TEXHelp user guide

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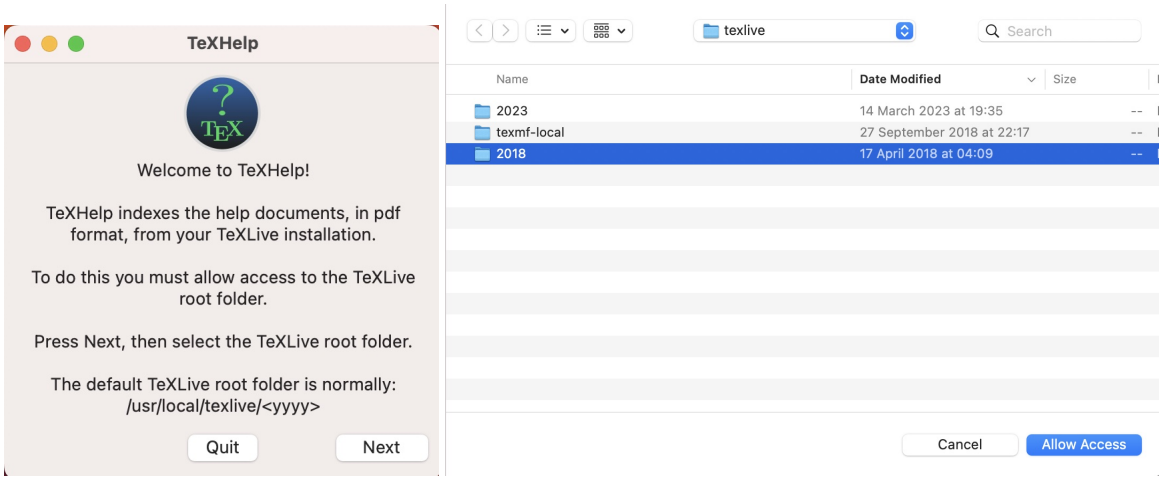
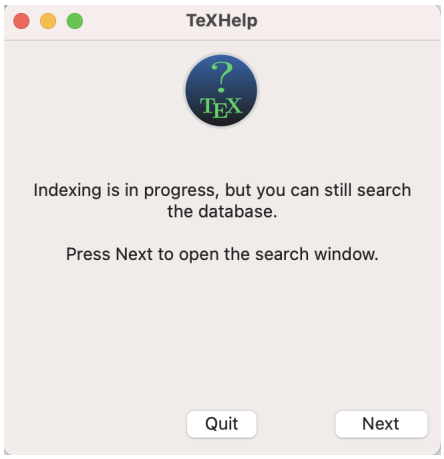
1 Initial configuration

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:



