

TUG-MACTEX-2013-DVD

RICHARD KOCH

1. MACTEX-DVD

This is the portion of the TUG documentation which deals with making the MacTeX-2013-DVD package.

Warning: It is important that the folders in which packages are built live on the hard disk rather than an external disk. Building constructs folders named “root” which are copies of material to be installed. This root folder and its contents are often owned by root. But material on an external drive is owned by the user instead.

This is the final product of the build directory, built for DVD distribution.

A clean package file will contain

- Files “buildPackage.sh” and “signPackage.sh”
- Files “background.jpg”, “License.rtf”, “ReadMe.rtf”, and “Welcome.rtf”
- scripts_convert folder, containing files “postinstall”, “setloginpath”, and “settexpath”
- scripts_ghostscript folder, containing files “postinstall” and “setloginpath”
- scripts_gui folder, containing file “postinstall”
- scripts_teliveDVD folder, containing files “Description.rtf”, “postinstall”, “setloginpath”, “setmanpath”, “texdist”, “TeXDist-description.rtf”, “TeXDistVersion”, “TeX-ManPath”, and “TeXPath” and PrefPane folder containing the file “Info.plist” and the “TeX Distribution” preference pane
- The MacTeXDVDMaker project file for PackageMaker
- “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
- Folder “OldStyle” used to make an old style legacy package of MacTeX-2013-DVD.mpkg. This legacy version is the version which will appear on the DVD.

Date: April 13, 2013.

This package is easy to maintain. To update the package for a new year, edit the three rtf files, changing the package name to reflect the new date and release date.

2. MAKING THE OLD STYLE LEGACY MACTEX-2013-DVD.MPKG

There are two ways to proceed: with PackageMaker in legacy mode, and with Iceberg.

To construct the package with PackageMaker, fill the empty subfolder “subpackages” with legacy versions of Ghostscript-9.07, GUI-Applications, ImageMagick-Convert-6.8.3-3, Latin-Modern-Fonts, TeX-Gyre-Fonts, and TeXLive-2013-DVD. Then issue the command

```
buildOldPackage.sh
```

Unfortunately, experiments show that this technique does not work! The procedure asks PackageMaker to construct a legacy style mpkg using the command line. The man pages for PackageMaker claim this is possible, but the command does not work.

Luckily, there is an out. Stephene Sudre has written an open source version of the old PackageMaker called *Iceberg*. See

```
http://s.sudre.free.fr/Software/Iceberg.html
```

This software can combine the individual legacy packages and produce an mpkg output which looks to the user exactly like our previous install Package.

So instead, put the six old style packages in OldStyle/MacTeX-2013-DVD/build. Then double click MacTeX-2013-DVD in OldStyle/MacTeX-2013-DVD to start IceBerg. Ask IceBerg to build the old style package.

3. CONFIGURING MACTEX-2013-DVD IN ICEBERG

Click on the MacTeX-2013-DVD item in the left column to check that the item has name MacTeX-2013-DVD.

The Settings in the right column should be as follows:

Description

- Title: MacTeX-2013-DVD
- Version: 1.0

Display Information

- Display Name: MacTeX-2013-DVD
- Identifier: org.tug.pkg.macTeX-2013-DVD
- Get-Info string: MacTeX-2013-DVD 1.0 Copyright © 2013 TeX User Group
- Short version: 1.0

Version

- Major: 1
- Minor: 0

The Documents in the right column should be as follows:

Background Image

- Path: /Users/koch/Desktop/MacTeX-2013/MacTeX-2013-DVD/OldStyle/resources/background.jpg
- Scaling: To Fit
- Alignment: Left

Welcome

- Path: /Users/koch/Desktop/MacTeX-2013/MacTeX-2013-DVD/OldStyle/resources/English.lproj/Welcome.rtf

ReadMe

- Path: /Users/koch/Desktop/MacTeX-2013/MacTeX-2013-DVD/OldStyle/resources/English.lproj/ReadMe.rtf

License

- Path: /Users/koch/Desktop/MacTeX-2013/MacTeX-2013-DVD/OldStyle/resources/English.lproj/License.rtf

The Scripts in the right column should be as follows:

