



Mastering Xcode for iPhone OS Development

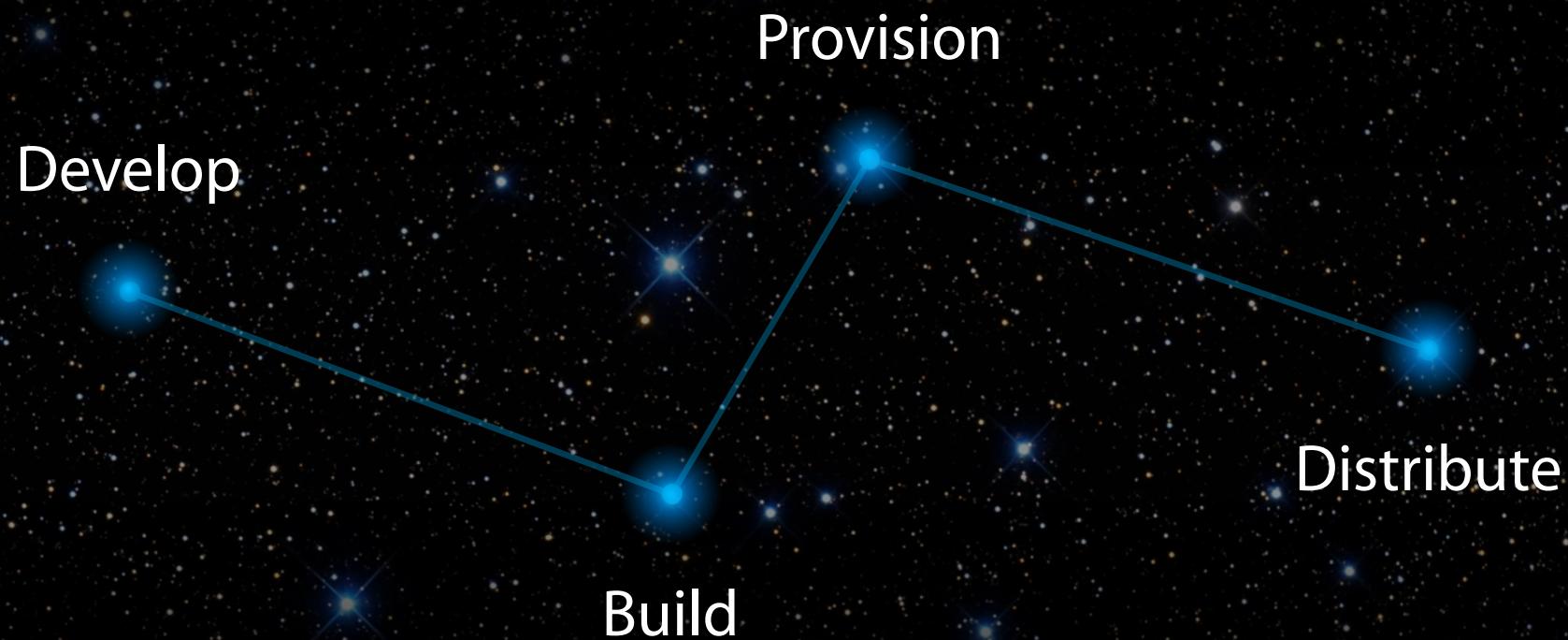
Part 2

Marc Verstaen
Sr. Manager, iPhone Tools

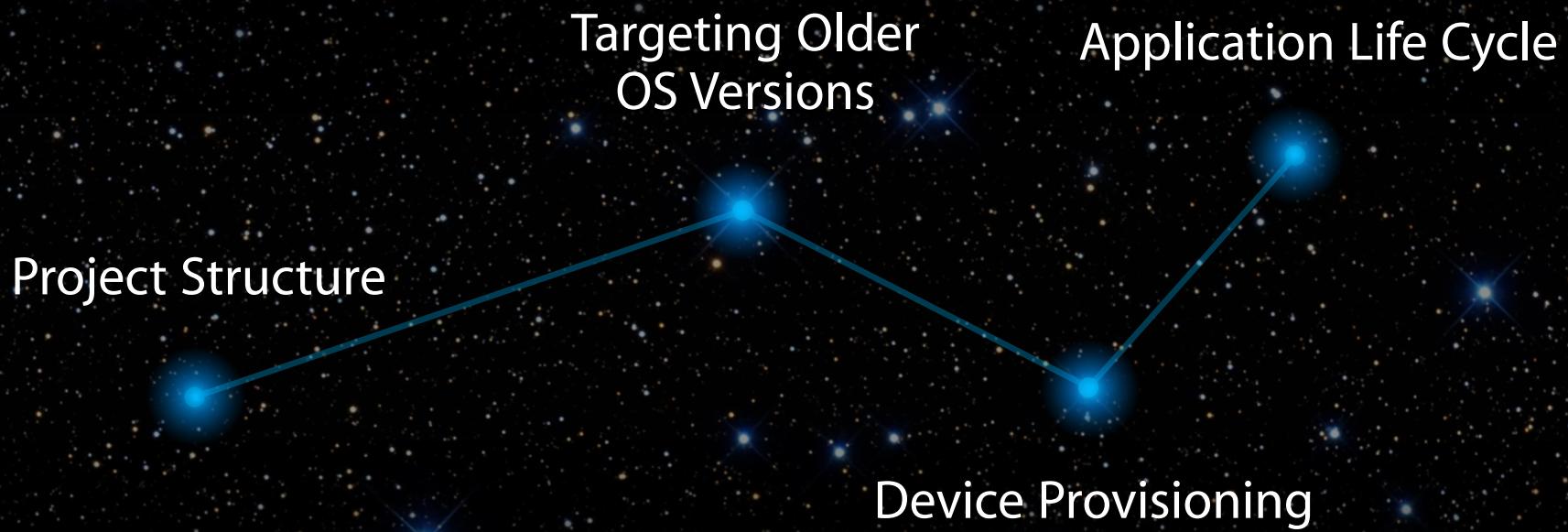
Tale of Two Sessions

- Part 1: Orientation: Tour of complete development cycle
- Part 2: Mastery: Details of several critical areas

