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 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).
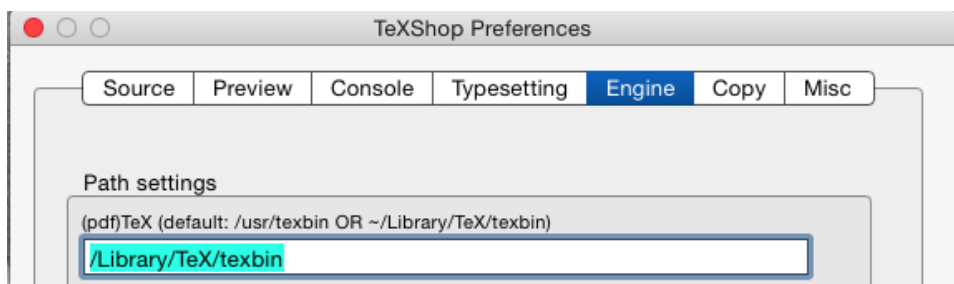

Figure 1: The Engine tab in TEXShop Preferences

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

4 LATEXit

LATEXit requires a more extensive change to it's LaTeXiT → Preferences than TEXShop. 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.
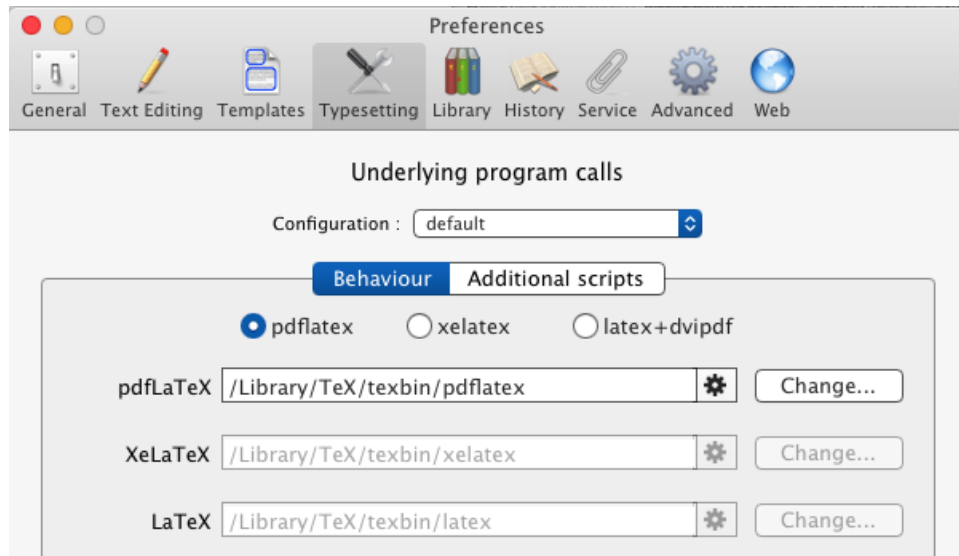

Figure 2: The Typesetting tab in LATEXit Preferences

5 BibDesk

If you use the Preview option for BibDesk 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).
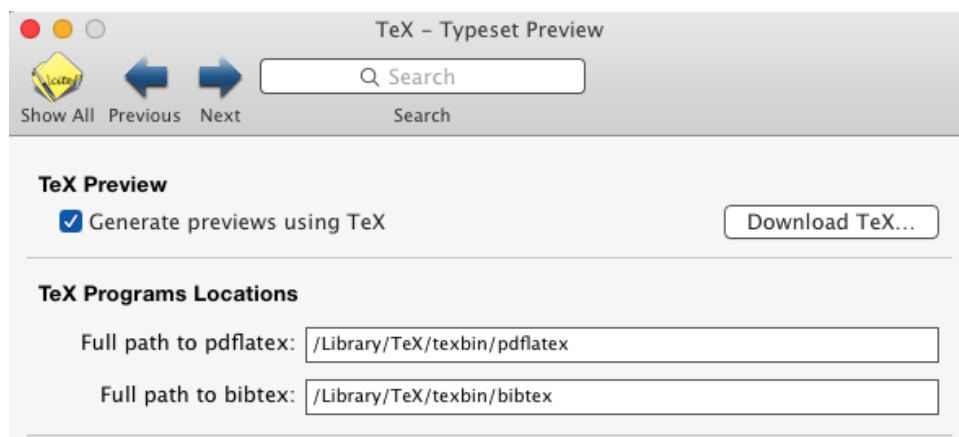

