

munki-pkg

# munki-pkg

- a simple tool for building packages in a consistent, repeatable manner from source files and scripts in a project directory

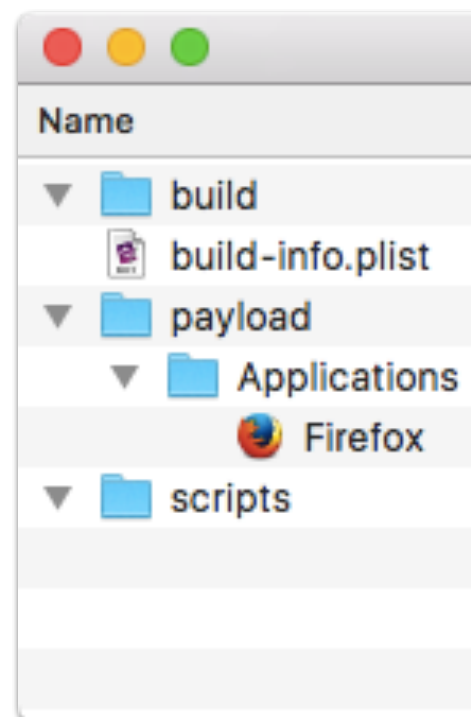
# munki-pkg

- does not require Munki
- can be run completely standalone

# munki-pkg

- <https://github.com/munki/munki-pkg>

Firefox				
Name	^	Date Modified	Size	Kind
▼ build		Today, 2:57 PM	--	Folder
build-info.plist		Today, 2:57 PM	591 bytes	Property list
▼ payload		Today, 2:57 PM	--	Folder
▼ Applications		Today, 2:58 PM	--	Folder
Firefox		Jun 8, 2016, 10:02 AM	206 MB	Application
▼ scripts		Today, 2:57 PM	--	Folder



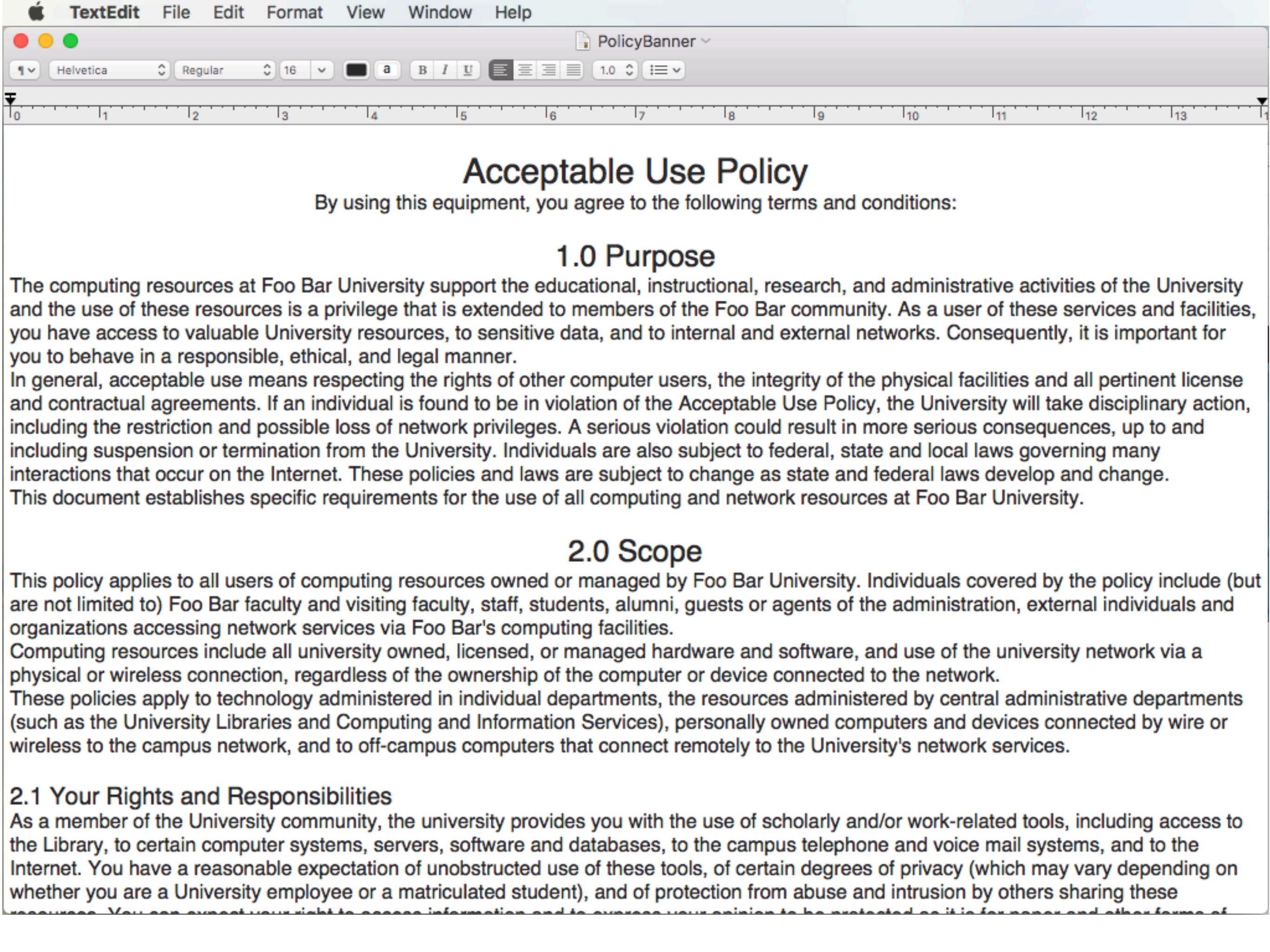
```
build-info.plist
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
3 <plist version="1.0">
4 <dict>
5
6 build-info.json
7 {
8   "postinstall_action": "none",
9   "suppress_bundle_relocation": true,
10  "name": "Firefox-${version}.pkg",
11  "distribution_style": false,
12  "install_location": "/",
13  "version": "47.0",
14  "ownership": "recommended",
15  "identifier": "com.github.munki.pkg.Firefox"
16 }
17
18 </dict>
19 </plist>
20
21
22
23
```