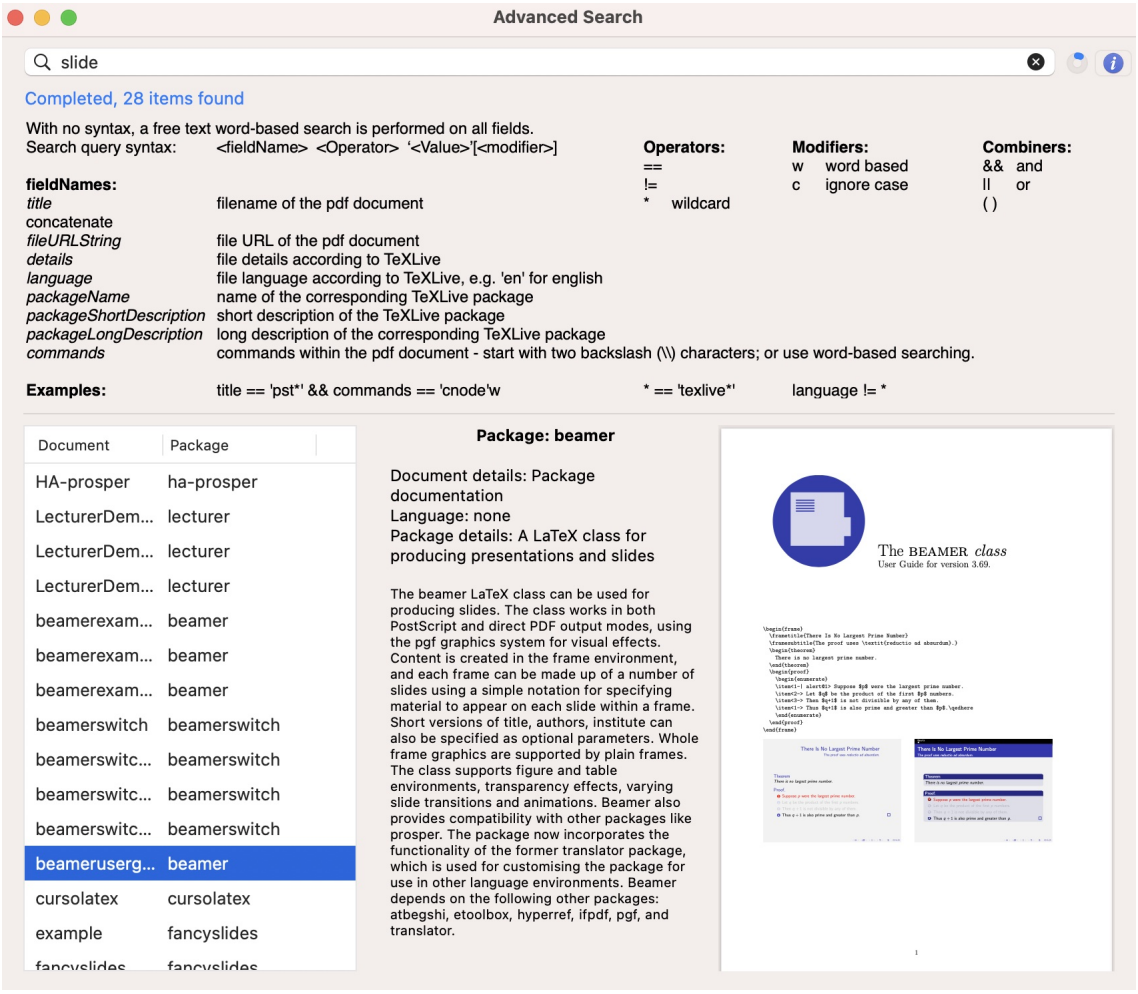
If the folder is configured correctly, then the following message appears:



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

2 Advanced Search

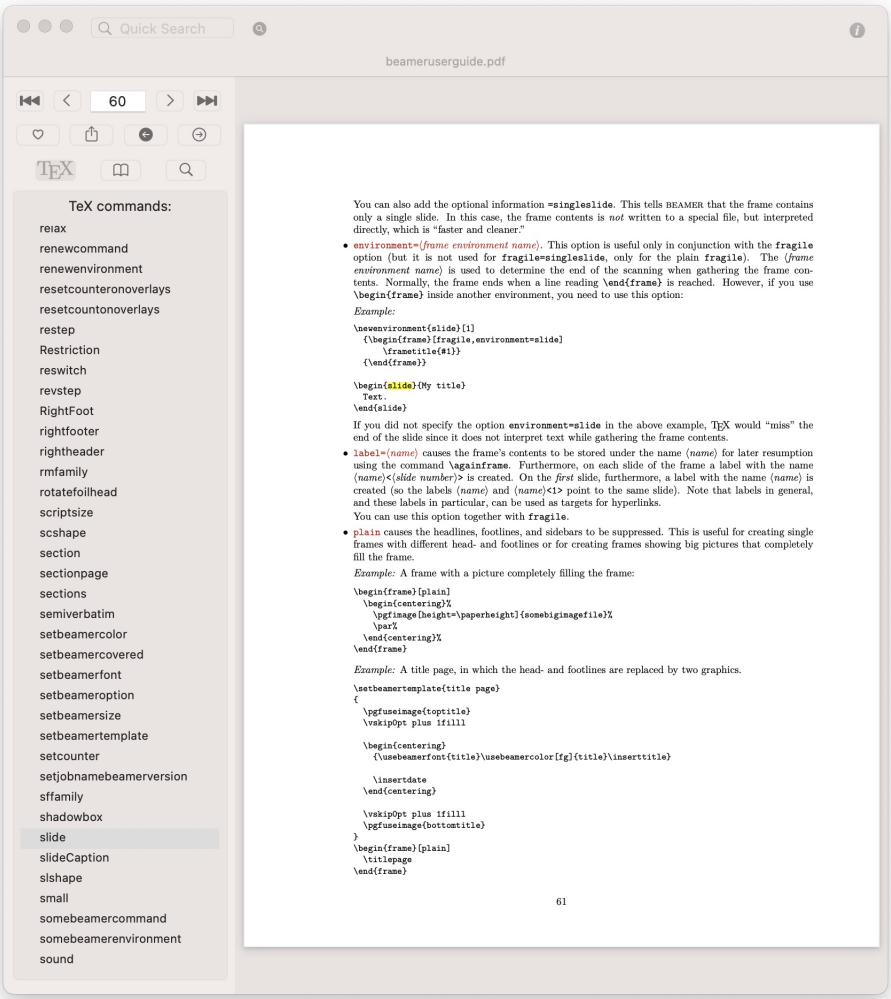
This includes some explanation of how to search, but simple free text search can also be performed. Press enter to perform the search. **When indexing is running, the search action can take some time to complete**.