Figure 3: The TeX Preview tab in BibDesk Preferences

6 TEX Live Utility

Version 1.23 of TEX Live Utility automatically detects the loss of `/usr/texbin` under El Capitan and promts the user to automatically fix the problem.
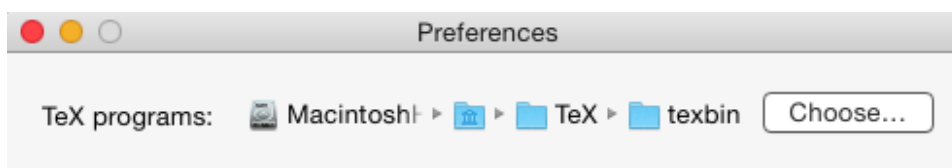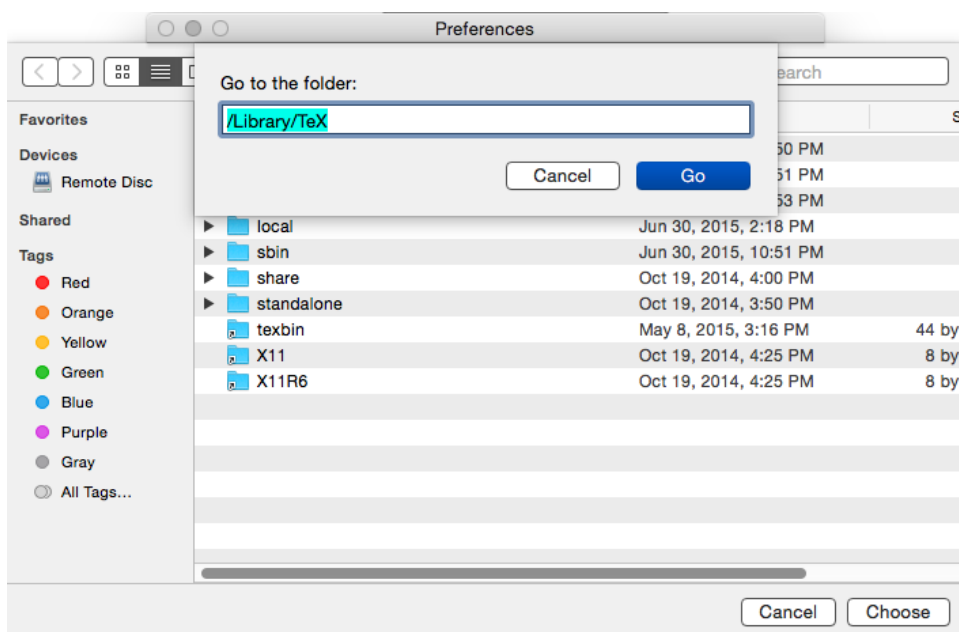
Figure 4: TEX Live Utility Preferences

Figure 5: The TEX Live Utility Preferences File Chooser showing the Go to folder drop down.

