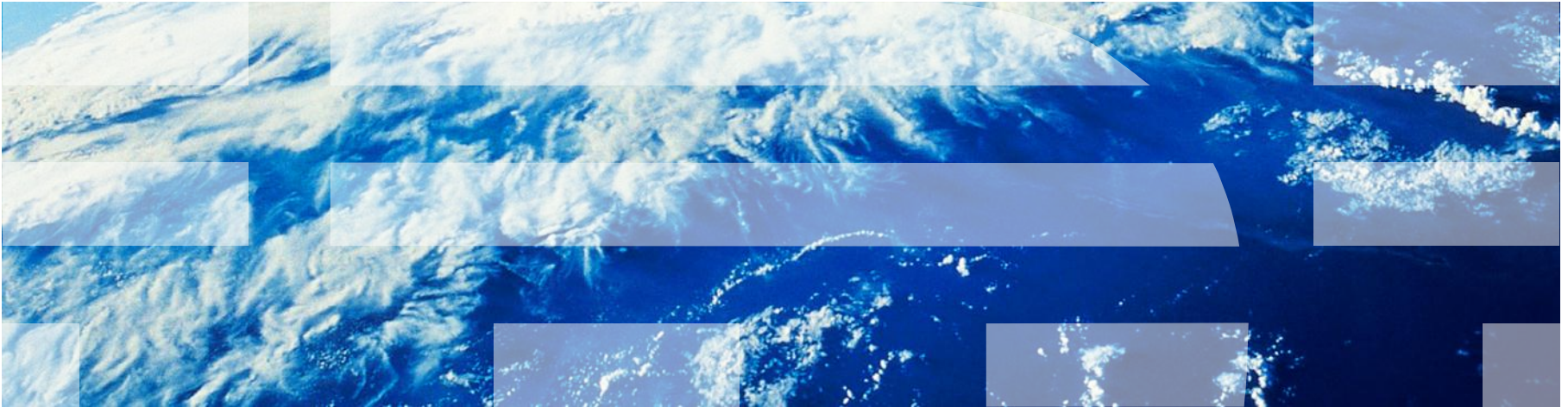


IBM Worklight Foundation V6.2.0 Getting Started

General information when developing for iOS



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Agenda

- **Installation**
- iOS development
 - Developing for different resolutions
 - Environment-specific APIs
 - Environment-specific images
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- Testing
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Installation

See the ***Setting up your iOS Development Environment*** training module for a detailed explanation



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iOS development

- An iPhone/iPad application that is developed by using IBM Worklight® Foundation comprises the following components:
 - An Objective-C ("native") Main App Delegate that is provided by IBM Worklight Foundation, and that hosts an instance of a UIWebView component.
 - The www.bundle files, that are written in HTML, CSS and JavaScript™, and that run in the UIWebView instance.
 - A set of Objective-C and JavaScript libraries that provide access to various iOS features and capabilities.
- All application components, including the web code that the developer provides, are packaged into a single universal iOS application.
- If you use a source control management system (such as Rational Team Concert™, Git, or Subversion), see the IBM Worklight Foundation user documentation topic named “*Integrating with source control system*”.

iOS development - continued

- Designing for iOS differs greatly between iOS 6 and iOS 7.
 - It is useful for developers to consult the Apple iOS Human Interface Guidelines at <https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/>
- When you develop for iOS, it is also useful to consult the iOS Developer Library at <https://developer.apple.com/library/ios/navigation/>

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Developing for different resolutions

- iOS devices have various screen resolutions:
 - iPhone 1/2/3/3GS – 320 x 480
 - iPhone 4/4S – 640 x 960
 - iPhone 5/5s – 640 x 1136
 - iPad 1/2/mini – 768 x 1024
 - iPad 3/4/5 – 1,536 x 2,048
- When display graphical elements on wider screens, iOS automatically scales images and fonts to the appropriate ratio.
- For example, on a 640-pixel wide screen, a 100-pixel wide image is scaled by $640/320 (= 2)$ to 200 pixels in width, and the text that is displayed with an 18-pixel font is displayed with a 36-pixel font.

Developing for different resolutions - continued

- The following points are the responsibility of the developer:
 - **Ensure that images look good at all resolutions:**
 - Provide images for the environment with the highest resolution requirements.
 - In your CSS, scale the image width to the lower resolution.
 - In the previous example, provide an image with a width of 200 pixels, and in the CSS, scale it to 100 pixels. iOS scales it back by a factor of 2 to be 200 pixels wide.
 - **Make sure that text is displayed appropriately at all resolutions**
 - Consider specifying font sizes in ems, rather than in pixels.

