘Apply and reindex database’ simply applies any changes made to the include/exclude lists, and re-initiates indexing.

5 File Locations

\TeX Help stores its database in the User’s Library/Containers/com.TeXHelp.TeXHelp folder. This appears as Library/Containers/TeXHelp in Finder. Within an Application Support subfolder, an sqlite database is generated. For the default settings on \TeX Live 2023, this requires about 370MB of storage. Within a Preferences subfolder, three plist files are used to save the configuration. All other files are within the TeXHelp.app.

6 Algorithm

\TeX Help uses the MacOS built-in capabilities wherever possible. In particular: AppKit (for the user interface), PDFKit (for pdf searching and presentation), Core Data (for storing the database), and Core Spotlight (for searching the database). \TeX Help is written in Swift and the source files are available at <https://github.com/ndsims/TeXHelp.git>