

Extracted from:

Developing for Apple Watch

Your App on Their Wrists

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Developing for Apple Watch

Your App on Their Wrists



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Preface

Apple Watch has inspired a brand-new platform for iOS developers—that’s you!—to take advantage of. You’re now competing not only for your users’ iPhone screens, but also for space on their wrists. For the first time, you can make an iOS app that your users will actually *wear*. As intimate as that is, you want to make sure you can deliver the best experience possible so your app will stay on those wrists. This book will help you with that.

What’s in This Book?

This book guides you through the process of creating an Apple Watch app. You’ll learn about the kinds of apps you can make for the device, features available to you, and development paradigms you’ll use as a watch app developer. By the end of this book, you’ll be able to create engaging, full-featured apps for the watch that also interface with their companion iPhone apps, joining forces to create amazing experiences for your users. Here’s a quick rundown of what you’ll learn in each chapter:

Chapter 1: An Overview of Apple Watch In this chapter you’ll learn the basics of the watch: what it can do, what apps on it are like, and how to decide which features of your iPhone app to bring along to your watch app.

Chapter 2: Quick Apple Watch Wins In some cases you can do things to bring functionality to Apple Watch before even making a watch app. This chapter shows you how to capitalize on these features, as well as what kinds of apps can use them.

Chapter 3: WatchKit Extension Overview A WatchKit extension is where your watch app code will live, and this chapter covers what WatchKit extensions are, how they relate to iPhone apps, and how to test them on real devices.

Chapter 4: Displaying Your Watch App UI This chapter dives into the various user-interface (UI) elements available on Apple Watch. You’ll learn what they are, how to use them, and the layout system that positions them onscreen. You’ll also start *TapALap*, the example app we’ll create together.

Chapter 5: Organizing Your UI with Groups Expanding on your understanding of the UI layout system that began in Chapter 4, this chapter shows you *groups*, a way to achieve even more complicated and appealing designs in your app.

Chapter 6: Delivering Dynamic Content with Tables This chapter introduces you to *tables*—interface objects you can use to display lists of content to your users. You’ll learn how to create them, how to fill them with data, and how to respond to user interaction with them.

Chapter 7: Navigating Between Interfaces You’ll compose your watch apps with many screens of content; therefore, a successful app needs to transition from one screen to another. This chapter shows you how, why, and when to move your app to new screens.

Chapter 8: Communicating with the Outside World No app these days is complete without networking, so this chapter shows you how to send and receive data from outside of your watch app. Whether you’re talking to a server on the Internet or just to an iPhone app, you’ll learn how to extend your app’s reach beyond the wrist.

Chapter 9: Your App’s Final Spit and Polish Once you’ve finished the first 80% of your app and gotten it feature-complete, it’s time to tackle the *next* 80% and perfect it. In this chapter, you’ll learn how to customize your user interface for the different Apple Watch screen sizes, offer it in multiple languages and locales, and make it sing with great performance.

Who’s This Book For?

Making an Apple Watch app, at least for now, means making an iPhone app to contain it. This book assumes some familiarity with making iPhone apps; you should know the basic concepts behind object-oriented programming and be able to follow along with code written in Swift for iOS. Many of the concepts in WatchKit are brand-new to even the most experienced iOS developer, so don’t worry; I’ll explain the code we’re writing as we go along.

If you’ve never made an iOS app before and want to make an amazing iPhone app to go along with your amazing Apple Watch app, the Pragmatic Bookshelf has your back with *iOS 8 SDK Development*.¹ If you’re just starting out, I highly recommend reading that book in addition to this one; many of the skills you learn in one will transfer to the other.

1. <https://pragprog.com/book/adios2/ios-8-sdk-development>

The Code in This Book

The code in this book is 100% Swift. While it's still a young language, Swift is clearly the direction in which Apple wants to move, so rather than trying to do both Swift and Objective-C and succeeding at neither, I've elected to do this all in one language. The aforementioned book is *also* in Swift, so it serves as a great introduction to iOS in general and Swift specifically.

Now, Swift is a language that's always changing, so it's possible that things will break as new versions of Xcode come out. Fortunately, as a registered Pragmatic Bookshelf customer, you're in luck! I'll be keeping the book up-to-date and you'll be notified whenever we release an update. As of this writing, the current version of Xcode is 6.4, targeting iOS 8.4. If that seems hilariously old to you, then it's pretty likely that the syntax of Swift has changed. Xcode has some support for bringing things forward into new versions, so try using it to help. If you get stuck, let us know on the book's forum or errata page. More on those next.

Online Resources

The book's website has links to an interactive discussion forum as well as a place to submit errata for the book.² You'll also find links to download the source code for the sample app you'll be working on as you read this book. If Swift just isn't your bag, then you'll definitely want to check out the book's sample code, as Objective-C versions of each sample project are located in the Objective-C folder. If you're reading this in ebook form, you'll notice a box above code excerpts that you can click or tap to download the code directly.

Now that we've gotten these things out of the way, your tour through Apple Watch development can begin. Let's start by discussing the device itself, its capabilities and limitations, and what kind of apps you'll want to make for the watch.

2. <https://www.pragprog.com/titles/jkwatch>