# Create certificates

THE DPS APP BUILDER will generate two different apps—a development app and a distribution app. The development app is used for testing; the distribution app is what you'll submit to Apple once you've tested and approved the development app. Apple requires both apps to be signed by a valid "certificate" before they can run on the iPad. In this section, you will learn how to create two required p12 certificates.

*Note: You can use the same p12 development and distribution certificates for multiple apps. They are not tied to the App ID. However, each app you create requires a different App ID and different mobileprovision files (described in the next section).*

**Who creates the certificates?**

The steps in this guide assume you will create the required certificates. If you work for an organization, someone else in your company might be responsible for creating the required ertificates. If so, make the necessary arrangements to use those certificates for building your app.

**Overview**

The process of creating a p12 certificate file might seem complicated, but it's not that difficult if you follow the steps carefully. Creating the certificates involves a back-and-forth process between the Apple Developer site and the Keychain Access utility on your computer. You use the Keychain Access utility to create a certificate signing request, and then submit the signing request in the Apple Developer site. Then you download the certificate (.cer) file and open it in the Keychain Access utility, which you use to export the p12 file. You will complete this process twice: once for the development (testing) app and once for the distribution (submission) app.

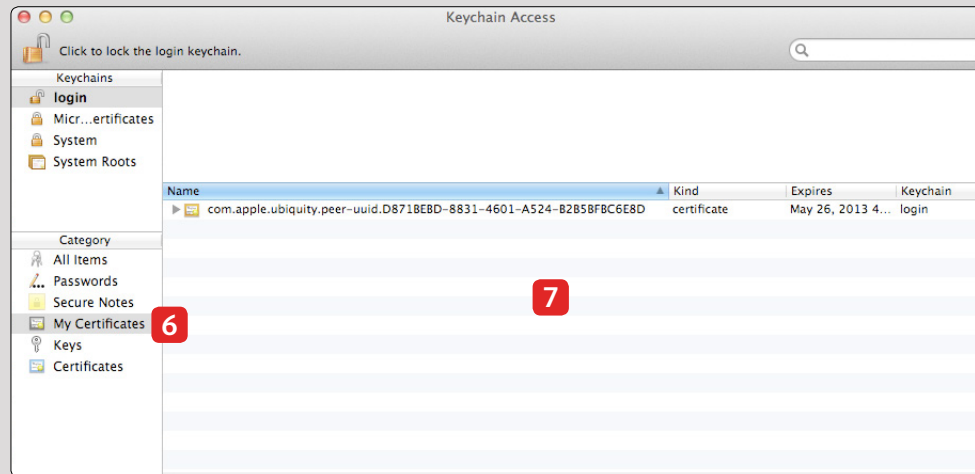**Create a Development Certificate Signing Request**

