Learn How to Make Apps for iOS and Android Using Corona SDK

Make business, marketing and social apps for mobile devices, like iOS and Android smartphones and tablets, with Corona SDK

Complete with Source Code

Fernando Altuzar

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To Fany and Isabella

Contents

1: Corona SDK Crash & Burn Course

tl; dr

Download Corona, create your first app and deploy it to iPhone, iPad and Android phones and tablets. How cool is that?

Start in 5 Minutes

Let's imagine there are only 5 minutes left before yet another End of the World, and that you want to learn a cross-platform mobile SDK. Then this is the book for you!

Nothing better than the masters (the Corona Labs guys) for a quick start guide to get you up and running with Corona. And deploy to your iOS or Android device. In just 5 minutes. Well, perhaps a little bit more, but you get the idea.

What you need

1. Any text editor
2. Corona SDK
3. Maybe a phone or tablet if you want to test there.

I just love when I can develop using my own editor. Now, my favorite editor is Sublime Text, but you can use TextWrangler, Textmate, Notepad++, XCode, Eclipse, Vim, Emacs, Nano, Edit, Cat, even Notepad or TextEdit, on Mac or Windows. No problems. If you use Linux, the Corona SDK runs under Wine. But I'm not quite sure!

We recommend Sublime Text[1]. It's fantastic.

Get Corona

So go to the Corona Labs[2] site if you haven't done so already. Register, or sign in, for a trial, and download the package. There are instructions for Mac or Windows, so don't worry.

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[1]http://www.sublimetext.com/

[2]https://developer.coronalabs.com/user/login?destination=reference/installation-and-setup

Then fire up the Corona SDK. On Mac, locate the Corona folder in your Applications directory. Double-click on "Corona Terminal". My recommendation is to always execute "Corona Terminal". There, you can follow errors, warnings or any debug message. On Windows, select Corona from the list of Programs in your Start menu or double click the Corona icon on the desktop.

You'll see a nice Welcome to Corona screen. It's prettier than Eclipse. Guaranteed!

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If you have more than 5 minutes before the End of the World, and maybe you have a couple, go to Sample Apps. Those Sample Apps are gold, pure gold, let me tell you. You can know how everything

in Corona works only in this Sample Apps folder: camera, GPS, accelerometer, compass, music or multitouch. Open Physics/MultiPuck, for example, or Graphics/Fishies. Everything is in there! But come back to create your own things.
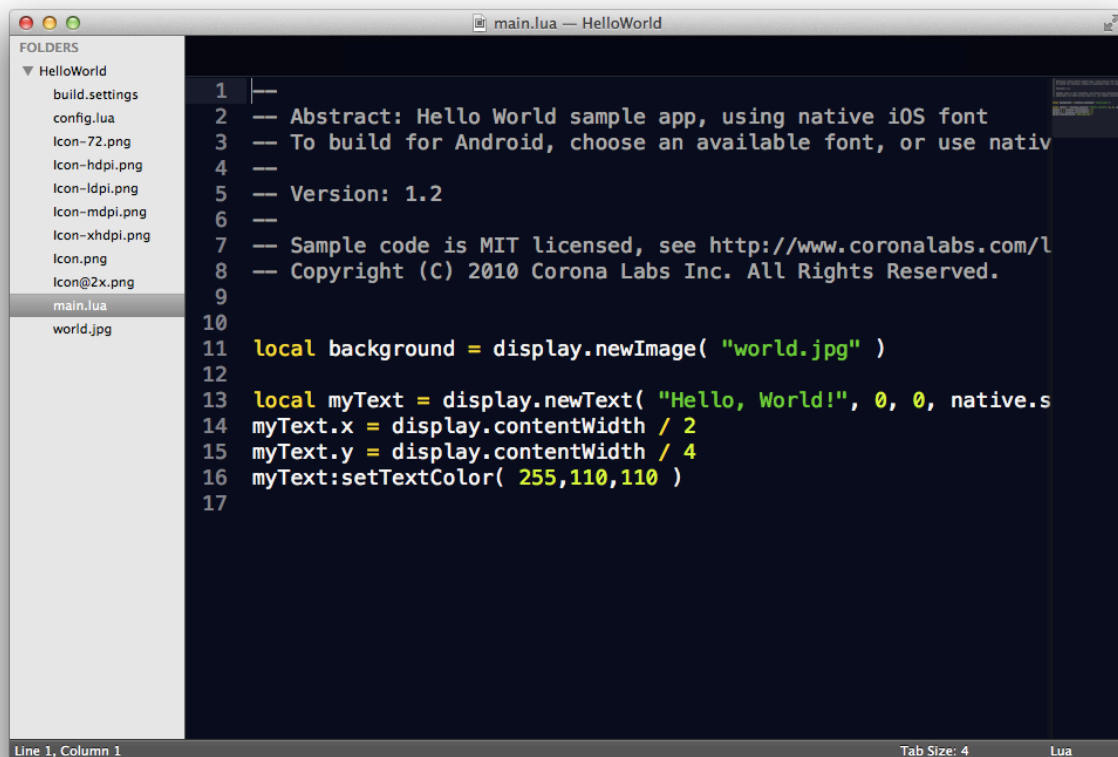
Hello End of the World

