

Distributing Enterprise Apps

Session 705

Dave Rahardja

iOS Software Engineer

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Managing Your Team

Xcode Server

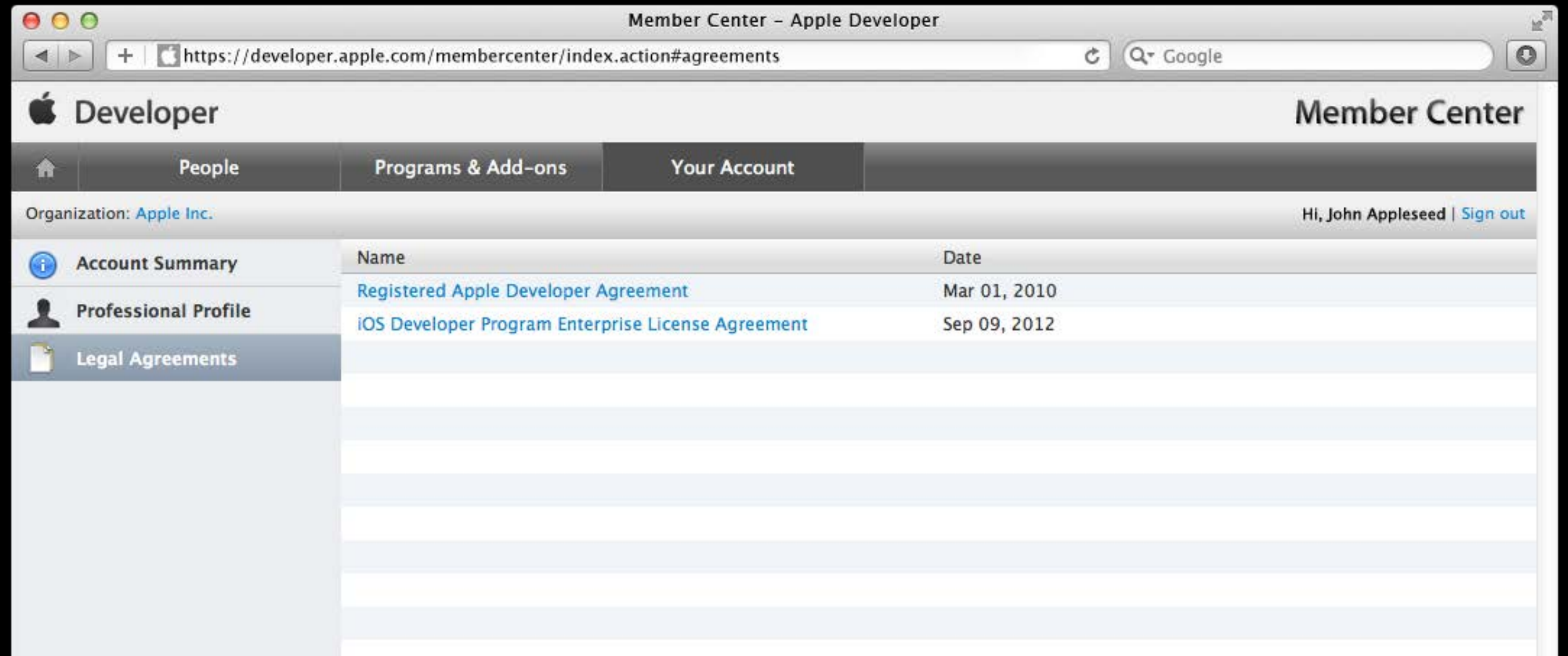
App Distribution Strategy

Custom B2B

Getting Started

Getting Started

Enterprise account



The screenshot shows the Apple Developer Member Center interface. The browser address bar displays the URL <https://developer.apple.com/membercenter/index.action#agreements>. The page header includes the Apple Developer logo and the text "Member Center". A navigation bar contains tabs for "People", "Programs & Add-ons", and "Your Account". Below the navigation bar, the organization is identified as "Apple Inc." and the user is logged in as "Hi, John Appleseed | Sign out".

The main content area displays a table of legal agreements. The table has two columns: "Name" and "Date". The "Legal Agreements" section in the left sidebar is highlighted. The table contains the following data:

Name	Date
Registered Apple Developer Agreement	Mar 01, 2010
iOS Developer Program Enterprise License Agreement	Sep 09, 2012

Getting Started

Enterprise account

No minimum company size



Getting Started

Enterprise account

No minimum company size

D-U-N-S number



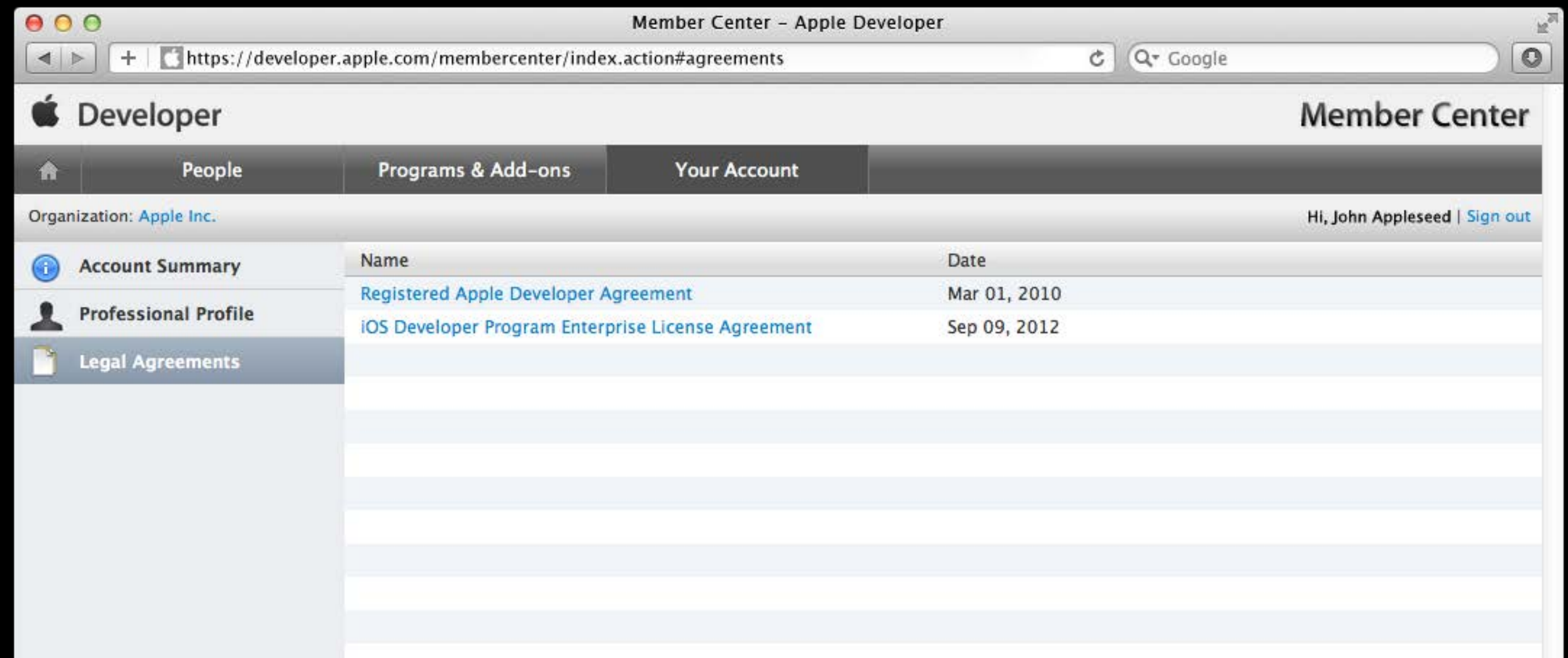
Getting Started

Enterprise account

No minimum company size

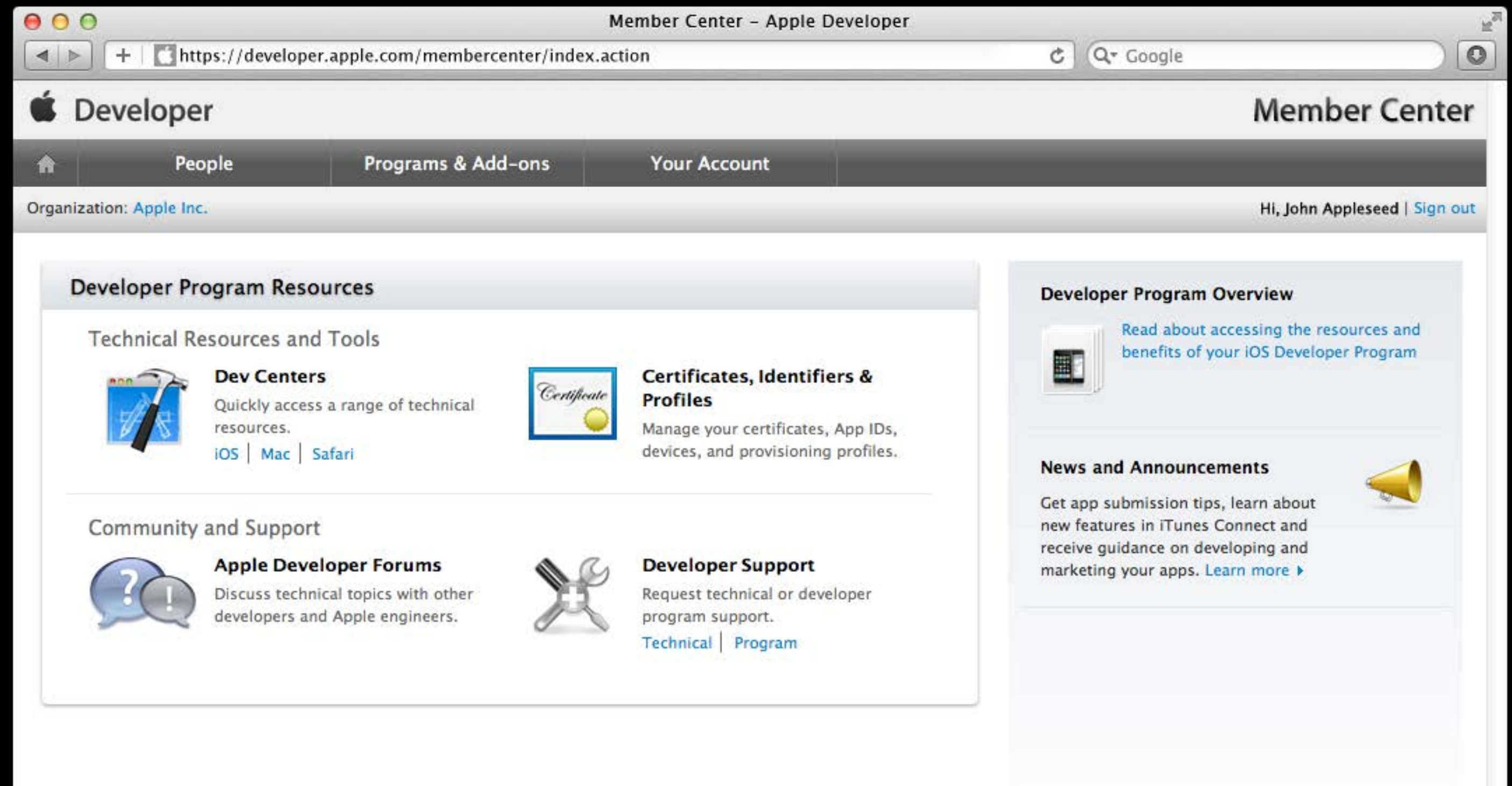
D-U-N-S number

\$299 a year



Getting Started

Agent account
Add Admins and
Team Members



Roles

Roles

Agent accepts legal terms

Roles

Agent accepts legal terms

Admins manage team members, prepare apps for distribution

Roles

Agent accepts legal terms

Admins manage team members, prepare apps for distribution

Team members develop and test code

Roles

Agent accepts legal terms

Admins manage team members, prepare apps for distribution

Team members develop and test code

Employees

Roles

Agent accepts legal terms

Admins manage team members, prepare apps for distribution

Team members develop and test code

Employees

Employees or
Contractors

Admins

Add and remove team members

Create App IDs

Request Push Certificates

Add devices to team development provisioning profile

Manage distribution code signing certificate

Create distribution provisioning profiles

Package apps for distribution

Team Members

Have personal code signing certificates

Use team development provisioning profile to debug

Create Ad-Hoc distributions

Contractors

Contractors are Team Members

Invite them using their email address

Get their own code signing certificate

Remove contractors from team when they leave

Invite Team Member

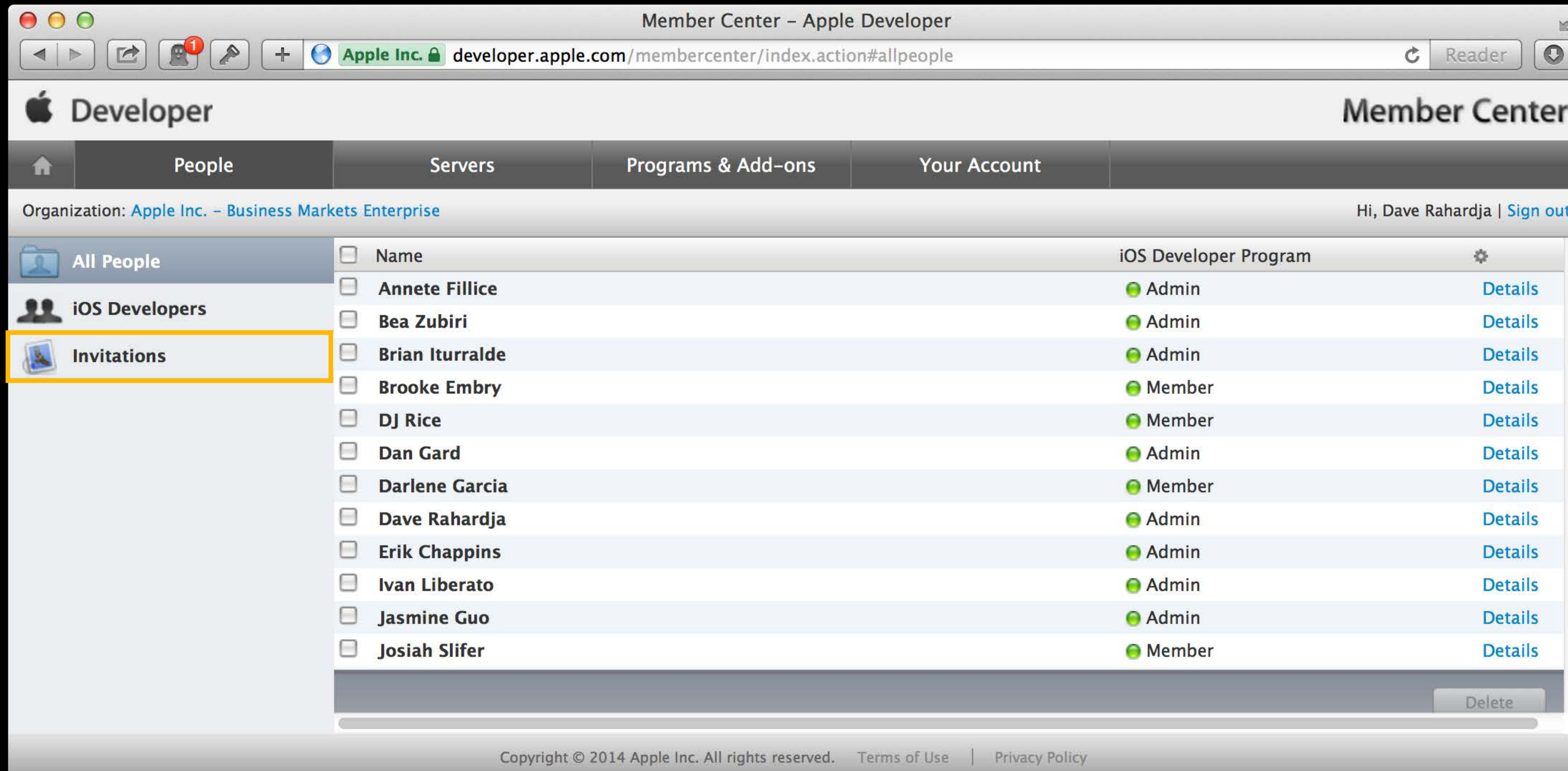
The screenshot shows the Apple Developer Member Center interface. The browser address bar indicates the URL is `developer.apple.com/membercenter/index.action#allpeople`. The page title is "Member Center - Apple Developer". The navigation bar includes "Developer" and "Member Center" logos, and a menu with "People", "Servers", "Programs & Add-ons", and "Your Account". The "People" tab is active, showing the organization "Apple Inc. - Business Markets Enterprise" and the user "Hi, Dave Rahardja | Sign out".

The main content area displays a list of team members under the "All People" category. The list includes columns for Name, Role, and Program, with a "Details" link for each member. A "Delete" button is visible at the bottom right of the list.

<input type="checkbox"/>	Name	iOS Developer Program	
<input type="checkbox"/>	Annete Fillice	Admin	Details
<input type="checkbox"/>	Bea Zubiri	Admin	Details
<input type="checkbox"/>	Brian Iturralde	Admin	Details
<input type="checkbox"/>	Brooke Embry	Member	Details
<input type="checkbox"/>	DJ Rice	Member	Details
<input type="checkbox"/>	Dan Gard	Admin	Details
<input type="checkbox"/>	Darlene Garcia	Member	Details
<input type="checkbox"/>	Dave Rahardja	Admin	Details
<input type="checkbox"/>	Erik Chappins	Admin	Details
<input type="checkbox"/>	Ivan Liberato	Admin	Details
<input type="checkbox"/>	Jasmine Guo	Admin	Details
<input type="checkbox"/>	Josiah Slifer	Member	Details

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Invite Team Member



The screenshot shows the Apple Developer Member Center interface. The browser address bar indicates the URL is `developer.apple.com/membercenter/index.action#allpeople`. The page title is "Member Center - Apple Developer". The navigation menu includes "People", "Servers", "Programs & Add-ons", and "Your Account". The organization is identified as "Apple Inc. - Business Markets Enterprise". The user is logged in as "Hi, Dave Rahardja" with a "Sign out" link. The left sidebar shows three categories: "All People", "iOS Developers", and "Invitations", with "Invitations" highlighted in orange. The main content area displays a table of team members with columns for Name, Role, and Program. A "Delete" button is visible at the bottom right of the table.

<input type="checkbox"/>	Name	iOS Developer Program	
<input type="checkbox"/>	Annete Fillice	Admin	Details
<input type="checkbox"/>	Bea Zubiri	Admin	Details
<input type="checkbox"/>	Brian Iturralde	Admin	Details
<input type="checkbox"/>	Brooke Embry	Member	Details
<input type="checkbox"/>	DJ Rice	Member	Details
<input type="checkbox"/>	Dan Gard	Admin	Details
<input type="checkbox"/>	Darlene Garcia	Member	Details
<input type="checkbox"/>	Dave Rahardja	Admin	Details
<input type="checkbox"/>	Erik Chappins	Admin	Details
<input type="checkbox"/>	Ivan Liberato	Admin	Details
<input type="checkbox"/>	Jasmine Guo	Admin	Details
<input type="checkbox"/>	Josiah Slifer	Member	Details

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Invite Team Member

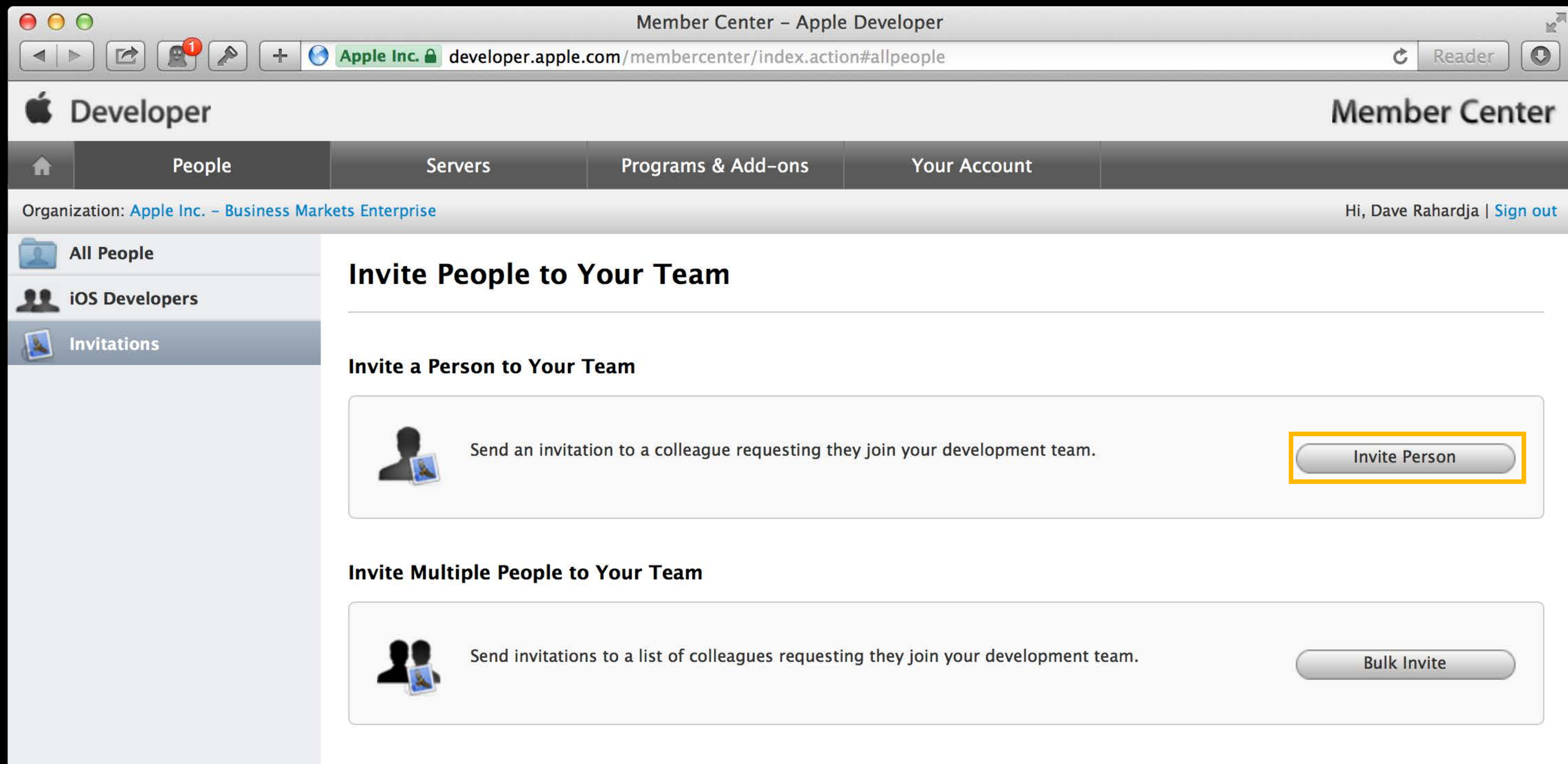
The screenshot shows a web browser window titled "Member Center - Apple Developer" with the URL "developer.apple.com/membercenter/index.action#allpeople". The page header includes the Apple Developer logo and "Member Center". A navigation bar contains links for "People", "Servers", "Programs & Add-ons", and "Your Account". Below the navigation bar, the organization is identified as "Apple Inc. - Business Markets Enterprise" and the user is logged in as "Hi, Dave Rahardja | Sign out".

The main content area is titled "Invite People to Your Team" and contains two primary options:

- Invite a Person to Your Team:** Accompanied by a person icon, this option includes the text "Send an invitation to a colleague requesting they join your development team." and an "Invite Person" button.
- Invite Multiple People to Your Team:** Accompanied by a group of people icon, this option includes the text "Send invitations to a list of colleagues requesting they join your development team." and a "Bulk Invite" button.

A left-hand sidebar contains navigation links for "All People", "iOS Developers", and "Invitations".

Invite Team Member



The screenshot shows a web browser window titled "Member Center - Apple Developer" with the URL "developer.apple.com/membercenter/index.action#allpeople". The page header includes the Apple Developer logo and "Member Center". A navigation bar contains "People", "Servers", "Programs & Add-ons", and "Your Account". Below the navigation bar, the organization is identified as "Apple Inc. - Business Markets Enterprise" and the user is logged in as "Hi, Dave Rahardja | Sign out".

The left sidebar has three items: "All People", "iOS Developers", and "Invitations". The main content area is titled "Invite People to Your Team" and contains two sections:

- Invite a Person to Your Team**: A card with a person icon and the text "Send an invitation to a colleague requesting they join your development team." A button labeled "Invite Person" is highlighted with a yellow border.
- Invite Multiple People to Your Team**: A card with a group of people icon and the text "Send invitations to a list of colleagues requesting they join your development team." A button labeled "Bulk Invite" is present.

Invite Team Member

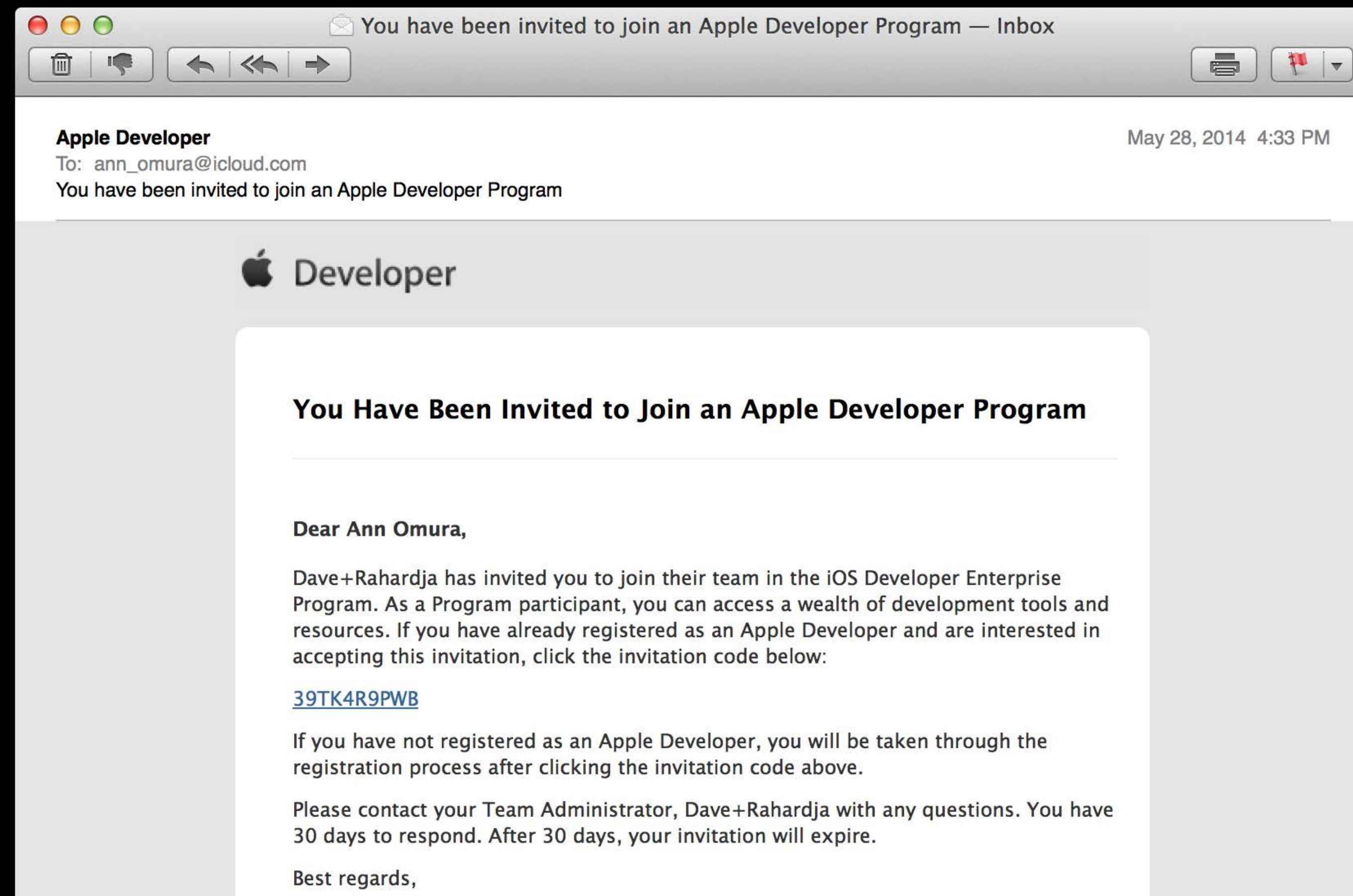
The screenshot shows a web browser window titled "Member Center - Apple Developer" with the URL "developer.apple.com/membercenter/index.action#allpeople". The page header includes the Apple Developer logo and "Member Center". A navigation bar contains "People", "Servers", "Programs & Add-ons", and "Your Account". The user is logged in as "Hi, Dave Rahardja" with a "Sign out" link. The organization is "Apple Inc. - Business Markets Enterprise".