1. Go to the Certificates, Identifiers & Profiles at bit.ly/OVbhu5. Sign in with your Apple ID.

2. Click Certificates on the left side of the window. ❷

3. Click Development on the left side of the window under Certificates. ❸

   Selecting the options on the left side displays the certificates of each category. At this stage, you shouldn't have any development certificates. You will create the Development certificate files that you can use for testing all your apps.
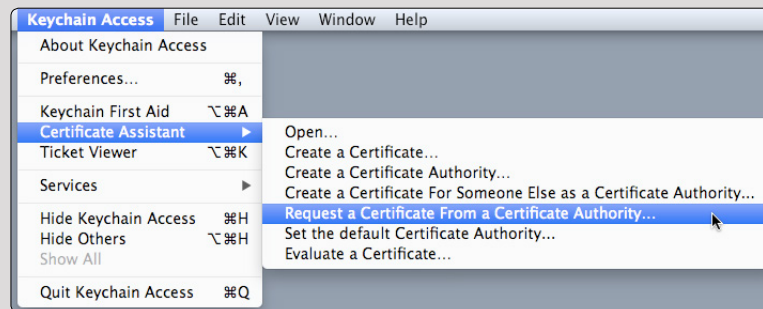
4. Click the Plus icon in the upper right corner of the window to start creating a certificate. ❹
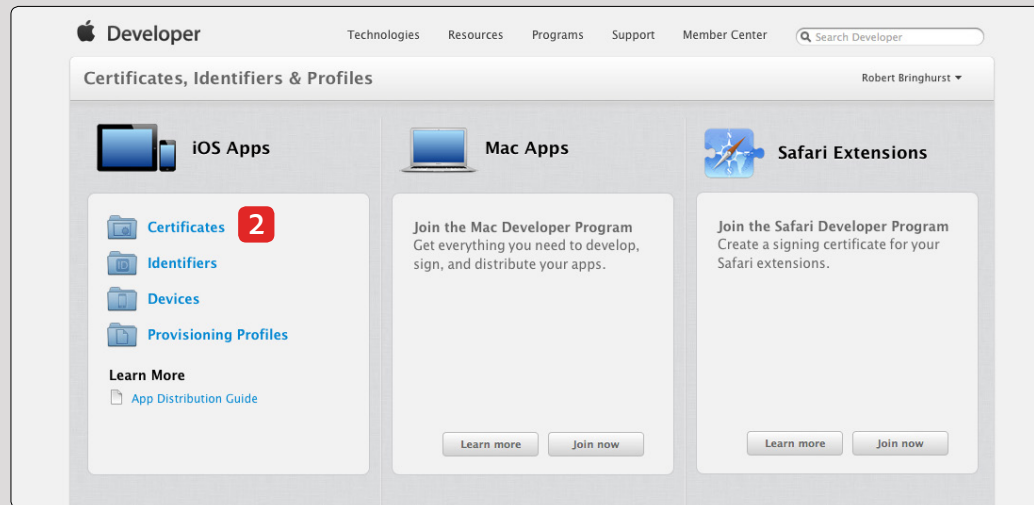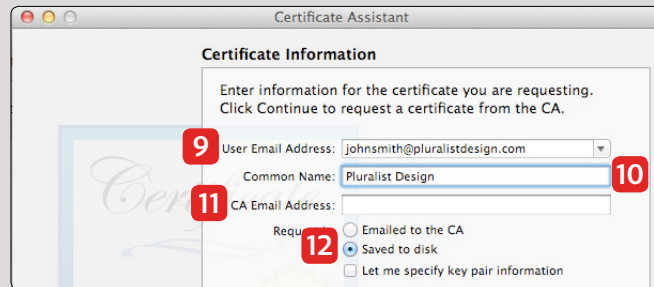
5. Open the Keychain Access utility, found in the Utilities folder in your Applications folder.

6. Click on the My Certificates category on the left. **6**

7. Click on an empty space in the window on the right to ensure that no existing keys or certificates are selected. **7**



8. Choose Keychain Access > Certificate Assistant > Request a Certificate From a Certificate Authority.

9. For User Email Address, specify a valid email address. **9**

10. For Common Name, enter the name of your company or division. This certificate can be reused for multiple apps that you might create, so you don't need to enter the app name here. **10**

11. Leave the CA Email Address field blank. **11**

12. Select Saved to Disk. **12**

13. Click the Continue button.

14. Specify the name of the certificate signing request and where the file will be saved, and click Save. You will use this file to create a development certificate in the next section.