Let's cheat. I love cheating. My wife is not crazy about that, but cheating is the best resource for a programmer. Copy and paste is cheating. Googling everything is cheating. Cheat is the smartest move for a programmer. So, let's cheat.

Go to Sample Apps and open the Getting Started/HelloWorld app. You just cheated!

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But changing the code within your Corona SDK Sample Apps is a bad idea, so copy the folder elsewhere in your system, open it with Simulator and, just to be ready, open the folder with your editor too. Or at least the "main.lua" file. Now you are ready!
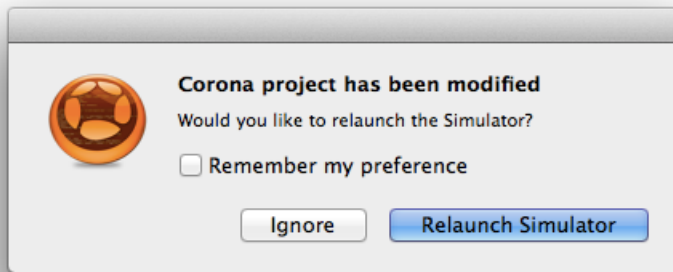
But wait! How it is possible that it says "Hello World!", and not "Hello, End of the World"? Let's change that: in our Main.lua, modify the line:

```
1  local myText = display.newText( "Hello, End of the World!", 0, 0, native.sy\
2  stemFont, 24 )
```
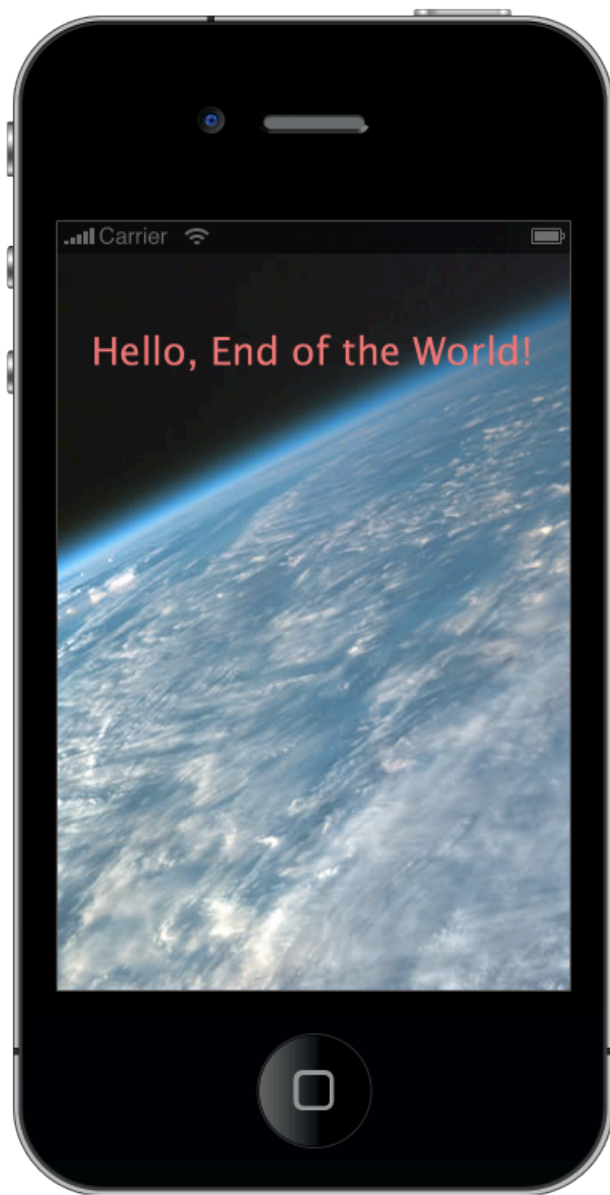
Excellent! That was your first coding with Corona. Not bad! Take a look at that line. Create a new label, set the text to display, where to display it, the font and the font size. Remember to change the font size, so it fits in the screen, and save the file.

