MacTeX-2015+ and El Capitan

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1 Introduction

Under OS X 10.11, El Capitan, writing to `/usr` is no longer allowed[1], even with Administrator privileges. The usual symbolic link to the active TeX Distribution, `/usr/texbin`, is therefore removed (if it was there from a previous OS version) and cannot be installed. Many GUI applications have the path to those binaries set to `/usr/texbin` by default and will no longer find the binaries there.

When you install MacTeX-2015+, i.e. MacTeX-2015 or later, it not only creates `/usr/texbin`, if allowed for the present OS version, but also creates a second symbolic link, `/Library/TeX/texbin`, in `/Library/TeX` which is "owned" by MacTeX so is allowed by El Capitan. Your GUI applications will need to be updated so they can again "find" the active TeX Distribution's programs.

This guide gives you instructions for "fixing" the GUI applications that come as part of the MacTeX-2015+ installation. I'll add other applications as folks pass on the information.

NOTE: if you haven't installed MacTeX-2015+ or BasicTeX-2015+ please read section 8 on page (4) to set up the proper symbolic link and PATH.

2 Terminal

When MacTeX-2015+ installs TeX Live 2015 it also adjusts the $PATH variable to use `/Library/TeX/texbin` rather than `/usr/texbin` so there is nothing to change!

3 TeXShop

Version 3.52 and later of TeXShop, released on July 13, 2015, automatically configures the default setting to the value needed. (It is hoped that other applications will adopt this policy in the future.)

Previous versions of TeXShop require only a single change in the TeXShop → Preferences Engine tab. Change the Path settings for (pdf)TeX from `/usr/texbin` to `/Library/TeX/texbin` as shown in Figure (1).
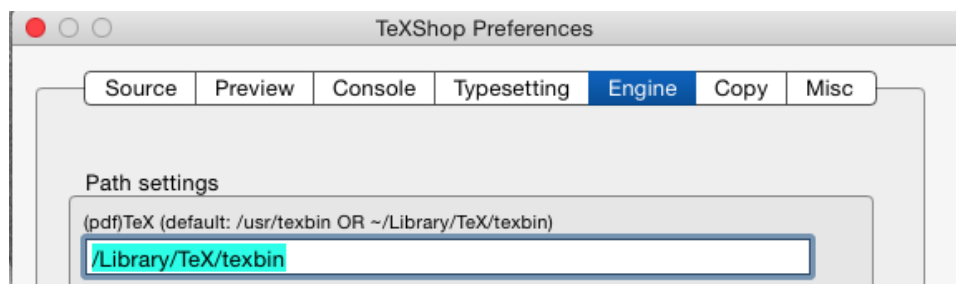

Figure 1: The Engine tab in TeXShop Preferences

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[1]although writing to `/usr/local` is allowed.

4 LAT_EXit

LAT_EXit version 2.8.0 and later can be auto-configured for El Capitan by opening the Typesetting tab of LaTeXiT → Preferences and pressing the small Reset. . . button on the bottom of the pane. After a warning about resetting the paths press the OK button and the proper paths will be set.

Earlier versions of LAT_EXit require a more extensive change to it's LaTeXiT → Preferences than T_EXShop. Shown in Figure (2) is the Typesetting tab of LaTeXiT → Preferences with the pdflatex radio button selected. This allows you to change the path to the pdflatex command from `/usr/texbin/pdflatex` to `/Library/TeX/texbin/pdflatex` as shown. You need to then select the xelatex radio button to change the path to the xelatex command from `/usr/texbin/xelatex` to `/Library/TeX/texbin/xelatex`. Finally select the the latex + dvipdf button to change the path to the latex command.
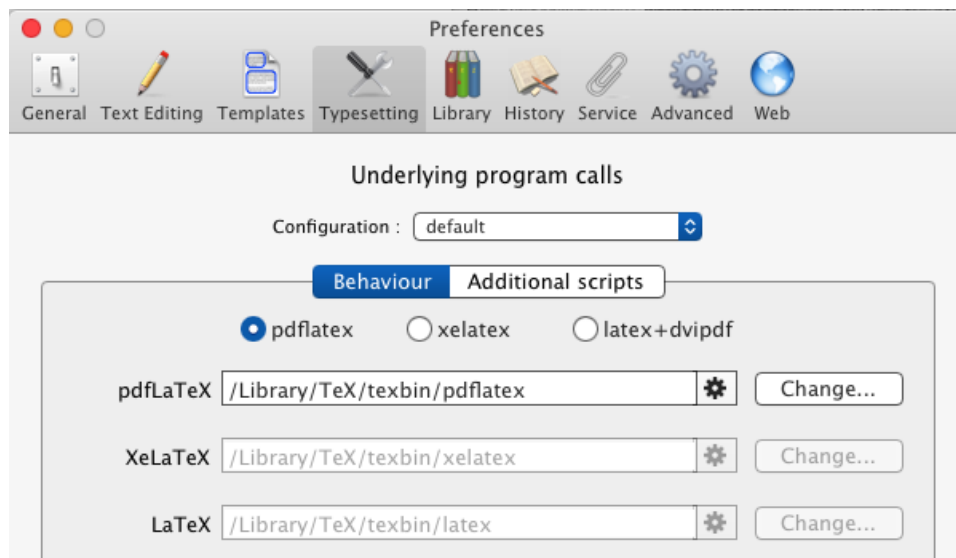