The main content area is titled "Invite a Person to Your Team". Under the "Contact Information" section, there are three input fields:

- First Name:
- Last Name:
- Email Address:

The "Access and Roles" section is partially visible at the bottom.

Accept Invitation



Accept Invitation

The screenshot shows a web browser window with the URL `developer.apple.com/programs/start/jointeam/index.php?success=%2Fios%2Finvitation%2Faccept.action%3FinvitationCode%3D39TK4R!`. The page title is "Join an Apple Developer Program team - Apple Developer". The navigation bar includes "Technologies", "Resources", "Programs", "Support", and "Member Center", along with a search bar. The main content area features the heading "Join an Apple Developer Program team." and two options: "I am a Registered Apple Developer" with a "Sign in" button, and "I need to register as an Apple Developer" with a "Register" button. A horizontal line with the word "or" in the center separates the two options.

Accept Invitation

Join an Apple Developer Program team – Apple Developer

Apple Inc. developer.apple.com/programs/start/jointeam/index.php?success=%2Fios%2Finvitation%2Faccept.action%3FinvitationCode%3D39TK4R! Reader

Developer Technologies Resources Programs Support Member Center

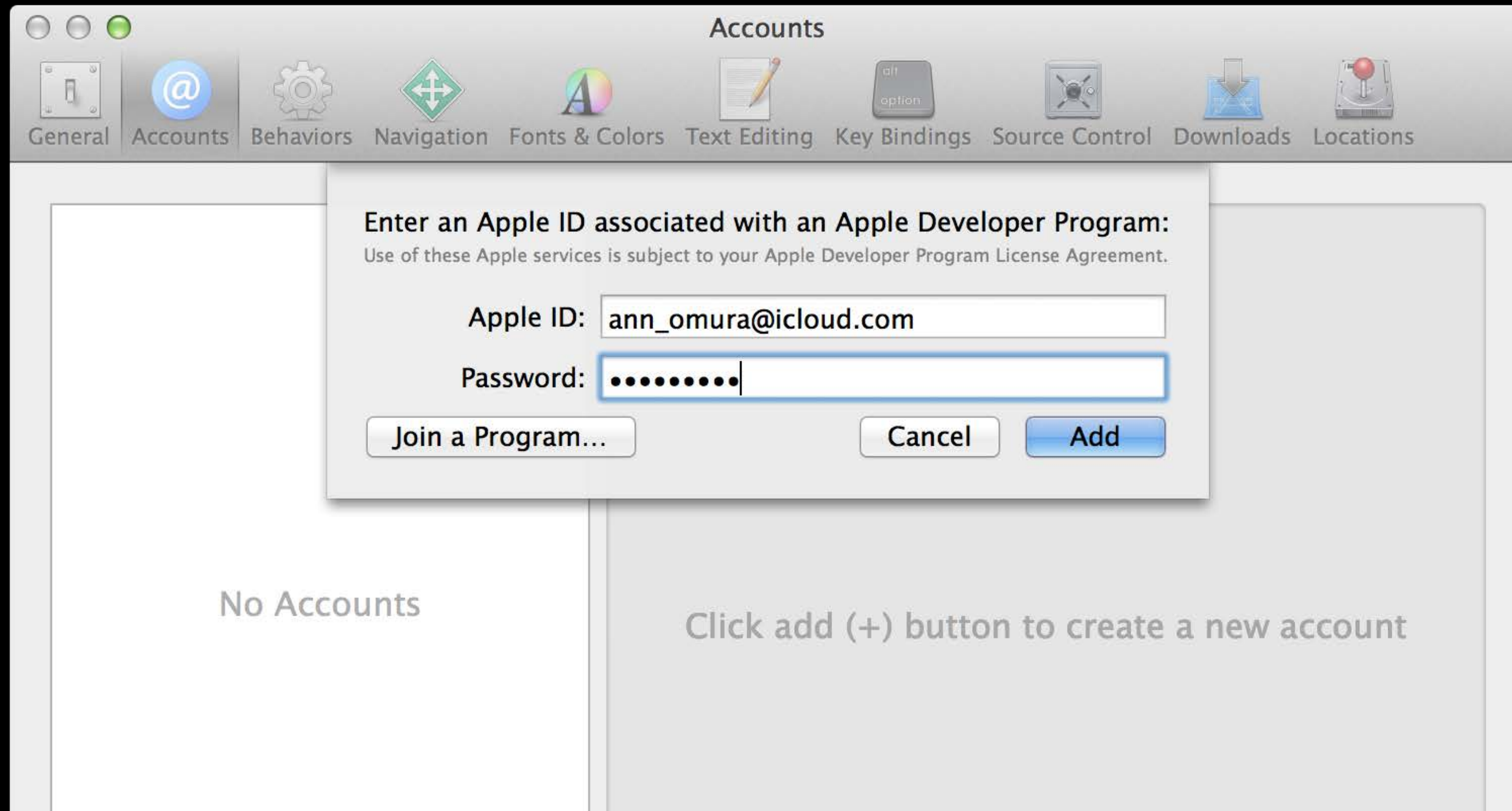
Join an Apple Developer Program team.

I am a Registered Apple Developer
Sign in with your Registered Apple Developer account to accept your invitation. [Sign in](#)

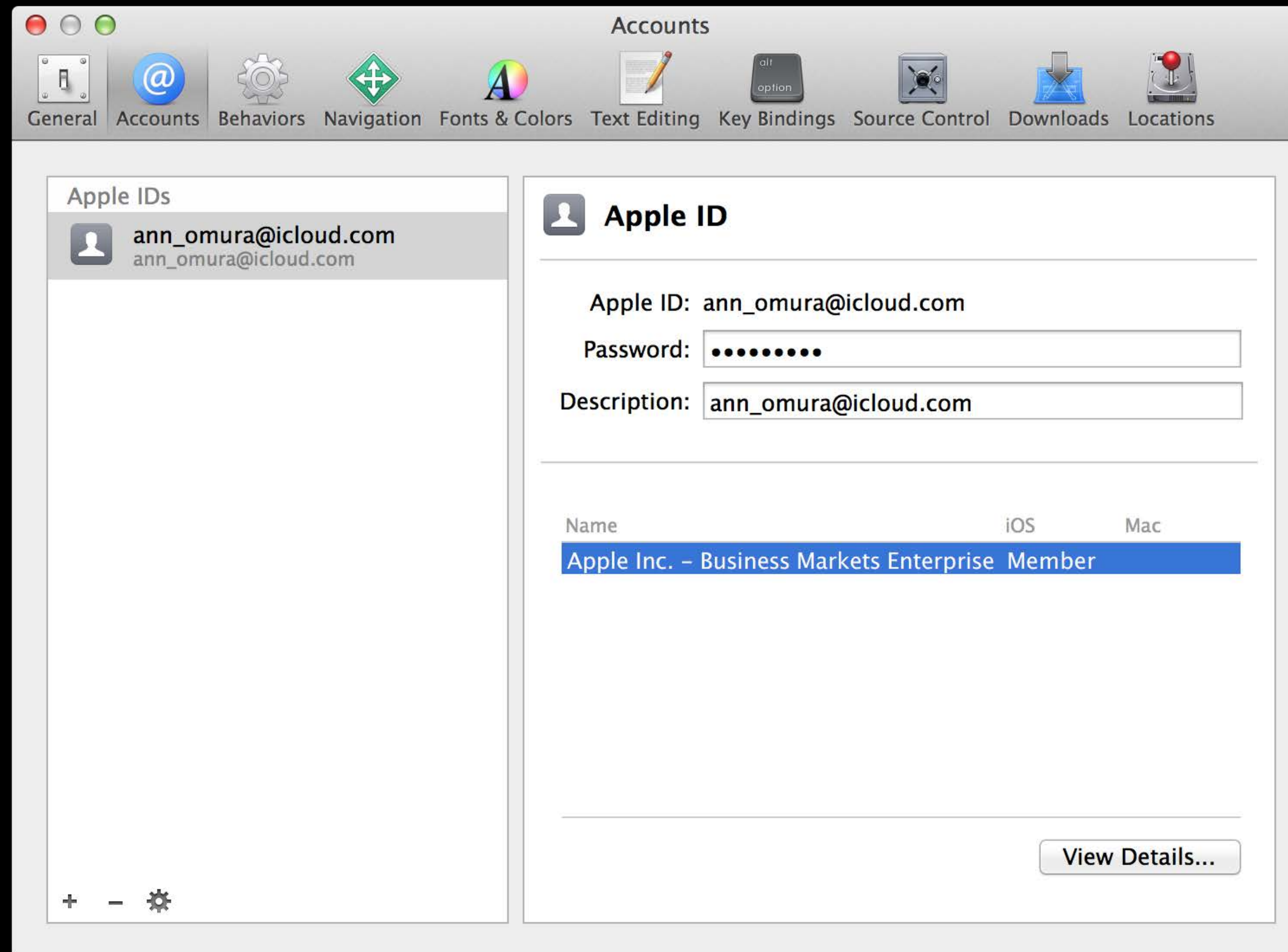
or

I need to register as an Apple Developer
Register as an Apple Developer to accept your invitation. [Register](#)

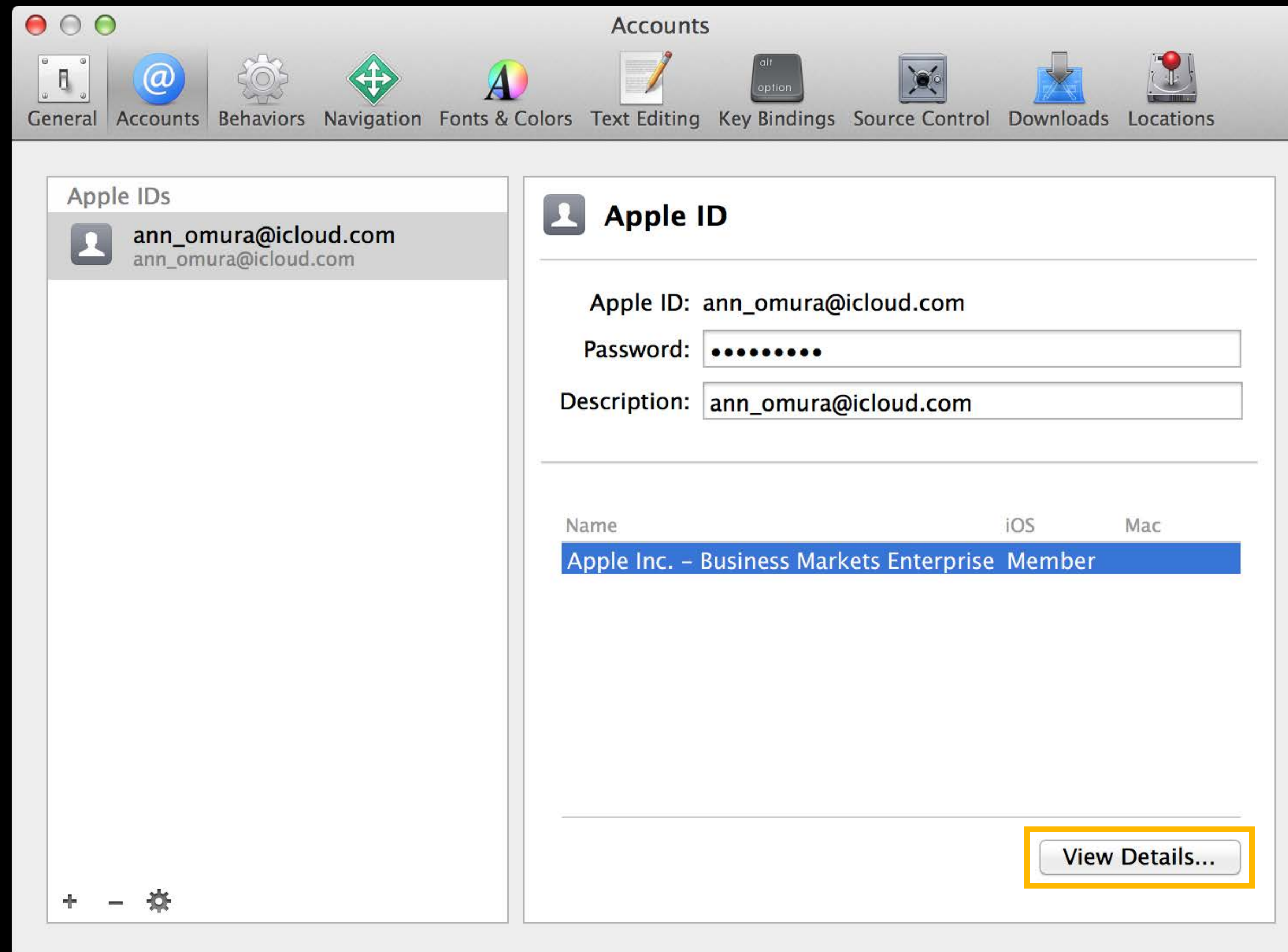
Add Account to Xcode



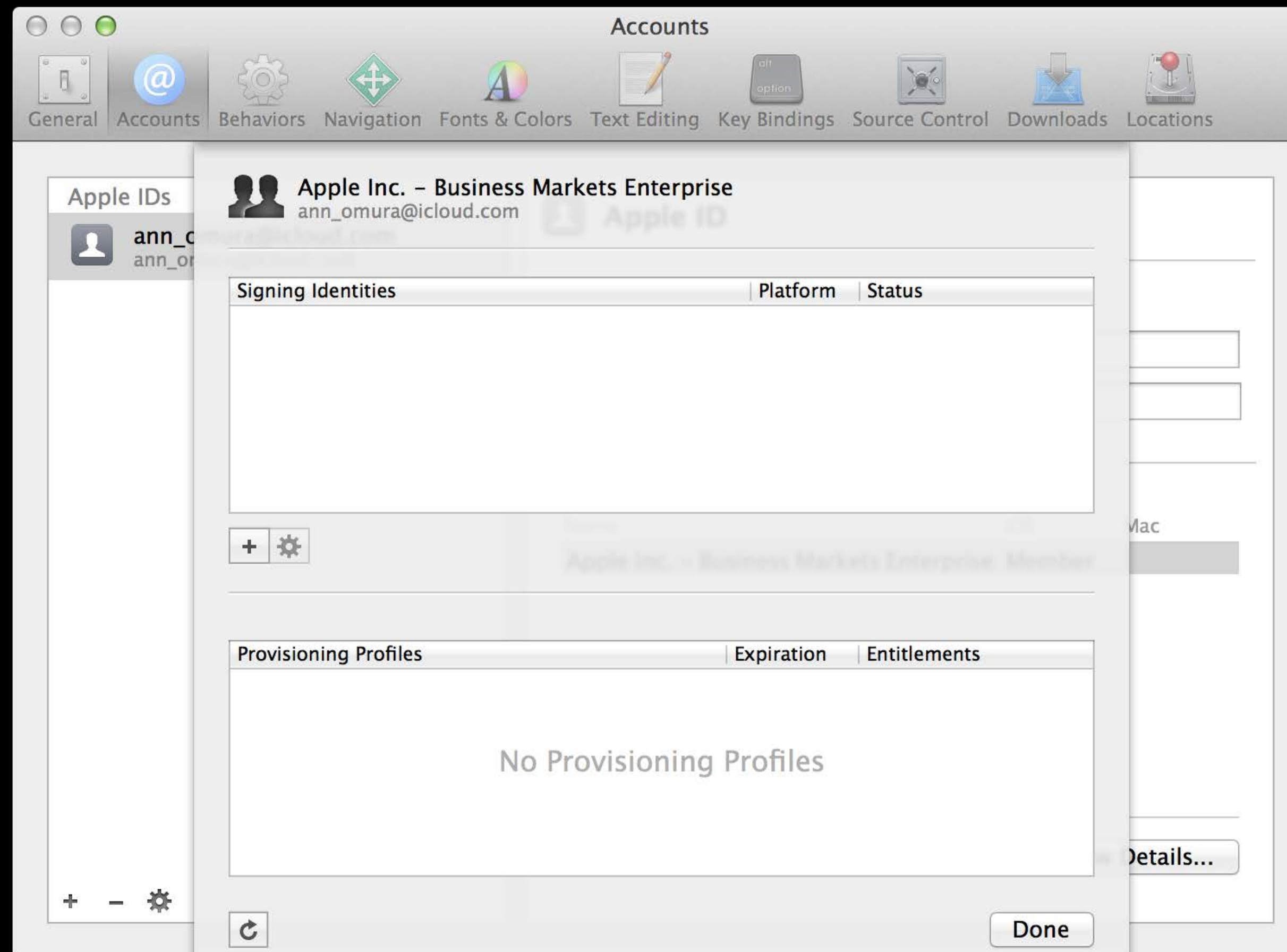
Request Code Signing Certificate



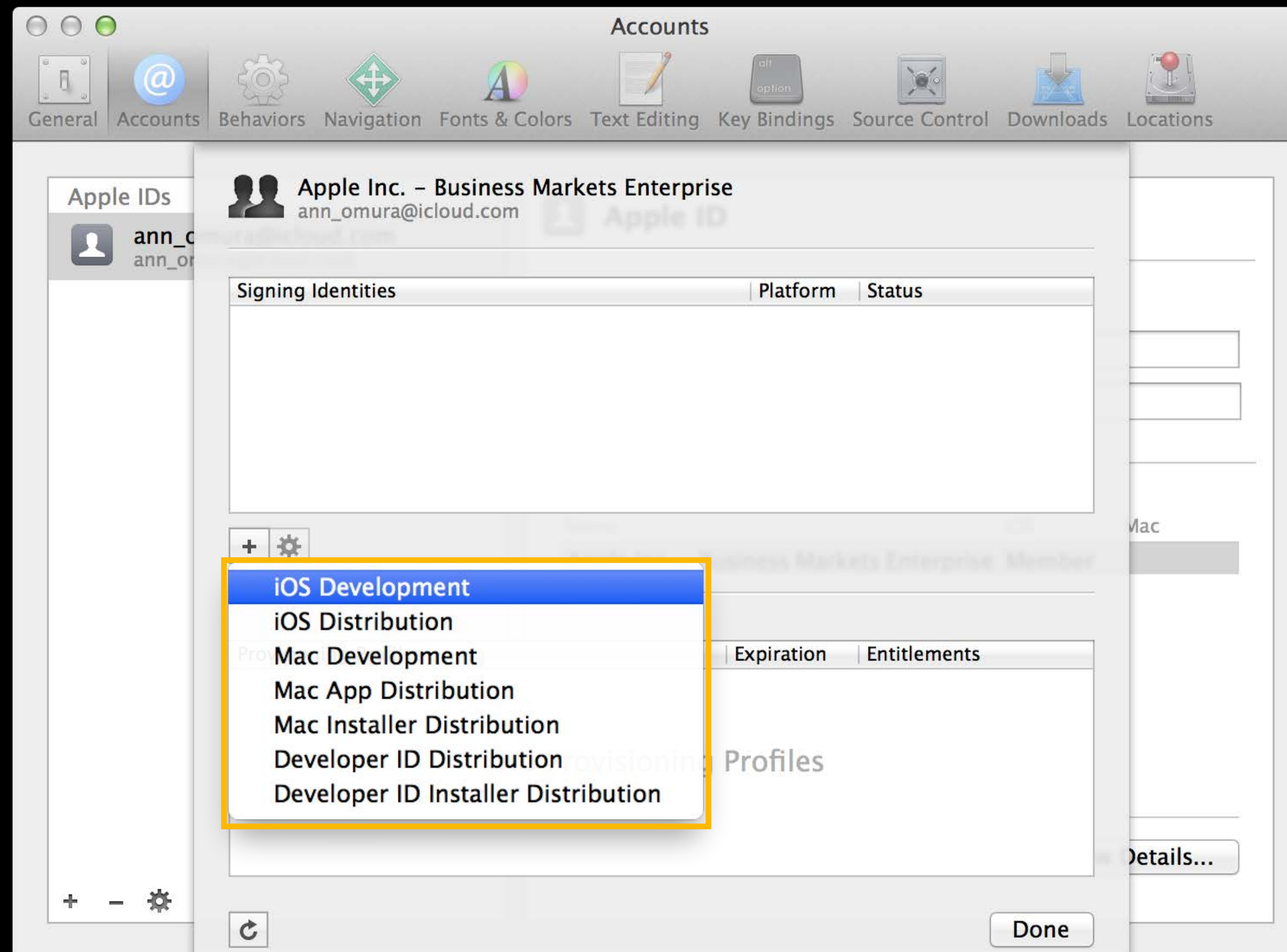
Request Code Signing Certificate



Request Code Signing Certificate



Request Code Signing Certificate



Approve Code Signing Certificate

The screenshot shows the Apple Developer portal interface. The browser address bar indicates the URL: `developer.apple.com/account/ios/certificate/certificateList.action`. The page title is "iOS Certificates - Apple Developer". The main navigation includes "Technologies", "Resources", "Programs", "Support", and "Member Center". A search bar is labeled "Search Developer".

The page content is titled "Certificates, Identifiers & Profiles" and is associated with the user "Dave Rahardja". A sidebar on the left contains navigation options: "iOS Apps", "Certificates", "Identifiers", "Devices", and "Provisioning Profiles". Under "Certificates", the "All" filter is selected.

The main content area displays "iOS Certificates" with a sub-header "4 Certificates Total". A table lists the certificates:

Name	Type	Expires
Ann Omura	iOS Development	Pending Approval
Dave Rahardja	iOS Development	Jun 26, 2014
Dave Rahardja	iOS Development	May 28, 2015
Apple Inc. - Business Markets Enterprise	iOS Distribution	May 27, 2017

The "Ann Omura" certificate is highlighted in blue. Below the table, a detailed view of this certificate is shown, including a "Certificate" icon, the name "Ann Omura", the type "iOS Development", and the request date "May 28, 2014". Two buttons are visible: "Decline" and "Approve".

Approve Code Signing Certificate

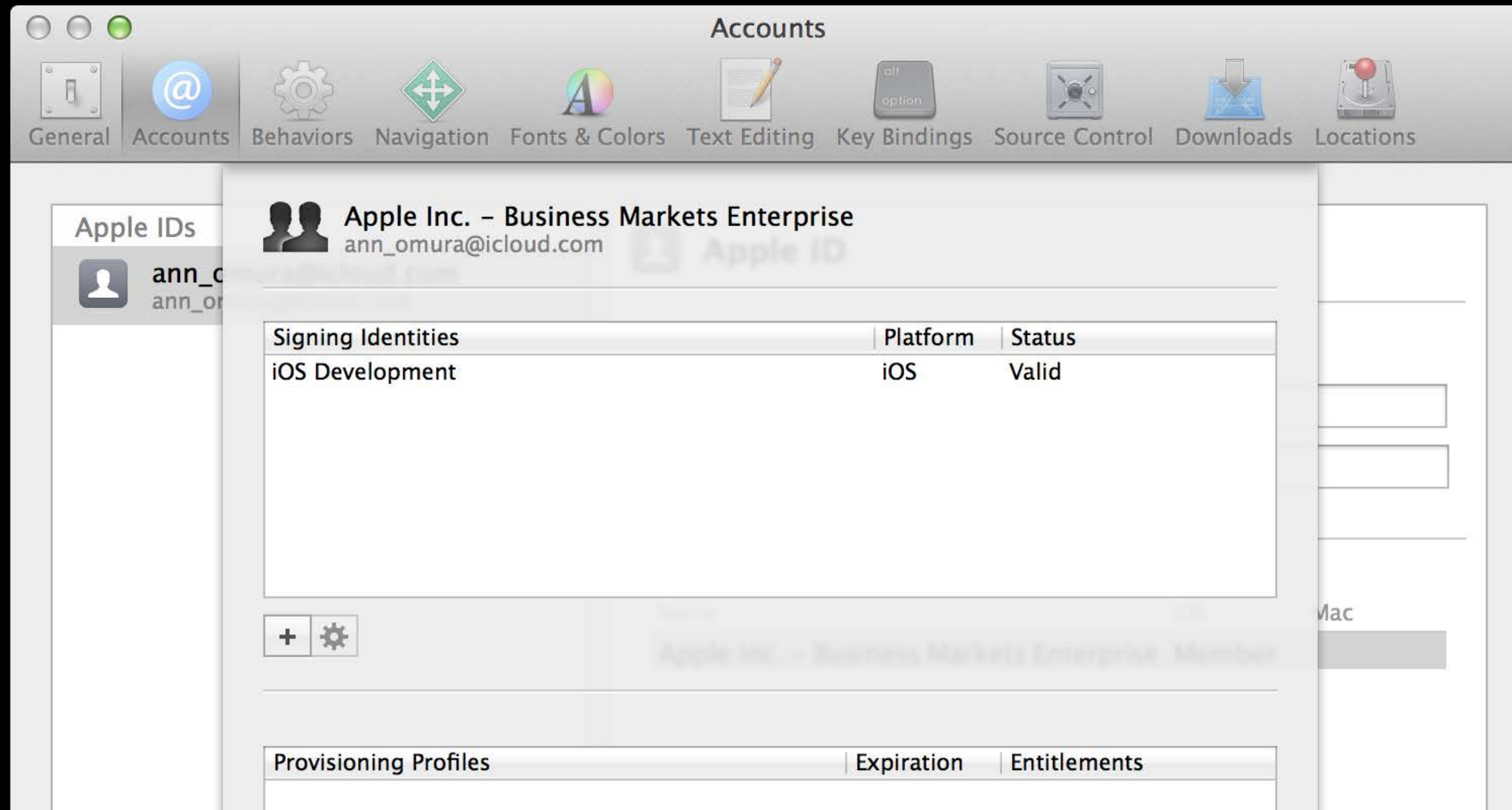
The screenshot shows the Apple Developer portal interface. The browser address bar indicates the URL: `developer.apple.com/account/ios/certificate/certificateList.action`. The page title is "iOS Certificates - Apple Developer". The main navigation includes "Technologies", "Resources", "Programs", "Support", and "Member Center". A search bar labeled "Search Developer" is present. The page content is titled "Certificates, Identifiers & Profiles" and is associated with the user "Dave Rahardja".

On the left sidebar, there are sections for "iOS Apps", "Certificates", "Identifiers", "Devices", and "Provisioning Profiles". Under "Certificates", the "All" filter is selected. The main content area shows "iOS Certificates" with a search icon and a "+". Below this, it states "4 Certificates Total".