Line: 10 Column: 2 Plain Text Soft Tabs: 4

Line: 12 Column: 31 Property List Soft Tabs: 4 name

Creating munki-pkg  
projects







# About policy banners in OS X

Learn more about creating policy banners and fixing issues with display and position.



A policy banner is a banner that you can display at the login window that requires a user to acknowledge it before proceeding.

## Create a banner

You can set a [login message](#) that appears at the login screen of your Mac. You can also set a "policy" banner to display a longer message that you must accept before you can log in. This can be useful in situations where you need users to agree to or acknowledge terms or conditions before using the computer, such as an Acceptable Use Policy.

Use these steps to create a policy banner:

1. Create a plain text (.txt) or rich text (.rtf) document named PolicyBanner that contains your banner.
2. Copy the PolicyBanner file to the /Library/Security/ folder.

The next time you restart the computer, the banner you created appears when you would normally see the login screen.

```
$ ./munkipkg --create LoginwindowBanner  
munkipkg: Created new package project at LoginwindowBanner
```

```
$ ls LoginwindowBanner/
```

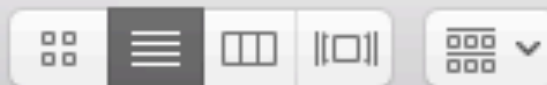
```
build                build-info.plist  payload
```

```
scripts
```

```
$ open LoginwindowBanner/
```