It's So Yesterday



Agenda



Project Structure

Jacob Xiao
iPhone Tools Engineer

Project Structure



Targeting Older
OS Versions

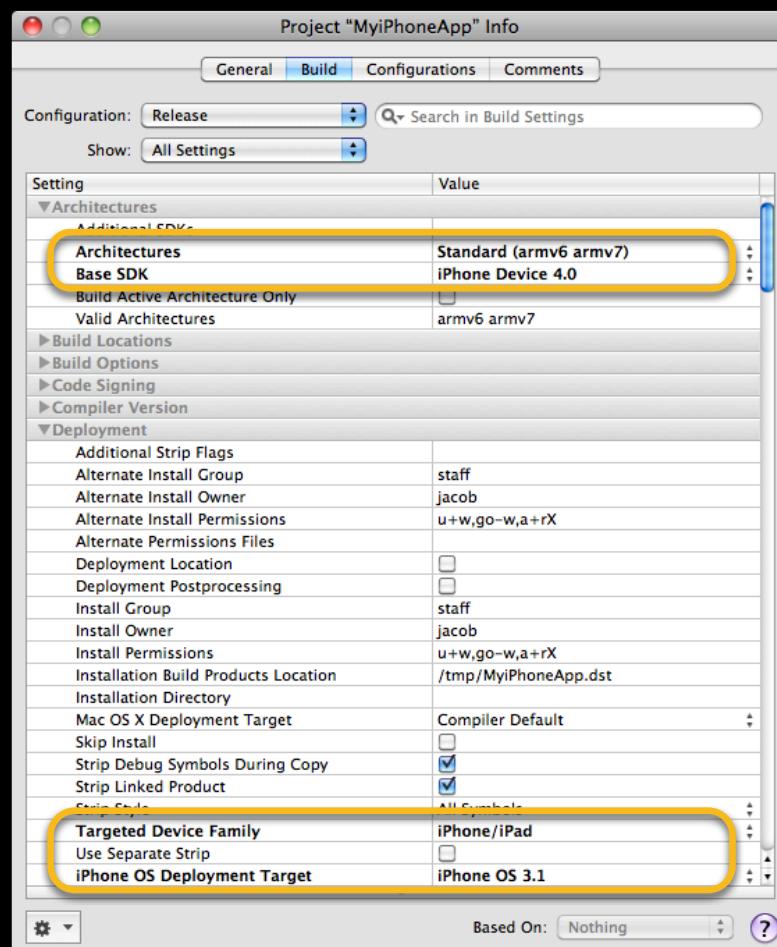
Application Life Cycle

Device Provisioning

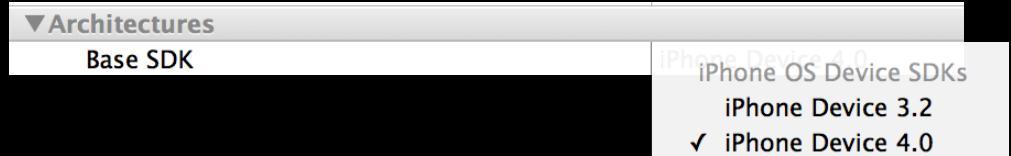
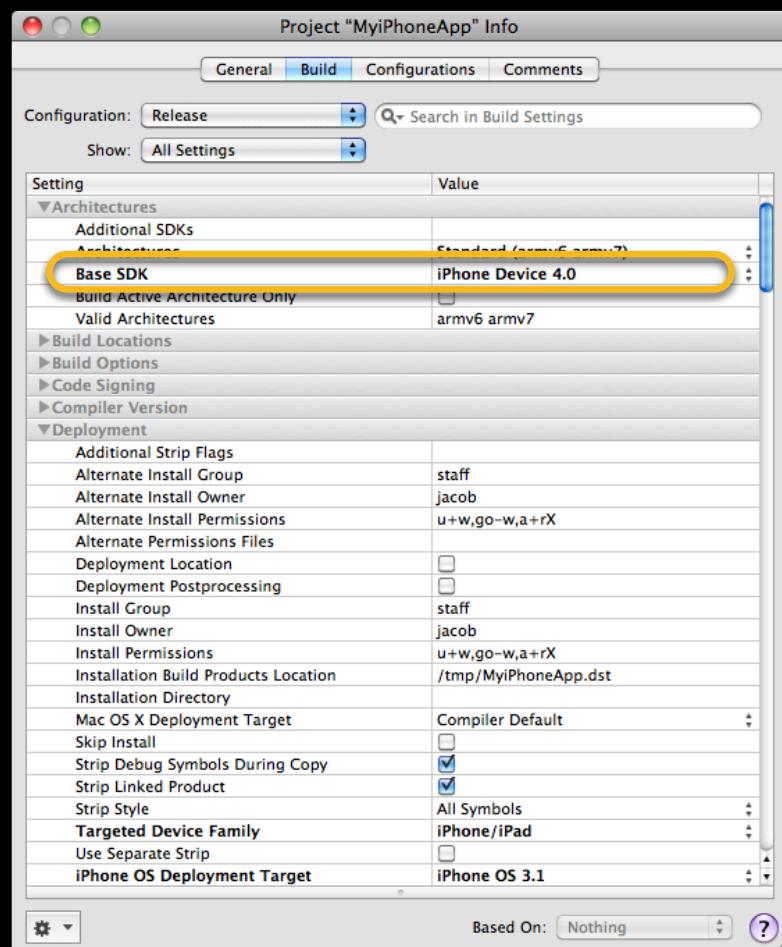
Project Structure

