

# Exporting Your App for Testing (Mac)

Mac apps can be configured to launch outside Xcode on designated Mac computers using the team provisioning profile. The team provisioning profile uses the same pool of Mac computers that you register for development, so you are limited to 100 combined development and test Mac computers per year.

To distribute your app to beta testers using the team provisioning profile:

1. Register all test Mac computers.
2. Archive your app.
3. Export the app using the team provisioning profile.
4. Install the app on test Mac computers.

If you are ready to upload your final candidate and submit it to the store, test the installer package, described in [Testing the Mac Installer Package](#).

## Registering Test Mac Computers

Register all the Mac computers you want to use for testing with your developer account before exporting your app using Xcode. Xcode automatically registers your development Mac before it creates a team provisioning profile. To register additional test Mac computers, collect device IDs from testers and add them to your developer account.

To add multiple test Mac computers to the team provisioning profile, read [Registering Devices Using Your Developer Account](#).

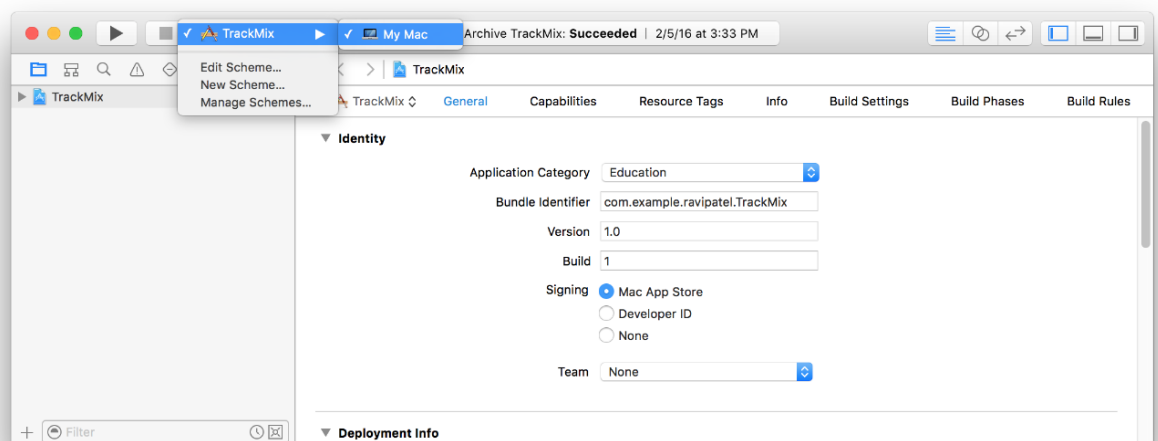
## Archiving Your App

Next, create an archive of your app. Xcode stores this archive in the Archives organizer.

### To create an archive

1. In the project navigator, choose a target from the Scheme toolbar menu, and click Run.

Always test the app before you export it.



2. Choose Product > Archive.

The Archives organizer appears and displays the new archive.

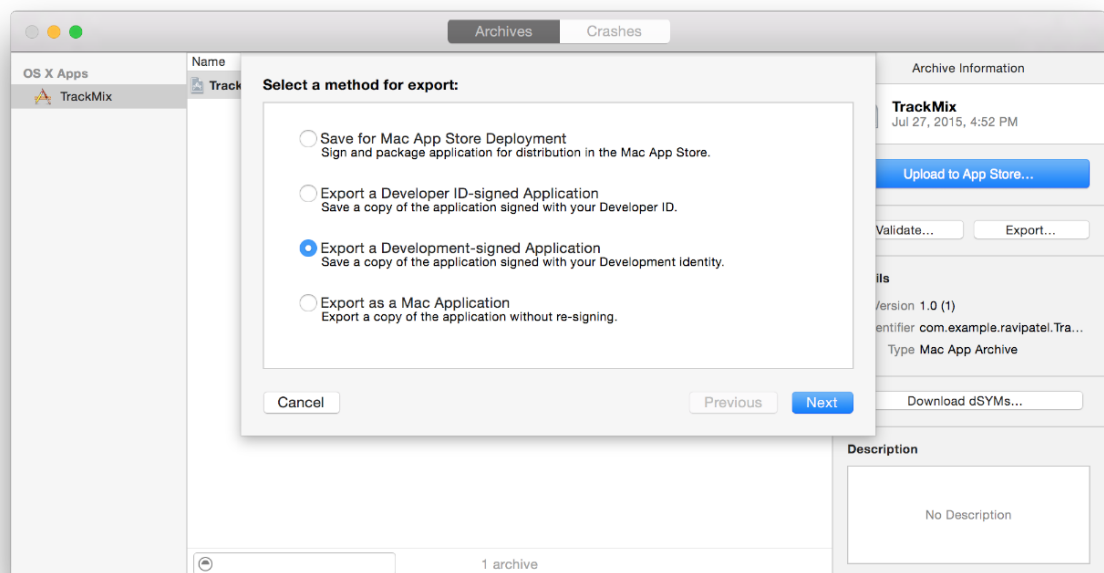
# Exporting Your App Using the Team Provisioning Profile