If it's the first time you save your code in Corona, you may be prompted by the following alert:

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The automatic relaunch watches your code so it relaunches the Simulator, so you don't have to reopen or even refresh. Very handy! Actually, a lot of things in Corona are very handy. You will like that.
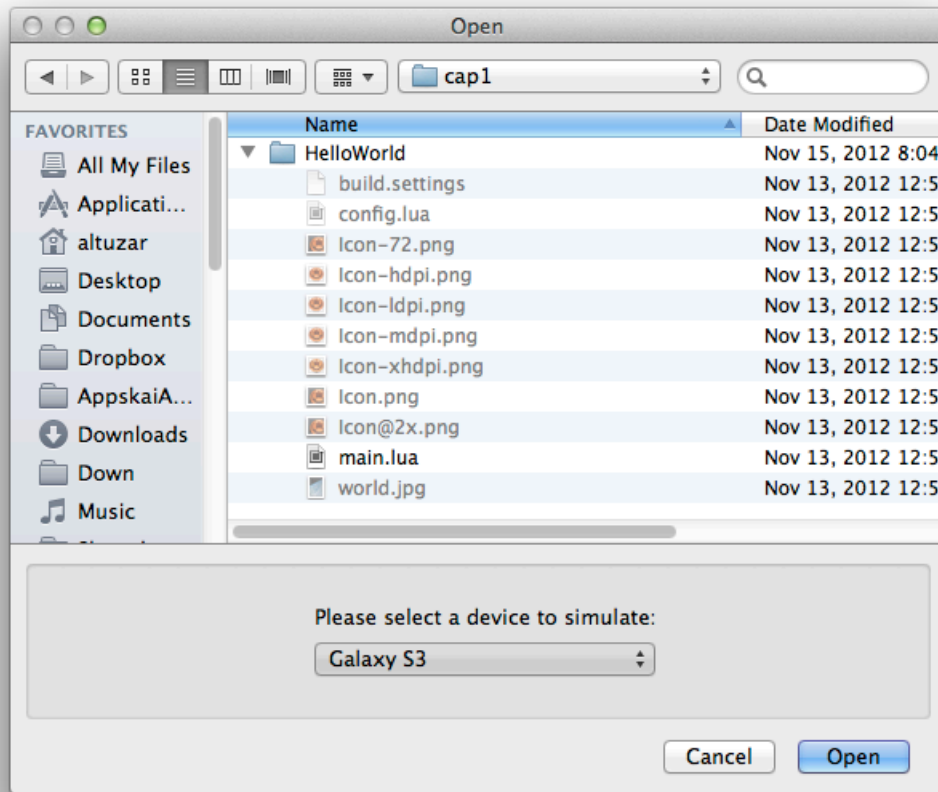
Now you have the perfect app. Well, at least your first one.

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Now try your app on other devices. On the Simulator, go to Window > View As. Try other iPhones, iPad and some Android phones and tablets. Not bad for some lines of code!

Add color

Before deployment, let's take a look to that folder.

Lots of those files are not necessary. Only "main.lua" is really important. And you can deploy to the Apple App Store, Google Play Store and Amazon Kindle Store with just one file? I have played with lots of SDKs and environments, and you can't beat that. Promise!
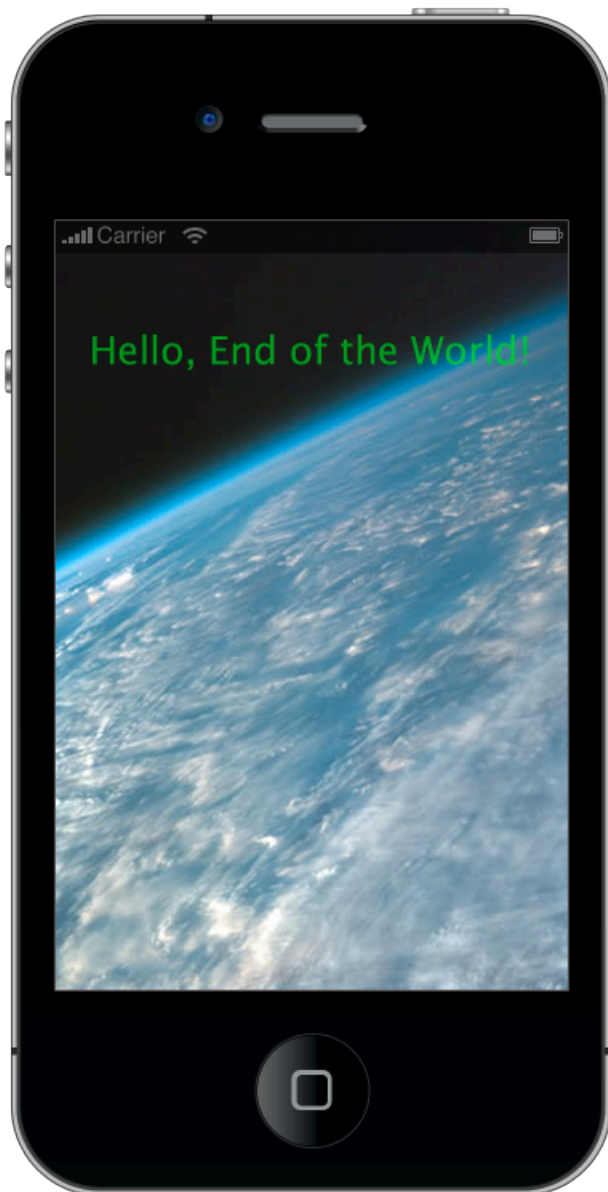
All those Icon files, with tons of resolutions and suffixes, are for the App Icon. You may have to mess a little bit with "config.lua" to fix different phone and tablets aspects and pixel count. It's hard to approach the fragmented cross-platform world sometimes. No one said it was easy, you know?