- Important project settings
- Bringing your app to iPhone and iPad

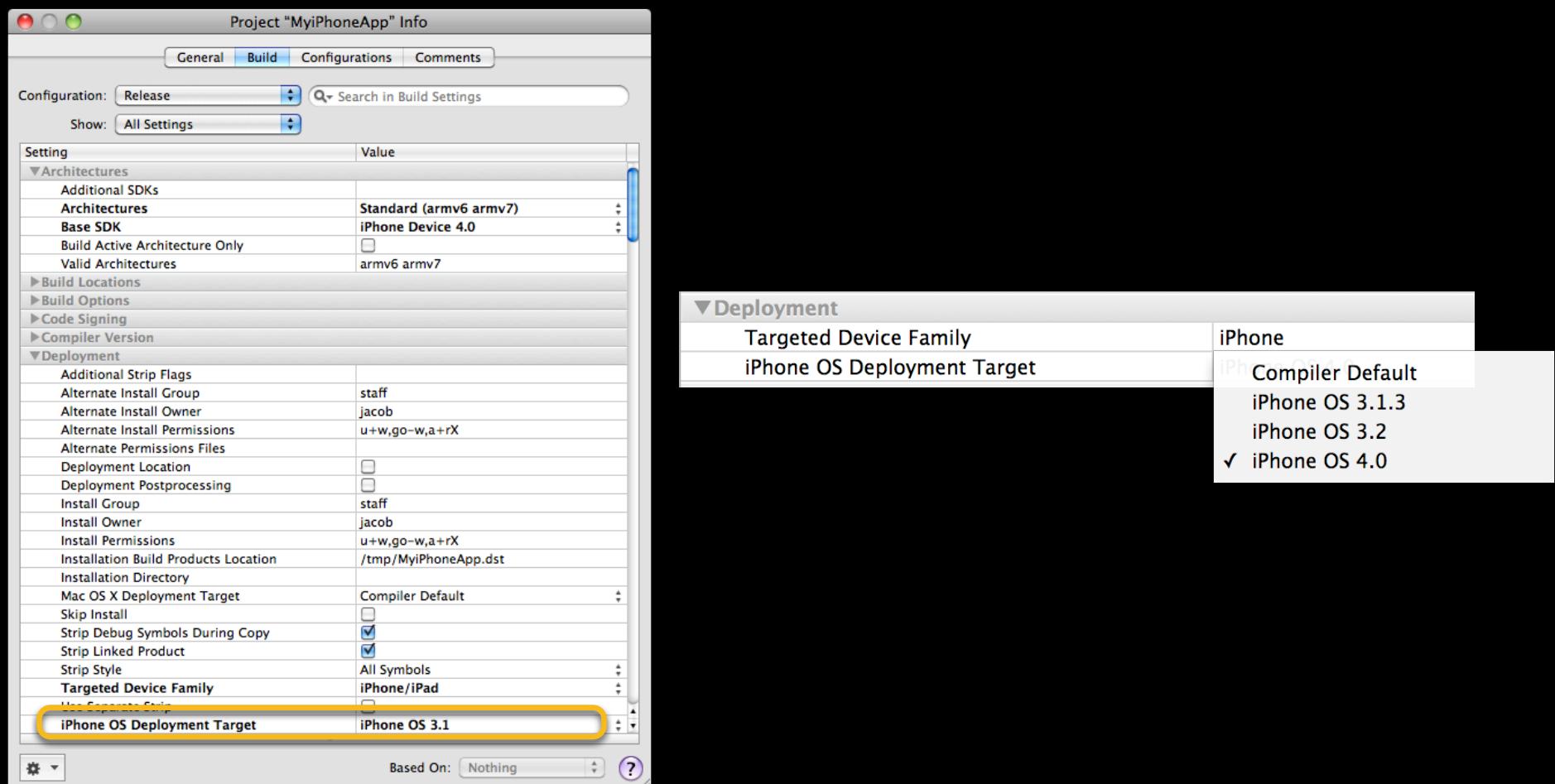
Project Settings



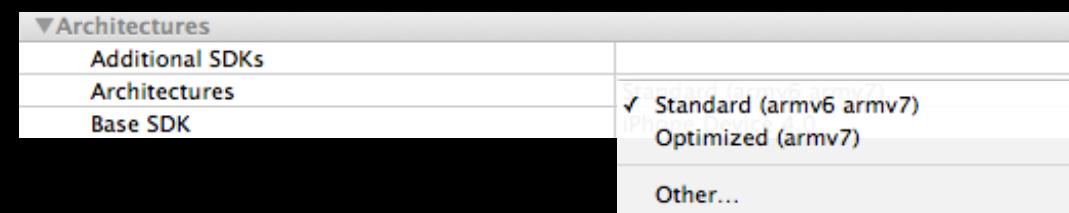
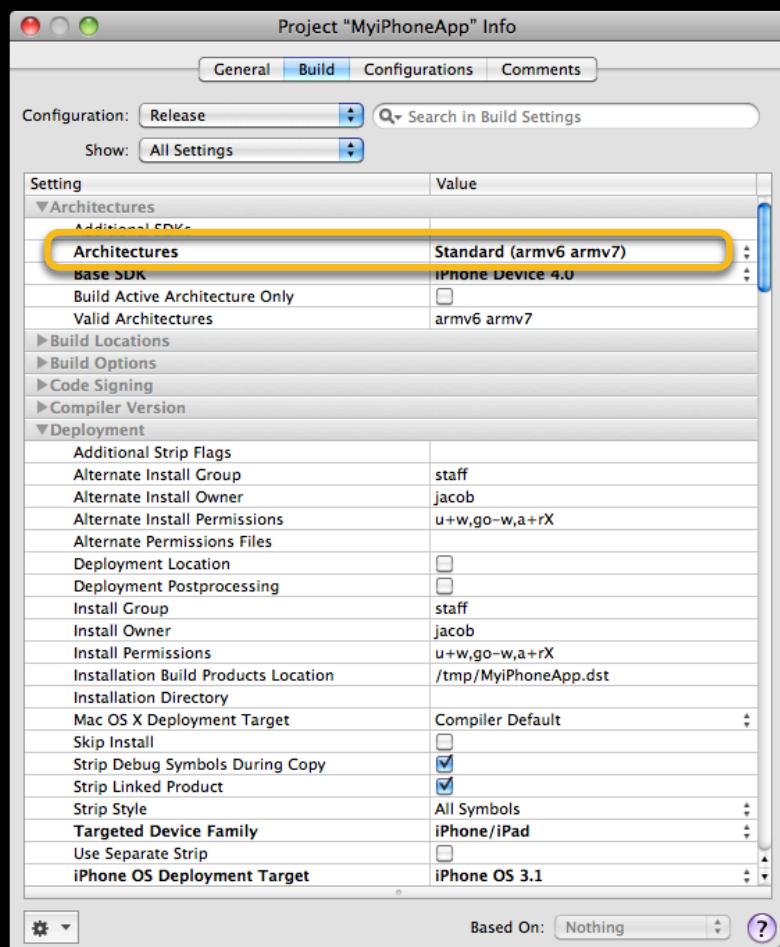
Base SDK