Requirements

Empty

Installation Scripts

Empty

Additional Resources

Empty

The Plugins in the right column should be as follows:

- Introduction
- ReadMe
- License
- Select Destination
- Installation Type
- Install
- Finish Up

The Components in the right column should be as follows

- : Location: Contents/Resources Custom
- : Pages & Metapackages with Attribute, all checked
 - Ghostscript-9.97 Selected
 - GUI-Applications Selected
 - ImageMagick-Convert-6.8.3-3 Selected
 - Latin-Modern-Fonts Unselected
 - TeX-Gyre-Fonts Unselected
 - TeXLive-2013-DVD selected

4. MAKING THE XZ FILE

This is an optional step, only needed if Karl asks for an xz file with MacTeX-2013-DVD.

Put MacTeX-2013-DVD.mpkg in the xzDVD folder. Then create the xz file using the command

```
sh xzscript
```

5. BUILDING TEXLIVE-2013-DVD WITH PACKAGEMAKER

The remaining steps are optional and will not be used by TUG.

Edit MacTeXDVDMaker, 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: MacTeX-2013-DVD
 - (b) User Sees: Easy and Custom Intall
 - (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 Actions tab entries for the top item can be left blank
- (3) Select the Requirements tab for the top item. Using the plus tab, add an item of the form “File Exists on System”. Set the file path to “/Volumes/TEXCOL2013/texlive”. In the Failure Message, set Title to “Install DVD Missing” and set Message to “The TUG TeX Collection DVD must be mounted to install TeX.”
- (4) Continuing with the Requirements tab, use the plus tab to add a second item of the form “Memory Available (Bytes)”. Fill in the next line to read “if: > 4294967295”. Set Title to “Disk Space Inadequate” and Message to “Not enough free disk space; MacTeX requires at least 4 gigabytes of free disk space.”

Click the entry TeXLive-2013 in the Contents section on the left. The right side will change to a view with two tabs.

- (1) Select the Configuration tab. Edit so
 - (a) Choice Name: TeXLive-2013
 - (b) Identifier: choice1
 - (c) Initial State: Selected and Enabled
 - (d) Destination: /
 - (e) Tooltip: Leave Blank
 - (f) Description: Leave Blank
- (2) The Requirements tab entries for this contents item can be left blank
- (3) Open the TeXLive-2013 entry in the bottom left column. This item should show an “texlive” directory, obtained by dragging ../TeXLive-2013/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: ../TeXLive-2013/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.texlive2013-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: scripts_texliveDVD (The item on the right should have selected “Relative To Project”)
- (b) Preinstall: Leave Blank
- (c) Postinstall: scripts_texliveDVD/postinstall (The item on the right should have selected “Relative To Project”)

Click the entry GUI-Applications in the Contents section on the left. The right side will change to a view with two tabs.

- (1) Select the Configuration tab. Edit so
 - (a) Choice Name: GUI-Applications
 - (b) Identifier: choice2
 - (c) Initial State: Selected and Enabled
 - (d) Destination: /
 - (e) Tooltip: Leave Blank
 - (f) Description: Leave Blank
- (2) The Requirements tab entries for this contents item can be left blank
- (3) Open the GUI-Applications entry in the bottom left column. This item should show an “Applications” directory, obtained by dragging ../GUI-Applications/root/Applications 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 tab. But it is *very important* to edit the items under the Components tab, turning off all boxes labeled “Allow Relocation.” The items under the Configuration tab should be edited as follows:
 - (a) Install: ../GUI-Applications/root/Applications (The item on the right should have selected “Relative To Project”)
 - (b) Destination: /Applications (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.gui
 - (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_gui` (The item on the right should have selected “Relative To Project”)
- (b) Preinstall: Leave Blank
- (c) Postinstall: `scripts_gui/postinstall` (The item on the right should have selected “Relative To Project”)

Click the entry Ghostscript-9.05 in the Contents section on the left. The right side will change to a view with two tabs.