For previous versions of TEX Live Utility open TEX 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 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 4) 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.
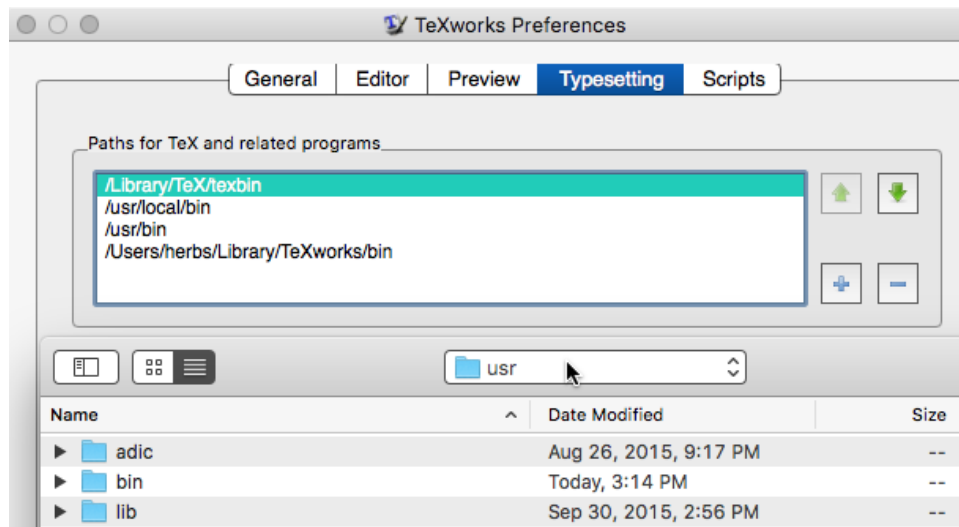
Figure 6: The TeXworks → Preferences Typesetting tab with the Open dialog showing after clicking on the + button.

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 5.

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 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 you can still create the proper symbolic link using the four commands

```
cd /Library/TeX
sudo ln -s Distributions/Programs/texbin texbin
echo "/Library/TeX/texbin" >~/Desktop/TeX
sudo cp ~/Desktop/TeX /etc/paths.d/TeX
```

(giving your Admin password when requested) in the Terminal application. You can 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.
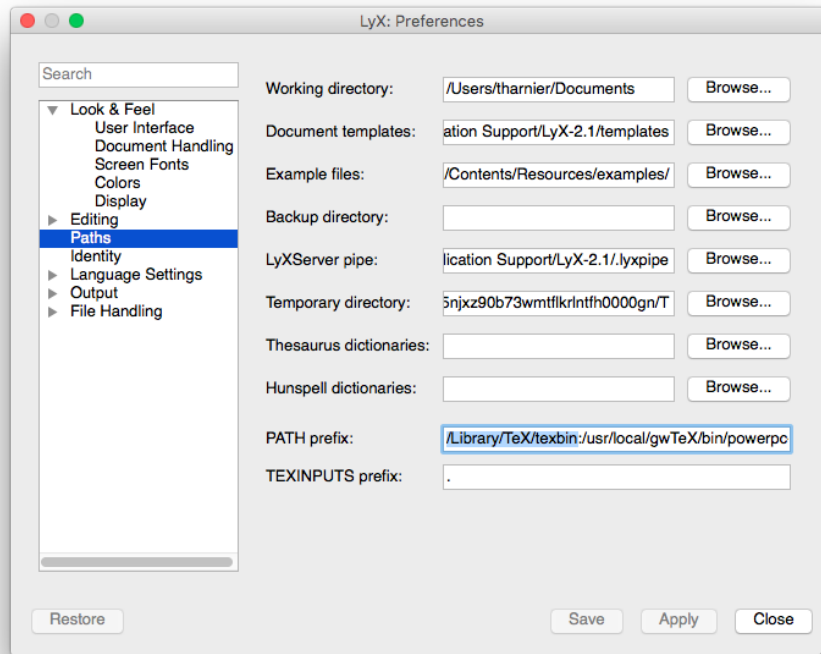
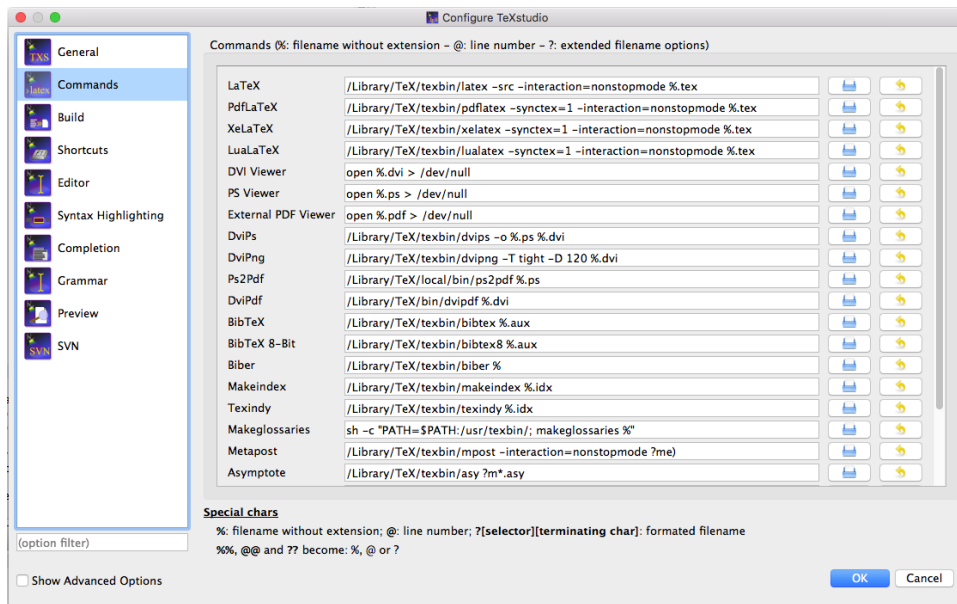Figure 7: The Lyx → Preferences Paths item showing the PATHS prefix: that needs to be changed.

