

Tools

Integrating Swift with Objective-C

Session 406

Anders Bertelrud

Dave Schaeffgen

Jordan Rose

Introduction

Swift is Apple's modern, type-safe language for Cocoa development

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But Objective-C remains a first-class citizen too

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Swift is Apple's modern, type-safe language for Cocoa development

But Objective-C remains a first-class citizen too

We do **not** want you to rewrite or stop improving your existing code!

Xcode makes it easy to start adding Swift to your existing projects

What You'll Learn

Adding Swift code to your Objective-C application

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Adding Swift code to your Objective-C application

Adding Swift code to your Objective-C model framework

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Accessing a pure Swift framework from Objective-C

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Adding Swift code to your Objective-C application

Adding Swift code to your Objective-C model framework

Accessing a pure Swift framework from Objective-C

Adopting well-established Cocoa patterns in Swift

Demo

Setting up the user interface

Anders Bertelrud

What Did We Just Do?

Added Swift code to an Objective-C app

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Added Swift code to an Objective-C app

Subclassed a Cocoa class in Swift

What Did We Just Do?

Added Swift code to an Objective-C app

Subclassed a Cocoa class in Swift

Used a Swift class in Interface Builder

Demo

Integrating with existing code

Dave Schaeffgen

What Did We Just Do?

Exposed Objective-C to Swift

What Did We Just Do?

Exposed Objective-C to Swift

Defined a protocol in Swift

What Did We Just Do?