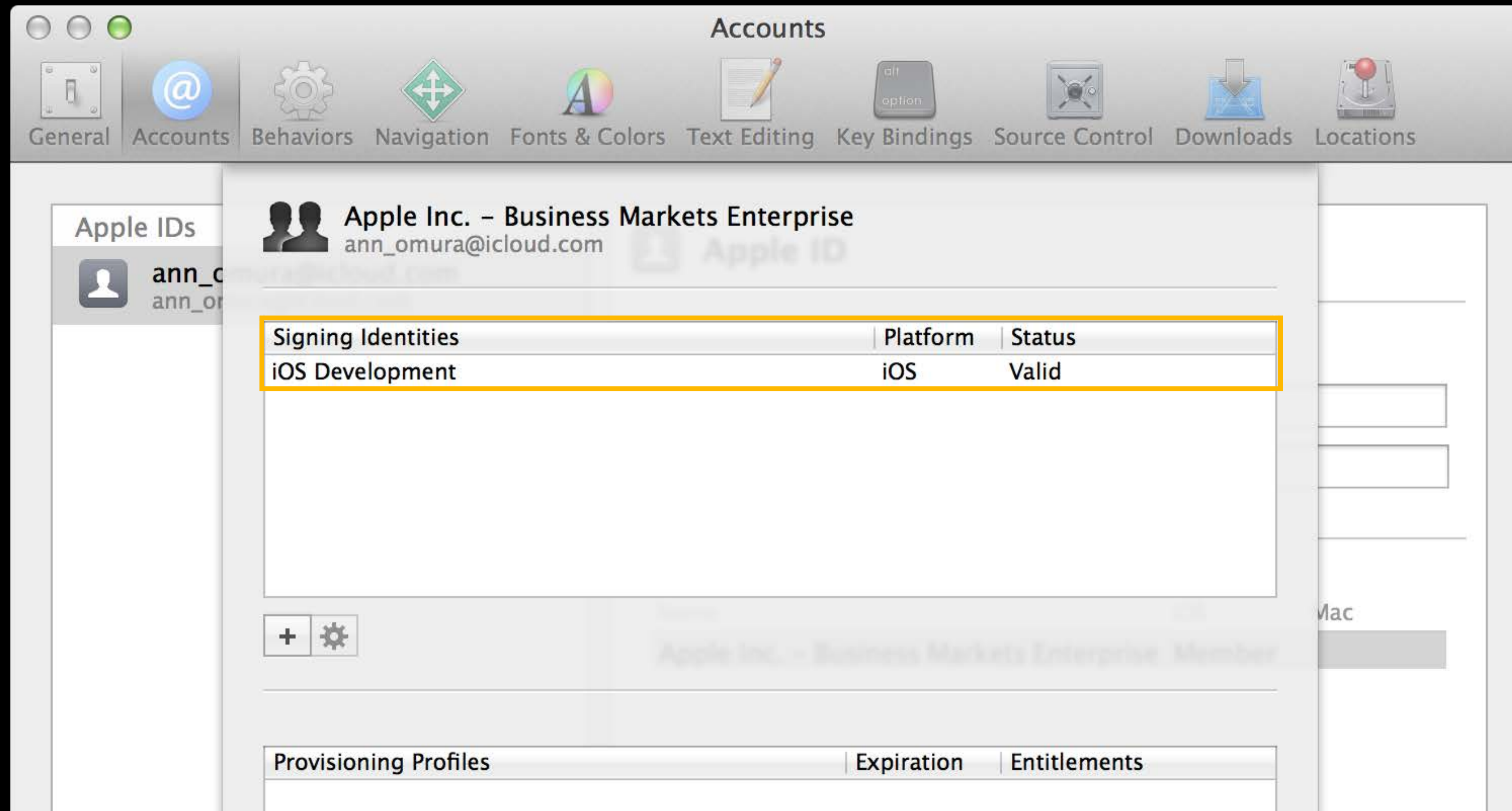
Name	Type	Expires
Ann Omura	iOS Development	Pending Approval
Dave Rahardja	iOS Development	Jun 26, 2014
Dave Rahardja	iOS Development	May 28, 2015
Apple Inc. - Business Markets Enterprise	iOS Distribution	May 27, 2017

Below the table, the details for the selected certificate "Ann Omura" are shown. It includes a "Certificate" icon, the name "Ann Omura", the type "iOS Development", and the request date "Requested: May 28, 2014". There are two buttons: "Decline" and "Approve". The "Approve" button is highlighted with a yellow border.

Code Signing Certificate



Code Signing Certificate



Create App IDs

The screenshot shows the Apple Developer portal interface. At the top, the browser address bar displays the URL: `developer.apple.com/account/ios/identifiers/bundle/bundleList.action`. The page title is "iOS App IDs - Apple Developer".

The main navigation bar includes the Apple logo, "Developer", and links for "Technologies", "Resources", "Programs", "Support", and "Member Center". A search bar labeled "Search Developer" is also present.

The page content is titled "Certificates, Identifiers & Profiles" and shows the user is logged in as "Dave Rahardja". A sidebar on the left contains navigation options: "iOS Apps", "Certificates" (with sub-options: All, Pending, Development, Production), "Identifiers" (with sub-options: App IDs, Pass Type IDs, Website Push IDs), "Devices" (with sub-option: All), and "Provisioning Profiles".

The main content area is titled "iOS App IDs" and shows "11 App IDs Total". Below this is a table with the following data:

Name	ID
DashItAll	com.apple.DashItAll
Customers	com.apple.Customers
NetZap	com.apple.NetZap
Directory	com.apple.Directory
StockRoom	com.apple.StockRoom
MDM Control	com.apple.MDMControl
ScanBox	com.apple.ScanBox
Persimmon	com.apple.Persimmon
Kumquat Lite	com.apple.KumquatLite
Distributor	com.apple.Distributor

Create App IDs

The screenshot shows the Apple Developer portal interface for managing iOS App IDs. The browser address bar indicates the URL: `developer.apple.com/account/ios/identifiers/bundle/bundleList.action`. The page title is "iOS App IDs - Apple Developer".

The main content area is titled "iOS App IDs" and shows a list of 11 App IDs. The left sidebar contains navigation options, with "Identifiers" and its sub-item "App IDs" highlighted. The main content area also features a search icon and a "+" button to create a new App ID.

Name	ID
DashItAll	com.apple.DashItAll
Customers	com.apple.Customers
NetZap	com.apple.NetZap
Directory	com.apple.Directory
StockRoom	com.apple.StockRoom
MDM Control	com.apple.MDMControl
ScanBox	com.apple.ScanBox
Persimmon	com.apple.Persimmon
Kumquat Lite	com.apple.KumquatLite
Distributor	com.apple.Distributor

Create App IDs

Register - iOS App IDs - Apple Developer

developer.apple.com/account/ios/identifiers/bundle/bundleCreate.action

Development

Distribution

App ID Prefix

Value: TSU57UJ846 (Team ID)

App ID Suffix

Explicit App ID

If you plan to incorporate app services such as Game Center, In-App Purchase, Data Protection, and iCloud, or want a provisioning profile unique to a single app, you must register an explicit App ID for your app.

To create an explicit App ID, enter a unique string in the Bundle ID field. This string should match the Bundle ID of your app.

Bundle ID: com.apple.Tailgate

We recommend using a reverse-domain name style string (i.e., com.domainname.appname). It cannot contain an asterisk (*).

Wildcard App ID

This allows you to use a single App ID to match multiple apps. To create a wildcard App ID, enter an asterisk (*) as the last digit in the Bundle ID field.

Bundle ID:

Create App IDs

Create App ID to
begin development

Register - iOS App IDs - Apple Developer

developer.apple.com/account/ios/identifiers/bundle/bundleCreate.action

Development

Distribution

App ID Prefix

Value: TSU57UJ846 (Team ID)

App ID Suffix

Explicit App ID

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This allows you to use a single App ID to match multiple apps. To create a wildcard App ID, enter an asterisk (*) as the last digit in the Bundle ID field.

Bundle ID:

Create App IDs

Create App ID to
begin development

Use Team ID prefix

Register - iOS App IDs - Apple Developer

developer.apple.com/account/ios/identifiers/bundle/bundleCreate.action

Development
Distribution

App ID Prefix

Value: T5U57UJ846 (Team ID)

App ID Suffix

Explicit App ID

If you plan to incorporate app services such as Game Center, In-App Purchase, Data Protection, and iCloud, or want a provisioning profile unique to a single app, you must register an explicit App ID for your app.

To create an explicit App ID, enter a unique string in the Bundle ID field. This string should match the Bundle ID of your app.

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Bundle ID:

Create App IDs

Create App ID to begin development

Use Team ID prefix

Use explicit App ID

Register - iOS App IDs - Apple Developer

developer.apple.com/account/ios/identifiers/bundle/bundleCreate.action

Development
Distribution

App ID Prefix

Value: TSU57UJ846 (Team ID)

App ID Suffix

Explicit App ID
If you plan to incorporate app services such as Game Center, In-App Purchase, Data Protection, and iCloud, or want a provisioning profile unique to a single app, you must register an explicit App ID for your app.

To create an explicit App ID, enter a unique string in the Bundle ID field. This string should match the Bundle ID of your app.

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Wildcard App ID
This allows you to use a single App ID to match multiple apps. To create a wildcard App ID, enter an asterisk (*) as the last digit in the Bundle ID field.

Bundle ID:

Summary

Enroll in iOS Developer Enterprise Program

Agent and Admins should be employees

Contractors should be Team Members

Invite Team Members

Approve code signing certificate requests

Create App IDs to begin development

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Xcode Server

Hub for development

Install OS X Server from Mac App Store

Install Xcode

Enable Xcode service



Setup

Setup

Log in with your Enterprise account

The screenshot shows the 'Server' application window with the 'Xcode' service selected. The interface is divided into a left sidebar and a main content area. The sidebar contains sections for 'SERVER', 'ACCOUNTS', 'SERVICES', and 'ADVANCED'. The 'Xcode' service is highlighted in the 'SERVICES' section. The main content area shows the 'Xcode' service is turned 'OFF' and has a '2' badge. Below the service name are tabs for 'Settings' and 'Repositories'. The 'Access' section shows the status as 'Available on your local network at indah.local' and permissions for logged-in users. The 'Builds' section shows the version 'Xcode 6.0 (6A179o)' and the developer team 'Apple Inc. - Business Markets Enterprise'. The 'Devices' section contains a table with one entry: 'iPod touch (5th generation) / 8.0' associated with the same developer team.

Device Name	Developer Team
iPod touch (5th generation) / 8.0	Apple Inc. - Business Markets Enterprise

Setup

Log in with your Enterprise account

The screenshot shows the 'Server' application window with the 'Xcode' service selected. The interface is divided into a left sidebar and a main content area. The sidebar contains sections for 'SERVER', 'ACCOUNTS', 'SERVICES', and 'ADVANCED'. The 'Xcode' service is highlighted in the 'SERVICES' section. The main content area shows the 'Xcode' service settings, including a toggle switch for the service, tabs for 'Settings' and 'Repositories', and sections for 'Access', 'Builds', and 'Devices'. The 'Access' section shows the status as 'Available on your local network at indah.local' and permissions for logged-in users. The 'Builds' section shows the Xcode version (6.0) and the selected developer team, 'Apple Inc. - Business Markets Enterprise', which is highlighted with a yellow box. The 'Devices' section shows a list of devices, including an iPod touch (5th generation) / 8.0, also associated with the selected developer team.

Server

SERVER

- indah
- Alerts
- Certificates
- Logs
- Stats

ACCOUNTS

- Users
- Groups

SERVICES

- Caching
- Calendar
- Contacts
- File Sharing
- Mail
- Messages
- Profile Manager
- Time Machine
- VPN
- Websites
- Wiki
- Xcode

ADVANCED

Xcode

OFF ON

Settings Repositories

Access

Status: Available on your local network at indah.local
Learn about configuring devices for this service

Permissions: Logged in users can create bots, anyone can view bots Edit...

Builds

Perform builds using: Xcode 6.0 (6A179o) Choose...

Developer Teams: Apple Inc. - Business Markets Enterprise Edit...

Devices

iPod touch	Apple Inc. - Business Markets Enter...
iPod touch (5th generation) / 8.0	

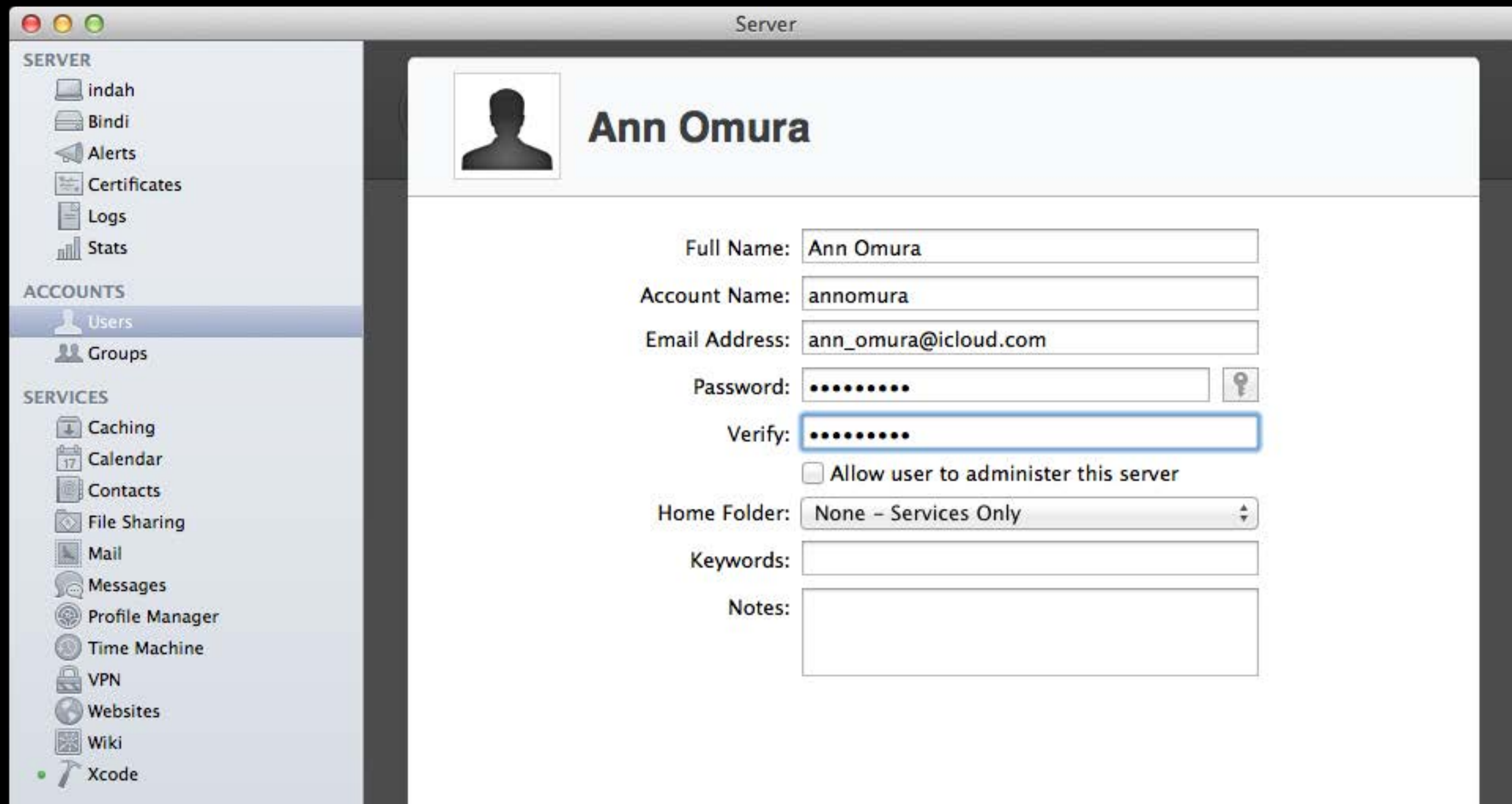
Setup

Server gets own code signing certificate



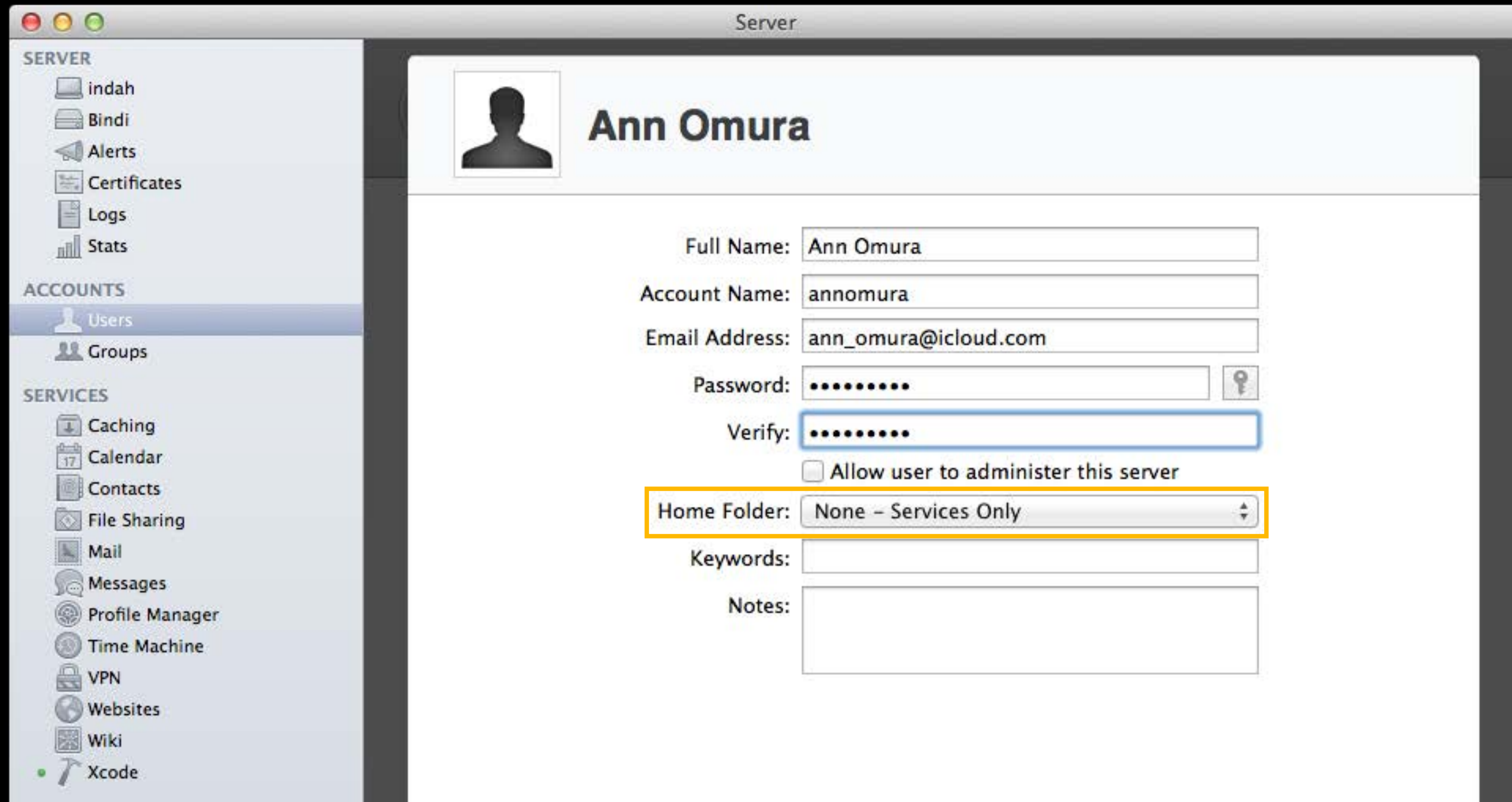
Users

Create a user for each Admin and Team Member



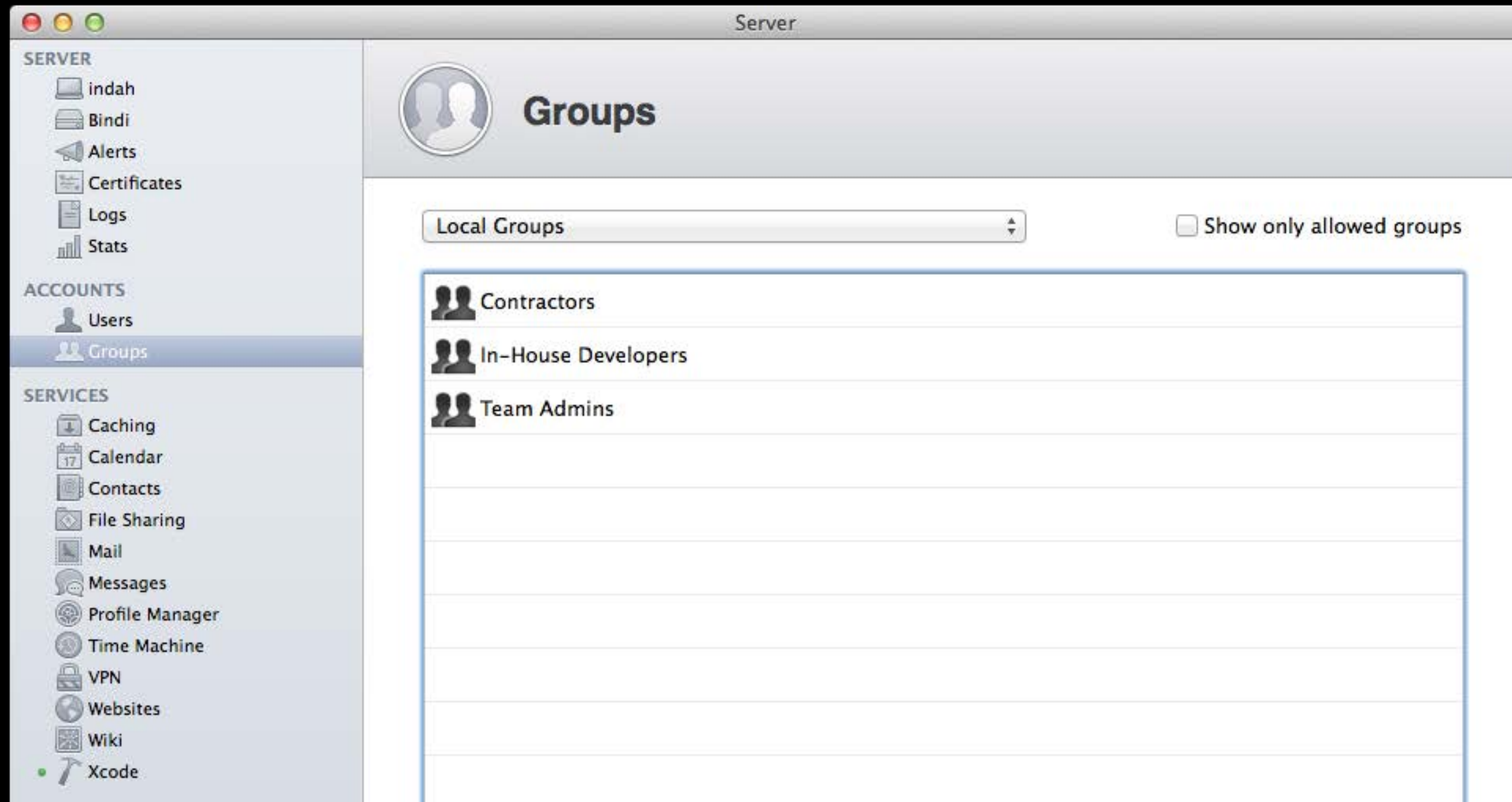
Users

Create a user for each Admin and Team Member



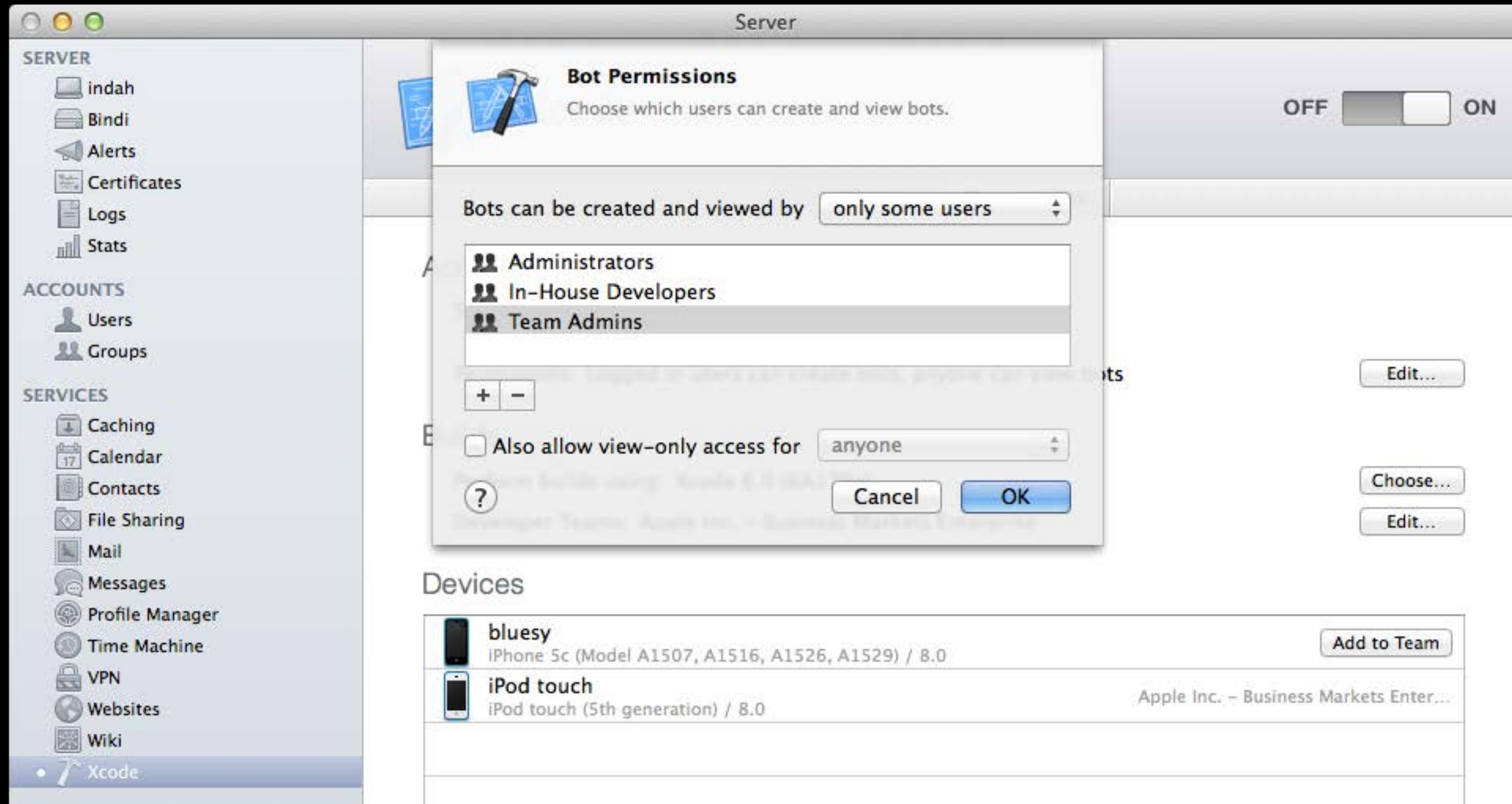
Users

Create groups



Users

Create access controls



Code Repository

Code Repository

Server

Xcode OFF ON




Settings Repositories

Access

Hosted repositories can be accessed over HTTP and HTTPS [Edit...](#)

Hosted repositories can be created by: Logged in users [Edit...](#)

Repositories

Hosted Repositories	
 DashItAll	<code>https://indah.local/git/DashItAll.git</code>
 RockOnTeam	<code>https://indah.local/git/RockOnTeam.git</code>
 Scooter	<code>https://indah.local/git/Scooter.git</code>

ADVANCED

Code Repository

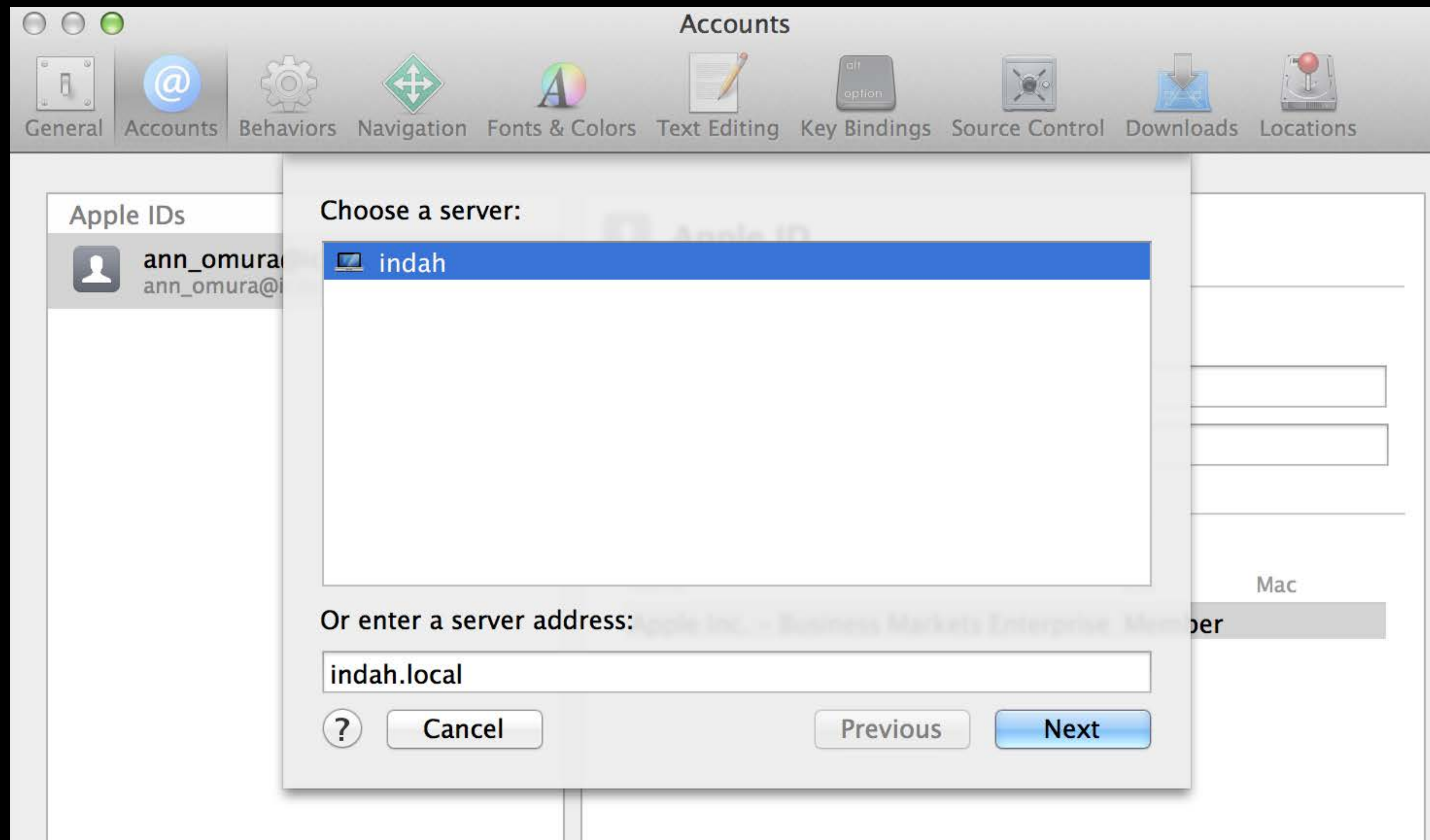
Git or Subversion

One repository per app

Create access controls

Initial Checkout

Add Server to Xcode



Initial Checkout



Welcome to Xcode

Version 6.0 (6A179o)



Create a new Xcode project
Start building a new iPhone, iPad or Mac application.



