Introduction to Xcode

Session 413

Najla Bulous Xcode Engineer
Rick Ballard Xcode Engineering Manager
Agenda

Create and Run
Agenda

Create and Run
Test and Debug
Agenda

Create and Run
Test and Debug
Review and Commit
Agenda

Create and Run
Test and Debug
Review and Commit
Configure
Demo
Creating and running

Najla Bulous Xcode Engineer
Demo

Testing and debugging

Rick Ballard Xcode Engineering Manager
Configuring Your Project

Najla Bulous Xcode Engineer
Core Configuration Concepts
Core Configuration Concepts

Projects
Core Configuration Concepts

Projects
Targets
Core Configuration Concepts

Projects
Targets
Build Settings
Core Configuration Concepts

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Build Settings
Capabilities
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Core Configuration Concepts

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Core Configuration Concepts

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Capabilities
Workspaces
Projects
Projects

Files

Targets

Schemes

Build settings
Projects

Files

Targets

Schemes

Build settings

Projects
Quakenator

- Quakenator
- QuakenatorTests
- QuakenatorUITests
- Products

Deployment Target

- iOS Deployment Target: 10.0

Configurations

- Name: Debug
  - No Configurations Set
- Name: Release
  - No Configurations Set

Use: Release for command-line builds

Localizations

- Language: English — Development Language
  - Resources: 2 Files Localized

Use Base Internationalization
Deployment Target

iOS Deployment Target: 10.0

Configurations

- **Debug**: No Configurations Set
- **Release**: No Configurations Set

Use **Release** for command-line builds

Localizations

- **Language**: English
- **Resources**: Development Language

2 Files Localized

- **Use Base Internationalization**
Targets
Targets

Target
Targets
Targets

Target

Product
Targets

Target

Product
Targets

Build Target Dependencies

Compile Sources

Link with Libraries

Build phases

Build settings

Product
Targets
Targets
Target Build Phases

1. Build Target Dependencies
2. Compile Sources
3. Link with Libraries
Target Build Phases

1. Build Target Dependencies
2. Compile Sources
3. Link with Libraries
4. Run Script
Target Build Phases

1. Build Target Dependencies
2. Run Script
3. Compile Sources
4. Link with Libraries
Identity

Display Name: Quakenator
Bundle Identifier: com.najlaandrick.Quakenator
Version: 1.0
Build: 1

Signing

No accounts found
Add a developer account to sign your app.
Add Account...

Deployment Info

Deployment Target: 10.0
Devices: Universal
Main Interface: Main
Device Orientation: Portrait
Status Bar Style: Default
Core Configuration Concepts

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Core Configuration Concepts

Projects
Targets
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Capabilities
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Build Settings

Architectures = armv7, arm64
Optimization Level = Fastest, Smallest [-os]
Product Name = My Great App
Treat Warnings as Errors = No
<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployment Installation Directory</td>
<td>/Applications</td>
</tr>
<tr>
<td>Deployment Strip Linked Product</td>
<td>Yes</td>
</tr>
<tr>
<td>Deployment Targeted Device Family</td>
<td>1,2</td>
</tr>
<tr>
<td>Linking Runpath Search Paths</td>
<td>@executable_path/Frameworks</td>
</tr>
<tr>
<td>Packaging Info.plist File</td>
<td>Quakenator/Info.plist</td>
</tr>
<tr>
<td>Packaging Product Bundle Identifier</td>
<td>com.najlaandrick.Quakenator</td>
</tr>
<tr>
<td>Packaging Product Name</td>
<td>Quakenator</td>
</tr>
<tr>
<td>Asset Catalog Compiler - Options Setting</td>
<td>Quakenator</td>
</tr>
<tr>
<td>Asset Catalog App Icon Set Name</td>
<td>AppIcon</td>
</tr>
<tr>
<td>Swift Compiler - Version</td>
<td>Quakenator</td>
</tr>
<tr>
<td>Swift Compiler - Version Use Legacy Swift Language Version</td>
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</table>
Build Configurations

Debug

Release
Build Configurations

Debug
Optimization Level = None [-O0]

Release
Optimization Level = Fastest, Smallest [-Os]
Capabilities
Capabilities
Capabilities

- Push Notifications
  - Apple Push Notification service is a robust and highly efficient service for propagating information to devices.
  - Turning on Push Notifications will...
    - Add the Push Notifications feature to your App ID.
    - Add the Push Notifications entitlement to your entitlements file

- Game Center
- Wallet
- Apple Pay
- In-App Purchase
- Personal VPN
- Maps
- Keychain Sharing
- Background Modes
## Capabilities

<table>
<thead>
<tr>
<th>Feature</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>iCloud</td>
<td>Off</td>
</tr>
<tr>
<td>Push Notifications</td>
<td>On</td>
</tr>
<tr>
<td>Turning on Push Notifications will...</td>
<td></td>
</tr>
<tr>
<td>- Add the Push Notifications feature to your App ID.</td>
<td></td>
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<td>In-App Purchase</td>
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<tr>
<td>Maps</td>
<td>Off</td>
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<td>Keychain Sharing</td>
<td>Off</td>
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<tr>
<td>Background Modes</td>
<td>Off</td>
</tr>
</tbody>
</table>
Core Configuration Concepts

Projects
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Core Configuration Concepts

Projects
Targets
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Capabilities
Workspaces
Workspaces

App1
Workspaces

App2

App1

Framework
Workspaces

App2

App1

Framework
Workspaces

App2

App1

Framework
Summary

We learned how to:

• Create and Run
• Test and Debug
• Review and Commit
• Configure
More Information

https://developer.apple.com/wwdc16/413
## Related Sessions

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<td>What's New in Xcode App Signing</td>
<td>Nob Hill</td>
<td>Tuesday 9:00AM</td>
</tr>
<tr>
<td>Advanced Testing and Continuous Integration</td>
<td>Pacific Heights</td>
<td>Wednesday 3:00PM</td>
</tr>
<tr>
<td>Visual Debugging with Xcode</td>
<td>Presidio</td>
<td>Wednesday 4:00 PM</td>
</tr>
<tr>
<td>Thread Sanitizer and Static Analysis</td>
<td>Mission</td>
<td>Thursday 10:00AM</td>
</tr>
<tr>
<td>Using and Extending the Xcode Source Editor</td>
<td>Pacific Heights</td>
<td>Thursday 5:00PM</td>
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<tr>
<td>Debugging Tips and Tricks</td>
<td>Pacific Heights</td>
<td>Friday 1:40PM</td>
</tr>
<tr>
<td>Using Time Profiler in Instruments</td>
<td>Nob Hill</td>
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<tr>
<td>Labs</td>
<td>Developer Tools Lab</td>
<td>Time</td>
</tr>
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<td>------------------------------------------</td>
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<tr>
<td>Interface Builder and Auto Layout Lab</td>
<td>Developer Tools Lab B</td>
<td>Thursday 3:00PM</td>
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<tr>
<td>Interface Builder and Auto Layout Lab</td>
<td>Developer Tools Lab C</td>
<td>Friday 9:00AM</td>
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<tr>
<td>Xcode Open Hours</td>
<td>Developer Tools Lab B</td>
<td>Friday 9:00AM</td>
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<tr>
<td>Xcode Open Hours</td>
<td>Developer Tools Lab B</td>
<td>Friday 12:00PM</td>
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<tr>
<td>Xcode Open Hours</td>
<td>Developer Tools Lab B</td>
<td>Friday 3:00PM</td>
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