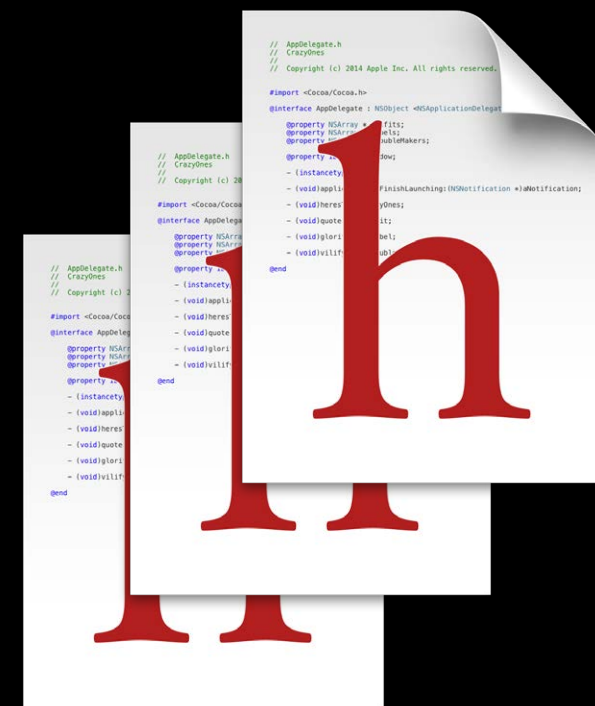
Exposed Objective-C to Swift

Defined a protocol in Swift

Exposed Swift to Objective-C

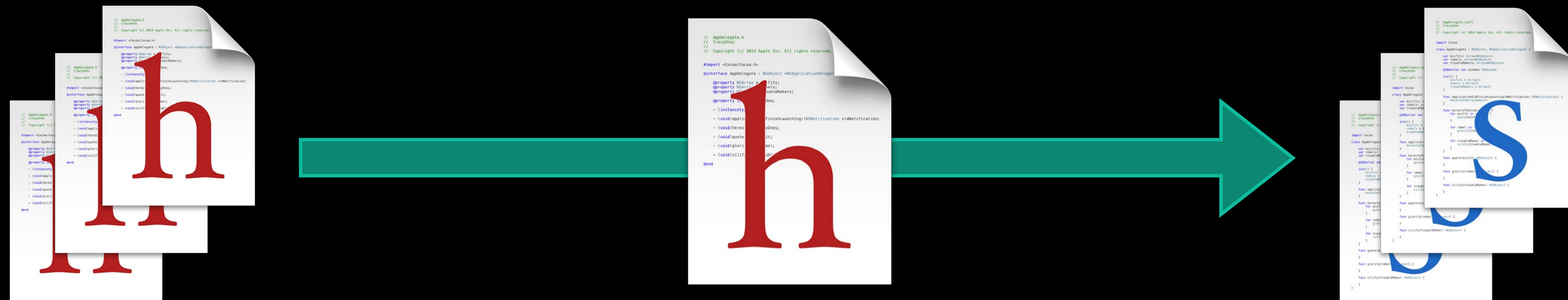
Communication Within a Target

The bridging header and the generated header



Communication Within a Target

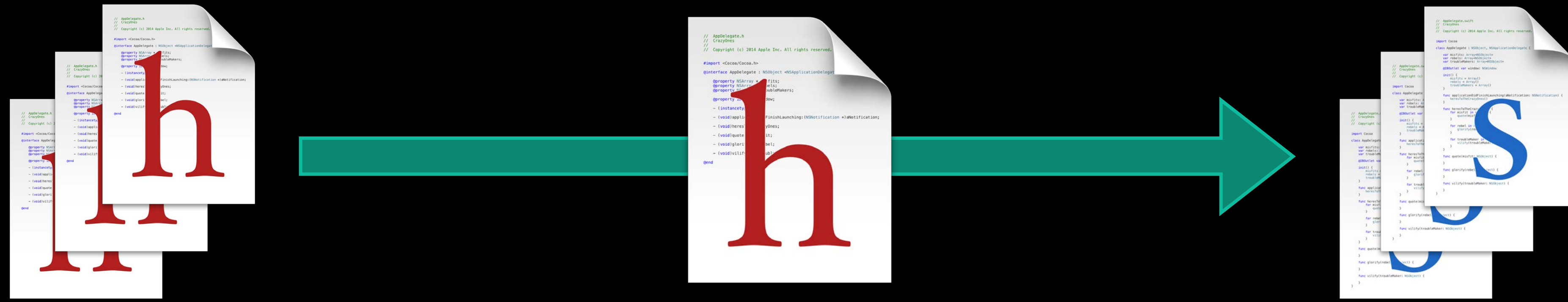
The bridging header and the generated header