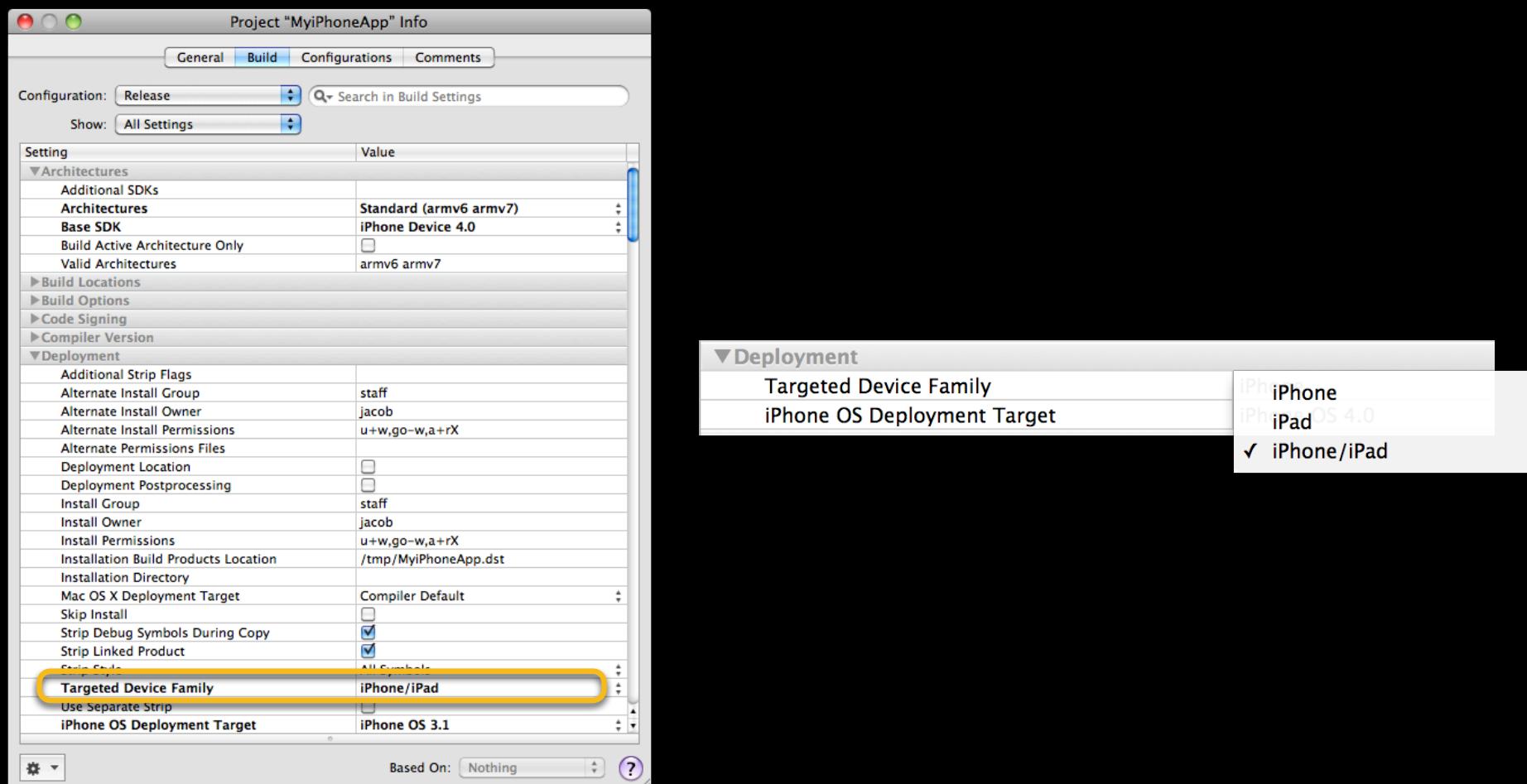
Deployment Target



Architectures



Targeted Device Family



Example App

- Base SDK: 4.0
- Deployment Target: 3.1
- Architectures: Standard
- Targeted Device Family: iPhone/iPad

