

# TUG-TEXLIVE-2014

RICHARD KOCH

## 1. TeXLive-2014

This is the portion of the TUG documentation which deals with making the TeXLive-2014 and TeXLive-2014-DVD packages. This is the key component of the build directory.

A clean package file will contain

- Files “buildPackage.sh” and “signPackages.sh”
- Files “background.jpg”, “License.rtf”, “ReadMe.rtf”, and “Welcome.rtf”
- Folder named “TLprofiles”. This directory will eventually contain two files, “texlive.profile” and “texlivea4.profile”
- A “PreferencePane” folder containing two Preference Panes, the old one for Mountain Lion and lower, and the new one for Mavericks.
- The main folder also has a scripts folder containing files “Description.rtf”, “postinstall”, “setloginpath”, “setmanpath”, “texdist”, “TeXDist-description.rtf”, “TeXDistVersion”, “TeXManPath”, and “TeXPath”.
- A project files for PackageMaker, TeXLiveBuild
- “TUG” folder with this document

## 2. UPDATING FOR A NEW YEAR

To update the two packages for a new year, edit “buildPackage.sh” to reflect the new package name, which contains the year.

Also edit the License.rtf, ReadMe.rtf, and Welcome.rtf files at the root level of the folder.

Edit the postflight script appropriately, mainly by changing the year. For instance, to change from 2010 to 2014, use Search and Replace to change the many, many occurrences of 2010 to 2014 in this file.

### 3. CREATING THE PACKAGE

Now comes the central step. Issue the commands

```
cd /usr
sudo mv local local-temp
```

Then make sure local configuration files for TeX Live are disabled, perhaps by writing

```
cd
cd Library
mv texmf texmfold
rm -R texlive
```

Then create a folder containing the tlpctest, which will later be updated with the same command. To do that, make a directory named texlive2014pretest and then

```
cd
cd texlive2014pretest
rsync -a --delete --exclude="mactex*" ftp.math.utah.edu::texlive/tlpctest .
```

The last line here obtains a copy from the utah mirror site for pretest releases. If time is of the essence, but not otherwise, download directly from the tug home site:

```
cd
cd texlive2014pretest
rsync -a --delete --exclude="mactex*" ftp.tug.org::texlive/tlpctest .
```

When first building binaries, it is necessary to submit them to Karl, wait for him to install them in the pretest and wait overnight for the pretest to make its way to mirror sites.

Then install TeX Live from the svn directory by

```
TEXLIVE_INSTALL_NO_CONTEXT_CACHE=1
export TEXLIVE_INSTALL_NO_CONTEXT_CACHE
cd
cd texlive2014pretest/tlpctest
sudo env TEXLIVE_INSTALL_NO_CONTEXT_CACHE=$TEXLIVE_INSTALL_NO_CONTEXT_CACHE ./instal
```

The install script will present a short menu of configuration options. Modify defaults as follows:

- Use the “B” option to select both universal-darwin and x86\_64-darwin binaries.
- Use the “D” option to change some directories:
  - Use the “5”, TEXMFVAR, option to select

```
~/Library/texlive/2014/texmf-var
```

- Use the “6”, TEXMFCONFIG, option to select

```
~/Library/texlive/2014/texmf-config
```

- Use the “7”, TEXMFHOME, option to select

```
~/Library/texmf
```

- Use the “O” option to select “use letter size instead of A4 by default”

Then start installation.

When installation is complete, switch the default tlmgr repository to the final value using the command (assuming that the TeXLive-2014 install package is made on an Intel system)

```
sudo /usr/local/texlive/2014/bin/universal-darwin/tlmgr option repository \
http://mirror.ctan.org/systems/texlive/tlnet
```

When installation is complete, go to

```
/usr/local/texlive/2014/tlpkg
```

and copy the file texlive.profile to the TLprofiles folder, replacing the current copy of texlive.profile there.

In addition, duplicate texlive.profile in the TLprofiles directory, calling the new copy texlivea4.profile. Then edit this new file, changing “option\_letter 1” to “option\_letter 0” near the end of the file. These TLprofiles also go to the directory MacTeX-for-DVD and ultimately to the install folder in DVD.

After these steps, the final TeXLive directory “root” can be built, using the command:

```
sudo sh buildPackage.sh
```

Finally

```
cd
cd /usr
sudo rm -R local
sudo mv local-temp local
```

This root file is all needed to make MacTeX. But if desired, you can optionally build install package for TeXLive-2014, as described below.

## 4. BUILDING TEXLIVE-2014 WITH PACKAGEMAKER

The information here is included as backup, just in case. Each build template like TeXLive-Build is accompanied by a copy like TeXLive copy and that is the best way to know how to fill out the template.

This step is optional if making MacTeX. It builds an install package for TeXLive.

Edit TeXLiveBuild, the Packagemaker project file, using the GUI interface, as follows.

- (1) Click the top item on the left. The right side will change to a view with three tabs. First select the Configuration tab. Edit so
  - (a) Title: TeXLive-2014
  - (b) User Sees: Easy Install Only
  - (c) Install Destination: System volume
  - (d) Certificate: Leave this blank. You might think that putting a certificate name here would correctly sign the package, but experiments show that it does not. The package needs to be signed after it is constructed.
  - (e) Description: Empty
- (2) The Requirements and Actions tab entries for the top item can be left blank
- (3) Click the entry TeXLive-2014 in the Contents section on the left. The right side will change to a view with two tabs. Select the Configuration tab. Edit so
  - (a) Choice Name: TeXLive-2014
  - (b) Identifier: choice1
  - (c) Initial State: Selected and Enabled
  - (d) Destination: Leave Blank
  - (e) Tooltip: Leave Blank
  - (f) Description: Leave Blank
- (4) The Requirements tab entries for this contents item can be left blank
- (5) Open the TeXLive-2014 entry in the bottom left column. This item should show an “texlive” directory, obtained by dragging root/usr/local/texlive to the left column. The right side will change to a view with four tabs. It is not necessary to edit the items under the Contents or Components tabs. The items under the Configuration tab should be edited as follows:
  - (a) Install: root/usr/local/texlive (The item on the right should have selected “Relative To Project”)

- (b) Destination: /usr/local (The item on the right should have selected “Relative To Project”)
- (c) Do not check “Allow custom location”
- (d) Patch: No patch root selected
- (e) Package Identifier: org.tug.mactex.texlive2014
- (f) Package Version: 1.0
- (g) Restart Action: None
- (h) Check “Require admin authentication”
- (i) PackageLocation: Self-Contained

The items under the Scripts tab should be edited to read

- (a) Scripts directory: scripts (The item on the right should have selected “Relative To Project”)
- (b) Preinstall: Leave Blank
- (c) Postinstall: scripts/postinstall (The item on the right should have selected “Relative To Project”)

After verifying all these items, build the install package by clicking the “Build” icon. When asked to select a name, choose “TeXLive-2014-Temp”.

## 5. SIGNING

Finally, sign the package using the single command

```
sh signPackage.sh
```