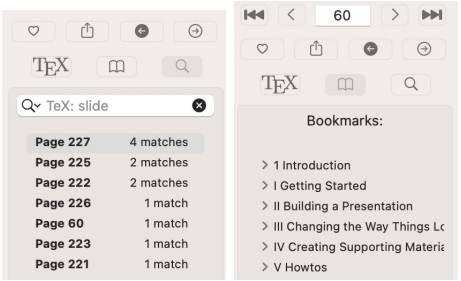
Double-clicking on a search result opens the Help Document window.

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 LaTeXcommands 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.

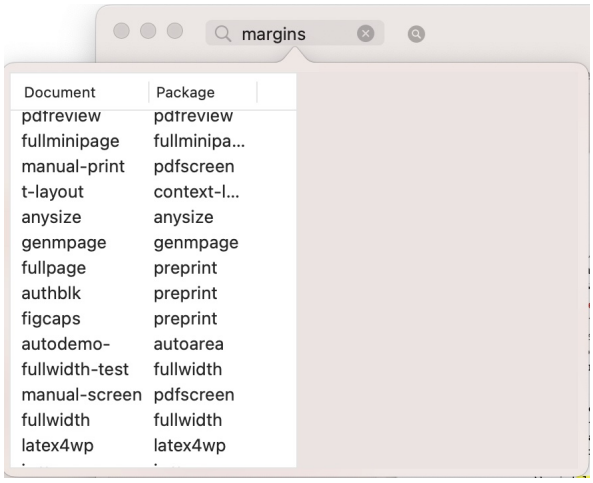


Double clicking a command brings up a more detailed search result, and the other tabs reveal a normal search interface and the pdf bookmarks:



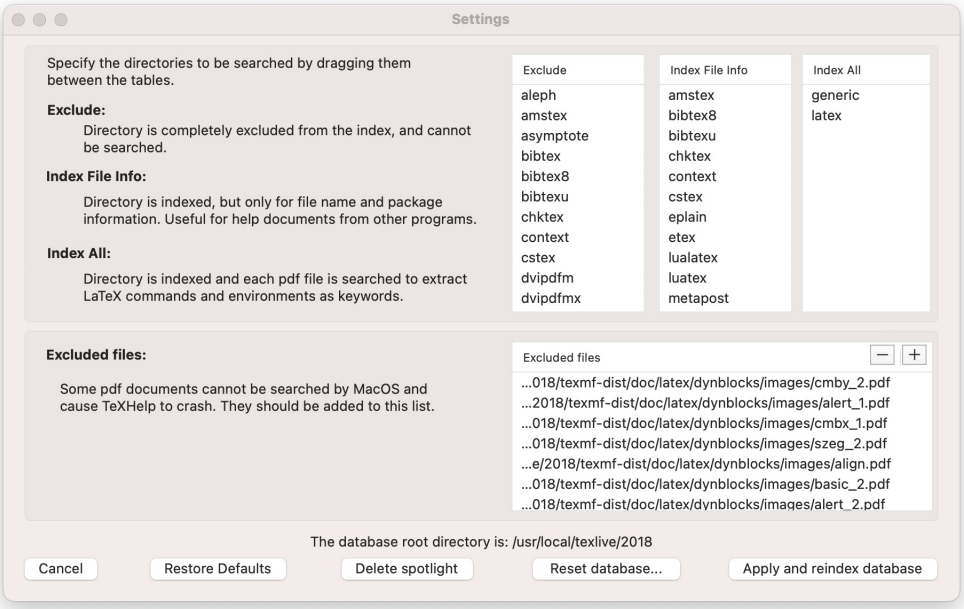
Finally, the search bar at the top of the Help Document Window provides a quick search

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 TEXLive distribution.
- 'Apply and reindex database' simply applies any changes made to the include/exclude lists, and re-initiates indexing.

5 File Locations

TEXHelp 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 TEXLive 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

TEXHelp 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). TEXHelp is written in Swift and the source files are available at `https://github.com/ndsims/TeXHelp.git`