Figure 2: The Typesetting tab in LAT_EXit Preferences

5 BibDesk

Versions 1.6.5 and later of BibDesk will auto-configure for El Capitan after displaying a dialog box about the change and the user agreeing to the change.

If you use earlier versions of BibDesk and the Preview option you'll need to change two items, Full path to pdflatex: and Full path to bibtex:, in the TeX Preview tab in BibDesk → Preferences as seen in Figure (3).

6 T_EX Live Utility

Version 1.23 of T_EX Live Utility automatically detects the loss of `/usr/texbin` under El Capitan and promts the user to automatically fix the problem.

For previous versions of T_EX Live Utility open T_EX Live Utility → Preferences and click on the Choose. . . button as in Figure (4). That opens a file chooser. Type Shift-Cmd-G, enter `/Library/TeX` into the dialog box as shown in Figure (5) and then press Return. Finally Double-Click on `texbin`.

7 Other Applications

It seems to me that Aquamacs (and probably other "emaxen") as well as XQuartz (X-11) expand upon the $PATH value so seem to "auto-configure" to include `/Library/TeX/texbin` in their search path already. If I'm incorrect please let me know what has to be changed to fix them; they may be adding `/Library/TeX/texbin` to their $PATH variable but still retain `/usr/texbin` which
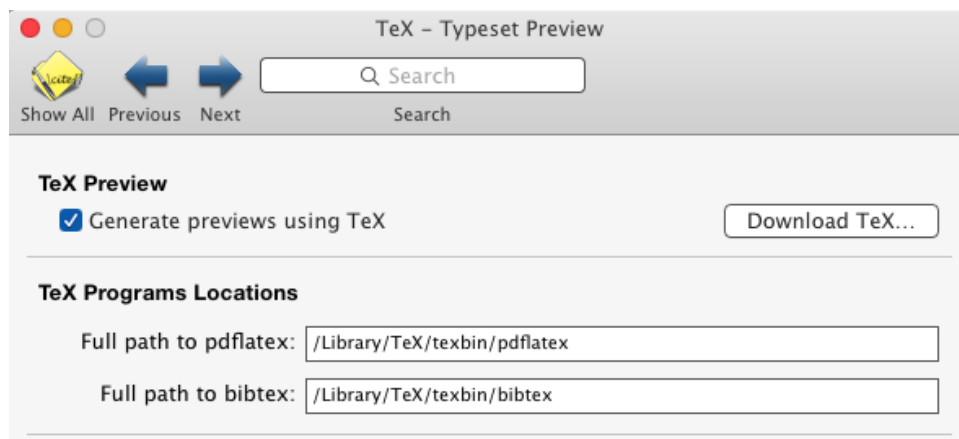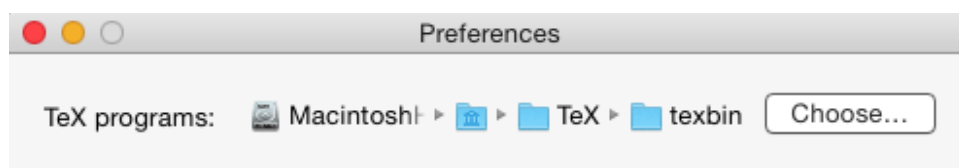
Figure 3: The TeX Preview tab in BibDesk Preferences

Figure 4: TEX Live Utility Preferences

does no harm but isn't quite correct. It is also known that the present version of XQuartz attempts to use /usr for symbolic links and will have to be updated to fix that; but that has nothing to do with our discussion.