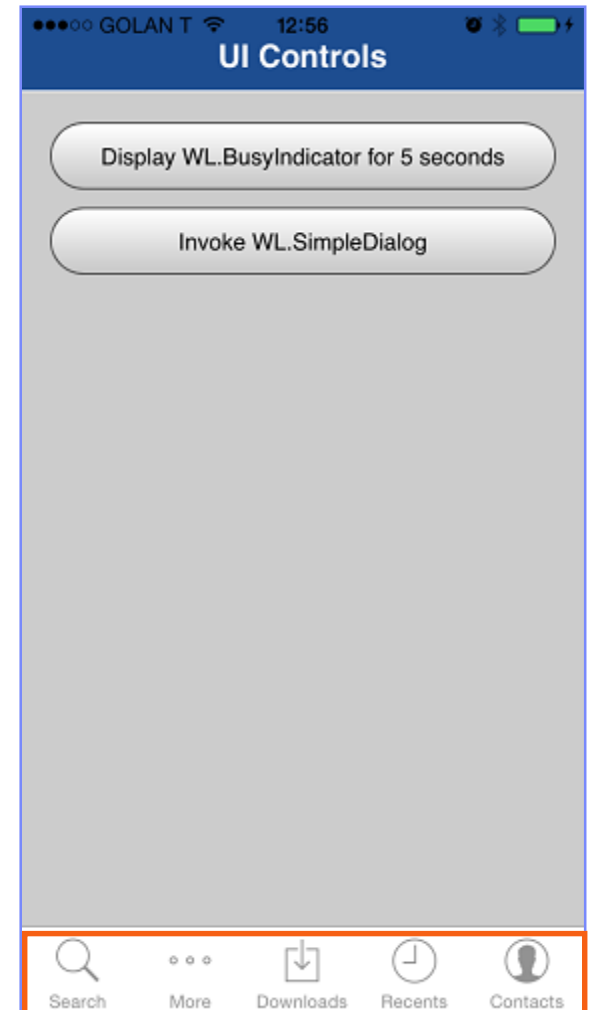
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Environment-specific APIs

Tab bars

- Tab bar navigation is one of the basic and most common principles of contemporary user interfaces.
- In an iOS application, you can invoke a native tab bar component and set its properties by using a JavaScript API.
- Each tab can have its own icon and invoke JavaScript functions.
- For more information about tab bar development, see the *Common UI Controls* training module.



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Environment-specific images

- Image file sizes differ depending on your iDevice. For more information, see the Apple iOS UI Development Guidelines [for icon and image sizes](#).

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Apache Cordova

- You can use the Apache Cordova framework in iOS applications to access the native elements of a device, such as contacts, geo-location services, media services, or the accelerometer.
- For more information about Apache Cordova development, see the *Apache Cordova overview* training module.