LoginwindowBanner



Search

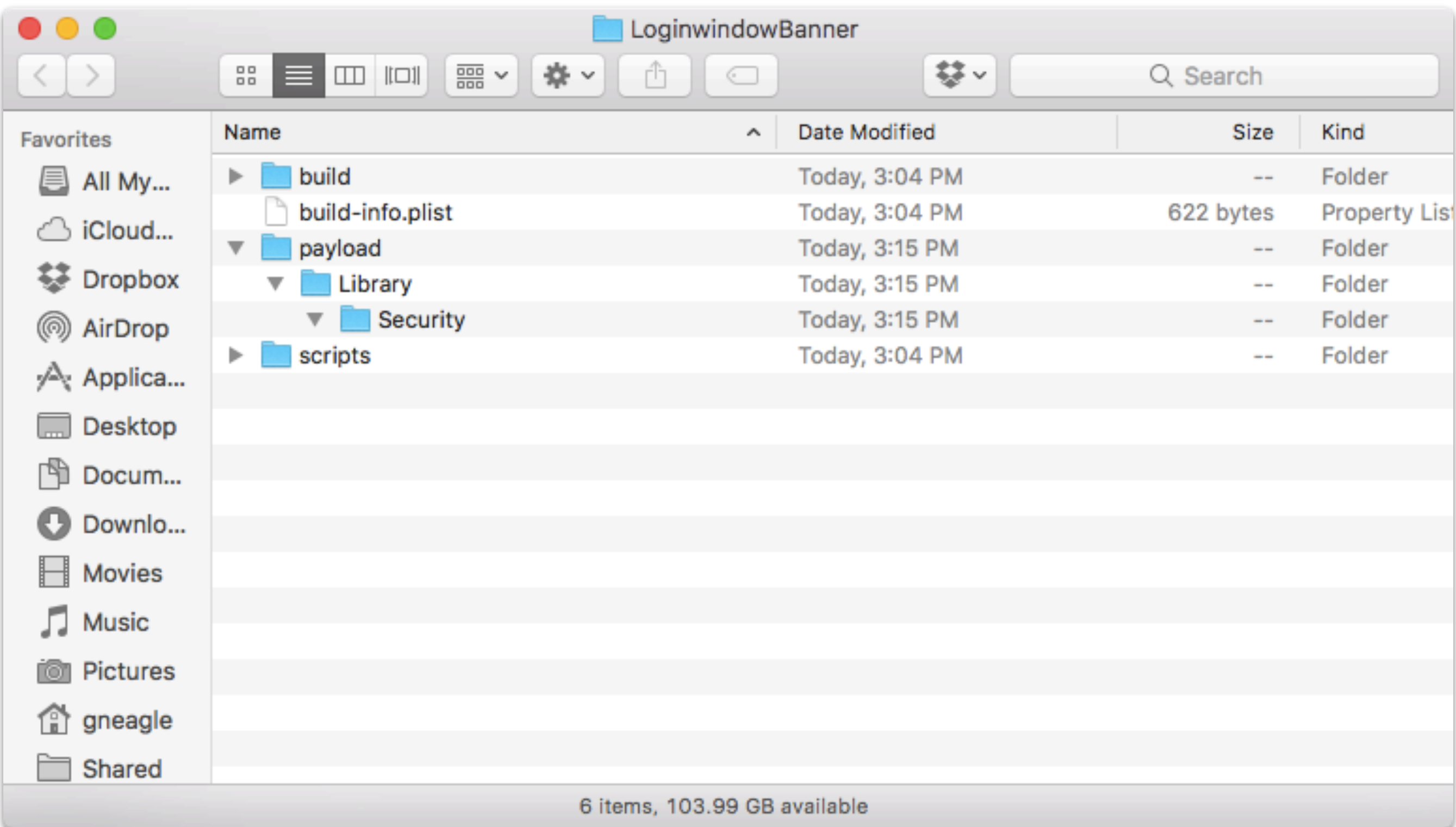
Favorites