15. When the certificate request is created, click Done.
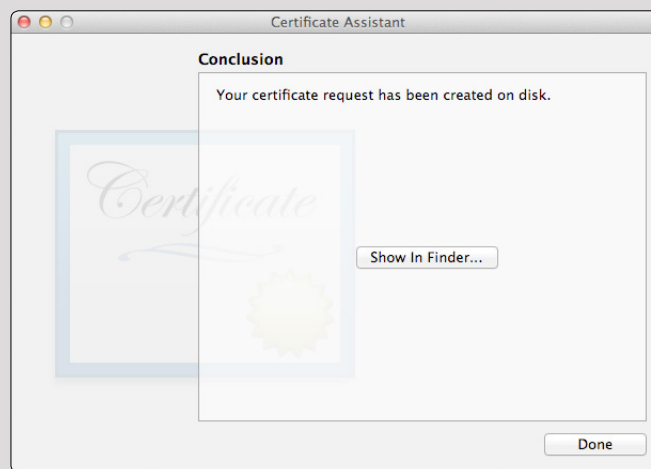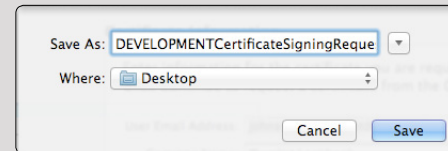
*During this process, you are going to be creating **several files** that you will **need to keep track of.** It is helpful to create a new folder in an easy-to-access location to store all of these **"bits and pieces"** that you will need later in the process.*
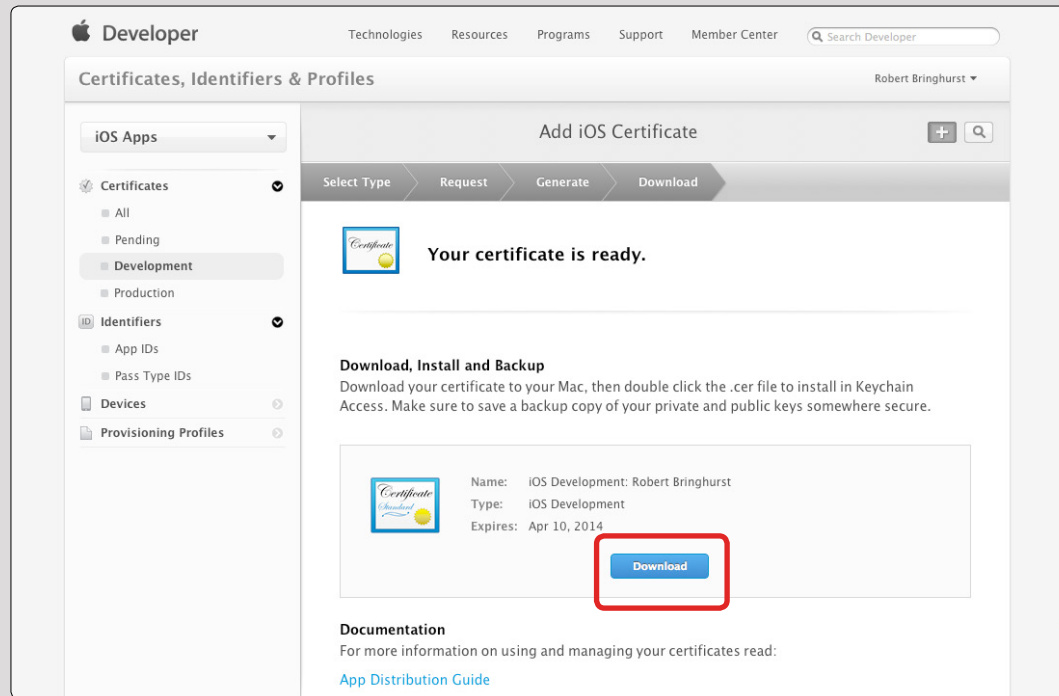
**Generate a Development Certificate**

Now that you've created the certificate signing request file, you need to submit it to the iOS Provisioning Portal to create the required development certificate.

1. In the Apple Developer site, click Continue to advance to the "Generate your certificate" screen. Click Choose File, and double-click the certificate request file you just saved in the previous steps. **1**
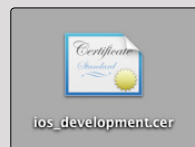
2. Click Generate. **2**
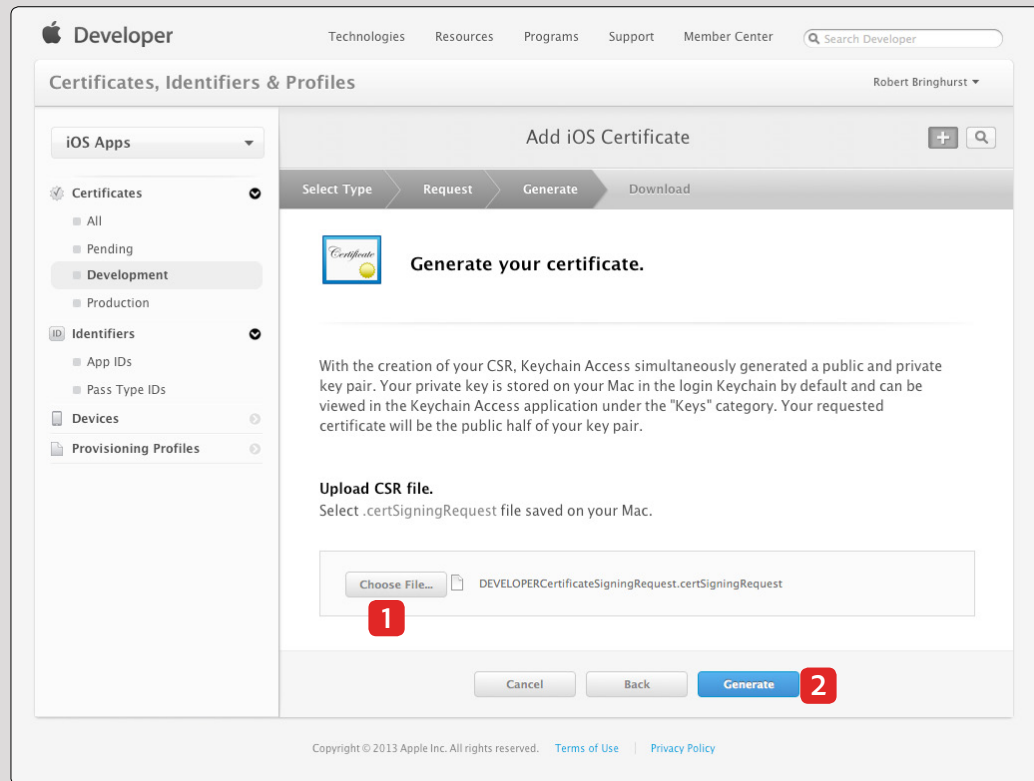
Your development certificate is generated.