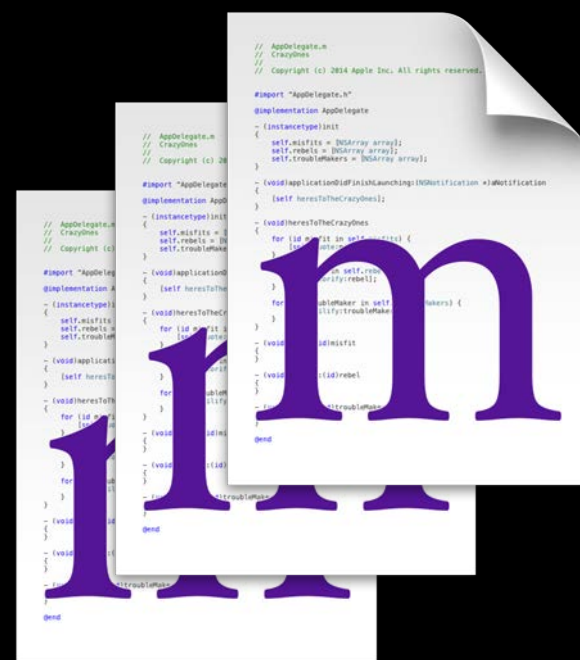
MyApp-Bridging-Header.h

Communication Within a Target

The bridging header and the generated header

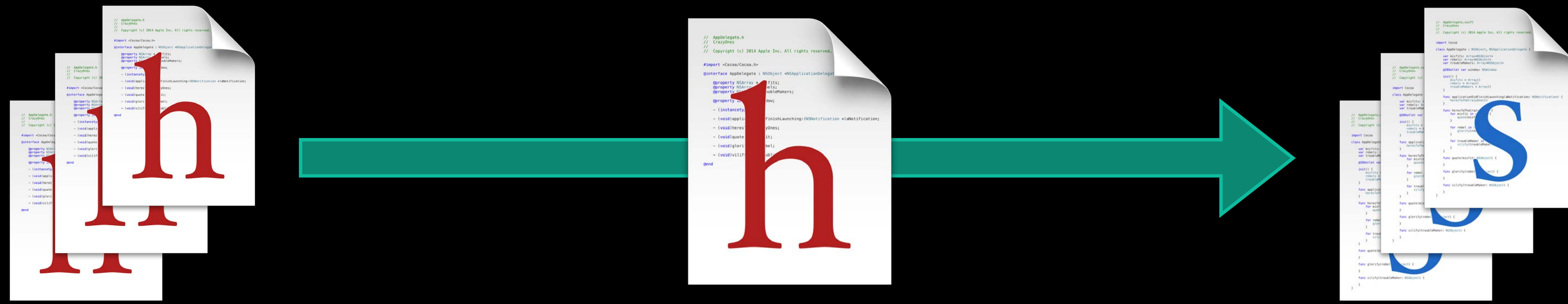


MyApp-Bridging-Header.h

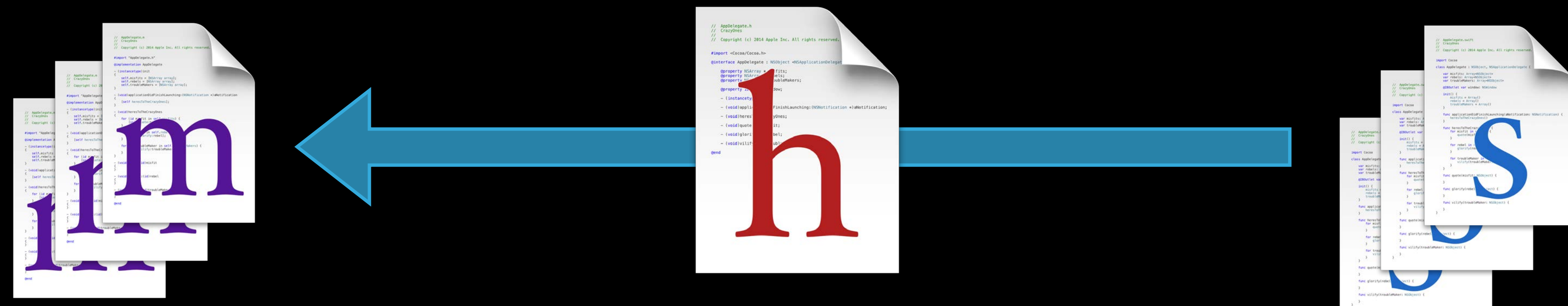


Communication Within a Target

The bridging header and the generated header



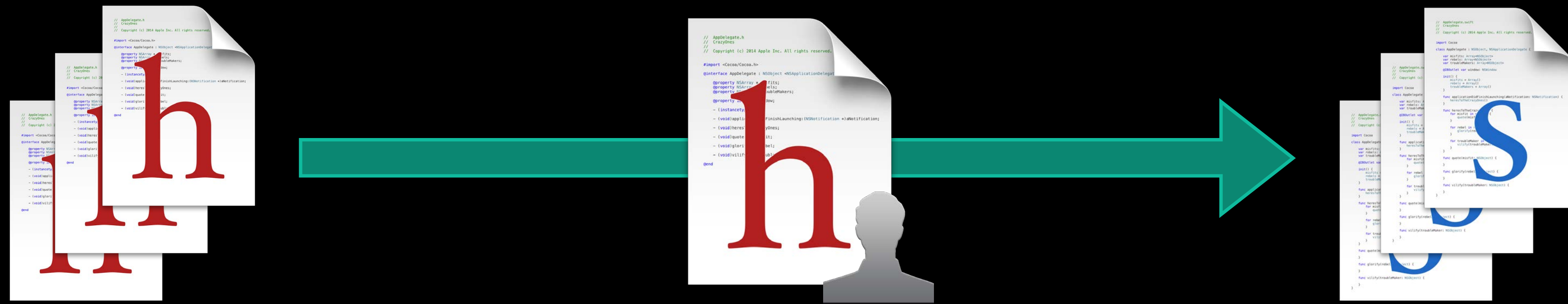
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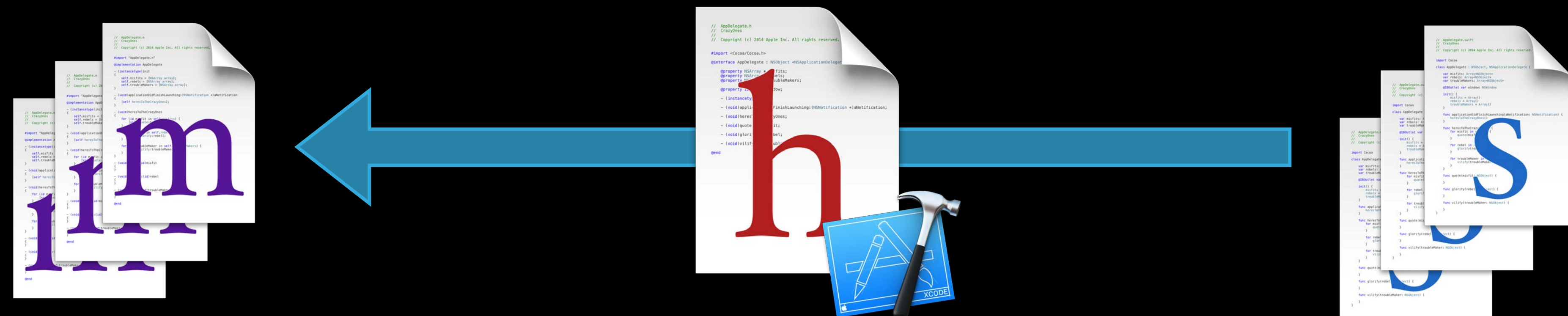
MyApp-Swift.h

Communication Within a Target

The bridging header and the generated header



MyApp-Bridging-Header.h



MyApp-Swift.h

Demo

Working with frameworks

Jordan Rose

What Did We Just Do?

Added a Swift model object

What Did We Just Do?

Added a Swift model object

Embedded a framework (on iOS!)

What Did We Just Do?

Added a Swift model object

Embedded a framework (on iOS!)

Updated our interface and adopted a delegate protocol

Using Frameworks

Treat user frameworks the same as system frameworks

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Treat user frameworks the same as system frameworks

Swift

```
| import MyFramework
```

Using Frameworks

Treat user frameworks the same as system frameworks

Swift

```
import MyFramework
```

Objective-C

```
@import MyFramework;  
// Use @import instead of #import
```

In Conclusion...

Summary

Swift is a better, safer way to do Cocoa development

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- Some patterns are easier in Swift

Summary

Swift is a better, safer way to do Cocoa development

It's still Cocoa!

- Some patterns are easier in Swift

Xcode takes care of the details

More Information

Dave DeLong

Developer Tools Evangelist

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Documentation

Using Swift with Cocoa and Objective-C

<http://developer.apple.com>

Apple Developer Forums

<http://devforums.apple.com>

Related Sessions

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- | | | |
|-----------------------------------|----------|------------------|
| ● Introduction to Swift | Presidio | Tuesday 2:00PM |
| ● Swift Interoperability In Depth | Presidio | Wednesday 3:15PM |
| ● Creating Modern Cocoa Apps | Marina | Thursday 10:15AM |
| ● Building Modern Frameworks | Presidio | Thursday 3:15PM |
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Labs

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- Swift Lab Tools Lab A Wednesday 9:00AM
 - Swift Lab Tools Lab A Wednesday 2:00PM
 - Swift Lab Tools Lab A Thursday 9:00AM
 - Swift Lab Tools Lab A Thursday 2:00PM
 - Swift Lab Tools Lab A Friday 9:00AM
 - Swift Lab Tools Lab A Friday 2:00PM
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