Figure 8: The TeXstudio → Conguration Commands item showing the multiple paths that need to be changed.
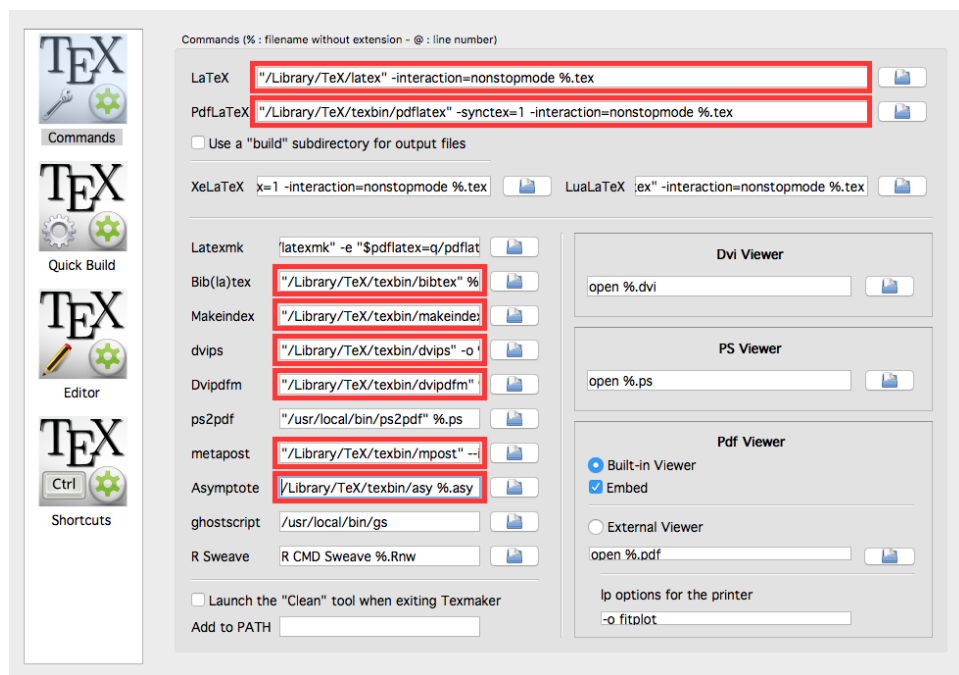
Figure 9: The TeXmaker → Conguration Commands item showing the multiple paths that need to be changed.