

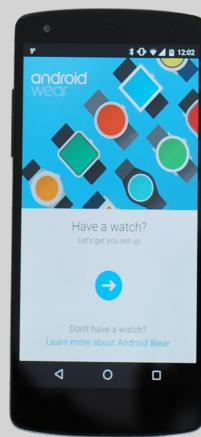


Smartwatch App Testing

Tizen - Apple - Pebble - Android



Daniel Knott



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Introduction

Why I wrote this Book

The idea to this book came while I was writing a blog post series about smartwatch app testing for my blog www.adventuresinqa.com. The main goal was to write about something new, to learn about new platforms and to share the information with my blog readers. As you might know I am the author of the book „[Hands-On Mobile App Testing](#)“¹ which is available via the publisher Addison Wesley and I like to share knowledge and moreover I like books. So I thought, why not creating a short eBook based on my blog post series, but with some exclusive content just for the book readers.

Who should read this Book?

The book is basically for everyone who is interested into smartwatches and the features behind the different platforms. It is especially a very good starting point for software testers who need to test mobile apps and smartwatch

¹<http://handsonmobileapptesting.com/>

app extensions. However, the book may also be useful for developers, designers or product managers who will work with smartwatch apps.

Topics covered in this Book

Every chapter has the same structure that should help you to compare the different systems and to get a better overview of possible testing challenges. For each smartwatch operating system you will get an overview of the different functionalities and features that are important to know when developing and testing apps for this platform. At the end of the book I am writing about the 4 key areas of smartwatch app testing, provide lots of testing ideas and will close the book with a huge smartwatch app testing cheat sheet.

The chapter overview:

- Chapter 1: Introduction to smartwatches
- Chapter 2: Tizen OS
- Chapter 3: Watch OS
- Chapter 4: Pebble OS
- Chapter 5: Android Wear
- Chapter 6: Smartwatch app testing ideas
- Chapter 7: Smartwatch app testing cheat sheet

How to use this Book

The book has a very easy structure. You can either read it from the beginning to the end to get the whole overview of the different smartwatch platforms. Or you can dive into a specific smartwatch platform to get just the information you need.

Feedback

By using Leanpub to publish this book, I can swiftly react to technological changes within the smartwatch testing business and update the content of this book accordingly. Besides that, I'm really looking forward receiving your feedback so I can keep on improving this book. Please send any feedback you may have to daniel@adventuresinqa.com.

Chapter 1

Introduction to Smartwatches

Smartwatches are available since a couple of years and they are becoming more and more important in the wearable industry. In 2015, more than [24 million smartwatches](http://www.statista.com/statistics/302722/smart-watches-shipments-worldwide/)² were sold worldwide and this number will likely increase in the next upcoming years. An [IDC report](http://www.idc.com/getdoc.jsp?containerId=prUS25696715)³ from 2015 shows that basic wearables such as fitness trackers are growing by more than 70% every year. On the other hand wearables such as smartwatches are growing even faster.

The first editions of the smartwatches weren't that mature and offered not that many apps and functionality. However, this might change in the near future and smartwatches can become the next big thing and will extend smartphones and tablets with useful features. It may happen that you or your company decides to write an extension for your existing Android, iOS app also for the different smartwatch operating systems. This extension

²<http://www.statista.com/statistics/302722/smart-watches-shipments-worldwide/>

³<http://www.idc.com/getdoc.jsp?containerId=prUS25696715>

adds more complexity to the mobile apps and to your environment from a development and testing perspective. In order to handle the new complexity and the challenges this book will help you to understand the different smartwatch platforms and provides you with useful testing ideas to handle this situation.

In this book focus on the following smartwatch platforms:

- [Tizen OS⁴](https://www.tizen.org/)
- [watch OS⁵](http://www.apple.com/de/watchos-2/)
- [Pebble OS⁶](https://developer.pebble.com/)
- [Android Wear⁷](http://www.android.com/wear/)

Chapter 2 to Chapter 5 will cover the following areas for each platform:

- Design guidelines
- Interaction methods/ gestures
- Connectivity
- Manufacturer/ hardware
- Software features

⁴<https://www.tizen.org/>

⁵<http://www.apple.com/de/watchos-2/>

⁶<https://developer.pebble.com/>

⁷<http://www.android.com/wear/>

In chapter 6 the 4 key areas of smartwatch app testing will be explained and why they are so important. In addition, to the 4 key areas, chapter 6 will provide lots of smartwatch app testing ideas for areas such as:

- Sensors
- Environment
- Skin conditions
- Performance
- Input methods
- and many more

As a very good starting point, I recommend reading the article from Jonathan Kohl about [Designing For Smartwatches And Wearables To Enhance Real-Life Experience](#)⁸ and the article from Eran Kinsbruner about [2016 Will Be the Year for Wearables So Test Wisely](#)⁹.

⁸<https://www.smashingmagazine.com/2015/02/designing-for-smartwatches-wearables/>

⁹<http://adventuresinqa.com/2016/02/01/wearables-guest-post/>

About the Author



Daniel Knott

Daniel is a mobile testing expert working as Senior Software Test Engineer at XING's Android team. He started his software testing career in 2003 as a trainee at IBM. After his time at IBM, Daniel studied computer science with a focus on software development and testing. Since 2009, Daniel has worked for companies such as Accenture, AOE and XING. In several agile development projects he tested web, desktop and mobile applications. However, mobile testing became his passion and since the beginning of 2011 he is working in the mobile development and testing industry. He worked and is working with several mobile test automation tools such as Robotium, Calabash for iOS/ Android, Espresso and Keep It Functional. With the help of this tools, he developed a fully automated testing environment for Android and iOS.

Daniel likes to share his knowledge and therefore he started to share his experience on his blog www.adventuresinqa.com as well as in several testing magazines. Daniel is a well-known mobile expert, a speaker at various conferences in Europe and since 2014, he is the author of the book „Hands-On Mobile App Testing“, more information about the book can be found at www.handsomemobileapptesting.com.

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