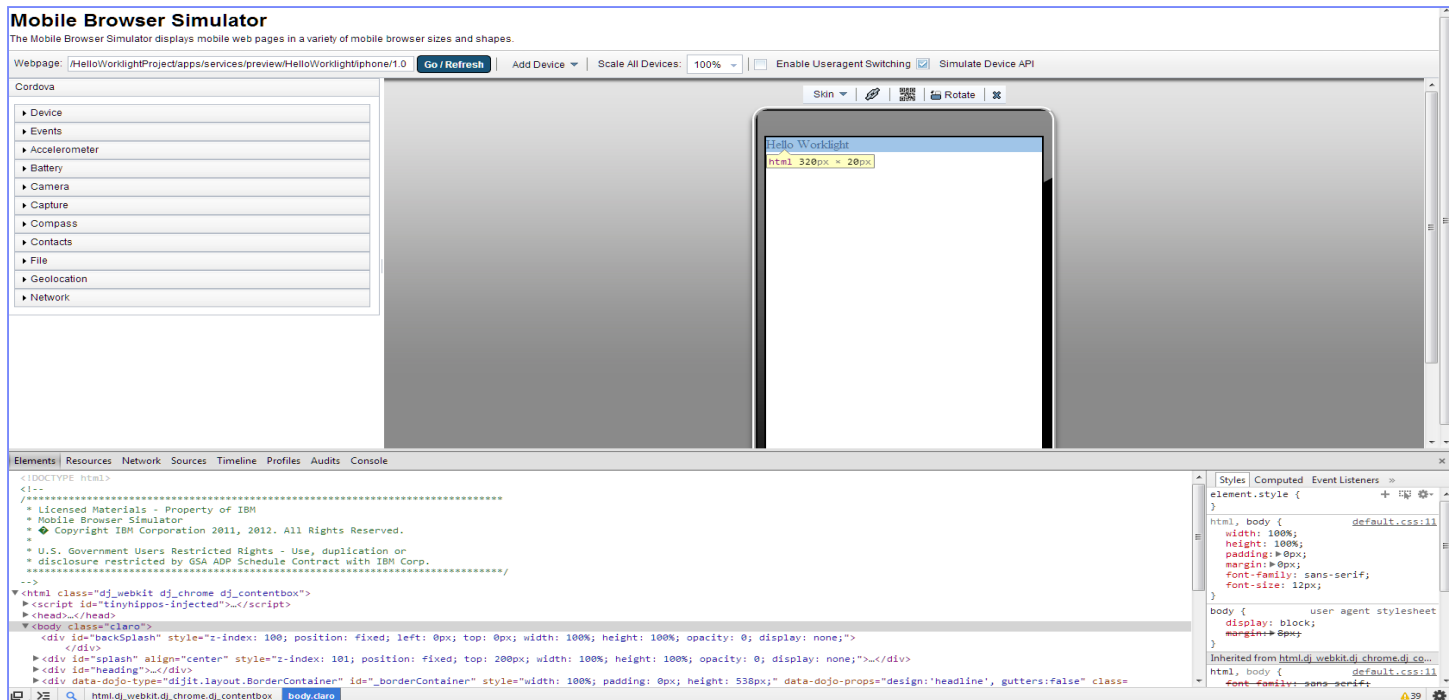
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Debugging the application – 1/3

Phase 1: Testing in your browser

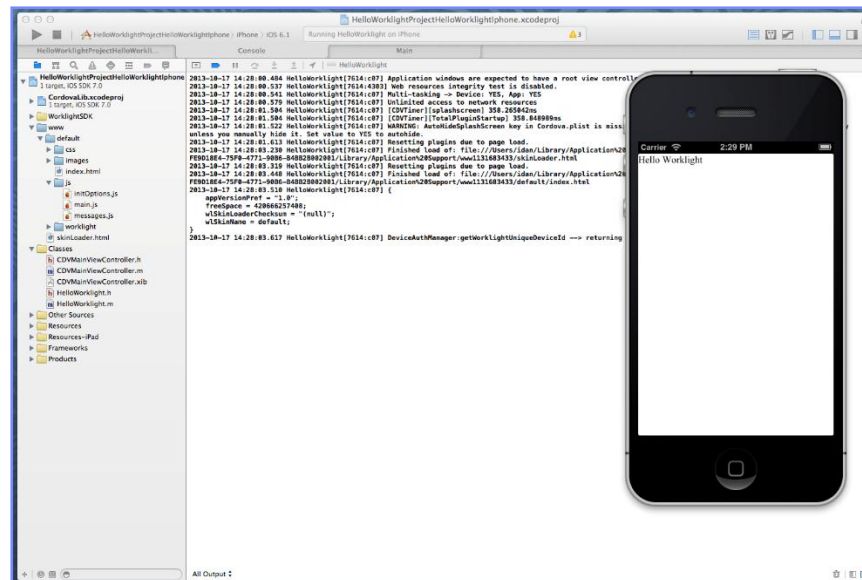
- Your iOS app resources are previewed in the Mobile Browser Simulator, so you are able to debug it by using the facilities of the browser, such as Firebug or Developer toolbar.



Debugging the application – 2/3

Phase 2: Testing in the iOS Simulator

- Preview your application on the iOS simulator.
- Experience a more native feel for the application.
- Use **Xcode console** to debug your application by using the iOS simulator.



Debugging the application – 3/3

Phase 3: Testing in a physical device

- To debug your iOS application on an iOS device, you first must register as a member of the iOS Developer Program.
- Enroll at developer.apple.com.
- Prepare and install your developer certificates and provisioning profile.
- For more information on the process go to the Apple developer site.
 - <http://developer.apple.com/programs/iphone/test.html>



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Deployment

- iOS application deployment is done through the Apple App Store.
 1. Prepare your app for submission.
 - **Important:** Before you build a production version of your application, make sure that the **worklightSettings** property inside your `application-descriptor.xml` file is set to **false**.
 2. Go through the App Store approval process.
 3. Manage your apps on the App Store.

<https://developer.apple.com/iphone/appstore/>

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