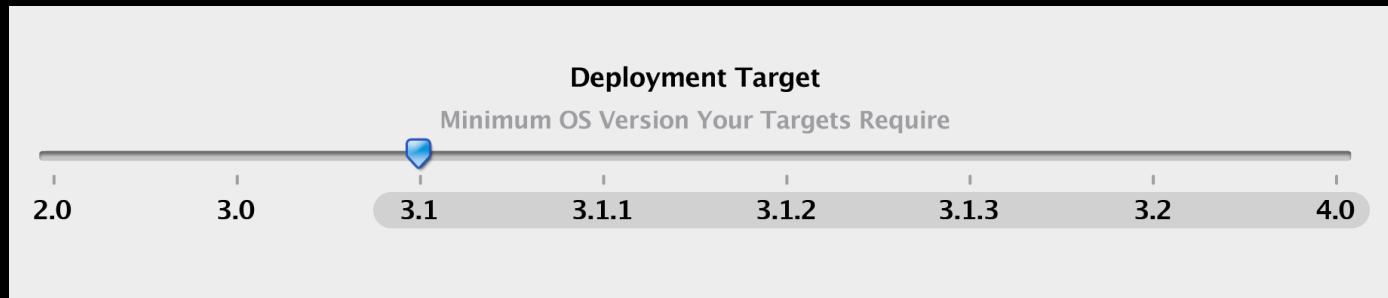
Example App

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- Architectures: Standard
- Targeted Device Family: iPhone/iPad



Example App

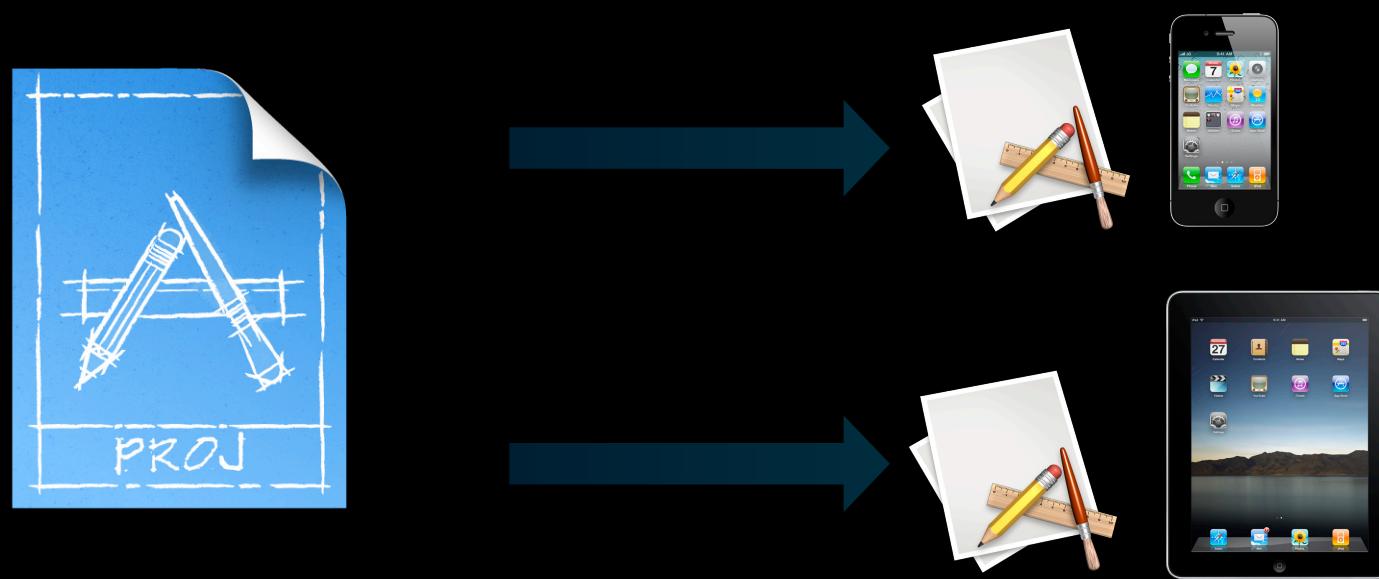
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- Targeted Device Family: iPhone/iPad