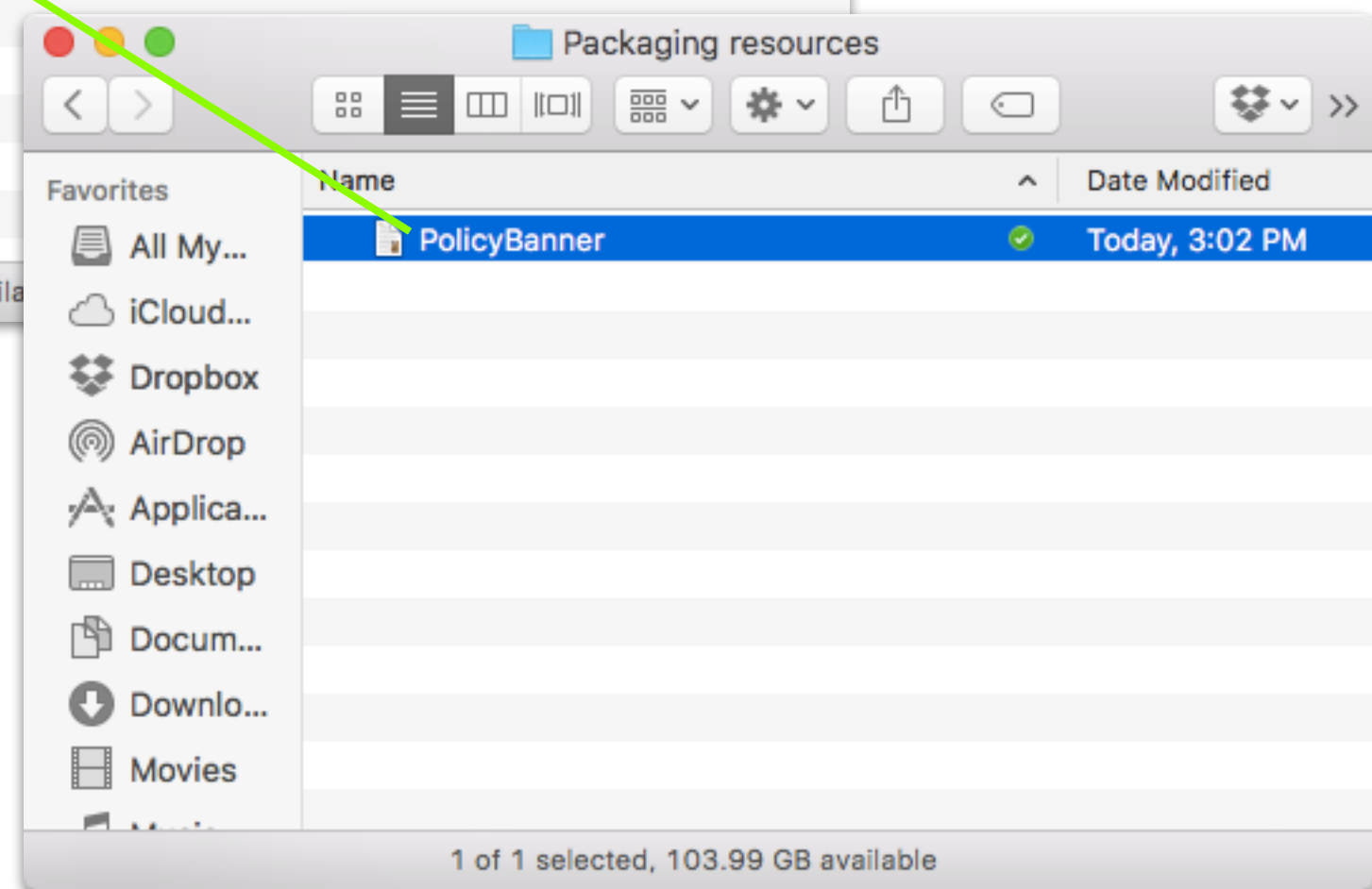
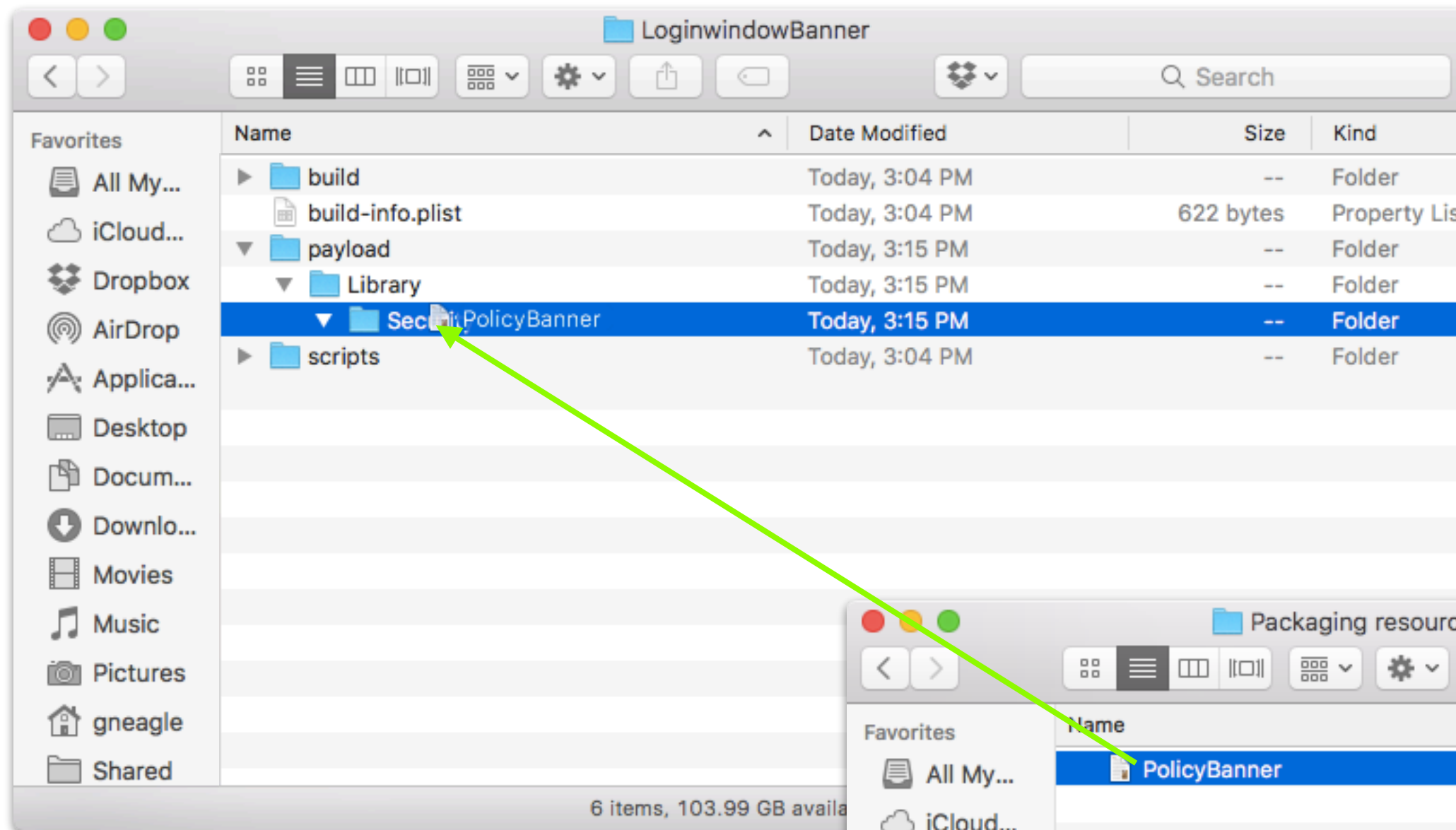
- All My...
- iCloud...
- Dropbox
- AirDrop
- Applica...
- Desktop
- Docum...
- Downlo...
- Movies
- Music
- Pictures
- gneagle
- Shared