Check out an existing project
Start working on something from an SCM repository.

No Recent Projects

 Open Other...

Initial Checkout



Welcome to Xcode

Version 6.0 (6A179o)



Create a new Xcode project
Start building a new iPhone, iPad or Mac application.

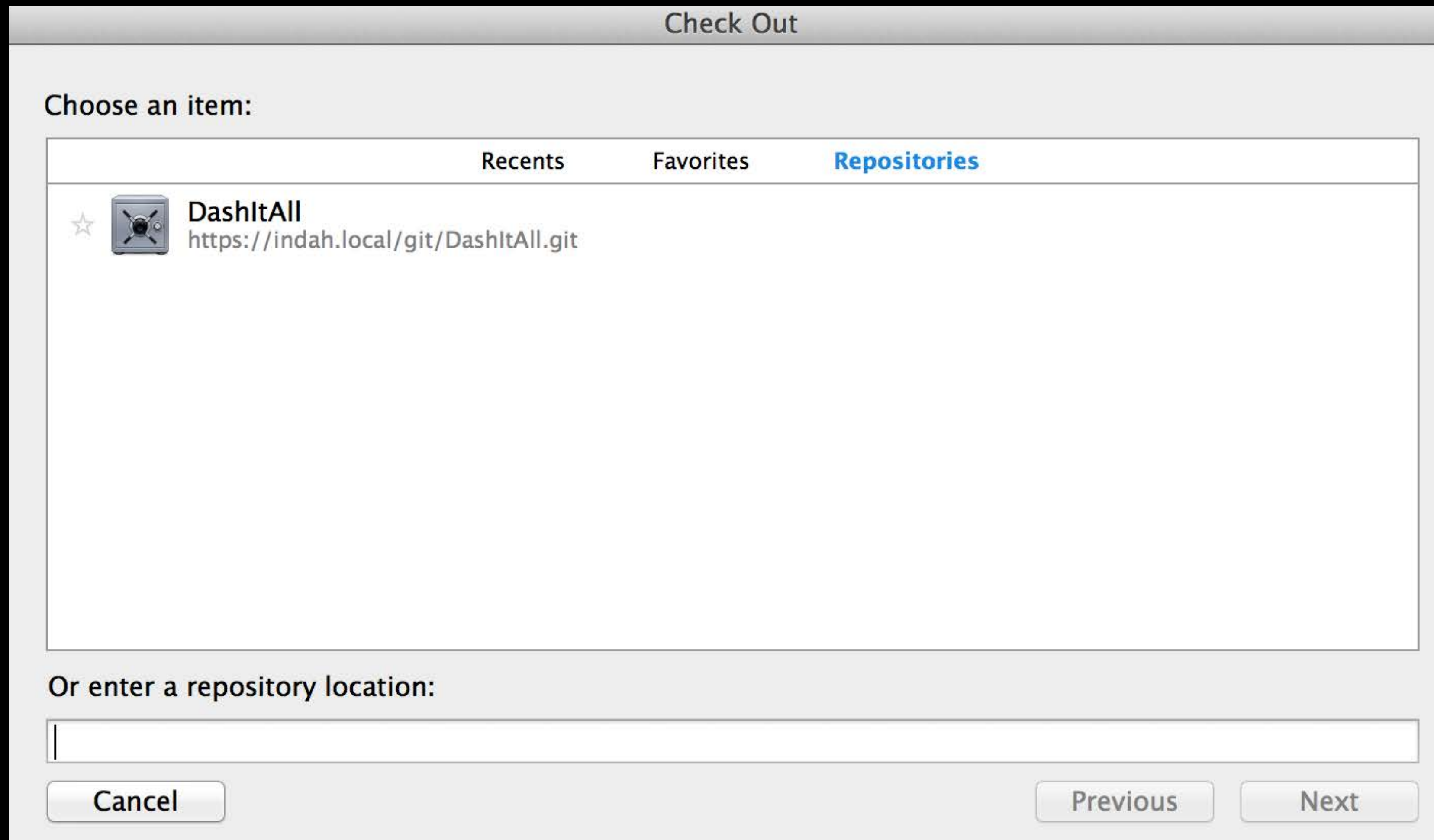


Check out an existing project
Start working on something from an SCM repository.

No Recent Projects

 Open Other...

Initial Checkout



Bots

Bots

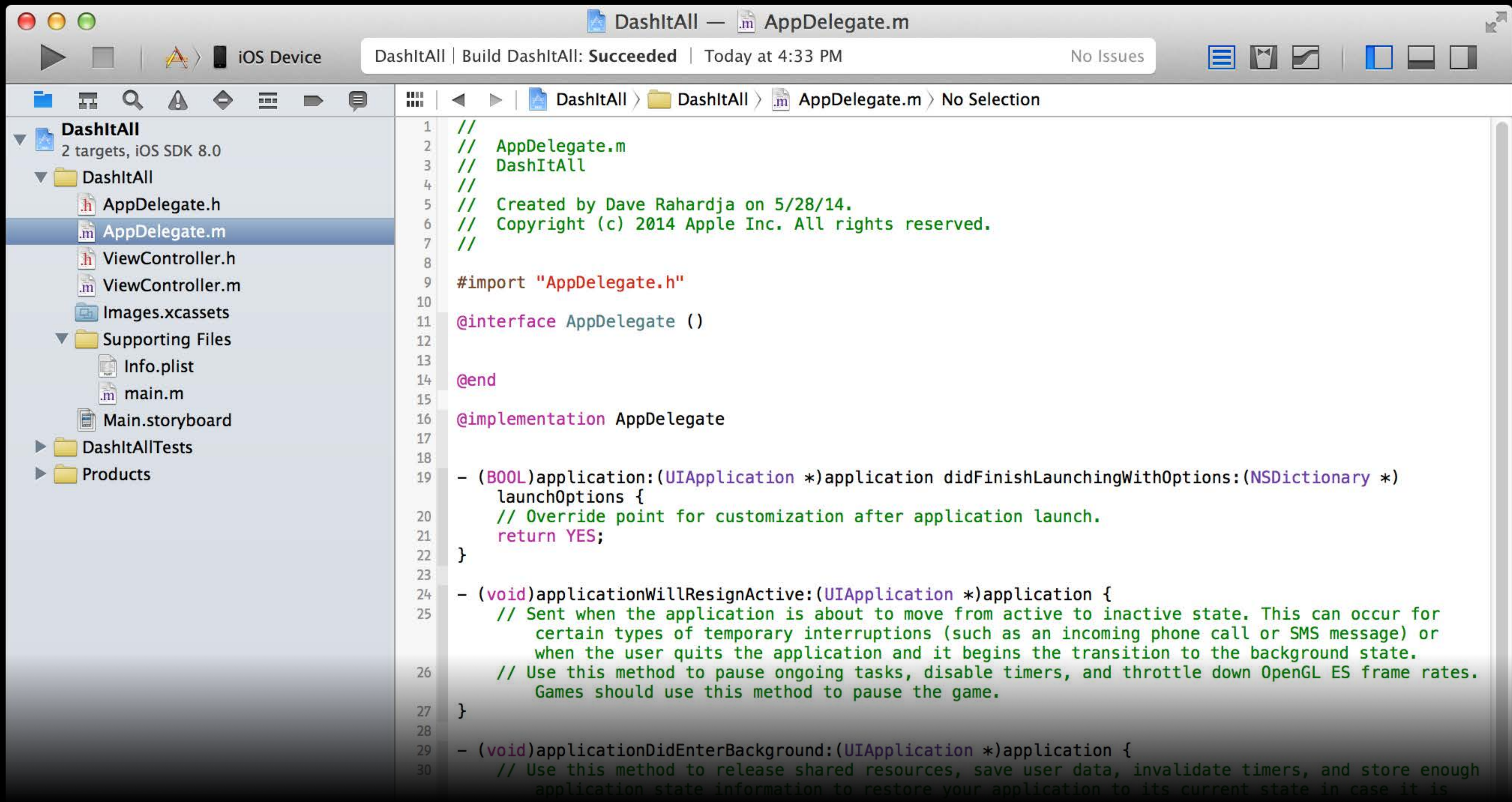
Continuous Integration

Run Unit Tests on connected devices

Reports

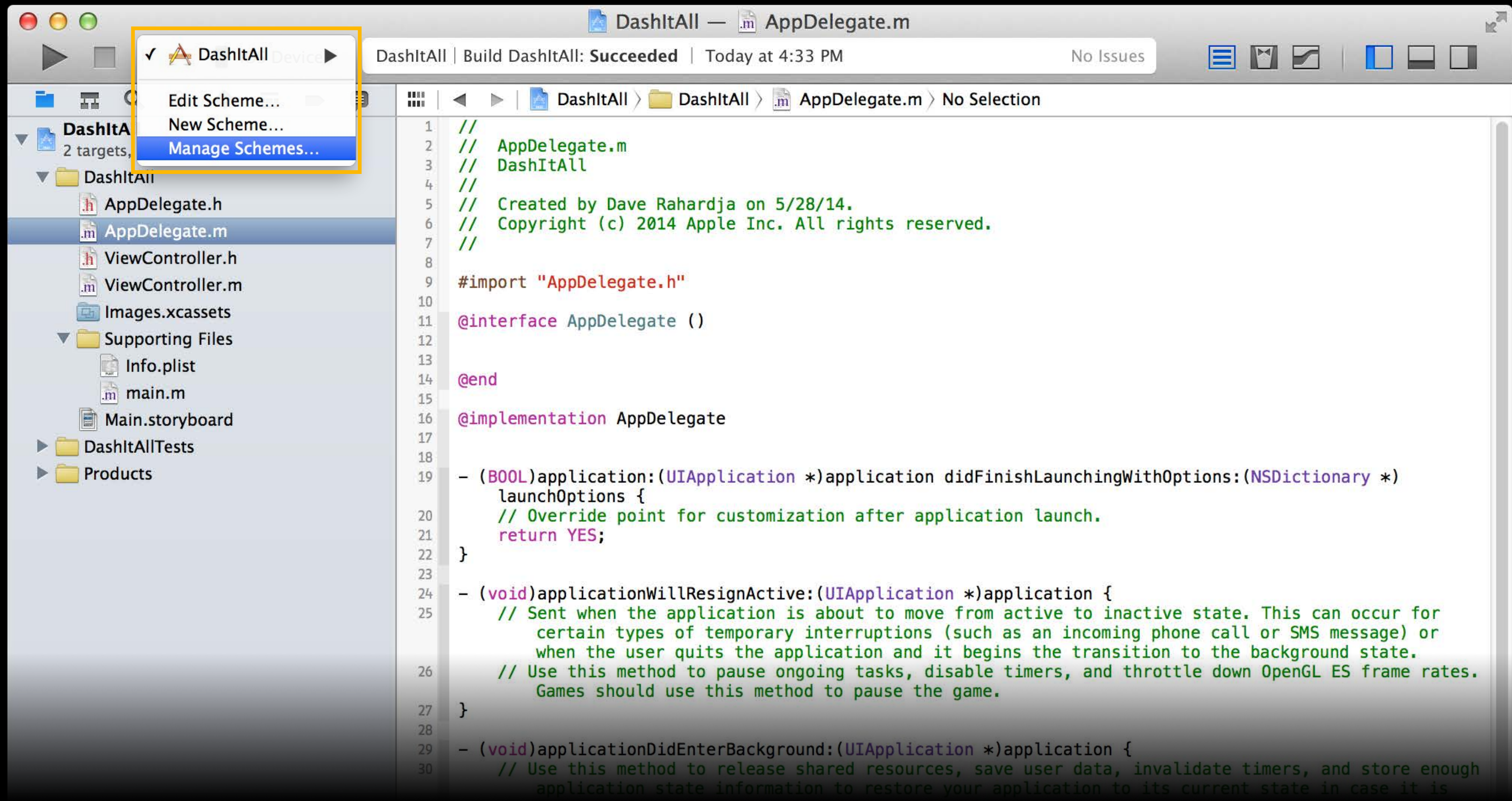
Archives

Create Shared Scheme

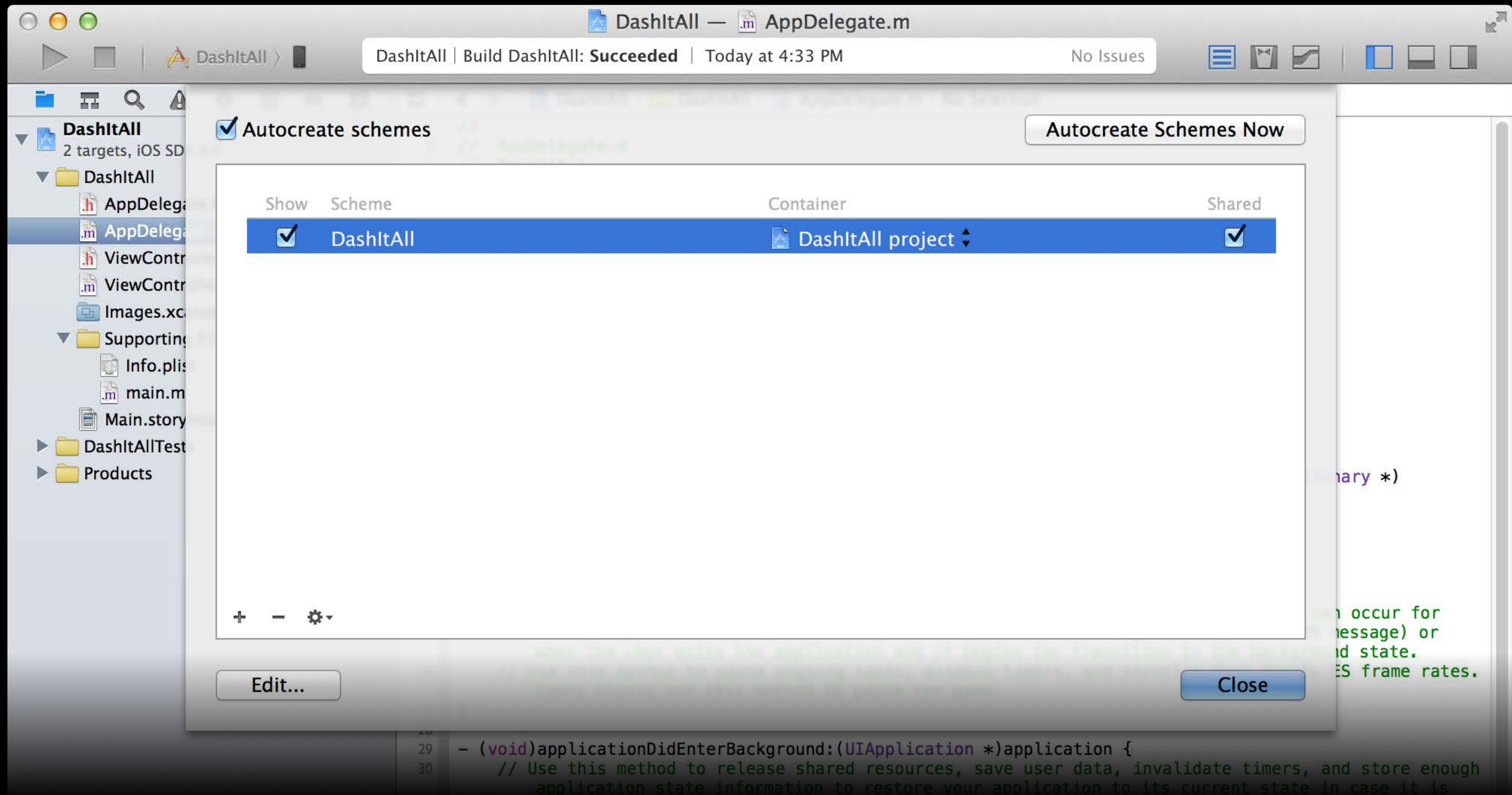


```
1 //
2 // AppDelegate.m
3 // DashItAll
4 //
5 // Created by Dave Rahardja on 5/28/14.
6 // Copyright (c) 2014 Apple Inc. All rights reserved.
7 //
8
9 #import "AppDelegate.h"
10
11 @interface AppDelegate ()
12
13
14 @end
15
16 @implementation AppDelegate
17
18
19 - (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)
    launchOptions {
20     // Override point for customization after application launch.
21     return YES;
22 }
23
24 - (void)applicationWillResignActive:(UIApplication *)application {
25     // Sent when the application is about to move from active to inactive state. This can occur for
    // certain types of temporary interruptions (such as an incoming phone call or SMS message) or
    // when the user quits the application and it begins the transition to the background state.
26     // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates.
    // Games should use this method to pause the game.
27 }
28
29 - (void)applicationDidEnterBackground:(UIApplication *)application {
30     // Use this method to release shared resources, save user data, invalidate timers, and store enough
    // application state information to restore your application to its current state in case it is
```

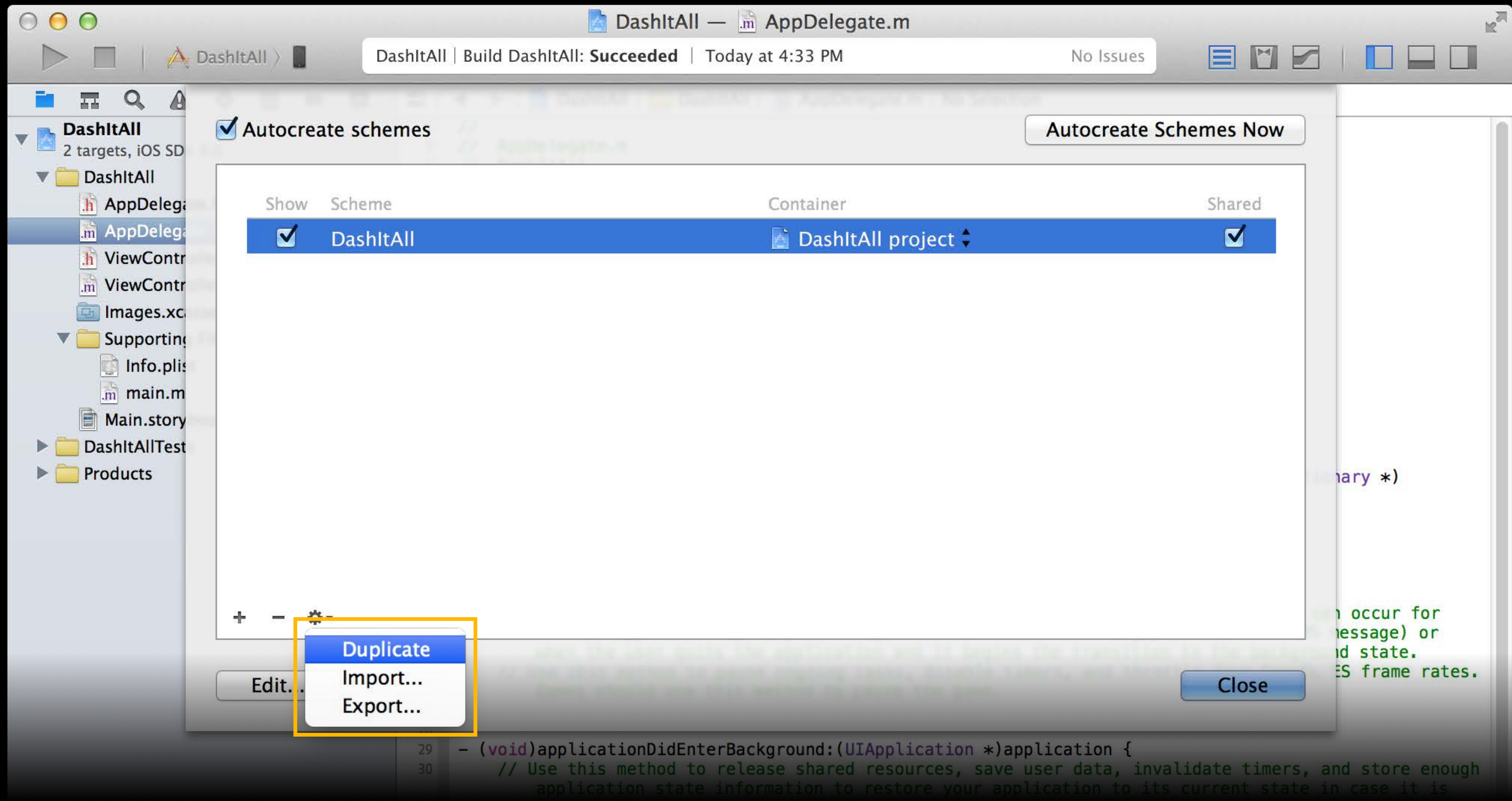

Create Shared Scheme



Create Shared Scheme



Create Shared Scheme



Create Shared Scheme

The screenshot shows the Xcode interface with the 'Autocreate schemes' dialog box open. The dialog has a title bar 'DashItAll — AppDelegate.m' and a status bar 'DashItAll | Build DashItAll: Succeeded | Today at 4:33 PM | No Issues'. The dialog contains a table of schemes and an 'Autocreate Schemes Now' button.

Show	Scheme	Container	Shared
<input checked="" type="checkbox"/>	DashItAll	DashItAll project	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	DashItAll Integration	DashItAll project	<input checked="" type="checkbox"/>

Buttons: Edit..., Close

```
29 - (void)applicationDidEnterBackground:(UIApplication *)application {
30     // Use this method to release shared resources, save user data, invalidate timers, and store enough
    application state information to restore your application to its current state in case it is
```

Create Shared Scheme

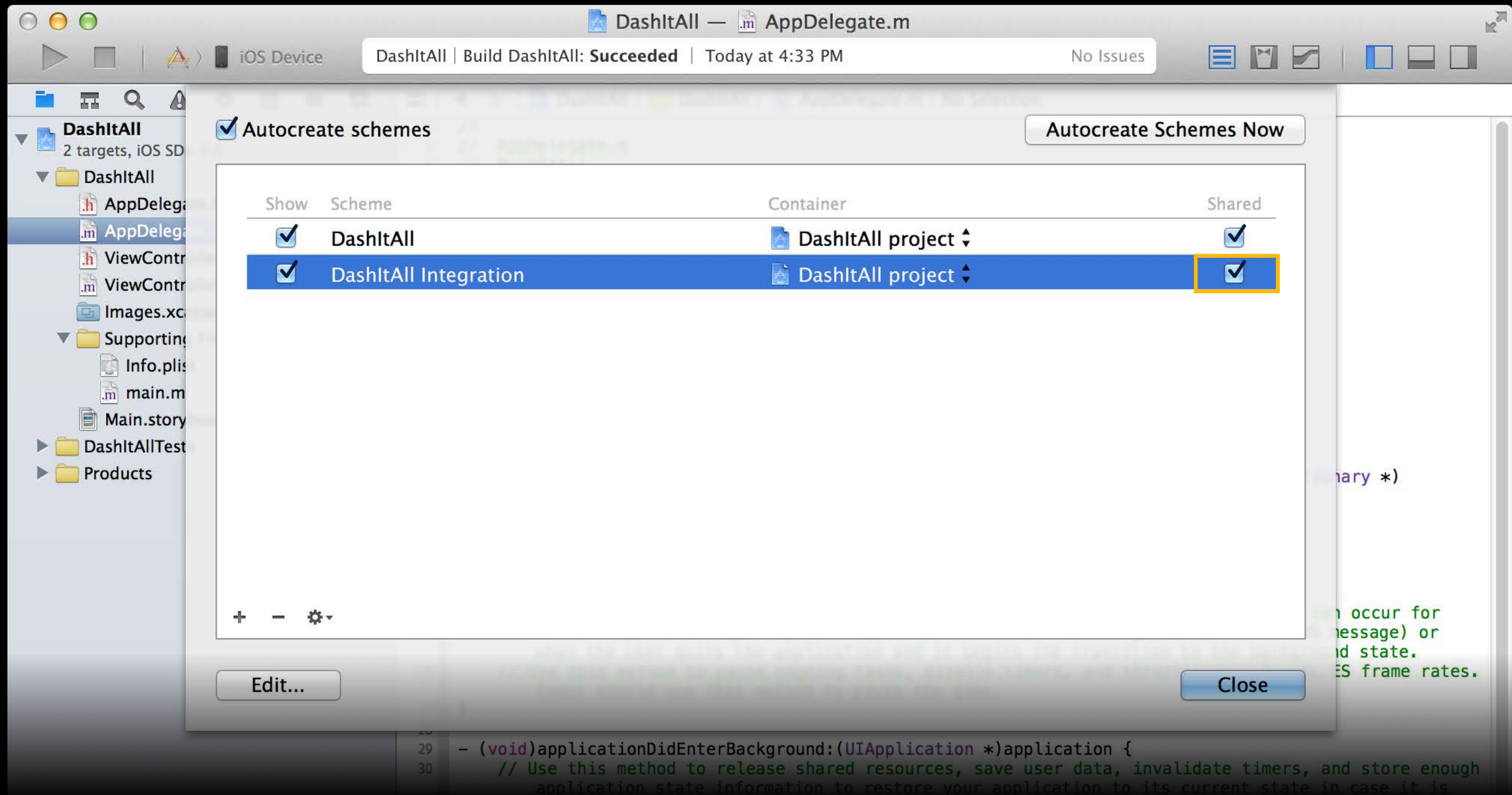
The screenshot shows the Xcode interface with the 'Autocreate schemes' dialog box open. The dialog has a title bar with a checkmark and the text 'Autocreate schemes'. Below the title bar is a table with the following columns: 'Show', 'Scheme', 'Container', and 'Shared'. The table contains two rows:

Show	Scheme	Container	Shared
<input checked="" type="checkbox"/>	DashItAll	DashItAll project	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	DashItAll Integration	DashItAll project	<input checked="" type="checkbox"/>

The 'DashItAll Integration' row is highlighted with a blue background, and the 'Shared' checkbox in this row is highlighted with a yellow border. To the right of the table is a button labeled 'Autocreate Schemes Now'. At the bottom left of the dialog is an 'Edit...' button, and at the bottom right is a 'Close' button. The background shows the Xcode project structure on the left and a code editor on the right with some code visible.