When you export a Mac app from Xcode, it embeds the team provisioning profile in the bundle and code signs the app with your development certificate. This allows the exported app to launch on all registered Mac computers.

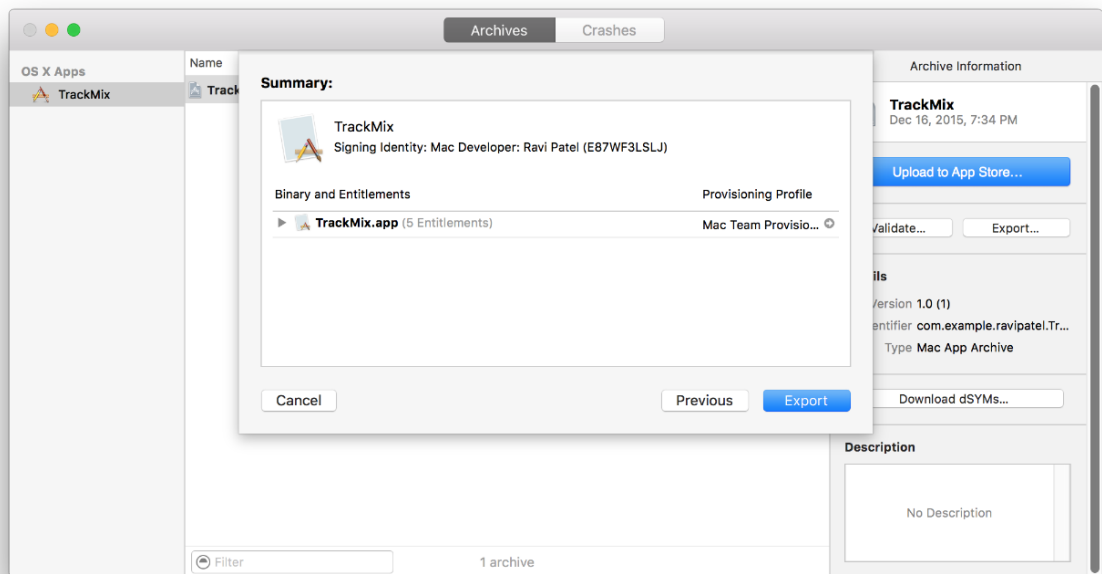
**Important:** If you configured your Xcode project to use a custom provisioning profile, configure the project to use the team provisioning profile before performing these steps, as described in [Migrating to Xcode-Managed Provisioning Profiles](#). Otherwise, your app may not launch on test Mac computers.

## To export a development certificate signed app using the team provisioning profile

1. In the Archives organizer, select the archive and click Export.
2. Select “Export a Development-signed Application” and click Next.



3. In the dialog that appears, choose a team from the pop-up menu and click Choose.  
If necessary, Xcode creates the needed signing identity and provisioning profile for you.
4. In the dialog that appears, review the app, its entitlements, and the provisioning profile, and click Export.  
The team provisioning profile should begin with the text `Mac Team Provisioning Profile:`.



5. In the dialog that appears, enter a filename and choose a location, and click Export.

## Installing Your App on Test Mac Computers

Before you distribute your app to testers, launch the app on another registered Mac that you don't use for development. The app will launch only on Mac computers specified in the team provisioning profile. If you can't launch the app on a designated Mac because it's from an unidentified developer, bypass the security settings in OS X to launch the app.

### To open an app from an unidentified developer

1. In the Finder, Control-click the app icon, and choose Open from the shortcut menu.
2. In the Gatekeeper dialog that appears, click Open.