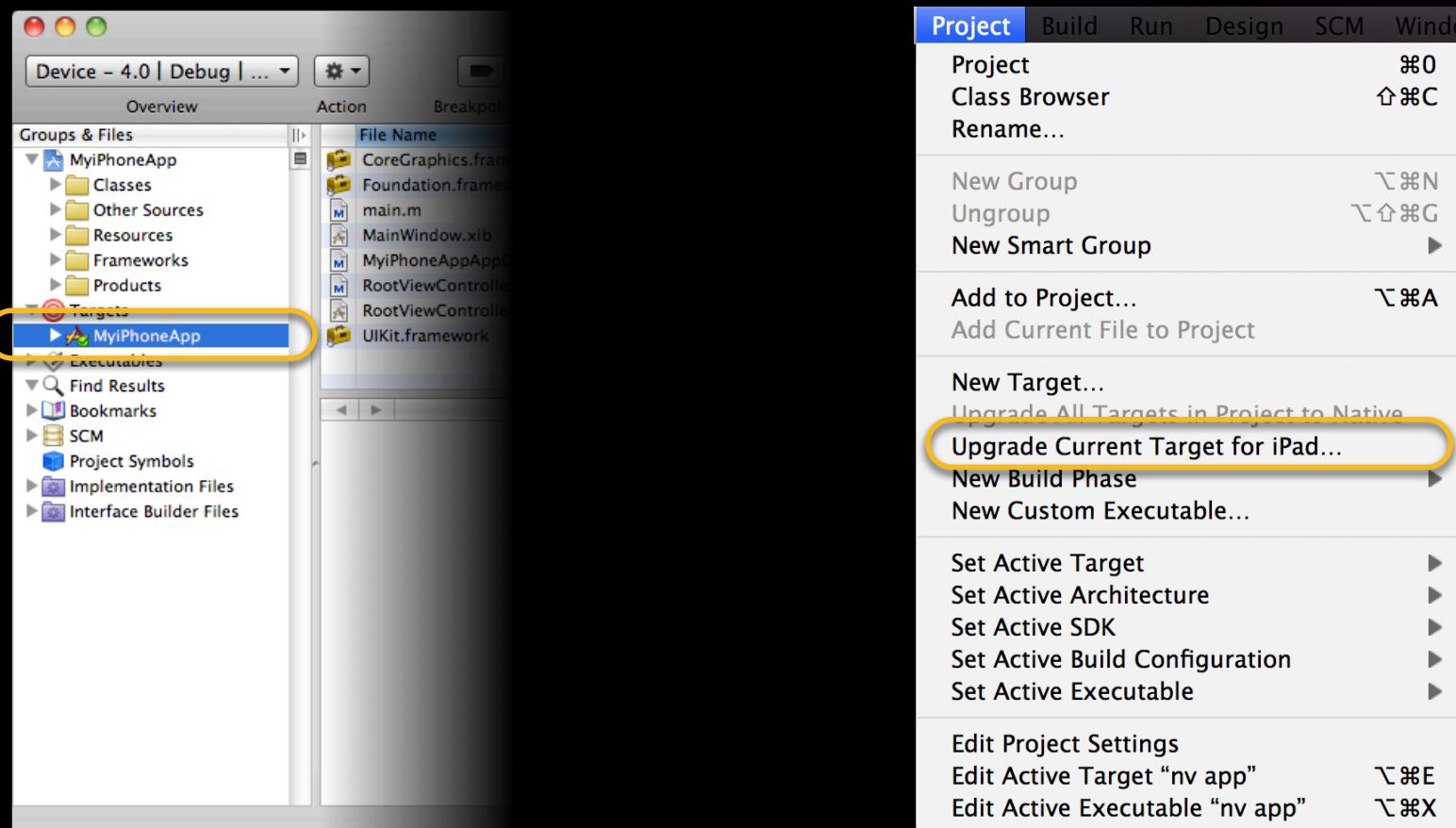
Universal Apps



Multiple Apps

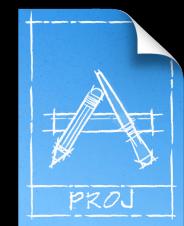


Upgrading a Project to iPad



What's the Difference?

Universal



Multiple Apps



Demo

Structuring Your Project

Summary

- Use the latest base SDK
- Set Deployment Target to earliest OS you want to support
- Use “Standard” Architectures
- Use Targeted Device Family to choose allowed devices
- Choose Universal or Multiple Apps

Targeting Multiple iPhone OS Versions

Clark Cox
iPhone Tools Engineer



Use New Classes, Selectors, and Symbols

iPhone



iPod touch



iPad



Classes

```
Class myClass = NSClassFromString(@"UILocalNotification");

if(myClass) {

    UILocalNotification *alarm = [[myClass alloc] init];

    ...

    [app scheduleLocalNotification: alarm];

    [alarm release];

}
```

Methods

```
UIDevice *device = [UIDevice currentDevice];  
  
BOOL multitaskingSupported = [device isMultitaskingSupported];  
  
if([device respondsToSelector:@selector(isMultitaskingSupported)]) {  
  
    multitaskingSupported = [device isMultitaskingSupported];  
  
}
```

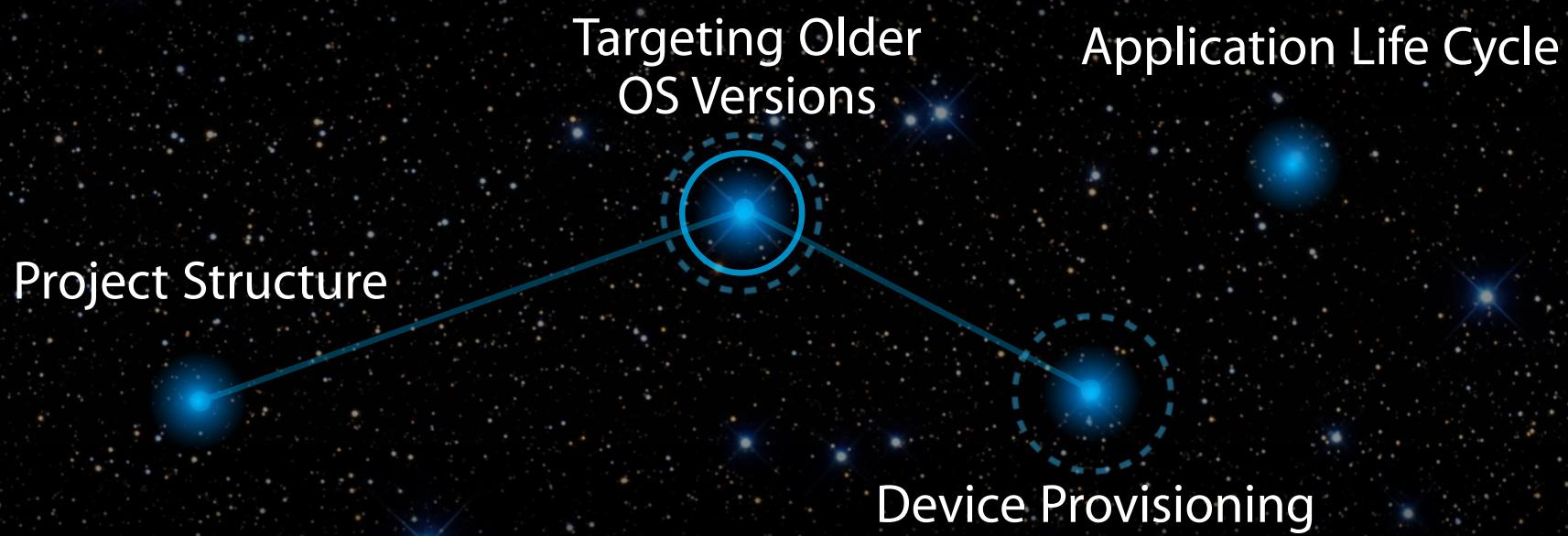
Functions

```
if(&UIGraphicsBeginPDFContextToFile != NULL) {  
    if(UIGraphicsBeginPDFContextToFile(...)) {  
        ...  
        UIGraphicsEndPDFContext();  
    }  
}
```