Name	^	Date Modified	Size	Kind
▶ build		Today, 3:04 PM	--	Folder
build-info.plist		Today, 3:04 PM	622 bytes	Property List
▶ payload		Today, 3:04 PM	--	Folder
▶ scripts		Today, 3:04 PM	--	Folder

4 items, 103.98 GB available

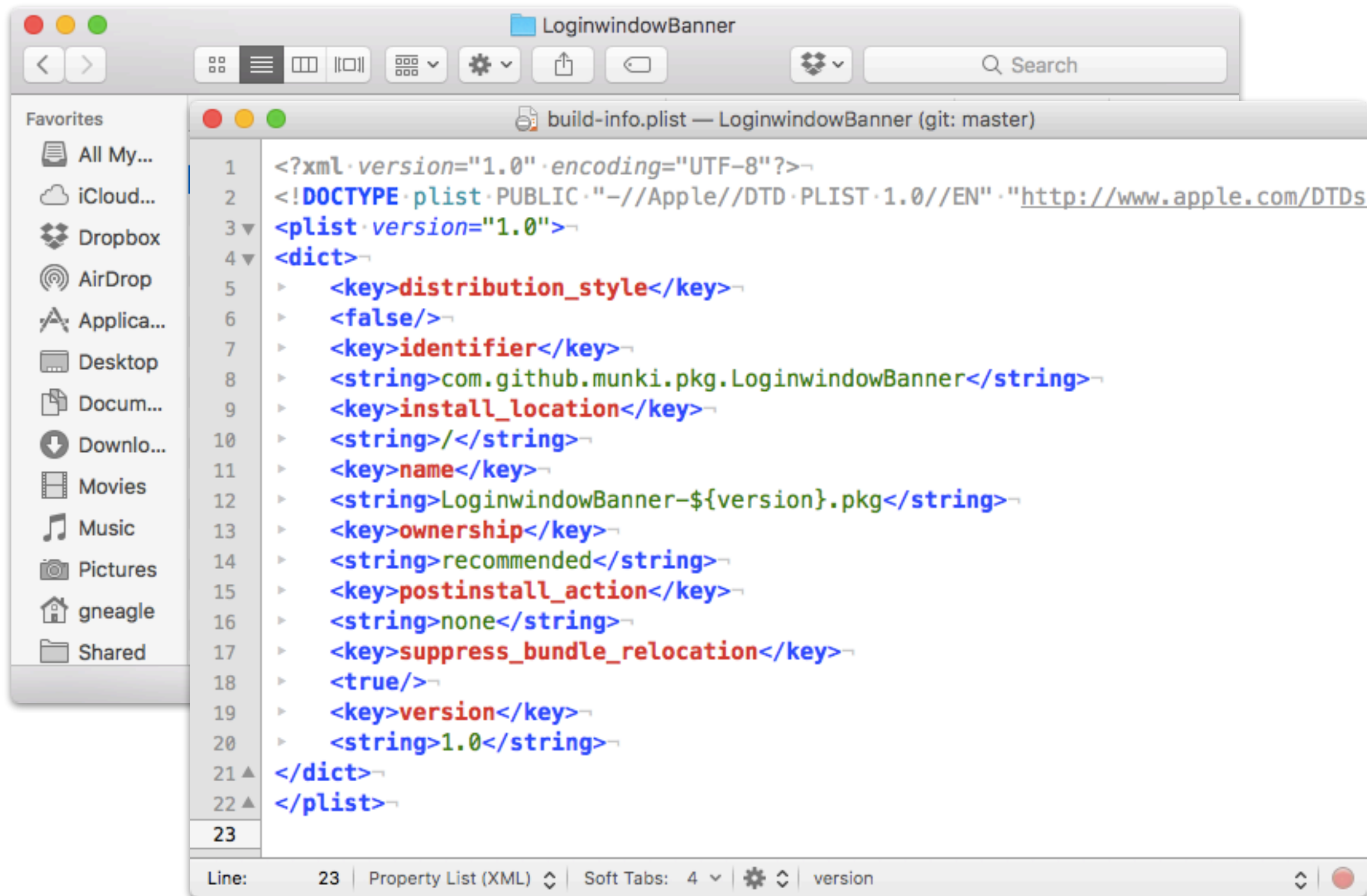
```
$ mkdir -p LoginwindowBanner/payload/Library/Security
```