Exactly what you have to do in other popular applications depends upon the application. Please let me know and I'll add more information to this document.

7.1 TEXworks

Go to the Typesetting pane of TEXworks → Preferences and click on the + button in the Paths for TeX and related programs section to open an Open dialog box. Click on the popup menu (see Figure (6) on page 5) and select your Hard Drive. Double-Click on Library and then TeX in the file list. Finally Single-Click on texbin to select it and Click on the Choose button to add /Library/TeX/texbin to the paths list. You can delete the /usr/texbin item by selecting it and clicking on the − button.

7.2 Lyx

Tharnier Oliveira sent the following information about Lyx.

Go to the Paths item of Lyx → Preferences. Change the contents of the PATH prefix box from /usr/texbin to /Library/TeX/texbin; see Figure (7) on page 5. Then go to Tools → reconfigure and reset Lyx.

7.3 TEXstudio

Soomin Oh sent the following information about TEXstudio.

Go to the Commands tab of Configure and change every occurance of /usr/texbin (followed by other things) by /Library/TeX/texbin; see Figure (8) on page 6.

7.4 TEXmaker

Jesper Roland Kjærgaard Pedersen sent the following information about TEXmaker.

Go to the Commands pane of TEXmaker → Preferences Commands tab of Configure and change every occurance of /usr/texbin (followed by other things) by /Library/TeX/texbin as
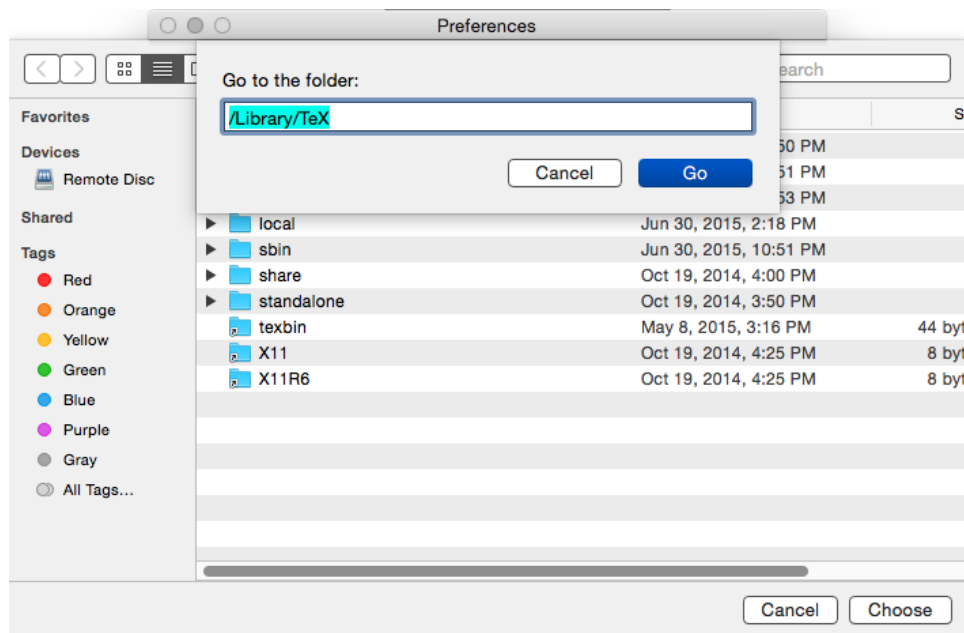
Figure 5: The TEX Live Utility Preferences File Chooser showing the Go to folder drop down.

shown in Figure (9) on page 6.

8 Don't have **MacTEX-2015+**?

Pre-2015 versions of MacTEX don't install the /Library/TeX/texbin symbolic link and therefore are left "high and dry" when you install El Capitan unless you also install MacTEX-2015+ or BasicTEX-2015+.