3. Click Download, and then download the certificate to a known location.

   This development certificate is called ios_development.cer. This file is required to create your p12 certificate in the Keychain Access utility. You'll do that next.
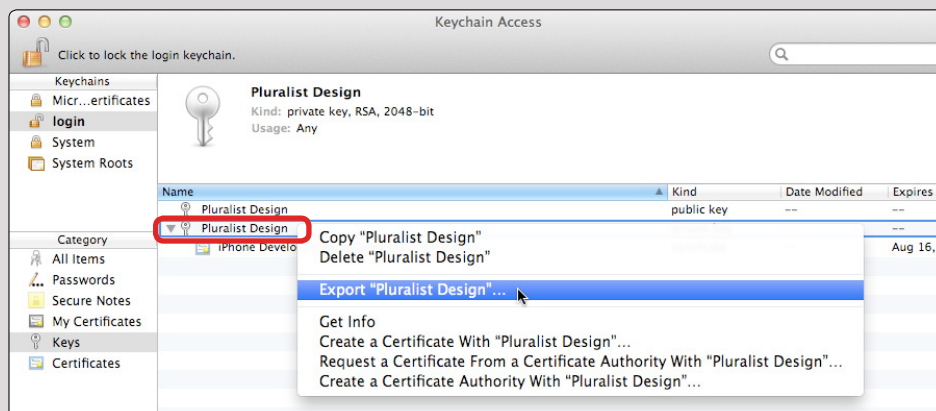
**Create a p12 Development Certificate**

1.  In the Finder, locate the ios_development.cer file you created, and double-click it. This launches the Keychain Access utility and installs the certificate.

2.  To see if the certificate was installed, click on the Keys category on the left, and then click the right-pointing arrow to open the private key. You should see the certificate beneath the private key. If double-clicking the .cer file does not install the certificate, launch Keychain Access and choose File > Import Items to specify the .cer file.
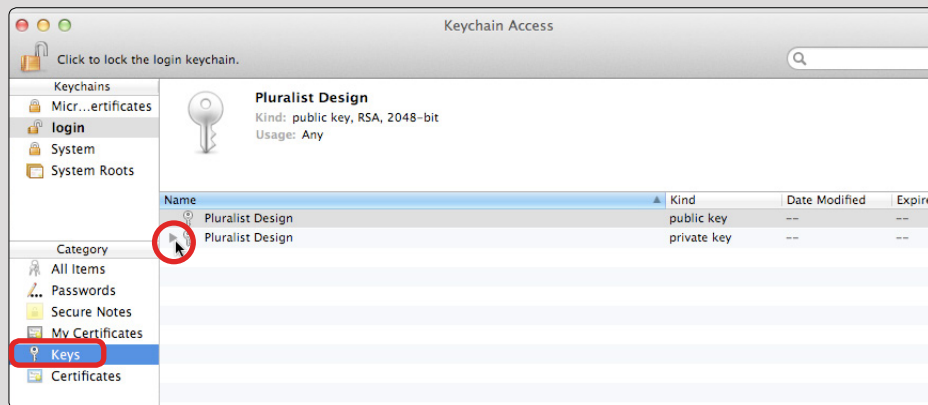


3.  With Keys selected on the left, Control-click or right-click the private key associated with your certificate, and choose Export "[name]."