And then is the "build.settings" file. It has some platform specific settings. For iOS, you have to declare the icons. For Android, you must get a permission to use the network. No problems there.

As you can see, both files are like trees. Those are Lua tables, very similar to Json files. If you don't know what I'm talking about, don't worry! And if you are worried about all those config files with arcane settings, just stay calmed. With the release of this book, I'll include the Ultimate Corona Source Code Pack for Pixel Perfect Apps TM. You'll just code your app!

Get back to your "main.lua". It's easy to guess that "setTextColor" sets the color of the text. Those three numbers are RGB, or red, green and blue, from 0 to 255. There's an Alpha channel too, if you set it. So set it to pure and translucent green:

```
1   myText:setTextColor( 0,255,0,150 )
```


.

Add skew

Now take a look at the line that create the text. You can set a variable or not, as you wish. The "local" is to create the variable for this scope only, not globally, and it's just good practice. Change the font and font size to something fancy:

local myText = display.newText("Hello, End of the World!", 0, 0, "Zapfino", 18)

.

Now change the vertical scale and rotate that text a little bit. Add this anywhere after the creation of myText:

```
1  myText.yScale = 2.5
2  myText.rotation = 15
```

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Any "dislay object", including text, lines, boxes, images and animations, can be scaled, rotated, animated, touched or anything you want with a couple of lines. How cool is that?
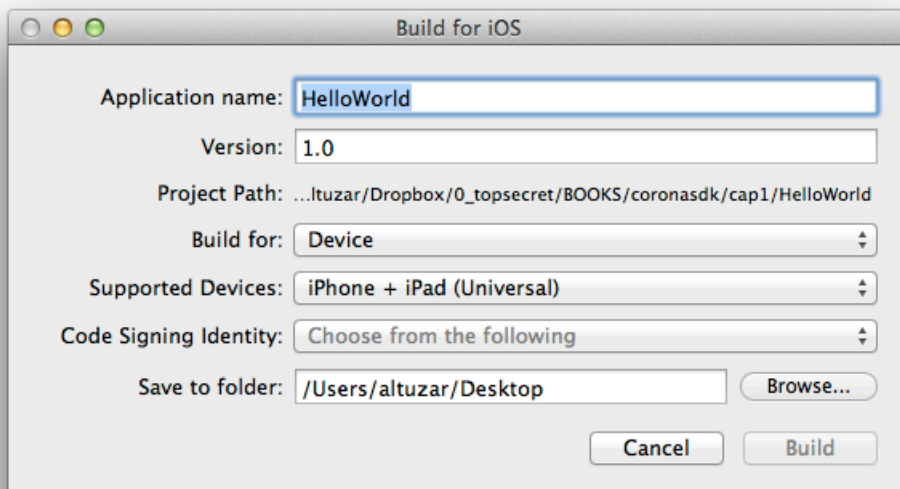
Deploy Now

iOS

To deploy for iPhone or iPad, you need the Mac version of Corona. Sorry, but those Apple guys keep their cards tight. Mac users need Xcode. You can get it in the Mac App Store, for free. A warning:

it's very, very, very big. First, download it and then install it.

With the iOS SDK, included with Xcode, you get a nice and powerful iPhone and iPad simulator. You don't need the Code Signing Identity for that. Just go to the Corona Simulator > File > Build > iOS.