However, if you decide not to install MacTEX-2015+ there are two ways you can still create the proper symbolic link; you can download and install FixLinks.pkg from <http://pages.uoregon.edu/koch> or use the five commands

```
sudo ln -fhs Distributions/.DefaultTeX/Contents/Programs/texbin /Library/TeX/texbin
echo "/Library/TeX/texbin" >~/Desktop/TeX
sudo cp ~/Desktop/TeX /etc/paths.d/TeX
echo "/Library/TeX/Distributions/.DefaultTeX/Contents/Man" >~/Desktop/TeX
sudo cp ~/Desktop/TeX /etc/manpaths.d/TeX
```

(giving your Admin password when requested) in the Terminal application and then delete the TeX file on your Desktop. **Note: it's advisable to copy and paste the commands to Terminal**. Then make the changes to the GUI apps as noted above.
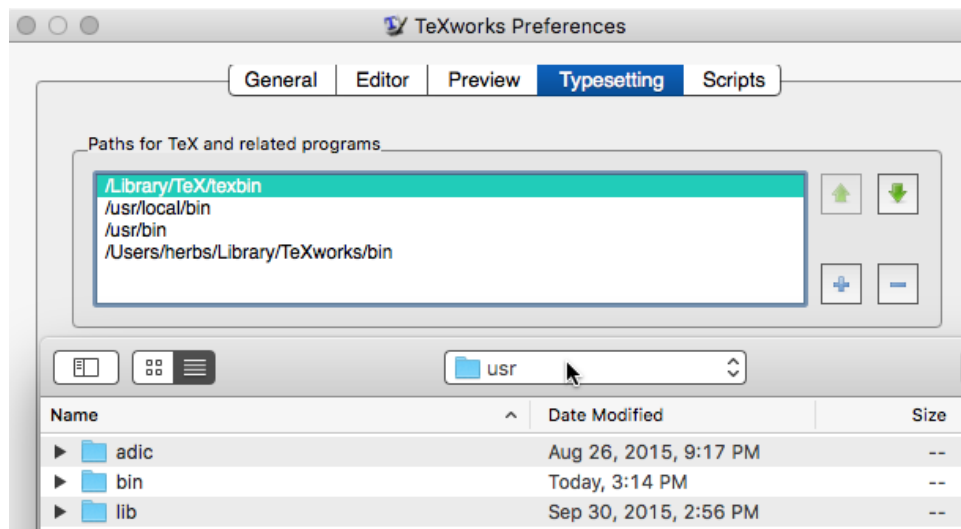
Figure 6: The TeXworks → Preferences Typesetting tab with the Open dialog showing after clicking on the + button.
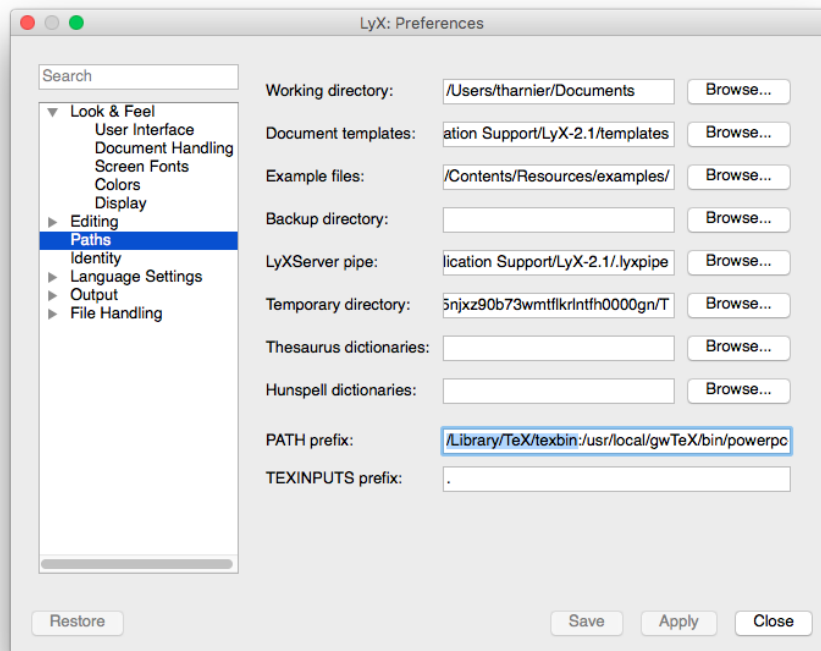