Constant Symbols

```
- (void)handleNotification:(NSNotification *)notification {  
    if(&UIApplicationDidEnterBackgroundNotification != NULL) {  
        NSString *name = [notification name];  
        if([name isEqualToString: UIApplicationDidEnterBackgroundNotification]) {  
            ...  
        }  
    }  
}
```

Always test on a device!



Device Provisioning

iOS 4

- Automatic and custom provisioning profile
- Distribution provisioning profiles
- Developer profile (introduced in 3.2)

Automatic Provisioning Profile

- Create a CSR if required
- Create a team provisioning profile
- Download provisioning profiles



Custom Provisioning Profiles

- In App Purchase
- Push Notifications
- Game Center
- Keychain data sharing
- etc.



Developer Profile



Developer Profile



Developer Profile

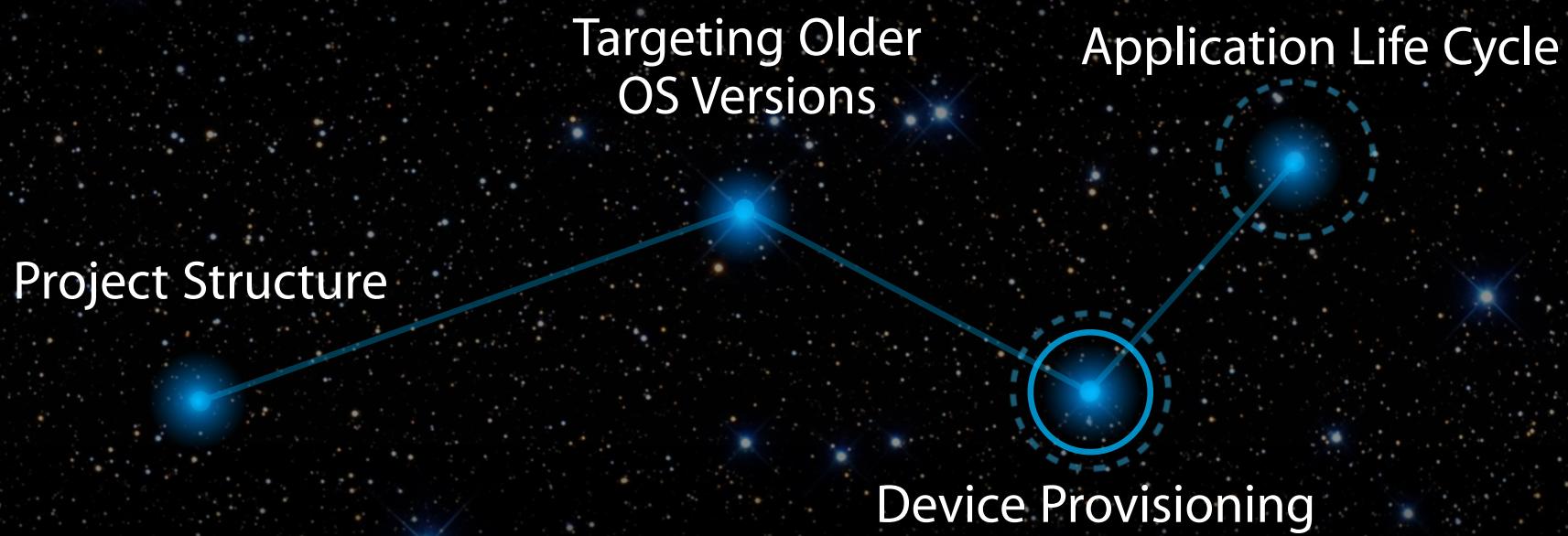


Demo

Automatic Provisioning Profile

Application Life Cycle

Chris Skogen
iPhone Tools Engineer



Application Life Cycle

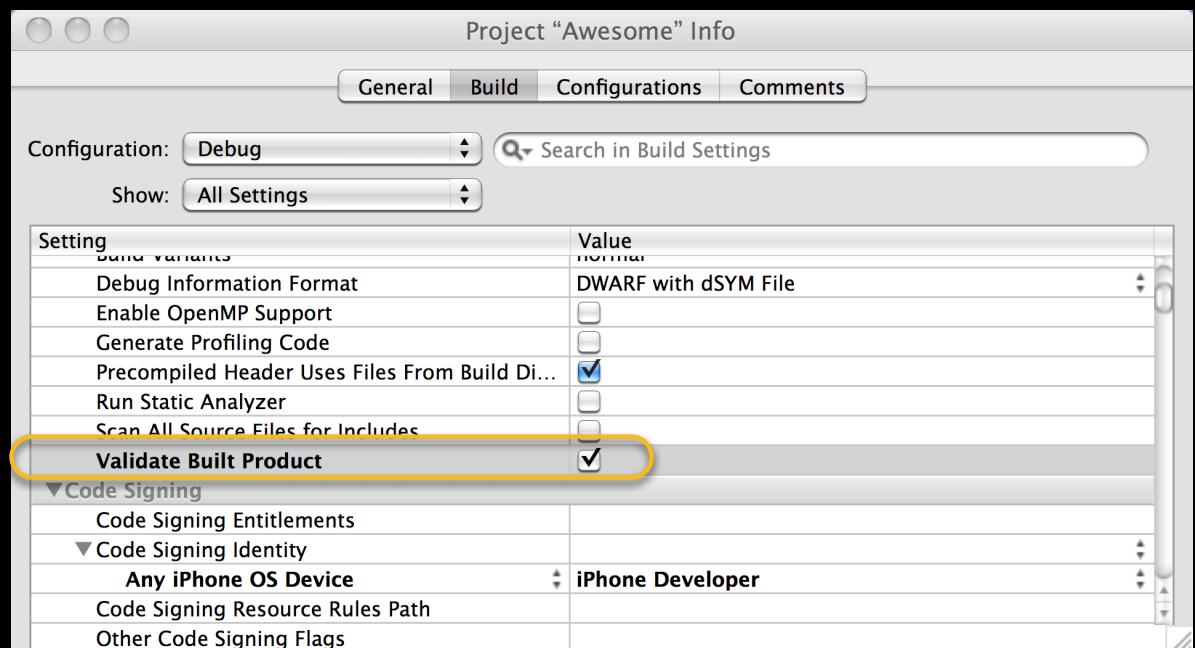


- Build time validation
- Build and archive
- Online validation
- Submit to the store
- Use crash logs

Build Time Validation



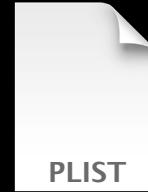
- It's a build setting
- Do it all the time



Build Time Validation



- Check icons
- Check plist
- Check Bundle ID



Bundle ID

New
3.2

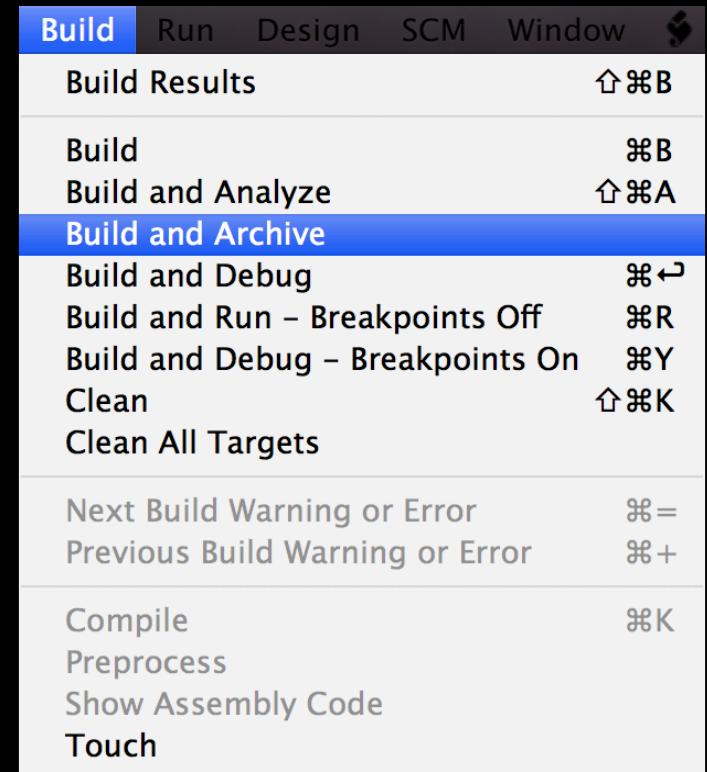
Archived Application



Archived Applications



- Build > Build and Archive
- Preserves app build and associated data
- Source for app distribution
- Needed throughout app life cycle



Online Validation



- Application needs to be registered with iTunes Connect
- Distribution profile required
- Runs all automated App Store review tests

Validation Results

- Detects many different types of errors
 - Bundle version needs to be increased