    *Important*: Control-click the private key (highlighted in red below), not the certificate.

4.  Save your key in the Personal Information Exchange (.p12) file format. Specify a name that distinguishes it from the p12 file you'll create for the distribution certificate. For example, we're naming our development certificate Pluralist Design Development.p12. Later, we'll name the distribution p12 certificate "Pluralist Design Distribution.p12". Save the certificate into a known location where you won't lose track of it. Do not use any characters other than a–z, 0–9, hyphens, underscores, and spaces in the filename.
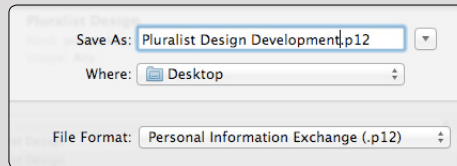


5.  When prompted, specify a password for your p12 certificate, and click OK.

    Remember this password. Do not use a blank password. You will need this password later when building your app in the DPS App Builder.
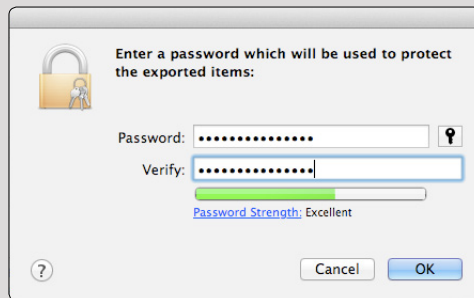


6.  Specify the Administrator password for your computer, and click Allow.



You now have one of the two p12 certificates you need. You can now delete the certificate signing request file and the ios_development.cer file, as they are no longer needed. Keep

**ADOBE TIP**

*If you forget the p12 certificate password you create here, there is no way to retrieve it—you would need to create your p12 certificates all over again. So don't forget this password! You can use the same password for the distribution and development p12 certificates.*

your development p12 certificate in a safe place. Next, you will follow similar steps to create the distribution p12 certificate.