Create Shared Scheme

Remember to commit the scheme to the server



Connect Test Devices

The screenshot shows the macOS Server application window titled "Server". The left sidebar contains a navigation menu with categories: SERVER (indah, Bindi, Alerts, Certificates, Logs, Stats), ACCOUNTS (Users, Groups), and SERVICES (Caching, Calendar, Contacts, File Sharing, Mail, Messages, Profile Manager, Time Machine, VPN, Websites, Wiki, Xcode). The main content area is for the Xcode service, which is currently turned OFF. It features tabs for "Settings" and "Repositories".

Xcode OFF ON

Access

Status: ● Available on your local network at indah.local
Learn about configuring devices for this service



Permissions: Logged in users can create bots, anyone can view bots Edit...

Builds

Perform builds using: Xcode 6.0 (6A179o) Choose...

Developer Teams: Apple Inc. - Business Markets Enterprise Edit...

Devices

	bluesy iPhone 5c (Model A1507, A1516, A1526, A1529) / 8.0	Add to Team
	iPod touch iPod touch (5th generation) / 8.0	Apple Inc. - Business Markets Enter...

Connect Test Devices

The screenshot shows the macOS Server application window titled "Server". The left sidebar is divided into three sections: "SERVER" (indah, Bindi, Alerts, Certificates, Logs, Stats), "ACCOUNTS" (Users, Groups), and "SERVICES" (Caching, Calendar, Contacts, File Sharing, Mail, Messages, Profile Manager, Time Machine, VPN, Websites, Wiki, Xcode). The main content area is for the "Xcode" service, which is currently turned "OFF" as indicated by a toggle switch. Below the service name are tabs for "Settings" and "Repositories". The "Access" section shows the status as "Available on your local network at indah.local" and permissions for logged-in users. The "Builds" section shows the version of Xcode used for builds and the developer team. The "Devices" section lists two devices: "bluesy" (iPhone 5c) and "iPod touch" (5th generation). The "bluesy" device entry is highlighted with a blue background and has an "Add to Team" button next to it.

Server

Xcode OFF ON

Settings Repositories

Access

Status: ● Available on your local network at indah.local
Learn about configuring devices for this service



Permissions: Logged in users can create bots, anyone can view bots Edit...

Builds

Perform builds using: Xcode 6.0 (6A179o) Choose...

Developer Teams: Apple Inc. – Business Markets Enterprise Edit...

Devices

 bluesy iPhone 5c (Model A1507, A1516, A1526, A1529) / 8.0	Add to Team
 iPod touch iPod touch (5th generation) / 8.0	Apple Inc. – Business Markets Enter...

Connect Test Devices

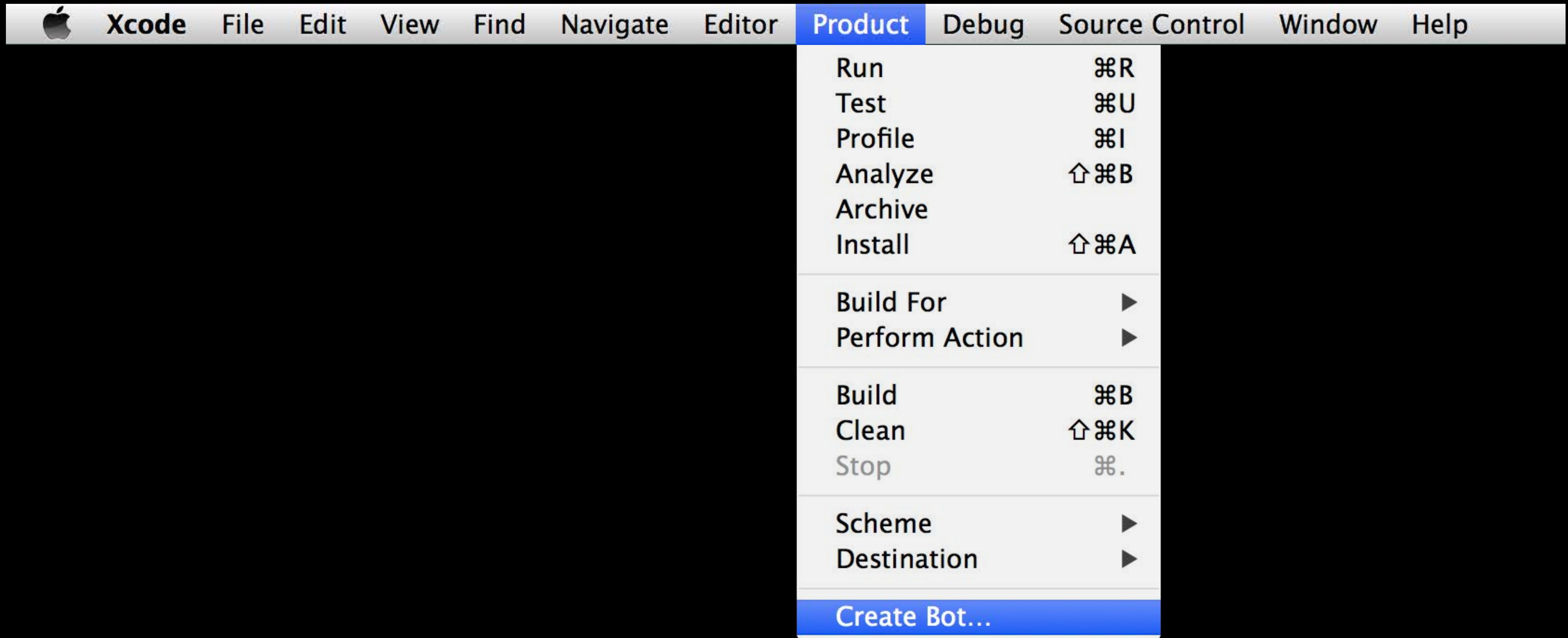
Used for Unit Test

Connect a variety of devices

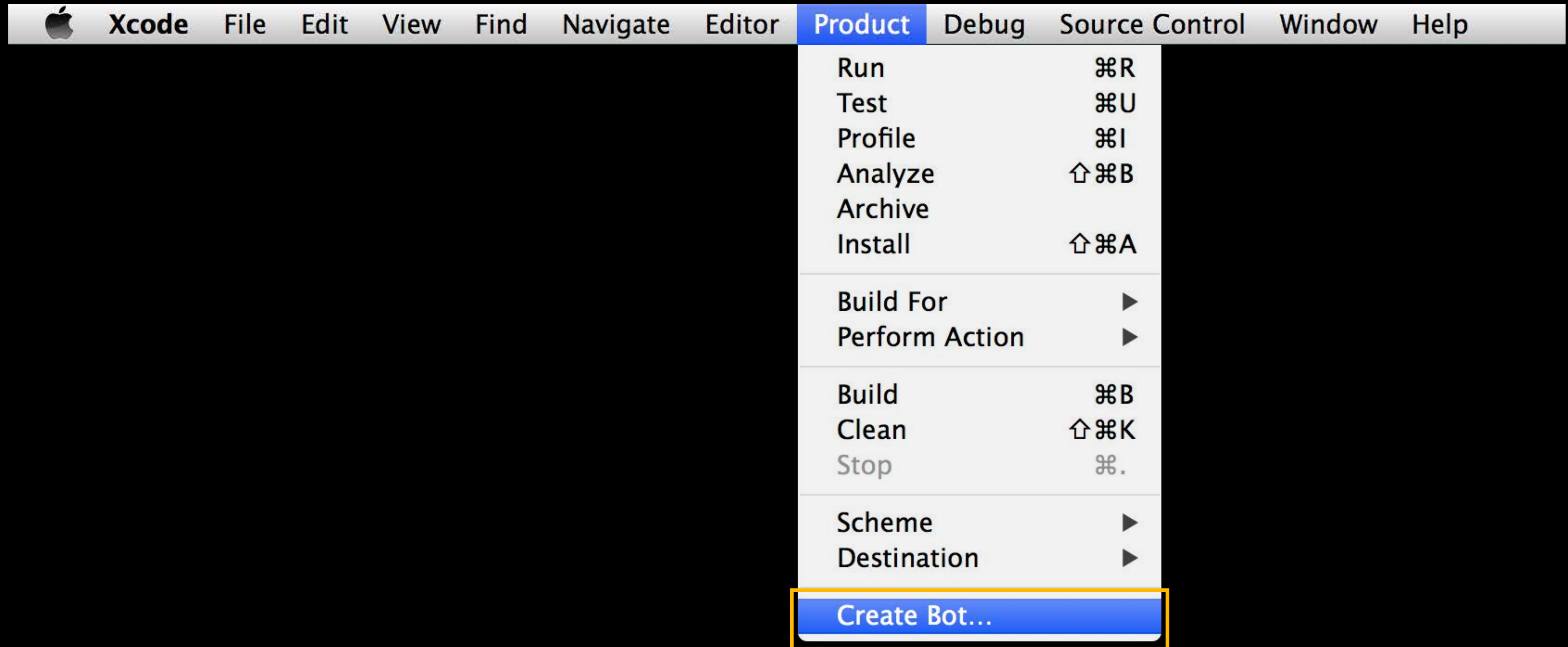
- iPad
- iPod touch
- iPhone

Development Provisioning Profile automatically updated

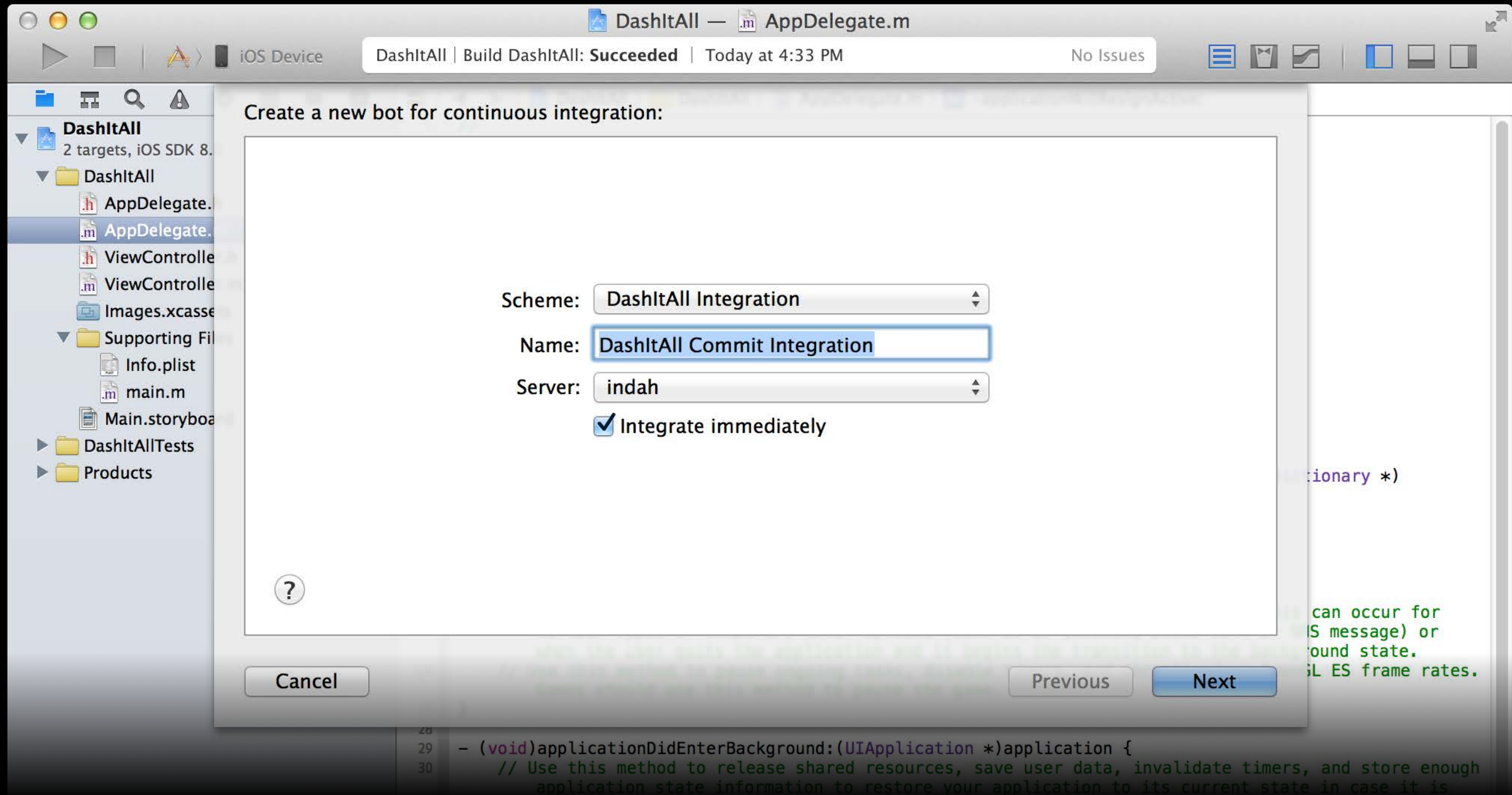
Create the Bot



Create the Bot



Create the Bot



Create the Bot

The screenshot shows the Xcode IDE with a project named 'DashItAll'. The 'Schedule bot integrations' dialog box is open, allowing configuration of a bot for the selected file 'AppDelegate.m'. The dialog includes the following settings:

- Schedule:** On Commit (dropdown menu)
- Actions:** Perform analyze action, Perform test action, Perform archive action
- Cleaning:** Never (dropdown menu)

Additional text in the dialog:

- Under 'Schedule': This bot will integrate automatically when there are commits.
- Under 'Cleaning': Remove all the source code, build products and intermediates before each integration.

Buttons at the bottom: Cancel, Previous, Next.

Background code snippet (AppDelegate.m):

```
28  
29 - (void)applicationDidEnterBackground:(UIApplication *)application {  
30     // Use this method to release shared resources, save user data, invalidate timers, and store enough  
    application state information to restore your application to its current state in case it is
```

Create the Bot

Schedule bot integrations:

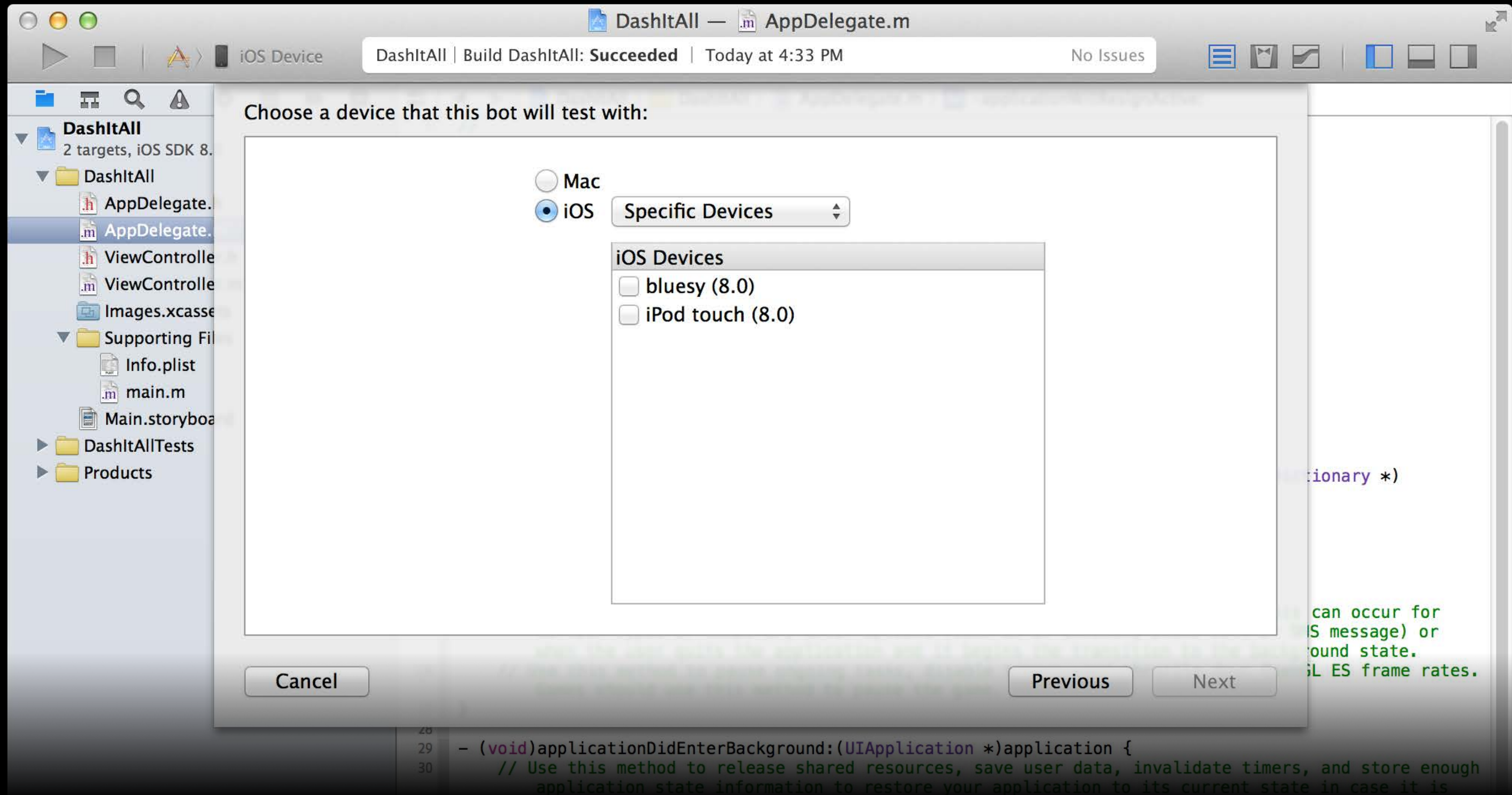
Schedule: Periodically **On Commit** Manual
This bot will integrate automatically when there are commits.

Actions: Perform analyze action
 Perform test action
 Perform archive action

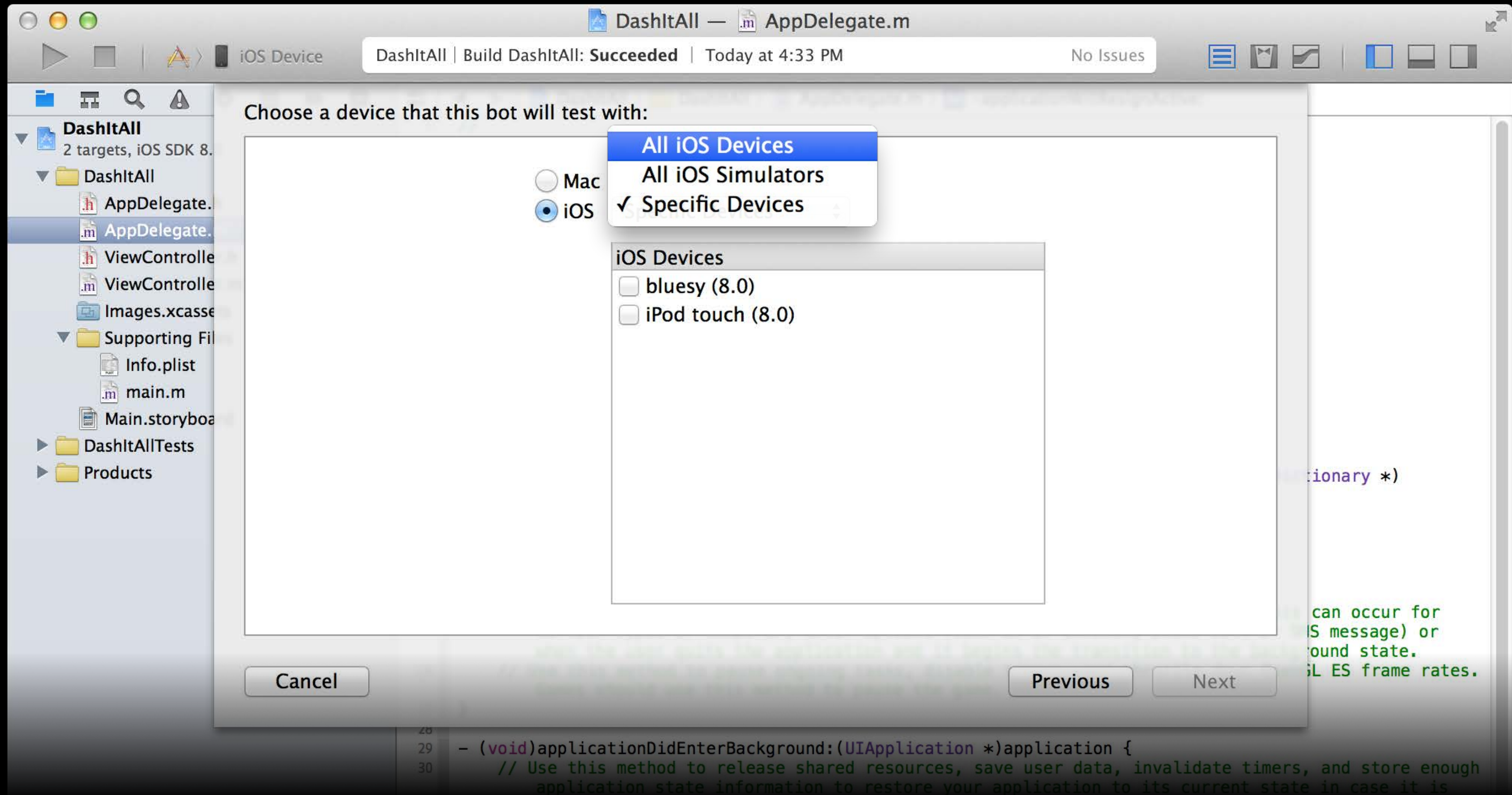
Cleaning:
Remove all the source code, build products and intermediates before each integration.

```
28  
29 - (void)applicationDidEnterBackground:(UIApplication *)application {  
30     // Use this method to release shared resources, save user data, invalidate timers, and store enough  
    application state information to restore your application to its current state in case it is
```

Create the Bot



Create the Bot



Create the Bot

Your new bot is being created...

Bot Creation Succeeded

The bot was created successfully and is ready to use.

Cancel Previous Done

```
28  
29 - (void)applicationDidEnterBackground:(UIApplication *)application {  
30     // Use this method to release shared resources, save user data, invalidate timers, and store enough  
    application state information to restore your application to its current state in case it is
```

View Bot Reports

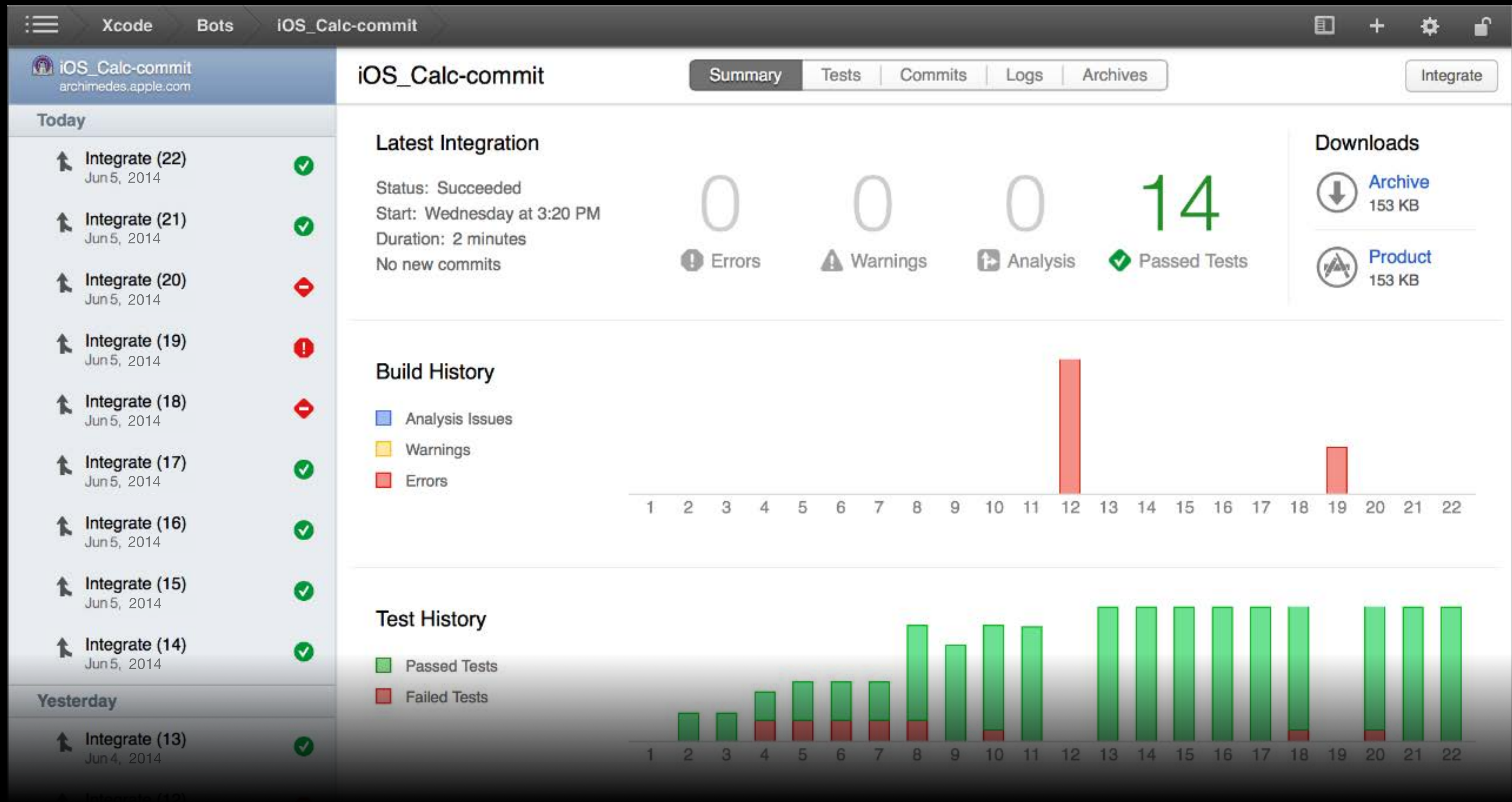
The screenshot displays a web interface for viewing bot reports. The main content area is titled "iOS_Calc-commit" and shows the following details:

- Integration Results:** Succeeded. Start: 2014-06-05, 21:12. Duration: 28 seconds. 1 commit by ernest@exampl...
- Summary:** 0 Errors, 0 Warnings, 0 Analysis, 14 Tests Passed.
- Build History:** A bar chart showing integration results over time. A tooltip for "Integration 5 Results 2014-06-04, 18:06" indicates 2 Tests Failed and 4 Tests Succeeded.
- Test History:** A bar chart showing test results over time, with a legend for Failure (red) and Success (green).

The left sidebar shows a list of integration attempts, including "Integrate (29)" through "Integrate (16)", with status indicators (red 'x' for failed, green checkmark for success).

View Bot Report

<https://servername/xcode/bots>



Bot Output

Test results

Static analysis

Logs

Xcode project archives

Ad-Hoc signed products

Great for QA

Summary

Hub for development

Install OS X server and Xcode

Sign in with Enterprise account

Host code repository

Connect to test devices

Bots for continuous integration

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Distribution Provisioning Profile

The screenshot shows the Apple Developer website interface for adding an iOS provisioning profile. The browser address bar shows the URL: `developer.apple.com/account/ios/profile/profileCreate.action?formID=56556307`. The page title is "Add - iOS Provisioning Profiles - Apple Developer".

