Community Experience Distilled

iOS 7 Game Development

Develop powerful, engaging games with ready-to-use utilities from Sprite Kit

Dmitry Volevodz

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I would like to thank my beloved wife Olesya for her patience and support in everything I do. I would also like to thank Gennady Evstratov for believing in my programming abilities. Without him, this book would have never happened. I would also like to thank Alex Kuster for the artwork he provided for this book.

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Preface

Sprite Kit is a new framework from Apple for developing 2D games for iOS devices. It is new, fresh, and exciting.

Developers have been waiting long for a native library for games, but Apple did not deliver it until Version 7.0 of their operating system. Developers had to use unreliable third-party libraries, work on fixing bugs in these libraries, and experiencing headaches when suddenly your project just stops compiling under new versions of the operating system.

All these problems can be forgotten with the new Sprite Kit framework. It allows for easy and fast game development. It mimics many methods and the API of the Cocos2d library, which is a wildly popular library for game development. If you have ever checked out Cocos2d, you will feel right at home with Sprite Kit.

iOS 7 Game Development will take you on a journey to build a game from scratch using a hands-on approach. We will start with the basics and continue with advanced topics. We will explain every bit of code for maximum understanding.

We will build an endless runner game, an amazingly popular genre on the App Store, and will explain all the systems that have to be built in order to provide the best user experience.

What this book covers

Chapter 1, *Updates on iOS 7*, provides you with a short coverage of what features iOS 7 brings to the table—operating system redesign, new frameworks, and game controller support.

Chapter 2, *Our First Sprite Kit Project*, explains you Sprite Kit basics, how to show a sprite on the screen, how to move it, and what properties and methods are available on sprite nodes. We will also discuss game loops and actions.

Chapter 3, *Interacting with Our Game*, shows you the way to control our character sprite, either by using gesture recognizers or with raw touch processing.

Chapter 4, *Animating Sprites*, walks you through the process of creating a texture atlas, animating our character, and creating actions to handle starting and finishing animations. We will also add nice parallax scrolling to our game.

Chapter 5, *Particle Effects*, explains how to create cool-looking particle effects, how to store and edit them and their properties, and ways to improve your game performance when using particle effects.

Chapter 6, *Adding Game Controllers*, walks you through the process of adding native game controller support to your game. We will check different controllers, their layouts, and ways to handle thumbstick, direction pad, and button inputs.

Chapter 7, *Publishing to the iTunes App Store*, explains how to post your application to the iTunes App Store. We will learn about different application icons, categories, certificates, provisioning profiles, new Xcode publishing features, and the review process.

What you need for this book

You will need a Mac running OS X 10.9 and Xcode Version 5.0 or higher. You are expected to have familiarity with Objective-C.

Who this book is for

This book is intended for those who have great ideas for games and who want to learn about iOS game development. You should know and understand Objective-C. Being familiar with iOS development is helpful, but is not required. This book will make you familiar with the new Sprite Kit framework in no time.

Conventions

In this book, you will find a number of styles of text that distinguish between different kinds of information. Here are some examples of these styles, and an explanation of their meaning.

Code words in text are shown as follows: “The thing that might have caught your attention is the format specifier `@"run%.3d"`.”

A block of code is set as follows:

```
- (void) stopRunningAnimation
{
    [self removeActionForKey:@"running"];
}
```

New terms and **important words** are shown in bold.

Warnings or important notes appear in a box like this.

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