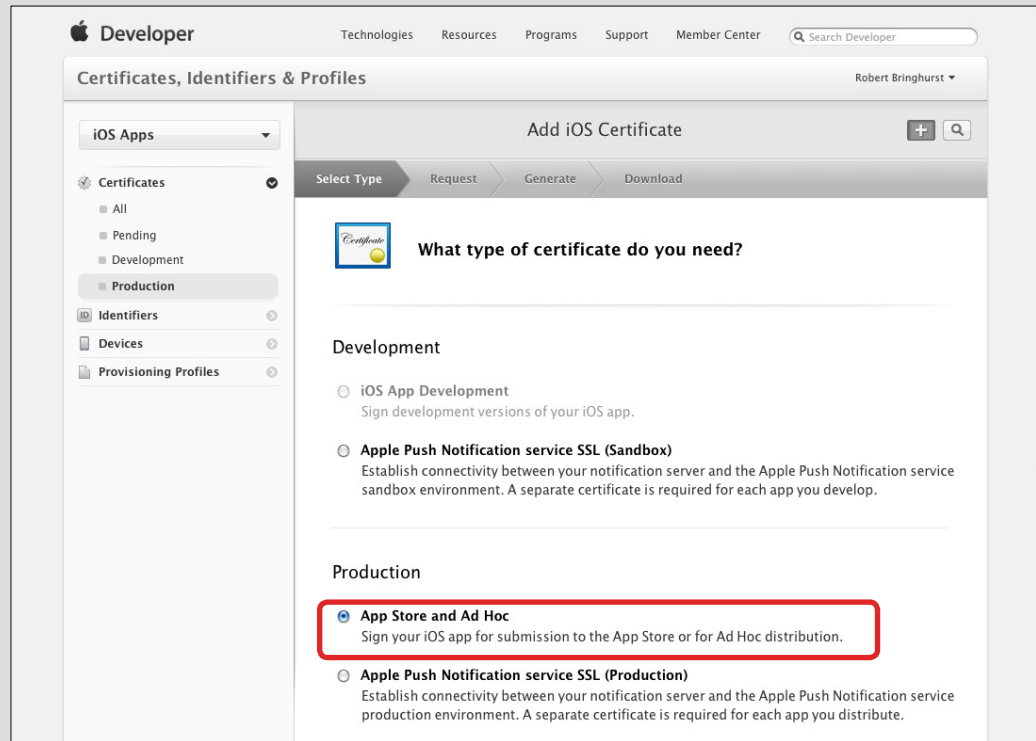> Pluralist Design Development.p12

**Create a Distribution Certificate Signing Request**

One p12 certificate down, one to go. Now you need to create the distribution p12 certificate that you will use to sign production apps that you submit to the App Store.

1. If the Keychain Access utility is still running on your computer, choose Keychain Access > Quit Keychain Access to quit the program (leaving the Keychain Access utility running while doing steps 2–4 can cause problems).

2. On the Apple Developer site, click Production (under Certificates) on the left side of the window. **2**

   Again, you need only one distribution certificate for all your apps.

3. Click the Plus icon in the upper right corner of the window to start creating a certificate. **3**
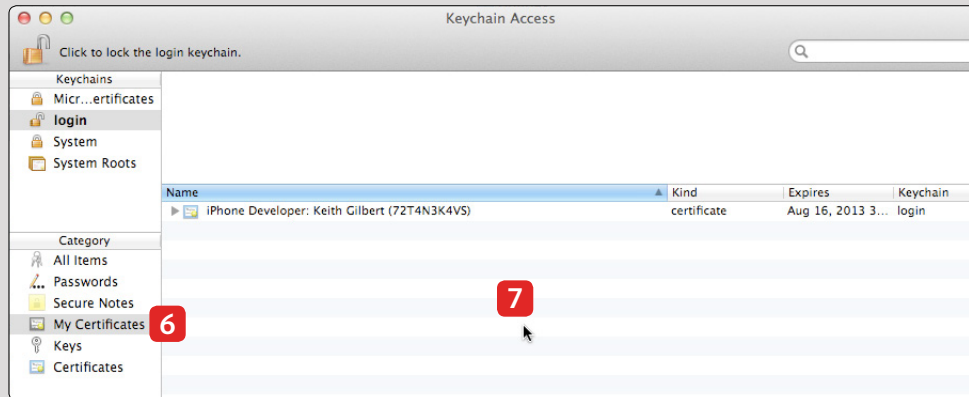
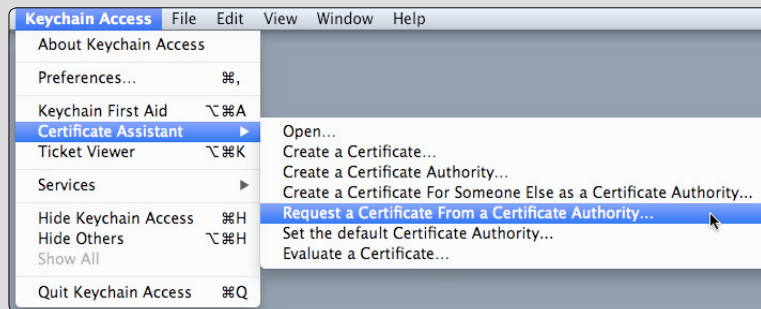4. Under Production, select "App Store and Ad Hoc." Then click Continue.



5. Reopen the Keychain Access utility, found in the Utilities folder in your Applications folder.

6. Click on the My Certificates category on the left. **6**

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NEXT

7.  Click on an empty space in the window on the right to ensure that no existing keys or certificates are selected. **7**
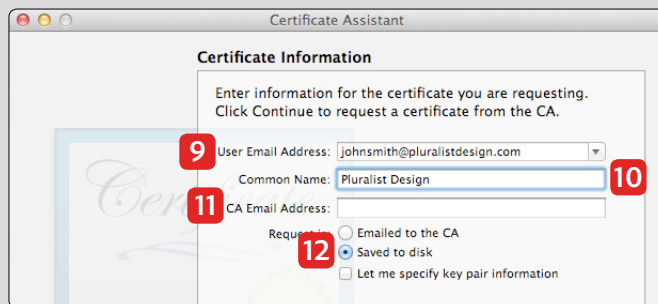