 - Missing icon sizes
 - Incorrect bundle identifier
 - Code signing
 - Entitlements
 - And many more
- Suggests fixes

Uploading to the Store



- Same process as online validation
- Submit marketing info through iTunes Connect

Crash Reports

- Obtain from
 - iTunes Connect
 - Direct from app users
- Symbolicate in Xcode
 - Requires .dSYM file matching app
 - Archived application preserves for you
 - Drop crash log in Organizer

Demo

App Distribution

Conclusion

Marc Verstaen
Sr. Manager, iPhone Tools

Summary

- Take full advantage of Xcode
 - Structuring your project
 - Testing your app
 - Managing your app's entire life cycle

More Information

Michael Jurewitz

Developer Tools Evangelist

jurewitz@apple.com

iPhone Dev Center

iPhone Development Documentation and Resources

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

Developer Forum

iPhone Developer Tools Forum

<https://devforums.apple.com/community/iphone/devtools>

Apple Developer Forums

<http://devforums.apple.com>

Related Sessions

Mastering Xcode for iPhone OS Development, Part 1	Mission Tuesday 2:00PM
Managing Mobile Devices	Nob Hill Tuesday 3:15PM
What's New in Instruments	Presidio Wednesday 11:30AM
Automating User Interface Testing with Instruments	Marina Wednesday 2:00PM
Designing Apps with Interface Builder	Mission Wednesday 2:00PM
Introducing Xcode 4	Mission Wednesday 3:15PM
App Publishing with iTunes Connect	Mission Thursday 10:15AM

Labs

Xcode for iPhone Development Lab	Developer Tools Lab B Wednesday 2:00PM
Automated User Interface Testing Lab	Developer Tools Lab A Wednesday 4:30PM
Interface Builder Lab	Developer Tools Lab B Thursday 9:00AM
Xcode 4 Lab	Developer Tools Lab A Wednesday 9:00AM
iPhone OS Performance Lab	Developer Tools Lab A Thursday 4:30PM

Q&A



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