## Testing the Mac Installer Package

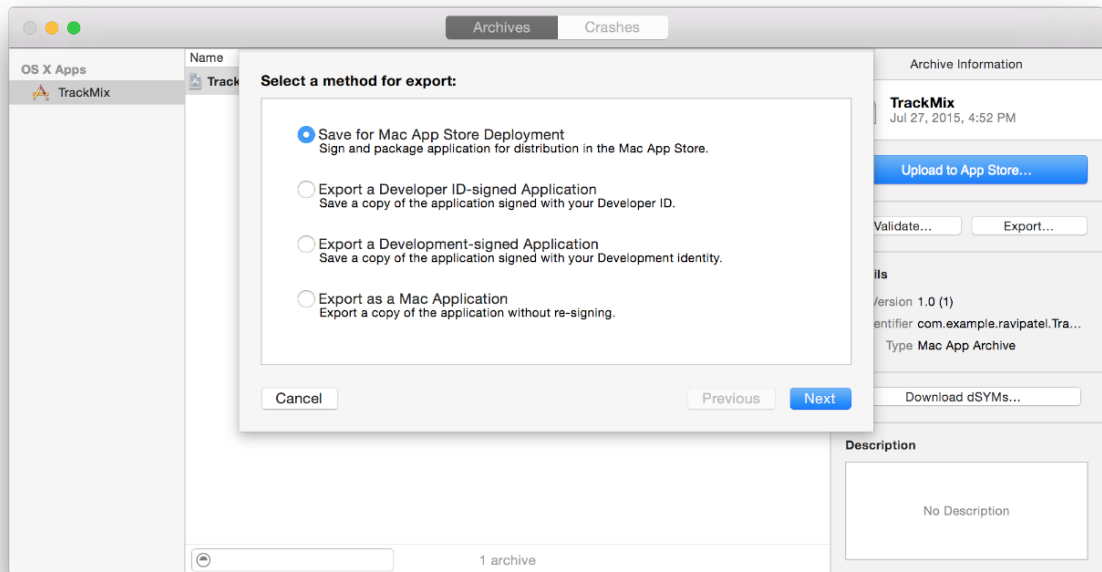
Before you submit your app to the Mac App Store, test the installation process to verify that your app installs correctly. Do this by saving the installer package to your disk and running a test using the `installer` command before submitting it.

## Creating an Installer Package

You save an installer package to your disk by following similar steps as for validating and distributing your Mac app.

### To create an installer package

1. In the Archives organizer, select the archive.
2. Click the Export button.
3. Select "Save for Mac App Store Deployment," and click Next.



4. In the dialog that appears, choose a team from the pop-up menu and click Choose.

If necessary, Xcode creates a distribution certificate and distribution provisioning profile for you.

5. In the dialog that appears, review the app, its entitlements, and provisioning profile, and click Export.

The name of the distribution provisioning profile begins with the text `XC:`.

6. In the dialog that appears, enter a filename and choose a location, and click Export.

The installer file has a `.pkg` extension.

## Testing the Installer Package

Don't test the installation process by opening the package with the Installer app. Only the `installer` command verifies that your app will be installed correctly when it's purchased from the Mac App Store.

To test your installer package, execute the following command in a Terminal window:

```
sudo installer -store -pkg path-to-package -target /
```

The output of the `installer` command should be similar to:

```
rpatel$ sudo installer -store -pkg ../Documents/TrackMix.pkg -target /

WARNING: Improper use of the sudo command could lead to data loss
or the deletion of important system files. Please double-check your
typing when using sudo. Type "man sudo" for more information.

To proceed, enter your password, or type Ctrl-C to abort.

Password:
installer: Note: running installer as an admin user (instead of root) gives better Mac App
Store fidelity
installer: TrackMix.pkg has valid signature for submission: 3rd Party Mac Developer
Installer: Ravi Patel (7U3X8B3P5Z)
installer: Installation Check: Passed
installer: Volume Check: Passed
installer: Bundle com.example.rpatel.TrackMix will be installed to /Applications/TrackMix.app
installer: Starting install
```

```
installer: Install 0.0% complete
installer: Install 90.8% complete
installer: Install 100.0% complete
installer: Finished install
rpatel$
```

If the installer finds a bundle with the same bundle ID as the one it's installing, it upgrades the existing app. Users can then install upgrades even if they have moved your app. If you have a copy of your app installed (for example, in your build products directory), you may want to remove it so that the installer installs your app in `/Applications`. Other options include archiving the existing version in a ZIP file or moving it to another volume and unmounting that volume.