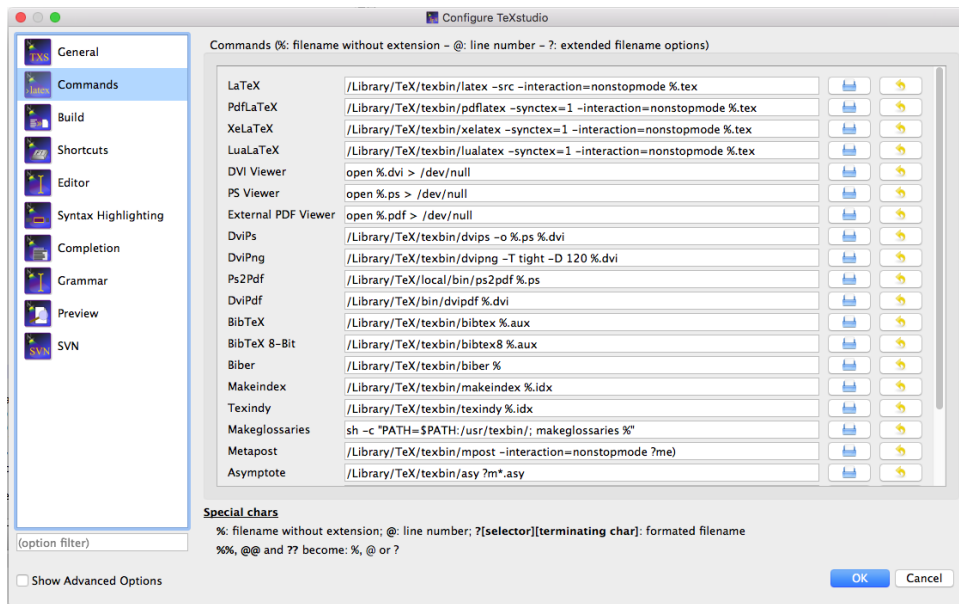Figure 7: The Lyx → Preferences Paths item showing the PATHS prefix: that needs to be changed.

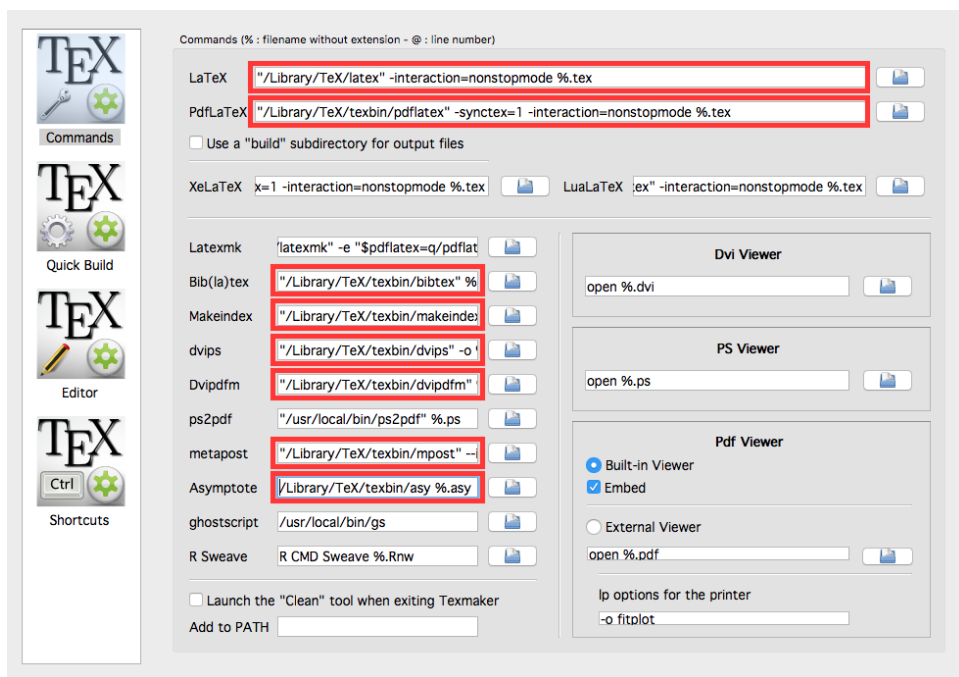Figure 8: The TeXstudio → Conguration Commands item showing the multiple paths that need to be changed.

Figure 9: The TeXmaker → Conguration Commands item showing the multiple paths that need to be changed.