The main navigation bar includes "Developer", "Technologies", "Resources", "Programs", "Support", and "Member Center", along with a search bar labeled "Search Developer". The user's name, "Dave Rahardja", is displayed in the top right corner.

The page is titled "Certificates, Identifiers & Profiles" and features a sidebar with a navigation menu. The "iOS Apps" dropdown is set to "iOS Apps". The sidebar categories are:

- Certificates**
 - All
 - Pending
 - Development
 - Production
- Identifiers**
 - App IDs
 - Pass Type IDs
 - Website Push IDs
- Devices**
 - All
- Provisioning Profiles**
 - All
 - Development
 - Distribution**

The main content area is titled "Add iOS Provisioning Profile" and includes a progress bar with four steps: "Select Type", "Configure", "Generate", and "Download". The "Select Type" step is currently active.

The main content area asks, "What type of provisioning profile do you need?" and provides two main categories:

- Development**
 - iOS App Development**
Create a provisioning profile to install development apps on test devices.
- Distribution**
 - In House**
To sign iOS apps for In House Distribution, you need a Certificate.
 - Ad Hoc**
Create a distribution provisioning profile to install your app on a limited number of registered devices.

At the bottom of the page, there are "Cancel" and "Continue" buttons.

Distribution Provisioning Profile

The screenshot shows the Apple Developer website interface for adding an iOS provisioning profile. The browser address bar indicates the URL: `developer.apple.com/account/ios/profile/profileCreate.action?formID=56556307`. The page title is "Add - iOS Provisioning Profiles - Apple Developer".

The main navigation bar includes "Developer", "Technologies", "Resources", "Programs", "Support", and "Member Center", along with a search bar labeled "Search Developer". The user's name, "Dave Rahardja", is displayed in the top right corner.

The page is titled "Certificates, Identifiers & Profiles" and features a sidebar on the left with a navigation menu. The "Provisioning Profiles" section is expanded, and the "Distribution" option is highlighted with a yellow border. Other options in the sidebar include "iOS Apps", "Certificates", "Identifiers", and "Devices".

The main content area is titled "Add iOS Provisioning Profile" and includes a progress bar with four steps: "Select Type", "Configure", "Generate", and "Download". The "Select Type" step is currently active.

The main content area displays the question: "What type of provisioning profile do you need?". Below this question, there are two main categories: "Development" and "Distribution".

Development

- iOS App Development**
Create a provisioning profile to install development apps on test devices.

Distribution

- In House**
To sign iOS apps for In House Distribution, you need a Certificate.
- Ad Hoc**
Create a distribution provisioning profile to install your app on a limited number of registered devices.

At the bottom of the page, there are "Cancel" and "Continue" buttons.

Distribution Provisioning Profile

The screenshot shows the Apple Developer website interface for adding an iOS provisioning profile. The browser address bar indicates the URL: `developer.apple.com/account/ios/profile/profileCreate.action?formID=56556307`. The page title is "Add - iOS Provisioning Profiles - Apple Developer".

The main navigation bar includes "Technologies", "Resources", "Programs", "Support", and "Member Center", along with a search bar labeled "Search Developer". The user's name, "Dave Rahardja", is displayed in the top right corner.

The page is titled "Certificates, Identifiers & Profiles". On the left sidebar, the "Provisioning Profiles" section is expanded, and the "Distribution" option is highlighted with a yellow box. The "Add iOS Provisioning Profile" wizard is active, showing a progress bar with steps: "Select Type", "Configure", "Generate", and "Download".

The main content area asks, "What type of provisioning profile do you need?". It lists two categories: "Development" and "Distribution". Under "Development", the "iOS App Development" option is selected. Under "Distribution", the "In House" option is selected and highlighted with a yellow box. The "Ad Hoc" option is also visible.

The "In House" option description reads: "To sign iOS apps for In House Distribution, you need a Certificate." The "Ad Hoc" option description reads: "Create a distribution provisioning profile to install your app on a limited number of registered devices." At the bottom of the page, there are "Cancel" and "Continue" buttons.

Distribution Provisioning Profile

The screenshot shows the 'Add iOS Provisioning Profile' page in the Apple Developer portal. The browser address bar shows the URL: `developer.apple.com/account/ios/profile/profileCreate.action?formID=69661689`. The page title is 'Add - iOS Provisioning Profiles - Apple Developer'. The user is logged in as 'Dave Rahardja'. The page is divided into a left sidebar and a main content area. The sidebar contains navigation links for 'iOS Apps', 'Certificates', 'Identifiers', 'Devices', and 'Provisioning Profiles'. The 'Provisioning Profiles' section is expanded, showing 'All', 'Development', and 'Distribution' (which is selected). The main content area has a breadcrumb trail: 'Select Type' > 'Configure' > 'Generate' > 'Download'. The 'Configure' step is active. The main heading is 'Add iOS Provisioning Profile'. Below it is a 'Select App ID.' section with a gear icon and 'PROV' label. A text block explains: 'If you plan to use services such as Game Center, In-App Purchase, and Push Notifications, or want a Bundle ID unique to a single app, use an explicit App ID. If you want to create one provisioning profile for multiple apps or don't need a specific Bundle ID, select a wildcard App ID. Wildcard App IDs use an asterisk (*) as the last digit in the Bundle ID field. Please note that iOS App IDs and Mac App IDs cannot be used interchangeably.' Below this text is a dropdown menu for 'App ID:' with the selected value 'Dash It All (TZLJQH23.com.appledev.dashitall)'. At the bottom of the main content area are three buttons: 'Cancel', 'Back', and 'Continue'.

Distribution Provisioning Profile

Apple Developer
Technologies Resources Programs Support Member Center Search Developer

Certificates, Identifiers & Profiles

Dave Rahardja

iOS Apps

- Certificates
 - All
 - Pending
 - Development
 - Production
- Identifiers
 - App IDs
 - Pass Type IDs
 - Website Push IDs
- Devices
 - All
- Provisioning Profiles
 - All
 - Development
 - Distribution

Add iOS Provisioning Profile

Select Type Configure Generate Download

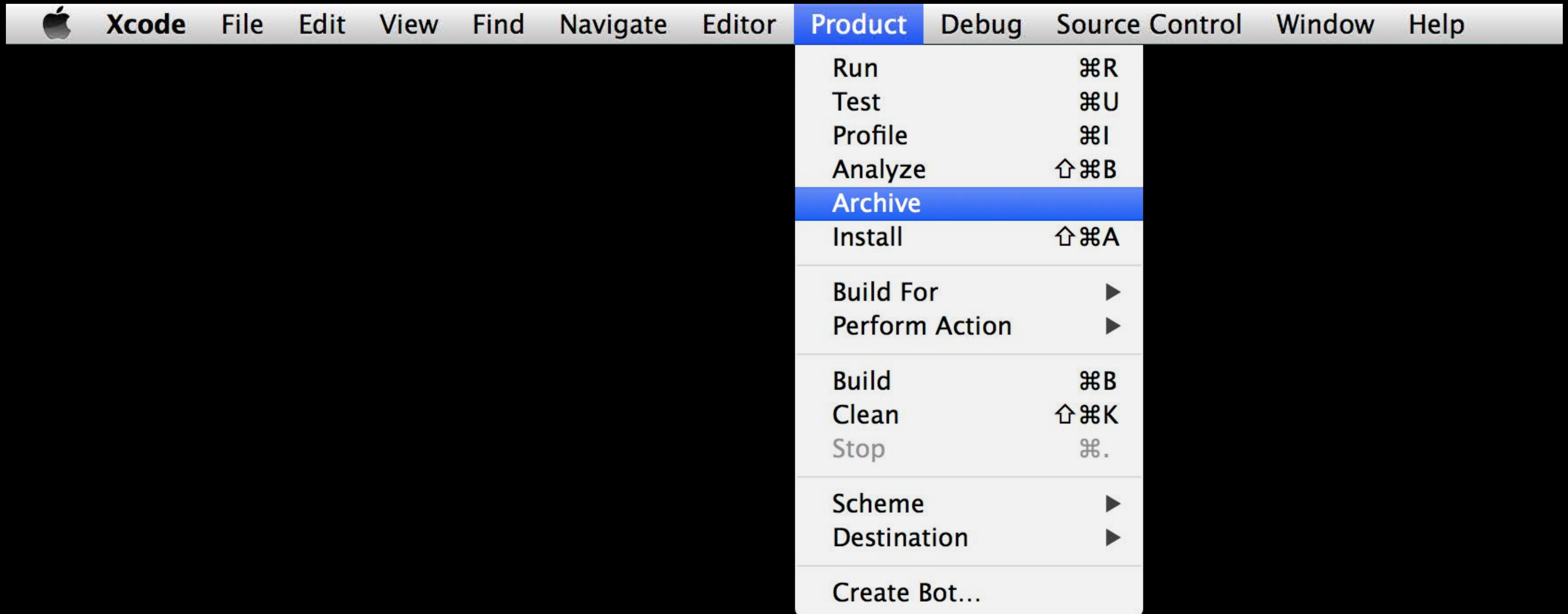
Select App ID.

If you plan to use services such as Game Center, In-App Purchase, and Push Notifications, or want a Bundle ID unique to a single app, use an explicit App ID. If you want to create one provisioning profile for multiple apps or don't need a specific Bundle ID, select a wildcard App ID. Wildcard App IDs use an asterisk (*) as the last digit in the Bundle ID field. Please note that iOS App IDs and Mac App IDs cannot be used interchangeably.

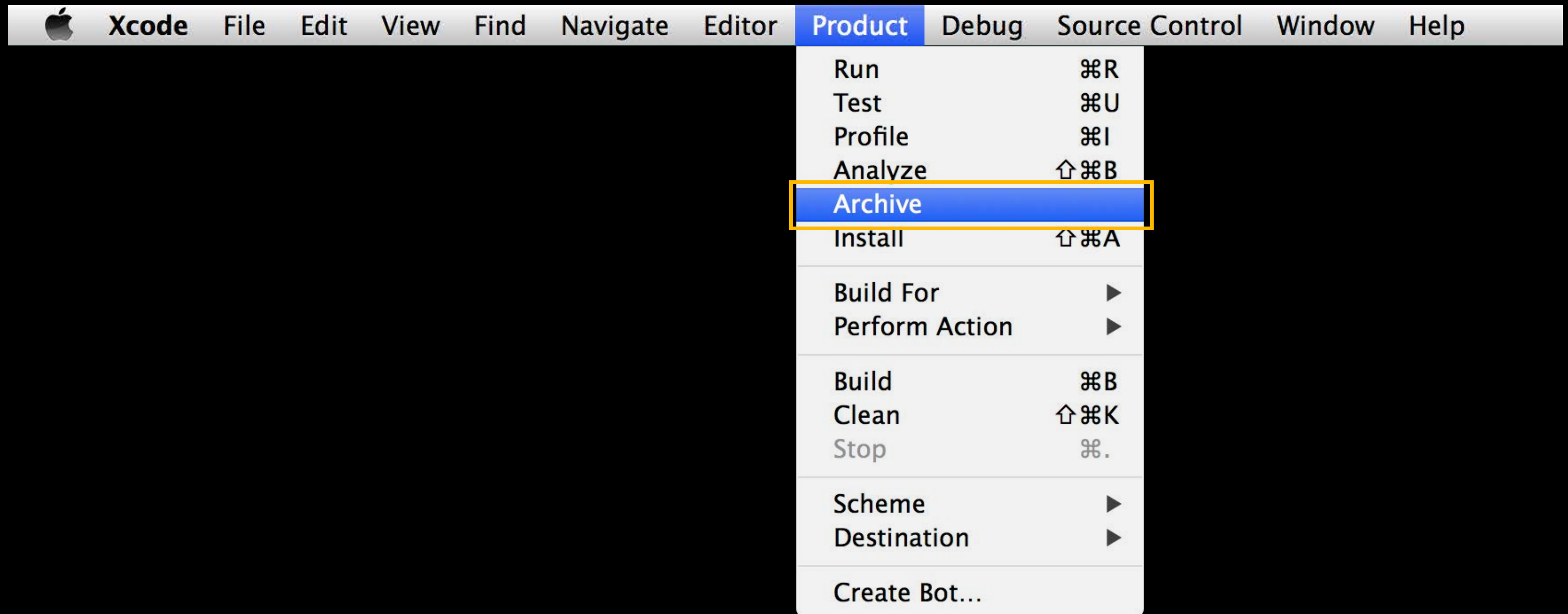
App ID: Dash It All (TZLJQH23.com.appledev.dashitall)

Cancel Back Continue

Packaging for Distribution



Packaging for Distribution




Packaging for Distribution

The screenshot shows the Xcode Organizer - Archives window. The left sidebar contains a list of archives: DashItAll and MooBox. The main area displays the details for the DashItAll archive, including its icon, name, archive type, creation date, version, and identifier. There are buttons for 'Validate...' and 'Distribute...'. Below the details is a table with columns for Name, Creation Date, Comment, and Status. The table contains one entry for DashItAll.

Organizer — Archives

Devices Projects Archives

DashItAll
MooBox

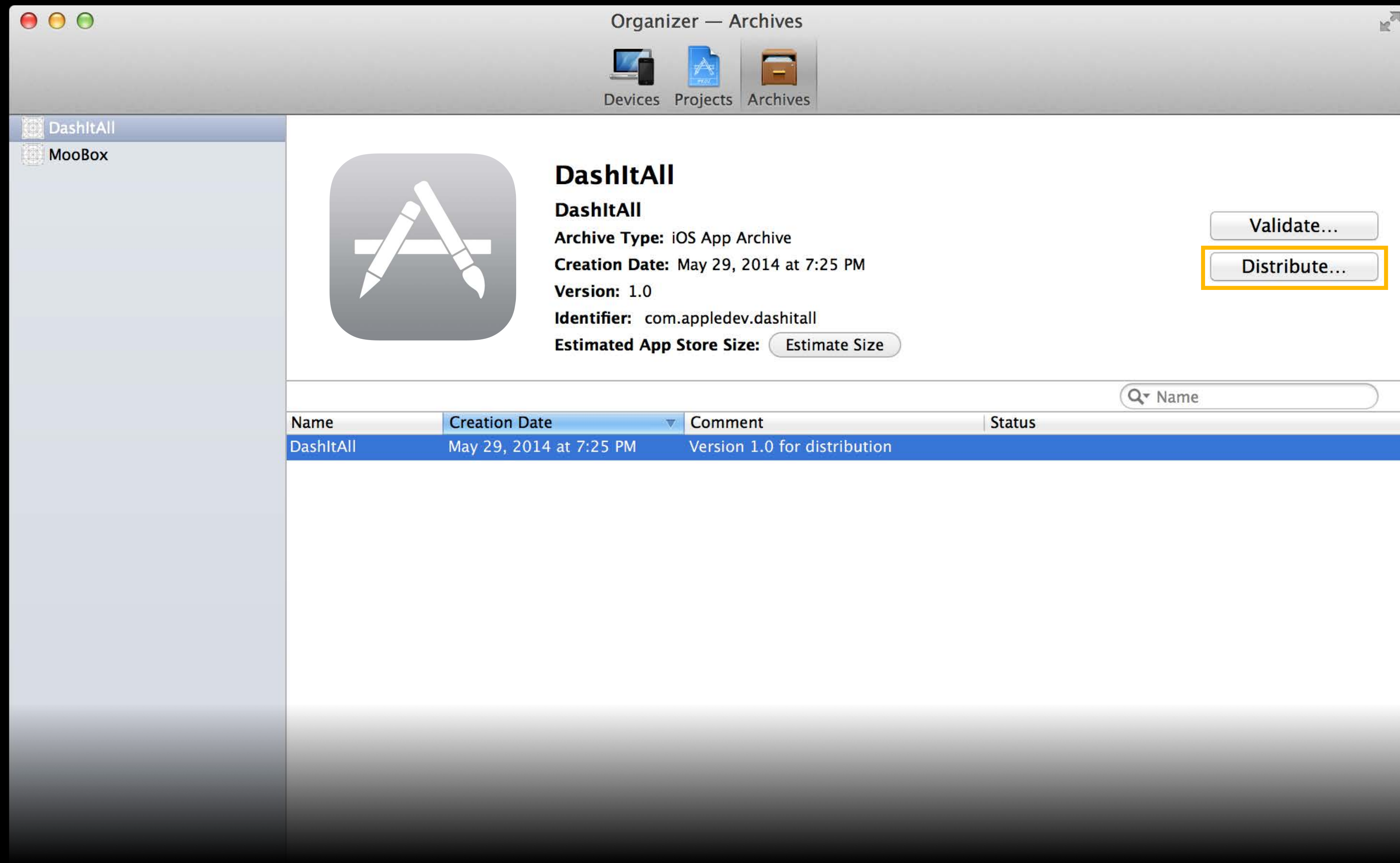
 **DashItAll**
DashItAll
Archive Type: iOS App Archive
Creation Date: May 29, 2014 at 7:25 PM
Version: 1.0
Identifier: com.appledev.dashitall
Estimated App Store Size: [Estimate Size](#)

[Validate...](#)
[Distribute...](#)

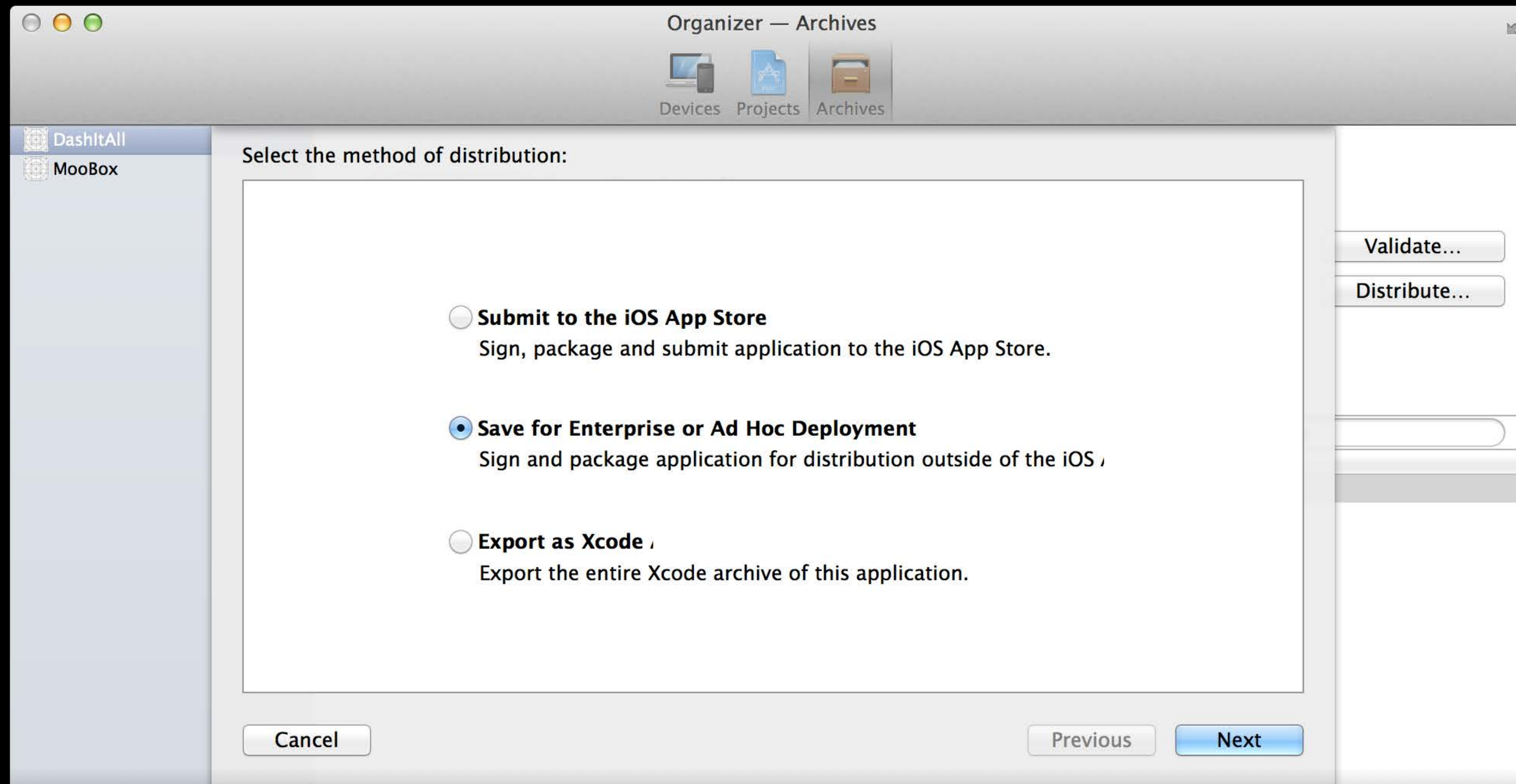
Q Name

Name	Creation Date	Comment	Status
DashItAll	May 29, 2014 at 7:25 PM	Version 1.0 for distribution	