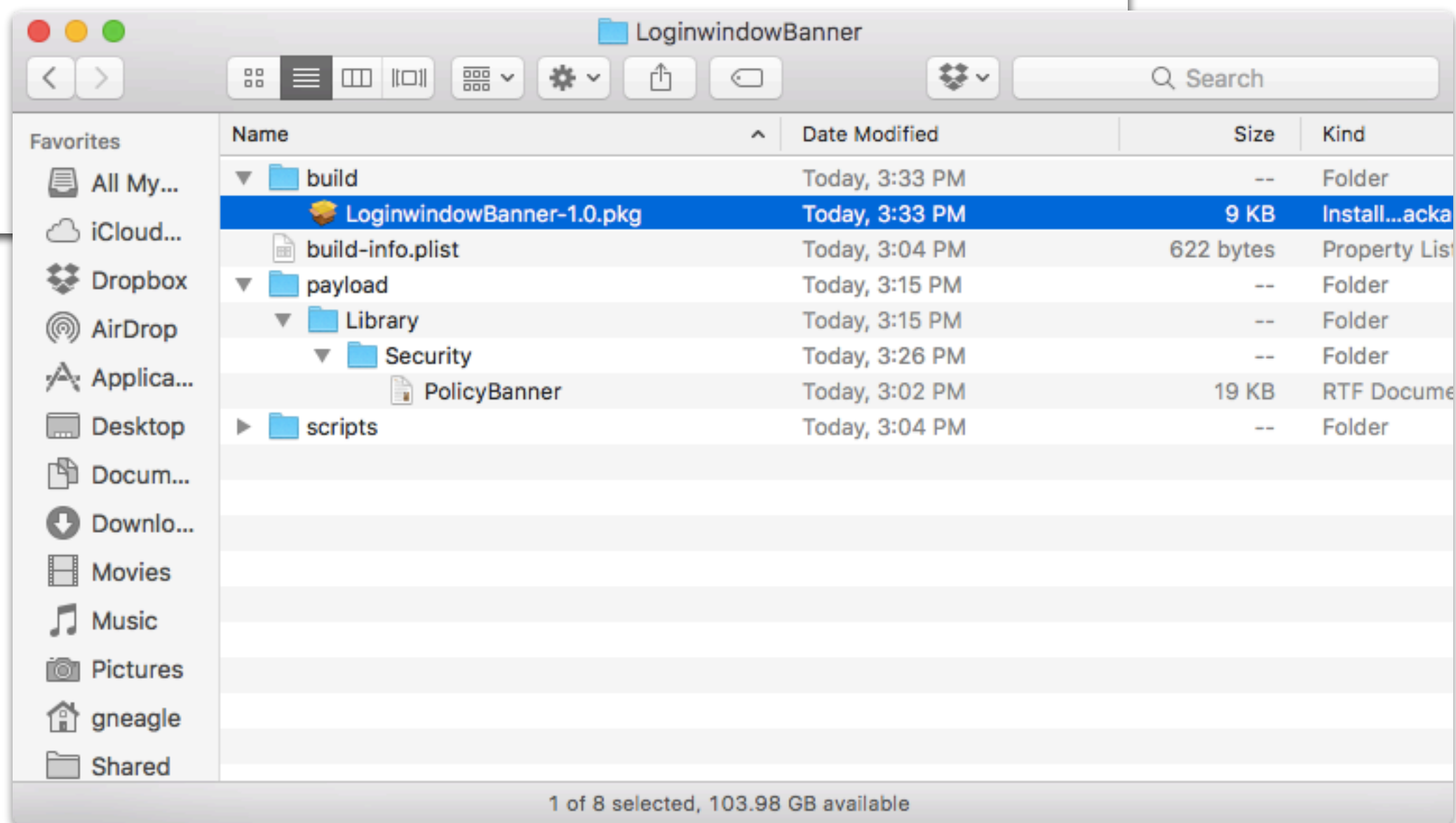






Building our package

```
gneagle@:~ — bash — 83x19
[bash-3.2$ ./munkipkg LoginwindowBanner
pkgbuild: Inferring bundle components from contents of LoginwindowBanner/payload
pkgbuild: Writing new component property list to /var/folders/tc/sd4_mtvj14jdy7cg21m2gmcw000495/T/tmpRZEnjT/component.plist
pkgbuild: Reading components from /var/folders/tc/sd4_mtvj14jdy7cg21m2gmcw000495/T/tmpRZEnjT/component.plist
pkgbuild: Wrote package to LoginwindowBanner/build/LoginwindowBanner-1.0.pkg
bash-3.2$
```



build-info

# build-info.plist

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>distribution_style</key>
  <false/>
  <key>identifier</key>
  <string>com.github.munki.pkg.Foo</string>
  <key>install_location</key>
  <string>/</string>
  <key>name</key>
  <string>Foo-${version}.pkg</string>
  <key>ownership</key>
  <string>recommended</string>
  <key>postinstall_action</key>
  <string>none</string>
  <key>suppress_bundle_relocation</key>
  <true/>
  <key>version</key>
  <string>1.0</string>
</dict>
</plist>
```

# build-info.json

```
{  
  "postinstall_action": "none",  
  "suppress_bundle_relocation": true,  
  "name": "Foo-${version}.pkg",  
  "distribution_style": false,  
  "install_location": "/",  
  "version": "1.0",  
  "ownership": "recommended",  
  "identifier": "com.github.munki.pkg.Foo"  
}
```



# build-info.yaml

```
distribution_style: false
identifier: com.github.munki.pkg.Foo
install_location: /
name: Foo-${version}.pkg
ownership: recommended
postinstall_action: none
suppress_bundle_relocation: true
version: '1.0'
```

build-info keys

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>distribution_style</key>
  <false/>
  <key>identifier</key>
  <string>com.github.munki.pkg.Foo</string>
  <key>install_location</key>
  <string>/</string>
  <key>name</key>
  <string>Foo-${version}.pkg</string>
  <key>ownership</key>
  <string>recommended</string>
  <key>postinstall_action</key>
  <string>none</string>
  <key>suppress_bundle_relocation</key>
  <true/>
  <key>version</key>
  <string>1.0</string>
</dict>
</plist>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
```

```
<key>distribution_style</key>
<false/>
```

```
<key>identifier</key>
```

```
<string>com.github.munki.nka.Foo</string>
```

```
<key>distribution_style:
```

```
<string>If true, build as a “distribution-style” package using
<key>productbuild.
```

```
<string>Otherwise, build as a component package using pkgbuild
```

```
<string>recommended</string>
```

```
<key>postinstall_action</key>
```

```
<string>none</string>
```

```
<key>suppress_bundle_relocation</key>
```

```
<true/>
```

```
<key>version</key>
```

```
<string>1.0</string>
```

```
</dict>
```

```
</plist>
```