8.  Choose Keychain Access > Certificate Assistant > Request a Certificate From a Certificate Authority.
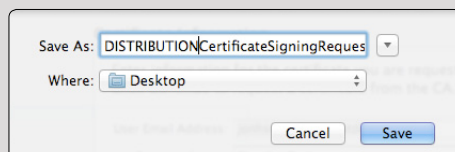


9.  For User Email Address, specify a valid email address. **9**

10. For Common Name, enter the name of your company or division. This certificate can be reused for multiple apps that you might create, so you don't need to enter the app name here. **10**

11. Leave the CA Email Address field blank. **11**

12. Select Saved To Disk. **12**



13. Click the Continue button.

14. Specify the name of the certificate signing request and where the file will be saved, and click Save.



15. When the certificate request is created, click Done.

**Generate a Distribution Certificate**

Now that you've created the certificate signing request file, you need to submit it to the iOS Provisioning Portal to create the required distribution certificate.

1. In the Apple Developer site, click Continue to advance to the "Generate your certificate" screen. Click Choose File, and double-click the certificate request file you just saved in the previous steps. **1**
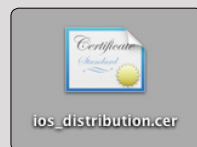
2. Click Generate. **2**
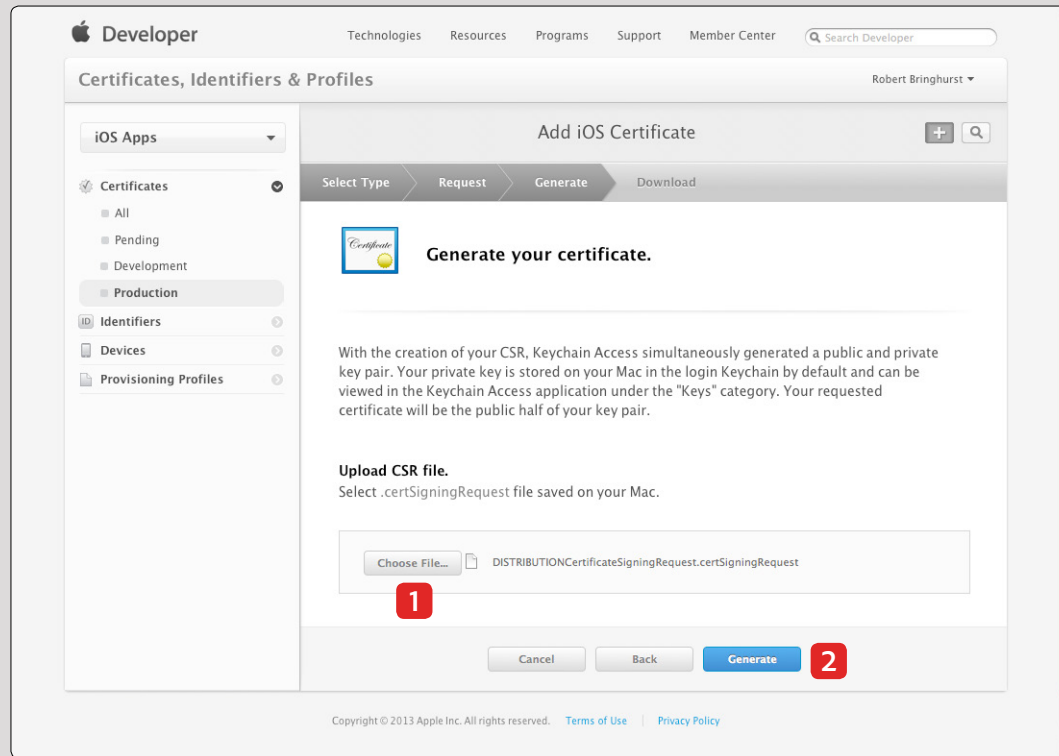


Your distribution certificate is added to the Apple Developer site.

3. Click Download, and then download the certificate to a known location.

   This distribution certificate is called ios_distribution.cer. This file is required to create your p12 certificate.