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Choose the Xcode Simulator and your simulator will launch.

Now, if you want to deploy to your iPhone, iPod or iPad, it's a little bit longer. You need a Code Signing Identity, for example. It's easy to create it, but slow. Go to the Apple Developer[3] site and create an account. It's free, too.

To be honest, this process changes a lot, and the best guide for this is the Corona and Apple sites. So follow this guide[4]. Can be sometimes harsh, but think that you will make this stuff only once!

Once created the Code Signing Identity, just build as usual and create the IPA file on your Desktop. Then load the app in the Xcode Organizer and install it on your glassy and favorite device.

Android

For Android, it's way easier and faster!

You don't get a powerful and fast Simulator. I mean, there are excellent Android simulators, but to be honest they are not as fast and convenient as the one for iOS. Sorry, Google lovers! They are just
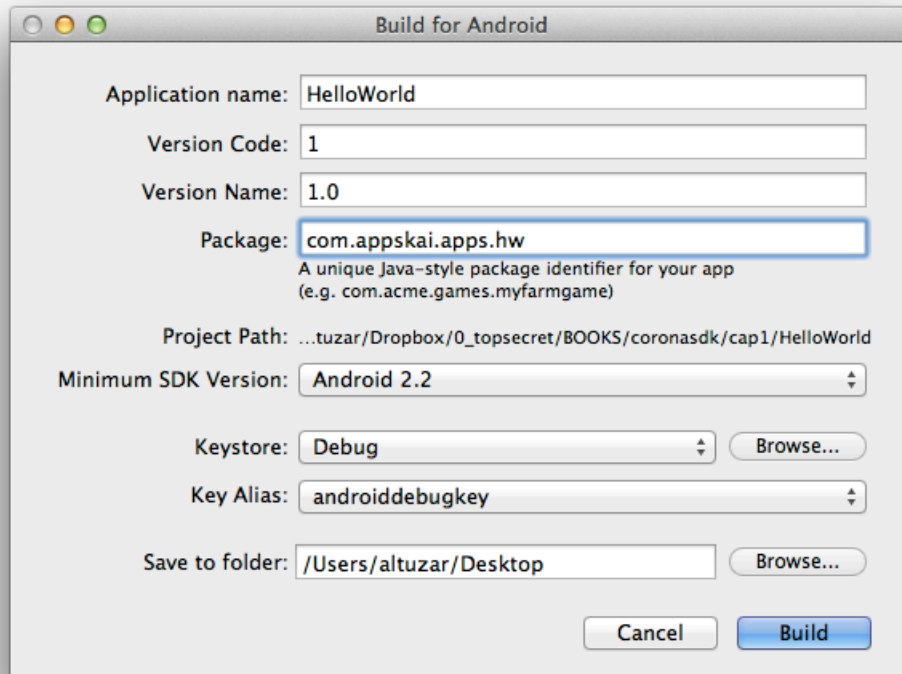
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[3] http://developer.apple.com

[4] http://developer.coronalabs.com/content/building-devices-iphoneipad

too busy making Doodles. But if you want to try the Android Simulators, be our guest and download it[5]. Don't forget to download and install Java, Eclipse, ADT and some other big files too.

However, Corona gives an Android Debug Key that works fine and create perfect APK files for your Android phone or tablet. So go to your Corona Simulator and open File > Build > Android. Fill the Package name with anything you want. Keep it similar to "com.yourdomain.yoursuperapp", so the guys in Oracle don't get crazy. Choose the Key Alias too.

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That will create your APK! Thats an installer for Android. To install it in your phone, the method I use is the following: place the APK in a folder of my Dropbox, open my Dropbox App in my phone and open the APK. But you can, too:

1. Install the Android SDK, use the console and type:

   adb install your-super-app.apk

2. Copy the file to your memory card, placing the memory card in your device and opening it with a File Manager. This works nice too.

3. Placing the APK file somewhere in the cloud, like your web server or email inbox, and open it from ther.

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[5]http://developer.android.com/sdk/

Sometimes, some devices can't install applications from "Unknown Sources". That means your computer! So, for any non-Google-Play-Store-app you will need to allow "Unknown Sources" going to Menu > Settings > Applications or Menu > Settings > Security, in your phone or tablet, and check the box next to "Unknown Sources".

I love saying "Unknown Sources". It's like an alien or zombie invasion movie. Don't you think?

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Pew Pew Pew

So, there you go! You have installed Corona SDK, created your first "Hello End of the World" app and even deployed it on iOS and Android. All in less than (martian) 5 minutes! You are on fire!

Next, a short, fast and incredibly complete Lua Crash and Burn Course!