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>distribution_style</key>
  <false/>
  <key>identifier</key>
  <string>com.github.munki.pkg.Foo</string>
  <key>install_location</key>
  <string>none</string>
  <key>suppress_bundle_relocation</key>
  <true/>
  <key>version</key>
  <string>1.0</string>
</dict>
</plist>

```

### identifier:

String containing the package identifier.

If this is missing, one is constructed using the name of the package project directory.

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>distribution_style</key>
  <false/>
  <key>identifier</key>
  <string>com.github.munki.pkg.Foo</string>
  <key>install_location</key>
  <string>/</string>
  <key>name</key>
  <string>Foo $version? pkg</string>
  <key>install_location:</key>
  <string>String. Path to the intended install location of the
  <key>payload on the target disk. Defaults to "/".</key>
  <string>
  <key>suppress_bundle_relocation</key>
  <true/>
  <key>version</key>
  <string>1.0</string>
</dict>
</plist>

```

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>distribution_style</key>
  <false/>
  <key>identifier</key>
  <string>com.github.munki.pkg.Foo</string>
  <key>install_location</key>
  <string>/</string>
  <key>name</key>
  <string>Foo-${version}.pkg</string>
  <key>summary</key>
  <string></string>
  <key>version</key>
  <string>1.0</string>
</dict>
</plist>

```

### name:

String containing the package name. If this is missing, one is constructed using the name of the package project directory.



```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
```

```
<plist version="1.0">
```

```
<dict>
```

```
<key>ownership:
```

```
<fa String. One of "recommended", "preserve", or
```

```
<ke "preserve-other". Defaults to "recommended". See man
```

```
<ke pkgbuild for more info.
```

```
<string>/</string>
```

```
<key>name</key>
```

```
<string>Foo-${version}.pkg</string>
```

```
<key>ownership</key>
```

```
<string>recommended</string>
```

```
<key>postinstall_action</key>
```

```
<string>none</string>
```

```
<key>suppress_bundle_relocation</key>
```

```
<true/>
```

```
<key>version</key>
```

```
<string>1.0</string>
```

```
</dict>
```

```
</plist>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>name</key>
  <string>Foo-1.0.pkg</string>
  <key>postinstall_action</key>
  <string>String. One of "none", "logout", or "restart". Defaults to
  "none".</string>
  <key>suppress_bundle_relocation</key>
  <string>true</string>
  <key>version</key>
  <string>1.0</string>
</dict>
</plist>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
```

```
<plist version="1.0">
```

```
<dict>
```

```
<key>
```

```
<false>
```

```
<key>
```

```
<string>
```

```
<key>
```

```
<string>
```

```
<key>
```

```
<string>
```

```
<key>
```

```
<string>
```

```
<key>
```

```
<string>
```

```
<key>
```

```
<true/>
```

```
<key>
```

```
<string>
```

```
</dict>
```

```
</plist>
```

## **suppress\_bundle\_relocation:**

Boolean: true or false. Defaults to true. If present and false, bundle relocation will be allowed, which causes the Installer to update bundles found in locations other than their default location.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
```

```
<plist version="1.0">
```

```
<dict>
```

```
<key>name</key>
```

```
<string>Foo-1.0.pkg</string>
```

**version:**  
A string representation of the version number. Defaults to "1.0".

```
<key>install_location</key>
```

```
<string>/</string>
```

```
<key>name</key>
```

```
<string>Foo-`${version}.pkg</string>
```

```
<key>ownership</key>
```

```
<string>recommended</string>
```

```
<key>postinstall_action</key>
```

```
<string>none</string>
```

```
<key>suppress_bundle_relocation</key>
```

```
<true/>
```

```
<key>version</key>
```

```
<string>1.0</string>
```

```
</dict>
```

```
</plist>
```

Package signing

```

<key>signing_info</key>
<dict>
  <key>identity</key>
  <string>Signing Identity Common Name</string>
  <key>keychain</key>
  <string>/path/to/SpecialKeychain</string>
  <key>additional_cert_names</key>
  <array>
    <string>Intermediate CA Common Name 1</string>
  </array>
</dict>

```

### **signing\_info:**

The only required key/value in the signing\_info dictionary is 'identity'.

See the SIGNED PACKAGES section of the man page for **pkgbuild** or the SIGNED PRODUCT ARCHIVES section of the man page for **productbuild** for more information on the signing options.

```
<key>signing_info</key>
<dict>
  <key>identity</key>
  <string>Developer ID Installer: Greg Neagle
52ZFZKM6BK)</string>
</dict>
```

**signing\_info:**

The only required key/value in the signing\_info dictionary is 'identity'.



Importing existing  
packages

```
munkipkg --import /path/to/foo.pkg Foo
```

- Creates a new package project directory named “Foo”
- Payload, scripts and build-info are extracted from foo.pkg.
- Complex or non-standard packages may not be extracted with 100% fidelity, and not all package formats are supported.

# Demo

(time permitting)