**Create a p12 Distribution Certificate**

1.  In the Finder, locate the ios_distribution.cer file you created, and double-click it.

2.  Double-clicking the certificate launches Keychain Access and installs the certificate. To see if the certificate was installed, click on the Keys category on the left, and then click the right-pointing arrow to open the private key. You should see the certificate added to the private key. If double-clicking the .cer file does not install the certificate as shown below, then launch Keychain Access, and choose File > Import Items to specify the .cer file.
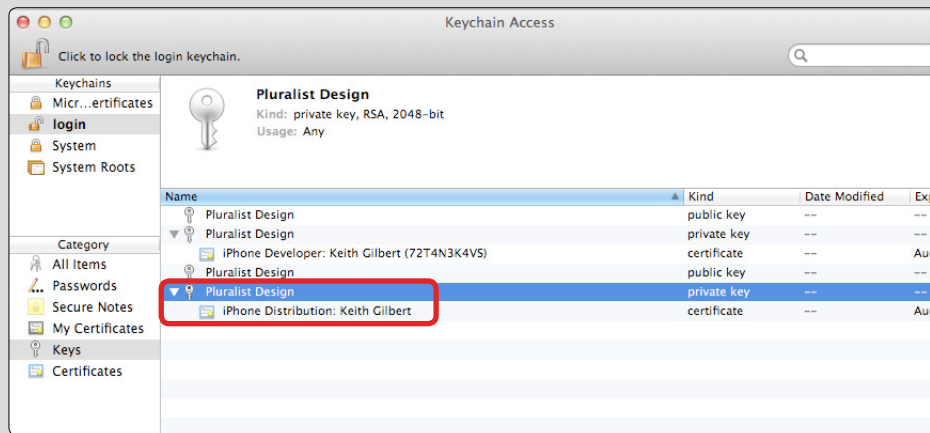


3.  Control-click or right-click the private key associated with your certificate, and choose Export "[name]." Important: Control-click the private key (highlighted in red below), not the certificate.
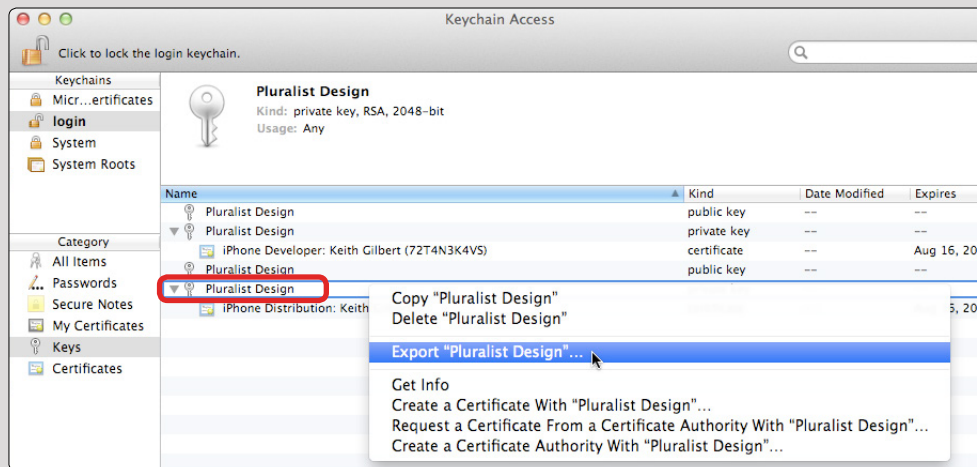
4. Save your key in the Personal Information Exchange (.p12) file format. Specify a name that distinguishes it from the p12 file you created for the development certificate. Do not use any characters other than a–z, 0–9, hyphens, underscores, and spaces in the filename.
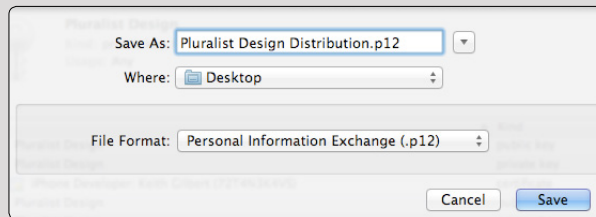


5. When prompted, specify a password for your p12 certificate, and click OK.

Remember this password. Do not use a blank password. You will need this password later when building your app in the DPS App Builder. (You can use the same password for the distribution and development certificates.)

6. Specify the Administrator password for your computer, and click Allow.

You now have both of the p12 certificates that you need to create apps for the App Store. Store these files in a safe place. You can now delete the certificate signing request file and the ios_distribution.cer file, as they are no longer needed.