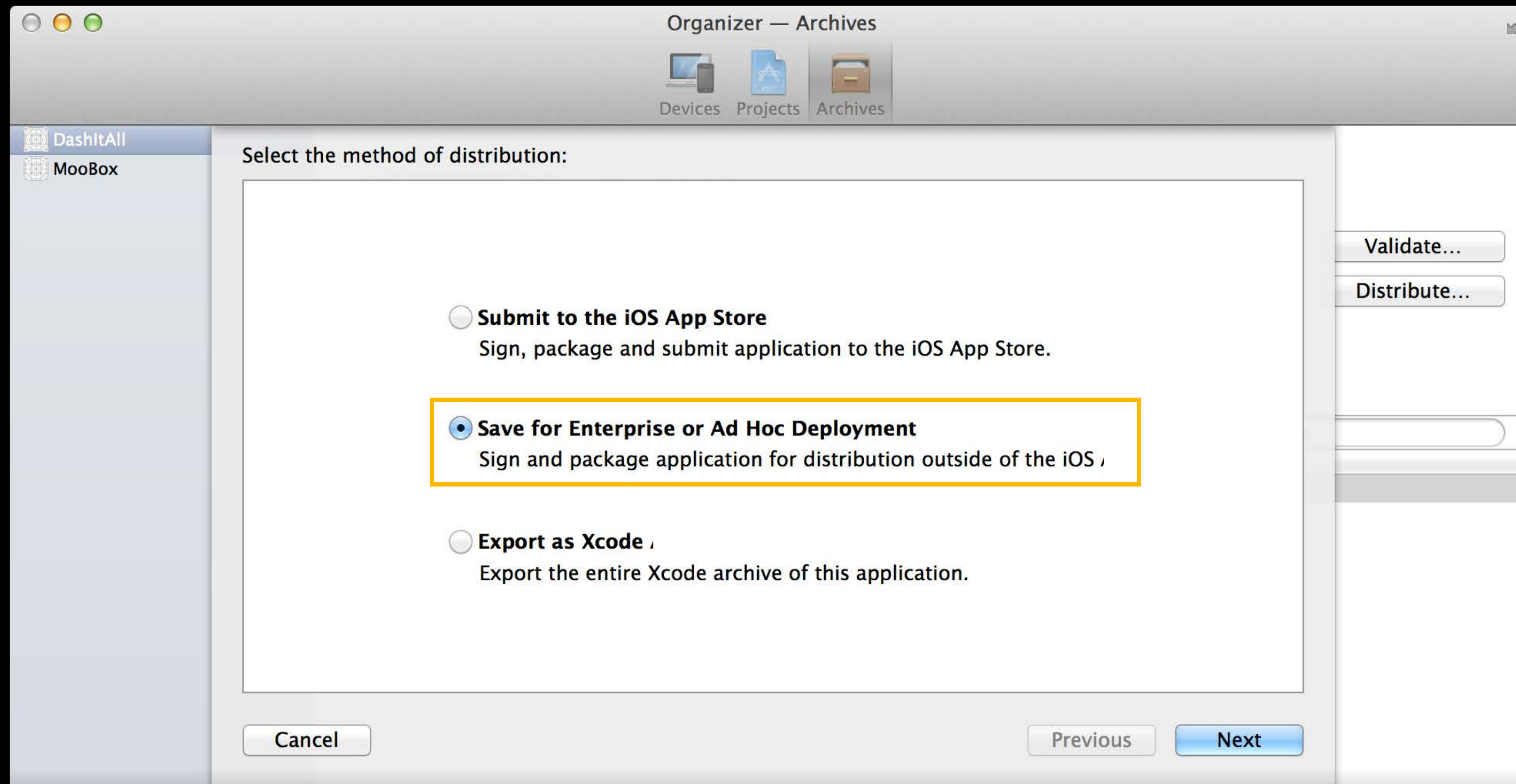
Packaging for Distribution



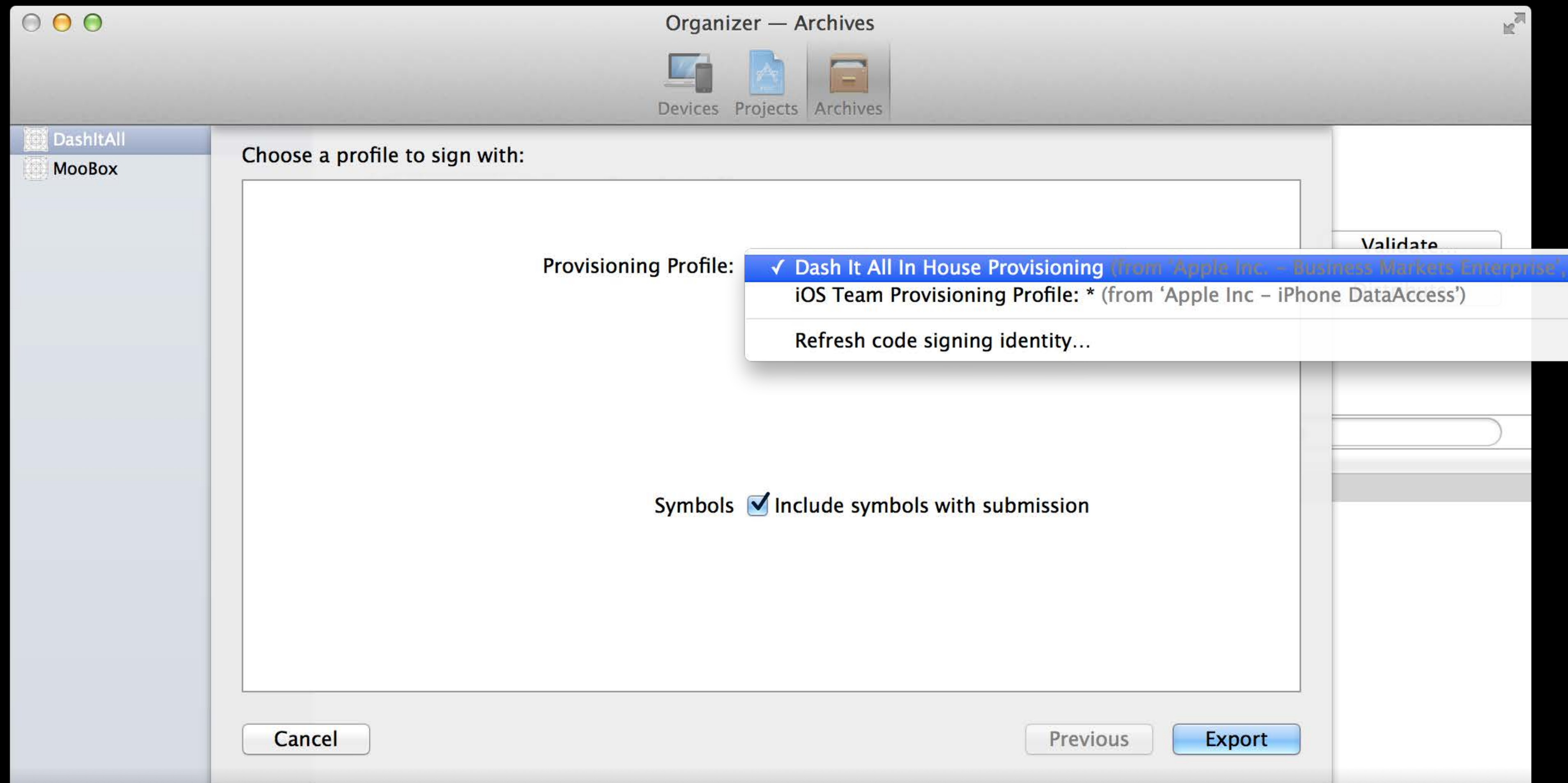
Packaging for Distribution



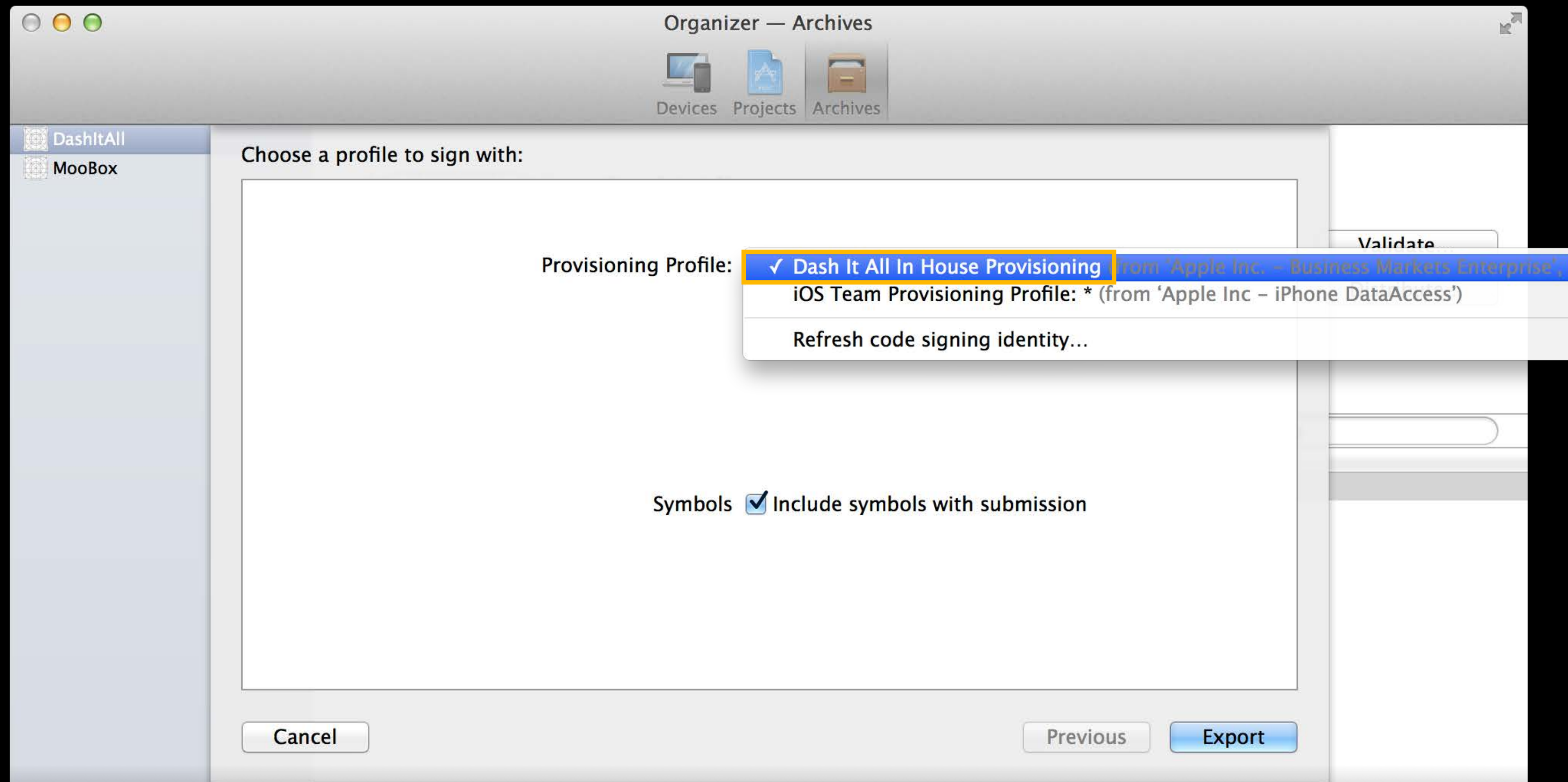
Packaging for Distribution



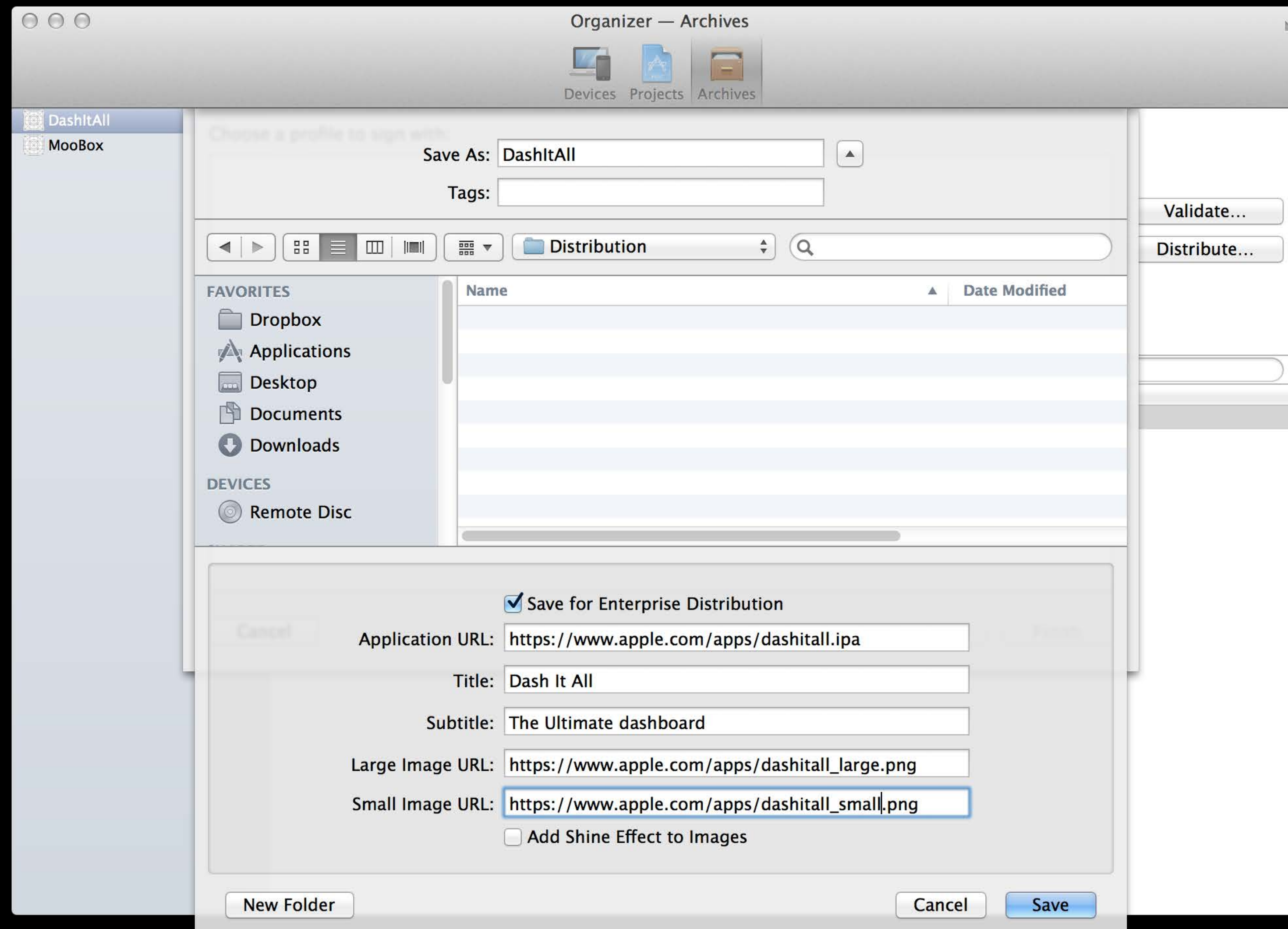
Packaging for Distribution



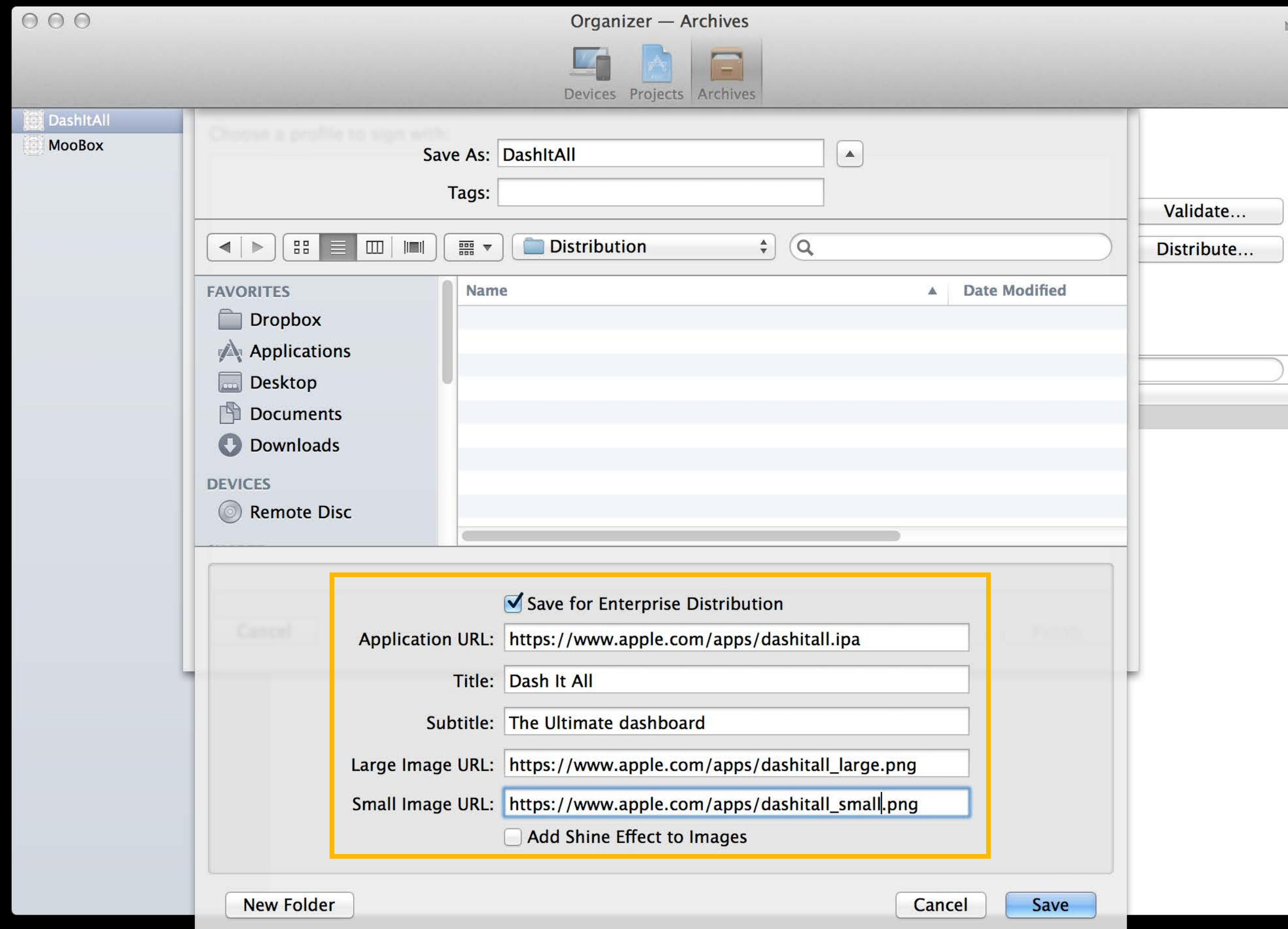
Packaging for Distribution



Packaging for Distribution



Packaging for Distribution



Code Signing and Provisioning Profiles

Code Signing and Provisioning Profiles

Code Signing Certificates

- Valid for **three** years
- Up to two valid certs at a time
- Update app binary to renew

Code Signing and Provisioning Profiles

Code Signing Certificates

- Valid for **three** years
- Up to two valid certs at a time
- Update app binary to renew

Provisioning Profiles

- Valid for **one** year
- Renew at any time
- No need to update app binary
- Update over MDM

Code Signing and Provisioning Profiles

Code Signing Certificates

- Valid for **three** years
- Up to two valid certs at a time
- Update app binary to renew

Provisioning Profiles

- Valid for **one** year
- Renew at any time
- No need to update app binary
- Update over MDM

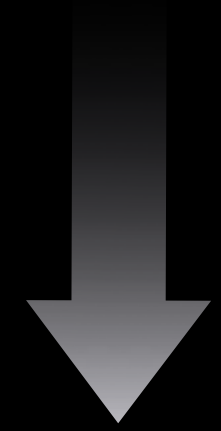
Enterprise Apps need valid code signing and provisioning profile to run

Code Signing and Provisioning Profile



--	--	--	--	--

Code Signing and Provisioning Profile



App A 1.0				
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Code Signing and Provisioning Profile



