É Developer Discover Design Develop Distribute Account Q Search by keywords or tags **Developer Forums Unpacking Apple Archives** This thread has been locked. Questions are automatically locked after two months of inactivity, or sooner if deemed necessary by a moderator. I support Mac code signing and notarisation for DTS and, as part of that work, I often need to look inside various Applespecific archive file formats. This post explains how I do this. It's mostly for the benefit of Future Quinn™, but I figured other folks would appreciate it as well. IMPORTANT This post explains low-level techniques for inspecting archives. Do not use them to create archives. Instead, create your archives using the highest-level tool that will get the job done (1). Flat Installer Package A flat installer package — appropriate for uploading to the Mac App Store or the notary service — is actually a xar archive. Unpack it using the xar tool. For example: 1 % # List the contents: 3 % xar -tf InstallTest-1.0d1.pkg 4 com.example.apple-samplecode.InstallTest.pkg 5 com.example.apple-samplecode.InstallTest.pkg/Bom 6 com.example.apple-samplecode.InstallTest.pkg/Payload 7 com.example.apple-samplecode.InstallTest.pkg/PackageInfo 8 Distribution 9 % 10 % # Actually unpack: 11 # 12 % mkdir tmp 13 % cd tmp 14 % xar -xf ../InstallTest-1.0d1.pkg 15 % find . 16. 17 ./Distribution 18 ./com.example.apple-samplecode.InstallTest.pkg 19 ./com.example.apple-samplecode.InstallTest.pkg/Bom 20 ./com.example.apple-samplecode.InstallTest.pkg/Payload 21 ./com.example.apple-samplecode.InstallTest.pkg/PackageInfo See the xar man page for more info on that tool. The resulting **Bom** file is a 'bill of materials'. For more on this, see the **bom** man page for details. Use **lsbom** to dump this: 1 % lsbom ./com.example.apple-samplecode.InstallTest.pkg/Bom 2. 0 0/0 3 ./InstallTest.app ... 4 ./InstallTest.app/Contents ... 5 ./InstallTest.app/Contents/Info.plist ... 6 ./InstallTest.app/Contents/MacOS ... 7 ./InstallTest.app/Contents/MacOS/InstallTest ... The Payload file contains... you guessed it... the installer's payload. This is a gzipped cpio archive. To unpack it, pipe the file through cpio: 1 % cpio -i < com.example.apple-samplecode.InstallTest.pkg/Payload 2 5072 blocks 3 % find InstallTest.app 4 InstallTest.app 5 InstallTest.app/Contents 6 InstallTest.app/Contents/Info.plist 7 InstallTest.app/Contents/MacOS 8 InstallTest.app/Contents/MacOS/InstallTest See the cpio man page for more info on that tool. **Xip Archives** To extract a xip archive (pronounced, I believe, as *chip archive*), run the xip tool with the --expand argument: % xip ——expand XipTest.xip However, if that doesn't work you'll need to dig into the archive. First, undo the outer xar wrapper: % xar -xf XipTest.xip This produces two files, Content and Metadata: 1% ls -l 2 total 7552 3 -rw-r--r-- 1 quinn staff 1683391 10 Jun 17:05 Content 4 -rw-r--r 1 quinn staff 287 10 Jun 17:08 Metadata 5 -rw-r--r-- 1 quinn staff 1697157 10 Jun 17:05 XipTest.xip The Metadata file is an XML property list: 1 % cat Metadata 3 <dict> 4 <key>UncompressedSize</key> 5 <integer>2598653</integer> <key>Version</key> <integer>1</integer> 8 </dict> 9 </plist> The Content file is a yaa archive. Unpack this using the yaa tool: 1 % yaa extract -ignore-eperm -i Content -d tmp 2 % find tmp 3 tmp 4 tmp/XipTest 5 tmp/XipTest/XipTest.app 6 tmp/XipTest/XipTest.app/Contents 7 tmp/XipTest/XipTest.app/Contents/Info.plist 8 tmp/XipTest/XipTest.app/Contents/MacOS 9 tmp/XipTest/XipTest.app/Contents/MacOS/QCodeIndex 10 tmp/XipTest/XipTest.app/Contents/MacOS/XipTest 11 ... See the yaa man page for more info on that tool. Share and Enjoy Quinn "The Eskimo!" @ Developer Technical Support @ Apple let myEmail = "eskimo" + "1" + "@" + "apple.com" (1) For installer package specifically, productbuild is your friend, but you can also use the lower-level tools like productsign, pkgbuild, and pkgutil.

Reply to this question

Asked 8 months ago by eskimo 🕯 🗂

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