

TUG-TEXLIVE-2012

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1. TEXLIVE-2012

This is the portion of the TUG documentation which deals with making the TeXLive-2012 and TeXLive-2012-DVD packages. This is the key component of the build directory.

A clean package file will contain

- Files “buildPackage.sh”, “buildPackageDVD.sh”, and “signPackages.sh
- Files “background.jpg”, “License.rtf”, “ReadMe.rtf”, and “Welcome.rtf”
- A folder named DVD containing analogous files “background.jpg”, “License.rtf”, “ReadMe.rtf”, and “Welcome.rtf”
- This DVD folder also contains a subfolder named scripts containing files “Description.rtf”, “postinstall”, “setloginpath”, “setmanpath”, “texdist”, “TeXDist-description.rtf”, “TeXDistVersion”, “TeXManPath”, and “TeXPath”. The DVD/scripts folder also has a subfolder named PrefPane containing a file, “Info.plist”, and the “TeX Distribution” preference pane
- Later on, as the package is built, the DVD directory will contain two additional files, “texlive.profile” and “texlivea4.profile”
- In the main folder, there is another “PreferencePane” folder containing a file, “Info.plist”, and the “TeX Distribution” preference pane. This folder also contains the source code for the Preference Pane.
- The main folder also has a scripts folder containing files “Description.rtf”, “postinstall”, “setloginpath”, “setmanpath”, “texdist”, “TeXDist-description.rtf”, “TeXDistVersion”, “TeXManPath”, and “TeXPath”. The scripts folder also has a subfolder named PrefPane containing a file, “Info.plist”, and the “TeX Distribution” preference pane
- Two project files for PackageMaker, TeXLiveBuild and TeXLiveDVDBuild
- “TUG” folder with this document
- “xzDVD” folder, used to make an xz file with the package to submit to TUG; this file contains the xz Universal Binary and an xzscript

2. UPDATING FOR A NEW YEAR

To update the two packages for a new year, edit “buildPackage.sh”, and “buildPackageDVD.sh” to reflect the new package names, which contain the year.

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

Edit the two postflight scripts appropriately, mainly by changing the year. For instance, to change from 2010 to 2012, use Search and Replace to change the many, many occurrences of 2010 to 2012 in these files.

3. CREATING THE TWO PACKAGES

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 install TeX Live 2012 using the TeX Live install script. First make sure that the local copy of the svn is up to date. I download the svn to a folder named texlive2012, and I’ll assume that is the name of the svn folder. To update

```
cd
cd texlive2012
rsync -a --exclude=.svn --delete --delete-excluded tug.org::tldevsrc .
```

If building has just begun, new versions of the TeX Live binaries for OS X may have just been built. In that case it is necessary to replace old binaries in the svn with the new copies (which presumably have also been submitted to TUG). To do that, trash the old files in texlive2012/Master/bin/universal-darwin and texlive2012/Master/bin/x86_64-darwin, because if a binary used to be part of TeX Live 2012 but isn’t any longer, we don’t want it to show up in the install package. Then copy the contents of Binary/universal-darwin to texlive2012/Master/bin/universal-darwin. Copy the contents of Binary/x86_64-darwin to texlive2012/Master/bin/x86_64-darwin.

After OS X binaries are stable, these steps are no longer needed.

Then install TeX Live from the svn directory by

```

TEXLIVE_INSTALL_NO_CONTEXT_CACHE=1
export TEXLIVE_INSTALL_NO_CONTEXT_CACHE
cd
cd texlive2012/Master
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/2012/texmf-var
```
 - Use the “6”, TEXMFCONFIG, option to select


```
~/Library/texlive/2012/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-2012 install package is made on an Intel system)

```

sudo /usr/local/texlive/2012/bin/universal-darwin/tlmgr option repository \
http://mirror.ctan.org/systems/texlive/tlnet

```

When installation is complete, go to

```

/usr/local/texlive/2012/tlpkg

```

and copy the file texlive.profile to the DVD build directory inside this TeXLive-2012 build folder, replacing the current copy of texlive.profile there. This profile will be added to the DVD install package, to be used when TeX Live is installed from the independent copy on the TUG DVD.

In addition, duplicate `texlive.profile` in the DVD 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.

After these steps, the final TeXLive directories “`root`” and “`rootDVD`” can be built, using the commands:

```
sudo sh buildPackage.sh
sudo sh buildPackageDVD.sh
```

Finally

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

These `root` and `rootDVD` files are all that are needed to make MacTeX. But if desired, you can optionally build install packages for TeXLive-2012 and TeXLive-2012-DVD, as described below.

4. MAKING THE XZ FILE

This step is optional, and will only be useful if Karl wants a copy of the TeXLive-2012-DVD install script, which is highly unlikely.

Put `TeXLive-2012-DVD.mpkg` in the `xzDVD` folder. Then create the `xz` file using the command

```
sh xzscript
```

5. BUILDING TEXLIVE-2012 WITH PACKAGEMAKER

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-2012
 - (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-2012 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-2012
 - (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-2012 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.texlive2012
- (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-2012-Temp”.

6. BUILDING TEXLIVE-2012-DVD WITH PACKAGEMAKER

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

Edit `TeXLiveDVDBuild`, 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-2012-DVD
 - (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-2012-DVD` 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-2012-DVD
 - (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-2012-DVD` entry in the bottom left column. This item should show an “local” directory, obtained by dragging `rootDVD/usr/local` 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: `rootDVD/usr/local` (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.texlive2012-dvd
- (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: DVD/scripts (The item on the right should have selected “Relative To Project”)
- (b) Preinstall: Leave Blank
- (c) Postinstall: DVD/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-2012-DVD-Temp”.

7. SIGNING

Finally, sign both packages using the single command

```
sh signPackages.sh
```