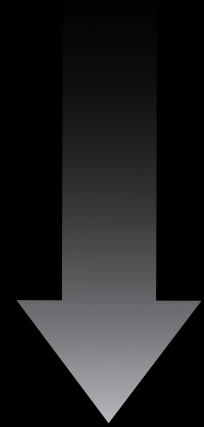
Code Signing and Provisioning Profile



Code Signing and Provisioning Profile



Code Signing and Provisioning Profile



Code Signing and Provisioning Profile



Code Signing and Provisioning Profile



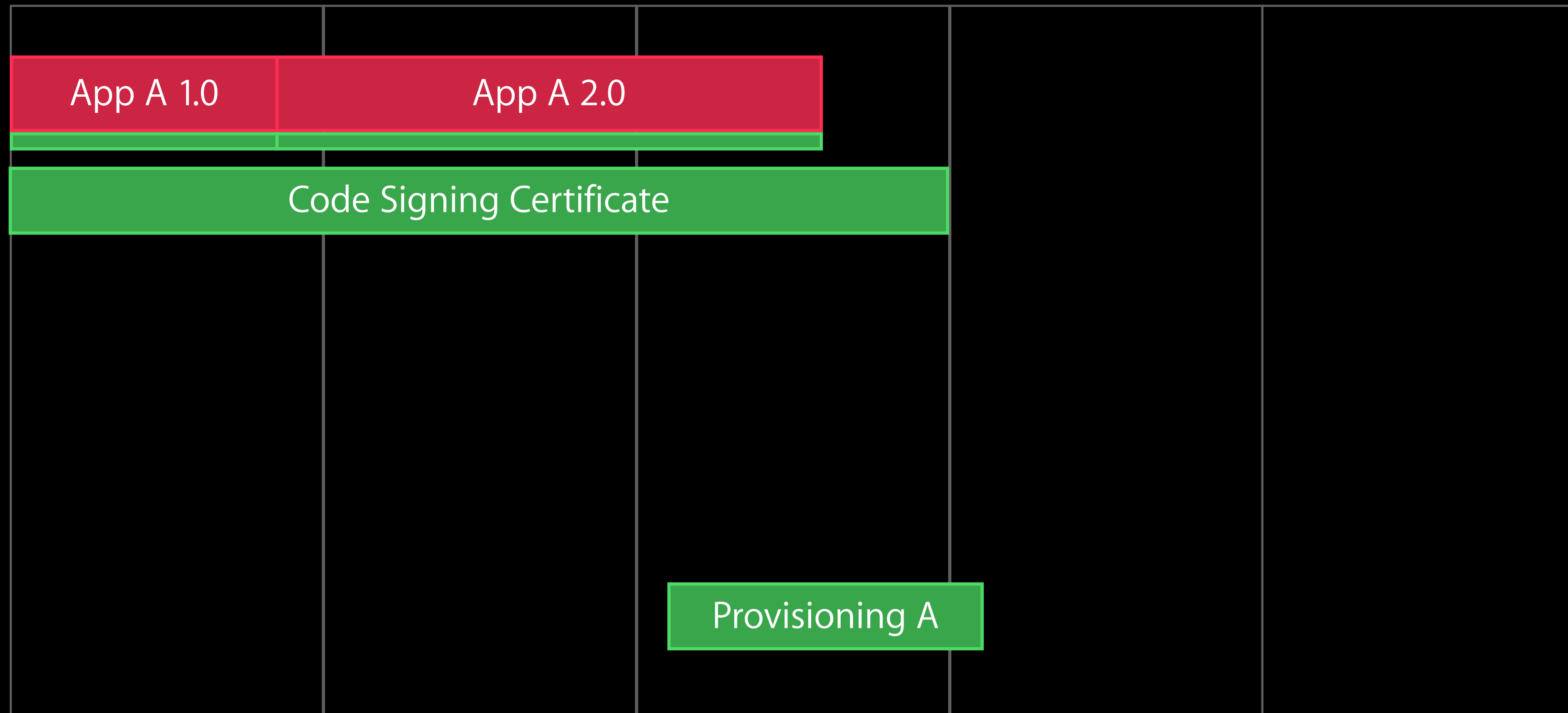
Code Signing and Provisioning Profile



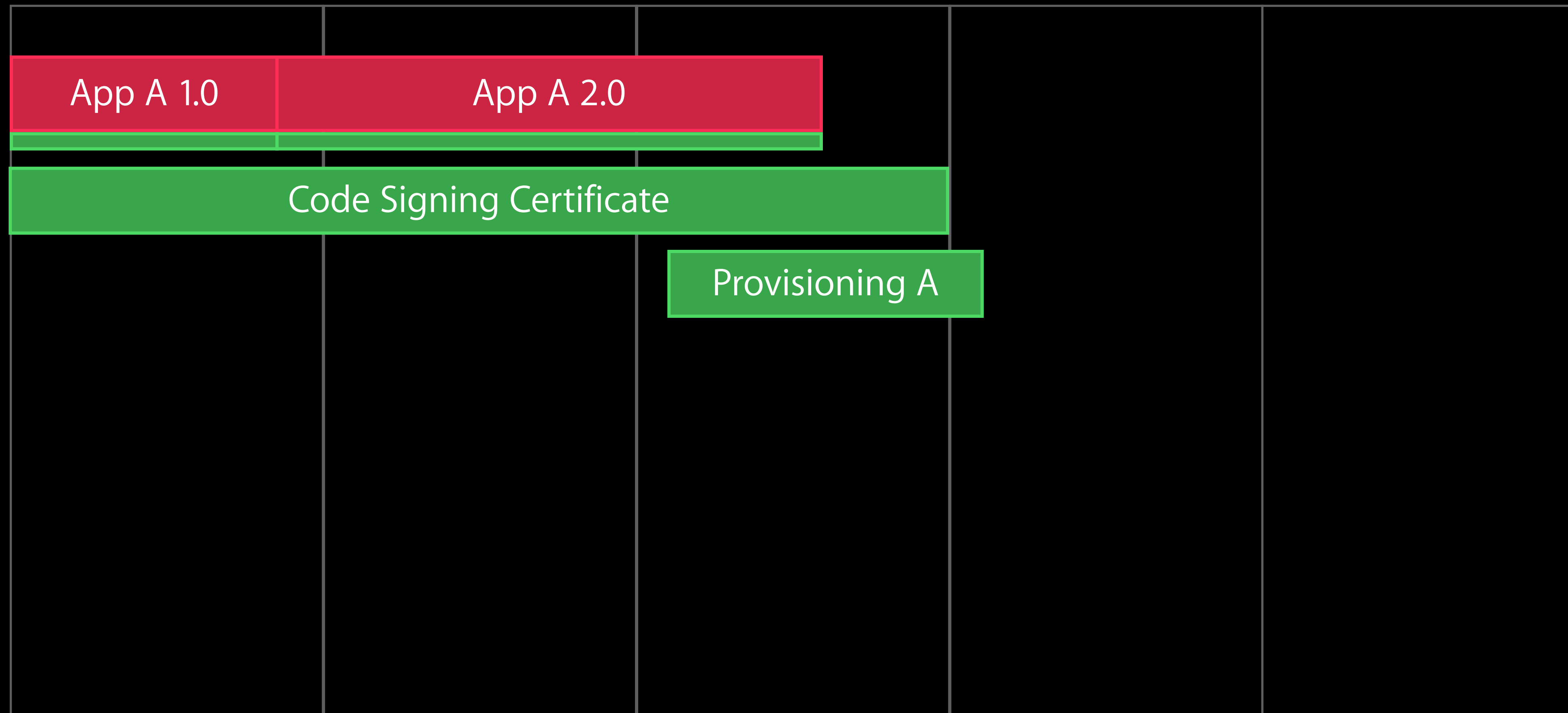
Code Signing and Provisioning Profile



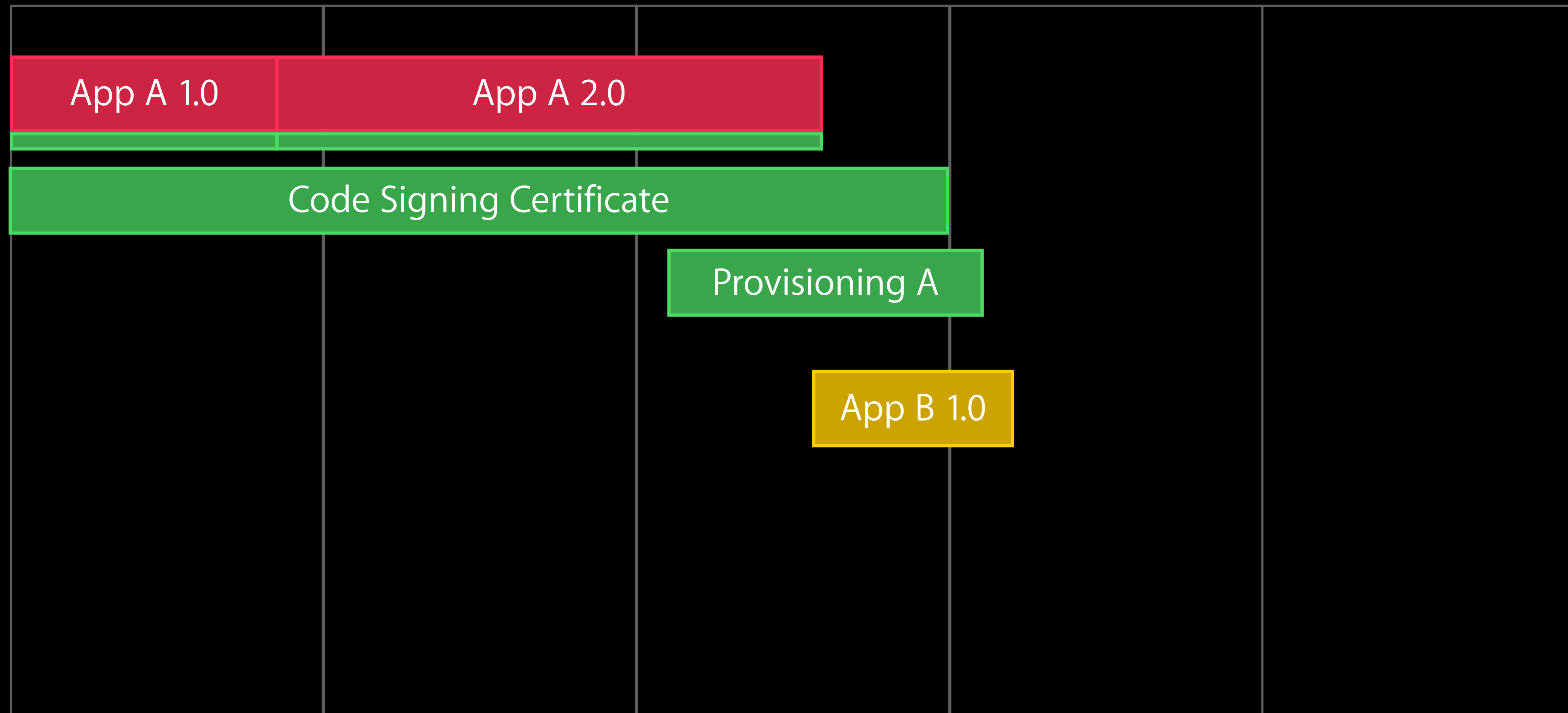
Code Signing and Provisioning Profile



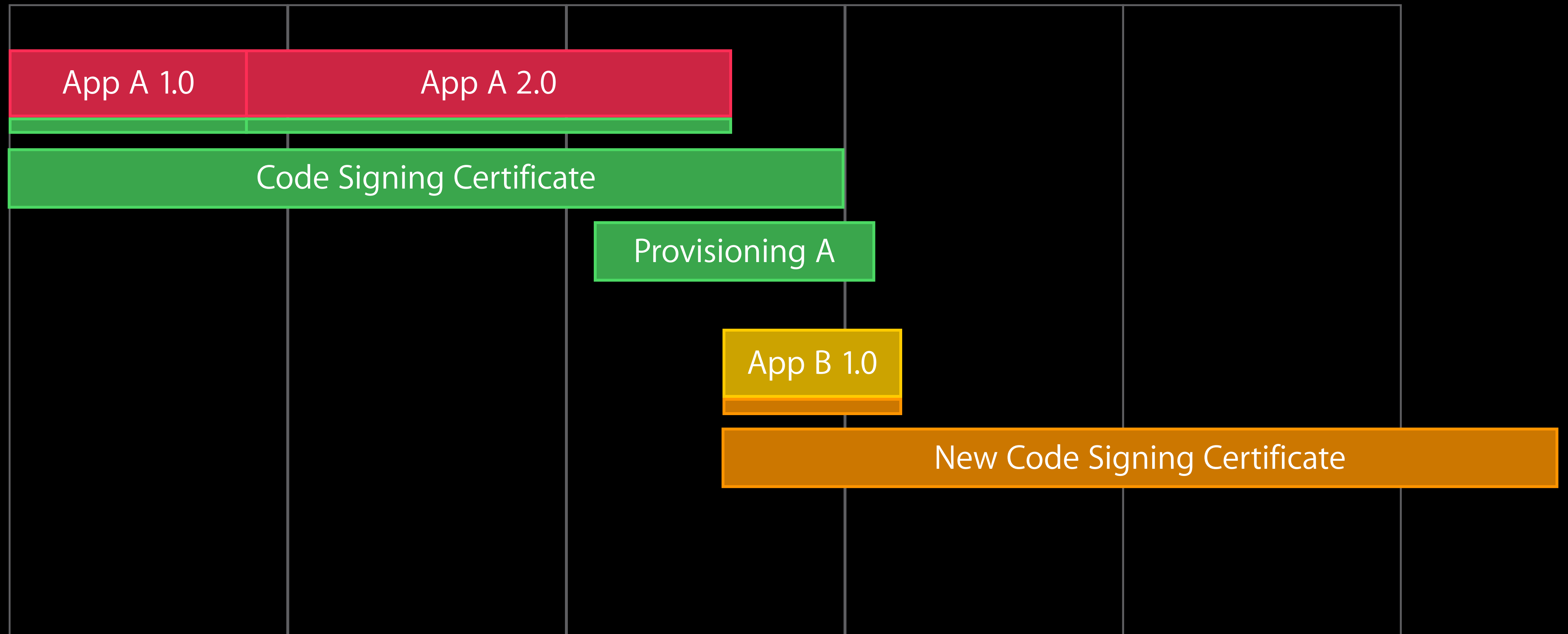
Code Signing and Provisioning Profile



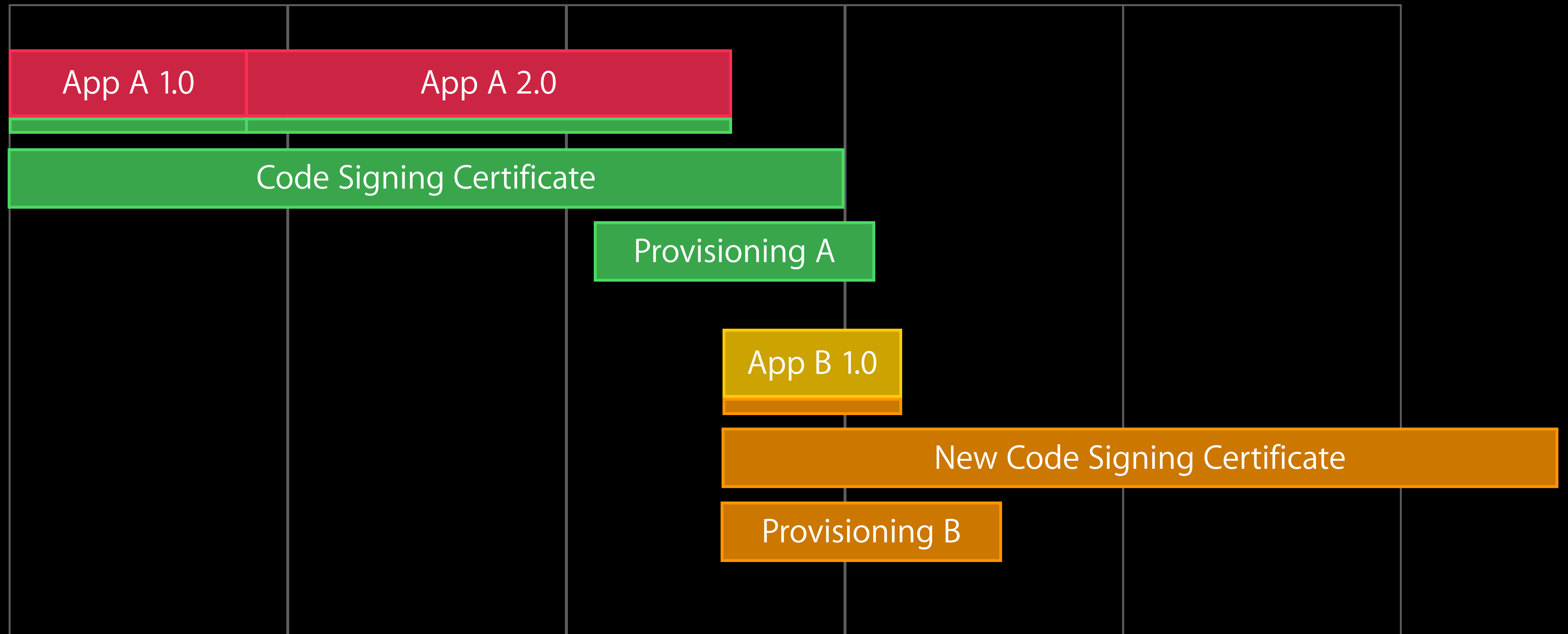
Code Signing and Provisioning Profile



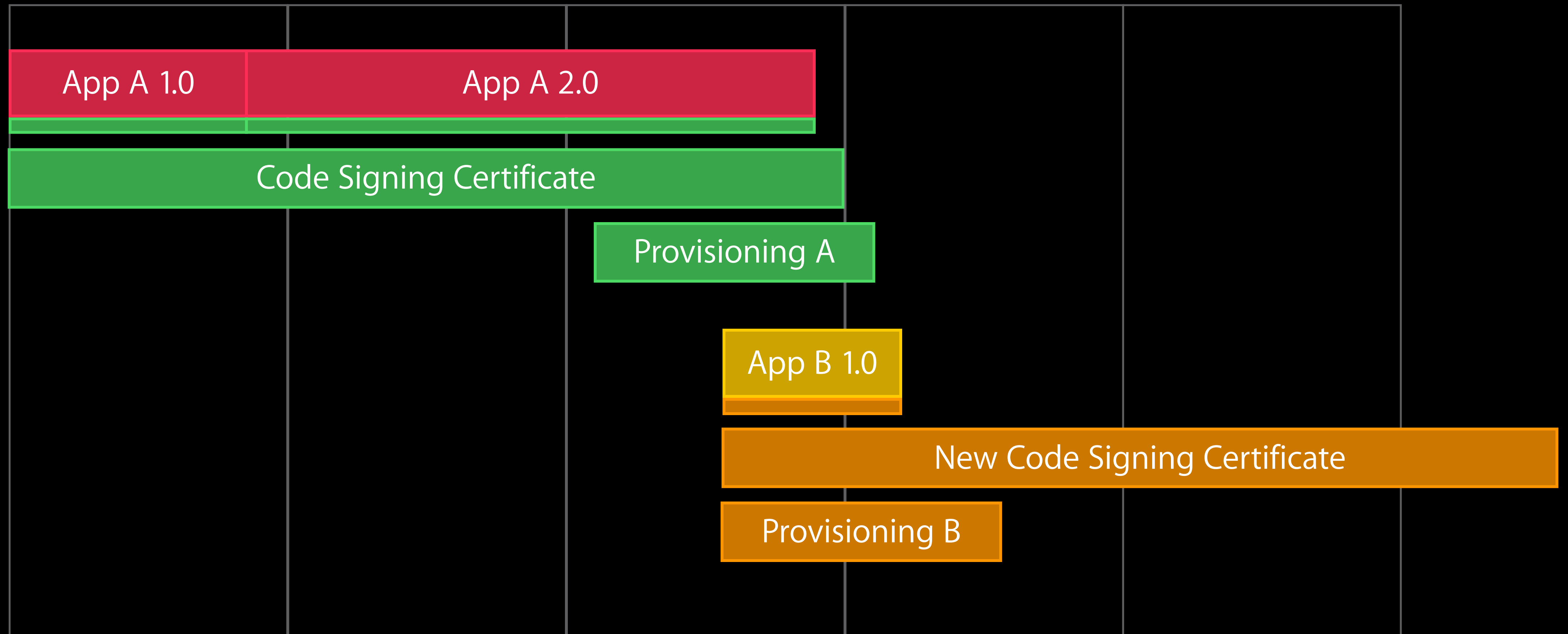
Code Signing and Provisioning Profile



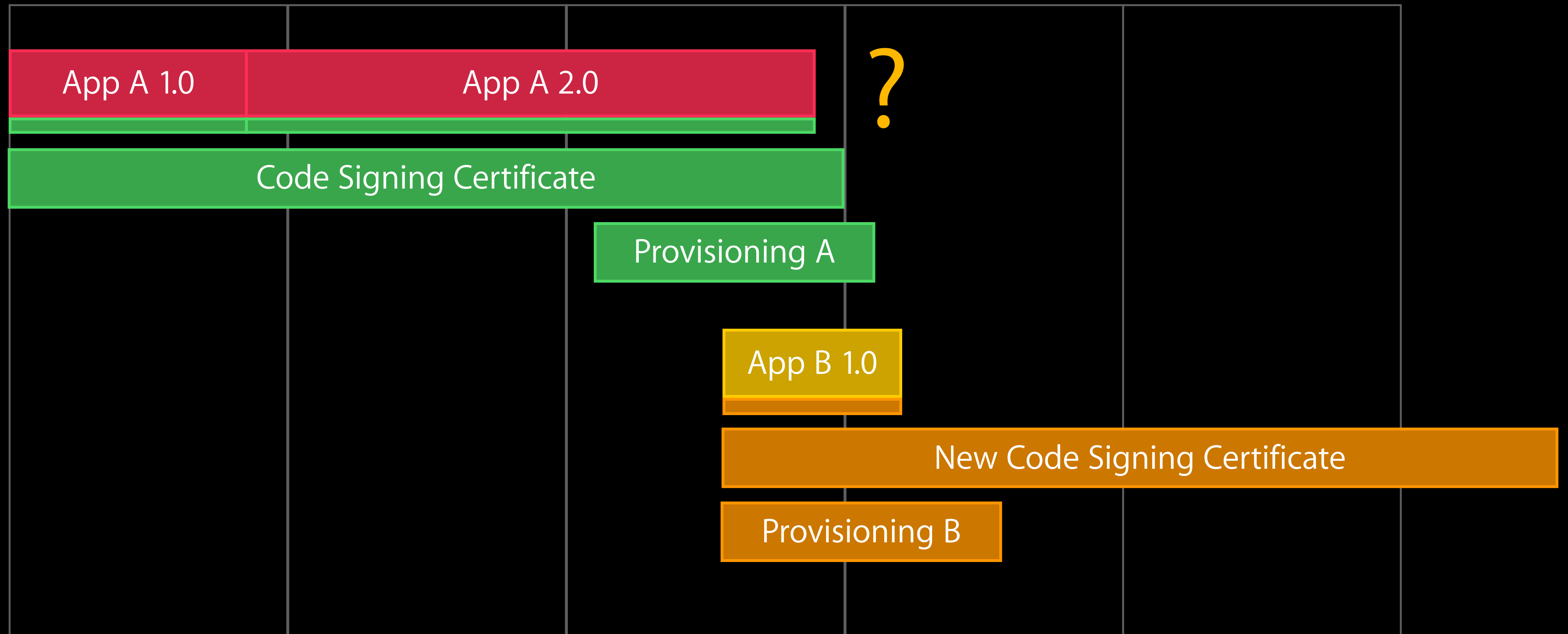
Code Signing and Provisioning Profile



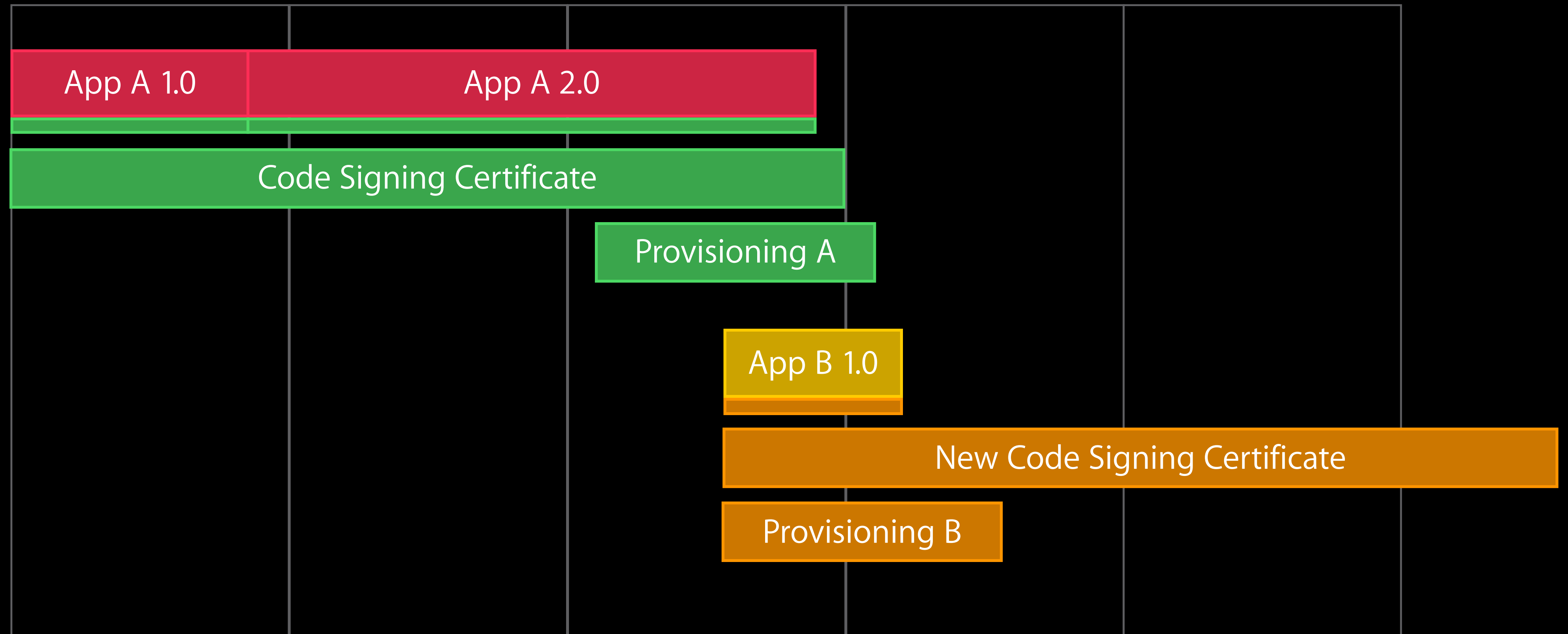
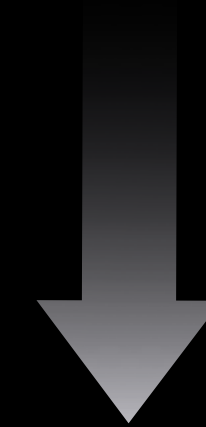
Code Signing and Provisioning Profile



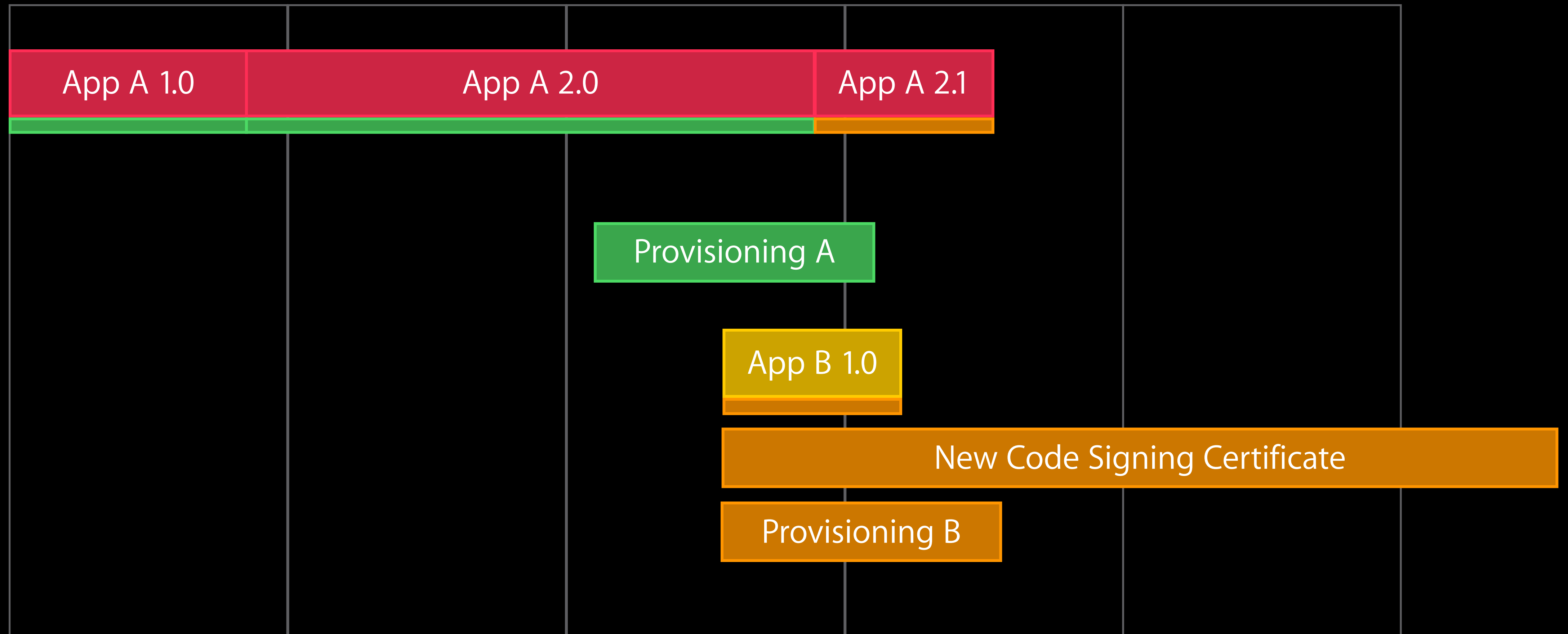
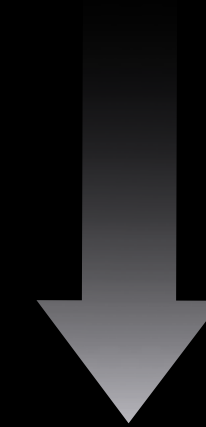
Code Signing and Provisioning Profile



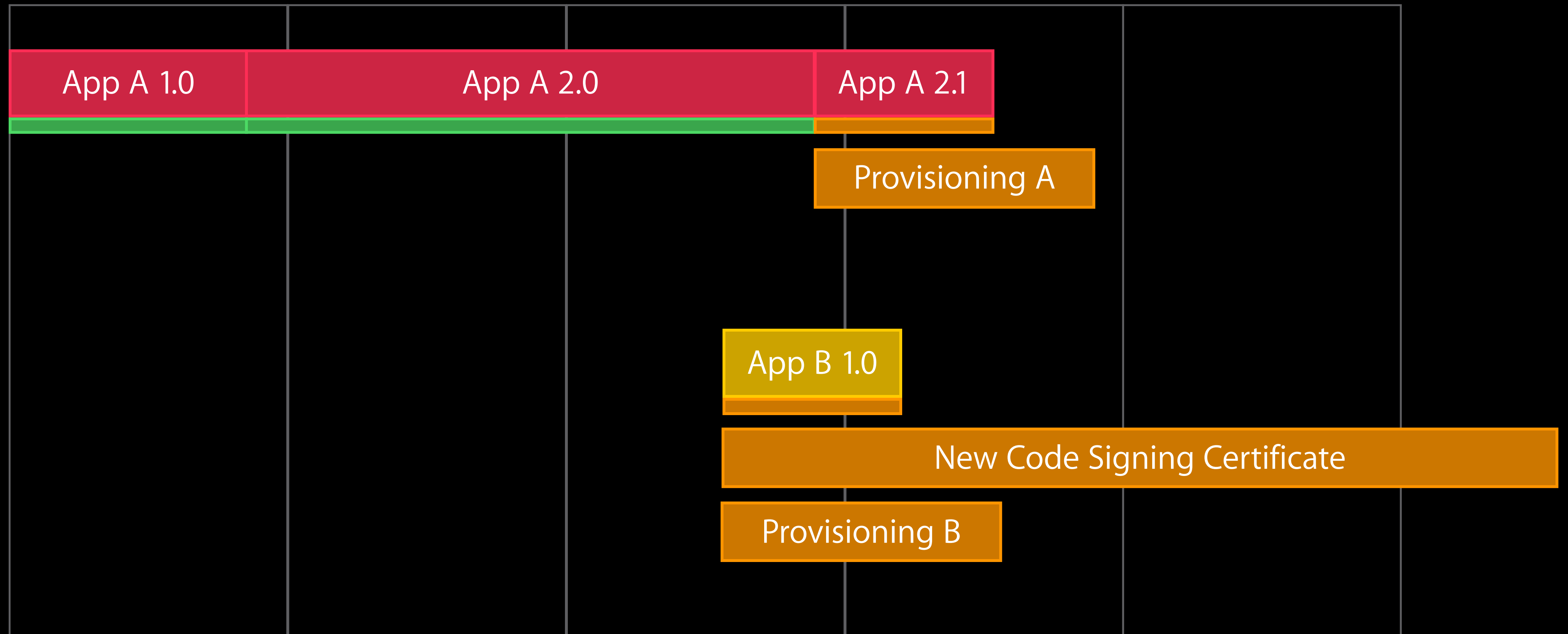
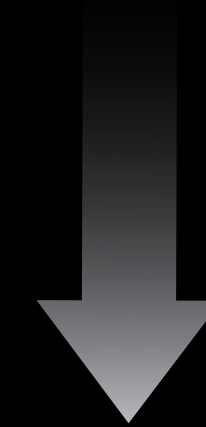
Code Signing and Provisioning Profile



Code Signing and Provisioning Profile



Code Signing and Provisioning Profile



Best Practices

Notice code signing expiration date

Use newest code signing certificate

Embed a new provisioning profile

Host in-house apps using HTTPS

Use MDM to distribute apps and refresh provisioning profiles

App must be updated to change code signing certificate

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Custom B2B

Hosted in the App Store

Visible to limited audience

Reviewed by Apple

No provisioning profiles needed

Publishing Custom B2B

App Store Developer
Use iTunes Connect
Check “Custom B2B”

Select the availability date and price tier for your app.

Availability Date

Price Tier

[View Pricing Matrix ▶](#)

Discount for Educational Institutions

Custom B2B App

Volume Purchase Program Customers

For a custom B2B app, you must enter at least one Apple ID that was created for use with the Volume Purchase Program (the Apple ID is usually an email address). This app will only be available to the Volume Purchase Program Apple IDs you specify here (you can add as many as you would like). To learn more about the App Store Volume Purchase Program for Business, visit <http://vpp.itunes.apple.com/faq>. To learn more about how your customers can sign up for the Volume Purchase Program, visit <http://enroll.vpp.itunes.apple.com>.

Apple IDs

Unless you select **specific stores**, your app will be for sale in all App Store Volume Purchase Programs for Business worldwide.

Publishing Custom B2B

App Store Developer
Use iTunes Connect
Check “Custom B2B”

Select the availability date and price tier for your app.

Availability Date ?

Price Tier ?
[View Pricing Matrix ▶](#)

Discount for Educational Institutions ?

Custom B2B App ?

Volume Purchase Program Customers

For a custom B2B app, you must enter at least one Apple ID that was created for use with the Volume Purchase Program (the Apple ID is usually an email address). This app will only be available to the Volume Purchase Program Apple IDs you specify here (you can add as many as you would like). To learn more about the App Store Volume Purchase Program for Business, visit <http://vpp.itunes.apple.com/faq>. To learn more about how your customers can sign up for the Volume Purchase Program, visit <http://enroll.vpp.itunes.apple.com>.

Apple IDs

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Publishing Custom B2B

Specify customer Apple IDs

Select the availability date and price tier for your app.

Availability Date

Price Tier

[View Pricing Matrix ▶](#)

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Apple IDs

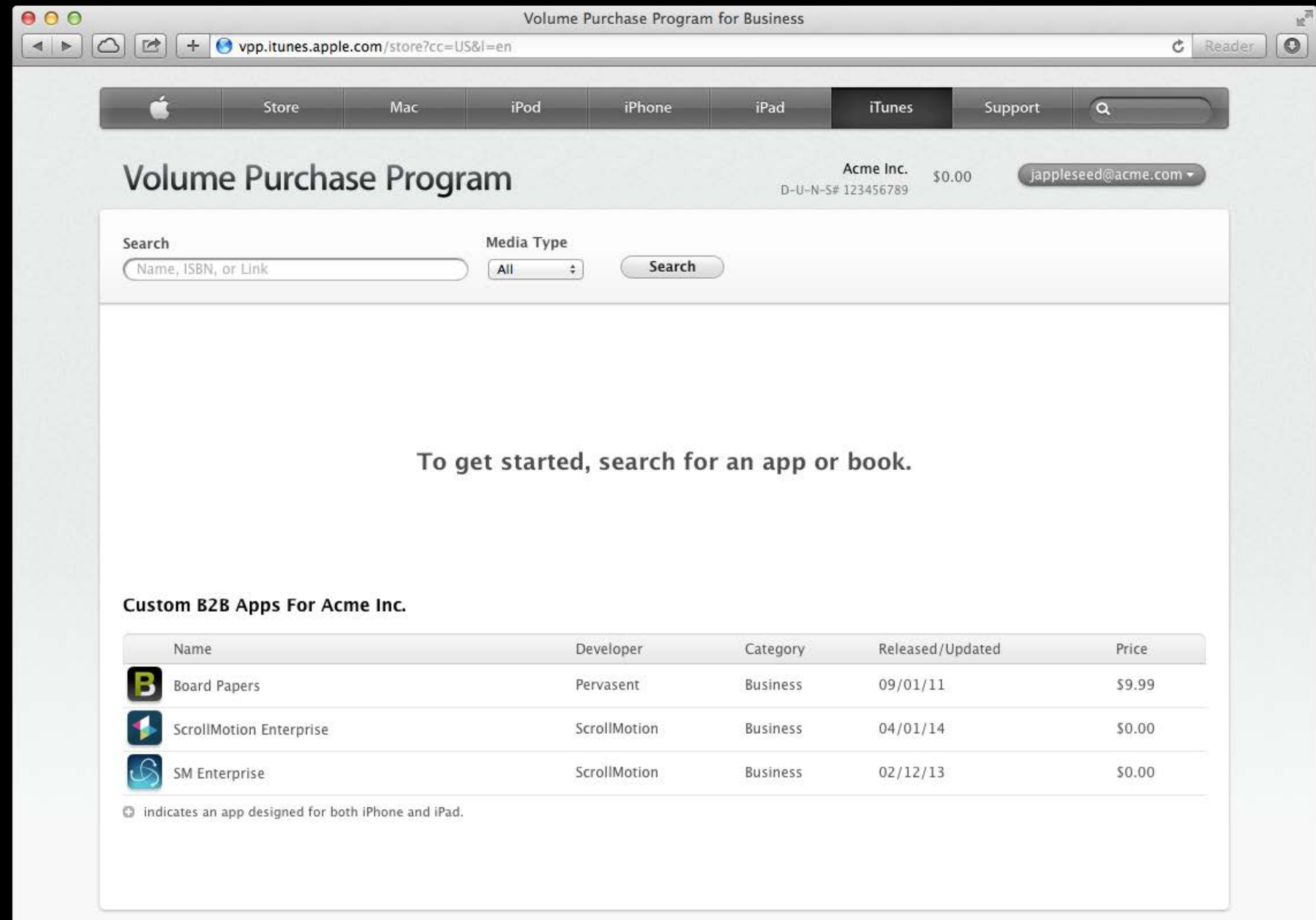
Unless you select **specific stores**, your app will be for sale in all App Store Volume Purchase Programs for Business worldwide.

Purchasing Custom B2B

VPP Portal

Purchase licenses

Push using MDM



Volume Purchase Program for Business

vpp.itunes.apple.com/store?cc=US&l=en

Store Mac iPod iPhone iPad iTunes Support




Volume Purchase Program Acme Inc. \$0.00 jappleseed@acme.com

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Search Name, ISBN, or Link Media Type All Search

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Custom B2B Apps For Acme Inc.

Name	Developer	Category	Released/Updated	Price
 Board Papers	Pervasant	Business	09/01/11	\$9.99
 ScrollMotion Enterprise	ScrollMotion	Business	04/01/14	\$0.00
 SM Enterprise	ScrollMotion	Business	02/12/13	\$0.00

ⓘ indicates an app designed for both iPhone and iPad.

Custom B2B

Great for custom apps if you don't own the code

Great for subsidiaries

Hosted by Apple

No code signing or provisioning profile expiration

Promo codes for beta testing

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Managing Your Team

Xcode Server

App Distribution Strategy

Custom B2B

Summary

Agents and Admins should be employees

Contractors should be Team Members

Use Xcode Server for continuous integration

Keep an eye on code signing certificate expiration

Use Custom B2B if you don't own the code

developer.apple.com/enterprise

iOS Developer Program – Apple Developer

<https://developer.apple.com/enterprise> Reader

Wikipedia News Popular Apple Yahoo! Google Maps YouTube

Developer Technologies Resources Programs Support Member Center

Reinvent your enterprise with iOS.

iOS 8 is more advanced than ever for every line of business. Get the latest content from WWDC14 geared to IT and enterprise developers. Learn about key technologies in iOS including how to deploy devices, secure corporate data, and build breakthrough custom apps.

LightGrid

Asset Information

Evolve: 000041

GE Lighting
Nela Park
East Cleveland, OH
United States
41.5411° N, 81.5585° W

OFF

20% 40% 60% 80% 100%

State: Link Exosient

Current: 0271 A

Power: 1.54 W

Voltage: 115.34 V

Temp: 71°

Global Sales Demo

2013

Total Sales by Month

Sales January \$6,055,798

Number of Transactions

Monitor Q1 74

More Information

Paul Danbold

Core OS Technologies Evangelist

danbold@apple.com

Documentation

iOS Developer Program

<http://developer.apple.com/enterprise>

Apple Developer Forums

<http://devforums.apple.com>

Related Sessions

-
- Managing Apple Devices Pacific Heights Tuesday 9:00AM
 - Building Apps for Enterprise and Education Pacific Heights Tuesday 10:15AM
-

Labs

-
- Developing Apps for Enterprise and Education Core OS Lab A Wednesday 2:00PM
 - Managing Apple Devices Core OS Lab B Thursday 9:00AM
-

 WWDC14