- (1) Select the Configuration tab. Edit so
 - (a) Choice Name: Ghostscript-9.05
 - (b) Identifier: choice3
 - (c) Initial State: Selected and Enabled
 - (d) Destination: /
 - (e) Tooltip: Leave Blank
 - (f) Description: Leave Blank
- (2) The Requirements tab entries for this contents item can be left blank
- (3) Open the Ghostscript-9.05 entry in the bottom left column. This item should show a “local” directory, obtained by dragging ../Ghostscript-9.05/root/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: ../Ghostscript-9.05/root/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.ghostscript9.05
 - (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_ghostscript (The item on the right should have selected “Relative To Project”)
- (b) Preinstall: Leave Blank
- (c) Postinstall: scripts_ghostscript/postinstall (The item on the right should have selected “Relative To Project”)

Click the entry Convert-IM-6.7.6 in the Contents section on the left. The right side will change to a view with two tabs.

- (1) Select the Configuration tab. Edit so
 - (a) Choice Name: Convert-IM-6.7.6
 - (b) Identifier: choice4
 - (c) Initial State: Selected and Enabled
 - (d) Destination: /
 - (e) Tooltip: Leave Blank
 - (f) Description: Leave Blank
- (2) The Requirements tab entries for this contents item can be left blank
- (3) Open the Convert-IM-6.7.6 entry in the bottom left column. This item should show an “local” directory, obtained by dragging ../Convert-IM/rot/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: ../Convert-IM/root/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.imagemagick-convert-6.7.6-9
 - (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_convert (The item on the right should have selected “Relative To Project”)
- (b) Preinstall: Leave Blank
- (c) Postinstall: scripts_convert/postinstall (The item on the right should have selected “Relative To Project”)

Click the entry Latin-Modern-Fonts in the Contents section on the left. The right side will change to a view with two tabs.

- (1) Select the Configuration tab. Edit so
 - (a) Choice Name: Latin-Modern-Fonts
 - (b) Identifier: choice5
 - (c) Initial State: Enabled
 - (d) Destination: /
 - (e) Tooltip: Leave Blank
 - (f) Description: Leave Blank
- (2) The Requirements tab entries for this contents item can be left blank
- (3) Open the Latin-Modern-Fonts entry in the bottom left column. This item should show a “Fonts” directory, obtained by dragging ../Latin-Modern-Fonts/root/Library/Fonts 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: ../Latin-Modern-Fonts/root/Library/Fonts (The item on the right should have selected “Relative To Project”)
 - (b) Destination: /Library/Fonts (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.latin-modern
 - (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 left blank

Click the entry TeX-Gyre-Fonts in the Contents section on the left. The right side will change to a view with two tabs.

- (1) Select the Configuration tab. Edit so
 - (a) Choice Name: TeX-Gyre-Fonts
 - (b) Identifier: choice6
 - (c) Initial State: Enabled
 - (d) Destination: /
 - (e) Tooltip: Leave Blank
 - (f) Description: Leave Blank
- (2) The Requirements tab entries for this contents item can be left blank
- (3) Open the TeX-Gyre-Fonts entry in the bottom left column. This item should show a “Fonts” directory, obtained by dragging ../TeX-Gyre-Fonts/root/Library/Fonts 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: ../TeX-Gyre-Fonts/root/Library/Fonts (The item on the right should have selected “Relative To Project”)
 - (b) Destination: /Library/Fonts (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.tex-gyre
 - (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 left blank

6. BUILDING

After verifying all these items, build the install package by clicking the “Build” icon. When asked to select a name, choose “MacTeX-2013-DVD-Temp”.

Packagemaker will report a large number of warnings in the Ghostscript package, but all are incorrect permissions for links. I believe these permissions are actually correct; they agree with link permissions set by the TeX Live installer.

Packagemaker will also report warnings in the GUI-Applications package. Almost all of these say “Group ID 80 does not match 20 of root volume.” Experimentation involving changing the groups of these applications changes this to “Group ID 20 does not match 80 of root volume.” I do not believe this warning is important, but it would be nice to know more about it.

7. SIGNING

After the package has been made, sign it by executing the following line in Terminal:

```
sh signPackage.sh
```

This script simply calls

```
productsign --sign "Developer ID Installer: Richard Koch" old-name new-name
```

where “old-name” is MacTeX-2013-DVD-Temp.pkg and “new-name” is MacTeX-2013-DVD.pkg.