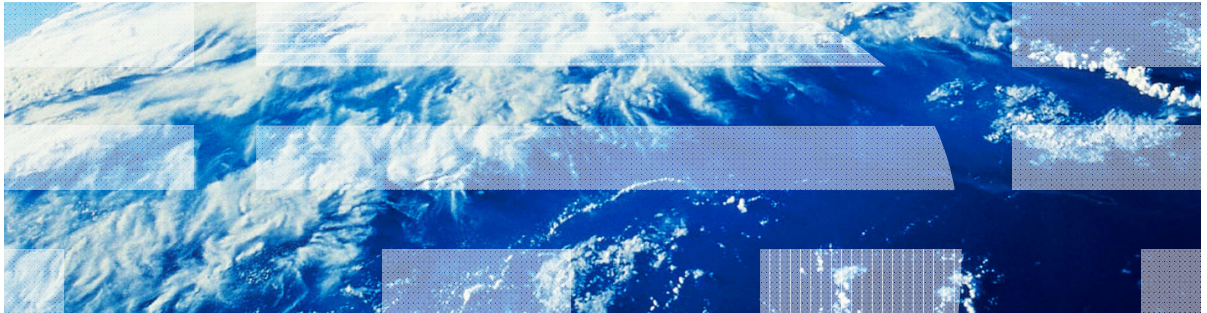


IBM Worklight V5.0.5 Getting Started

Module 8 – iOS Development



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Agenda

- Installation
- Development
 - Environment-specific APIs
 - Environment-specific images
- Testing
 - Debugging the app
- Deployment

Installation

See Module 2.1 -
Setting up your iOS Development Environment for a detailed explanation



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iOS development

- An iPhone application enabled with IBM Worklight® comprises the following components:
 - The `www.bundle` files, written in HTML, CSS and JavaScript, running in one or more instances of the **UIWebView** hosted within the Main class.
 - An Objective-C ("native") Main class provided by Worklight.
 - A set of Objective-C and JavaScript libraries that provide access to various iPhone features and capabilities.
- All application components, including the web code that the developer provides, are packaged into a single iPhone application.
- If you use a source control management system (such as Rational Team Concert, GIT or Subversion), see the IBM Worklight Information Center for instructions for committing your source code to such systems

Developing for different resolutions

- Various iOS devices have different screen resolutions:
 - iPhone 2/3/3GS - 320x480
 - iPhone 4/4S – 640x960
 - iPad – 1024x768
- iOS assumes that the HTML file of the application was styled for a screen width of 320 pixels.
- When displaying 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 will be scaled by $640/320 (= 2)$ to 200 pixels in width, and text displayed with an 18-pixel font will be displayed with 36 pixels.

Developing for different resolutions

- The following points are the developer's responsibility:
 - **To 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 example above, provide an image with a width of 200 pixels, and in the CSS scale it to 100 pixels. iOS will scale it back by a factor of 2 to be 200 pixels wide.
 - **Ensure that text is displayed appropriately at all resolutions**
 - Consider specifying font sizes in ems, rather than in pixels.

Developing for Different Resolutions

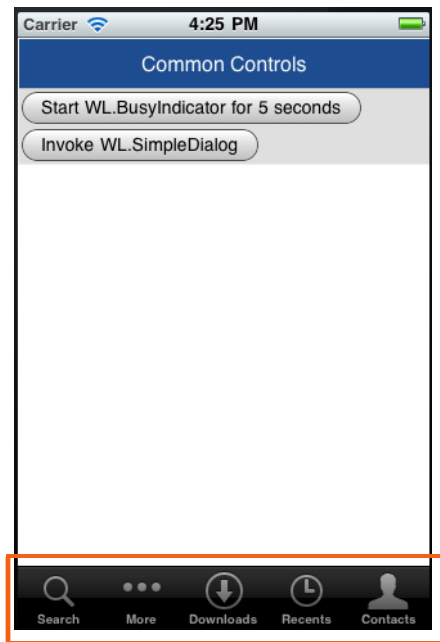


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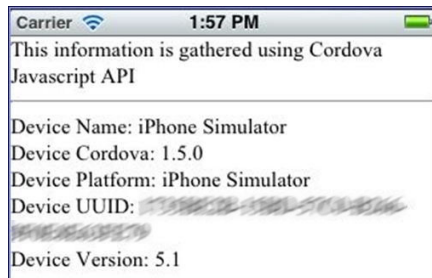
iOS tab bars

- The tab bar navigation is one of the basic and most common principles of contemporary user interfaces.
- In the iOS applications, Worklight allows you to invoke a native tab bar component and set its properties using a JavaScript API.
- Each tab can have its own icon and invoke JavaScript functions.
- The tab bar development is covered in Module 7.1 – Common Controls.



Using Apache Cordova

- You can use the Apache Cordova framework in the iOS applications to access the native elements of a device, such as contacts, geo-location services, media services, or the accelerometer.
- The Apache Cordova development is briefly covered in Module 7.4 – Apache Cordova.



Agenda

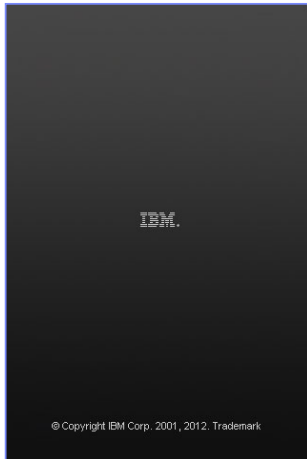
- Installation
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Images

- According to the iOS UI Development Guidelines, the following icon sizes should be used:

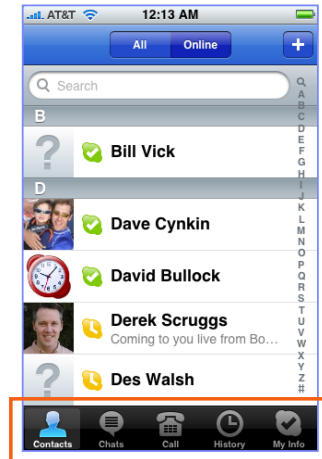
Splash Screen

default.png
(320 x 460)



Tab bar images

(48 x 32)



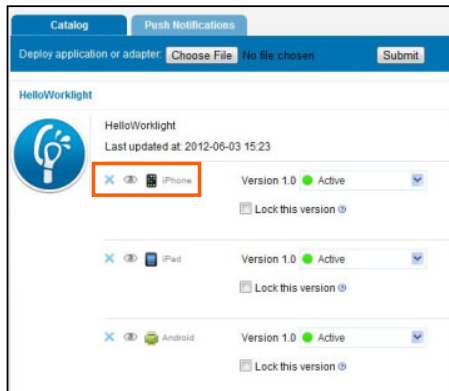
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Debugging the application

Phase 1 : Testing in your browser

- The Worklight Console previews the iOS app in a web browser.

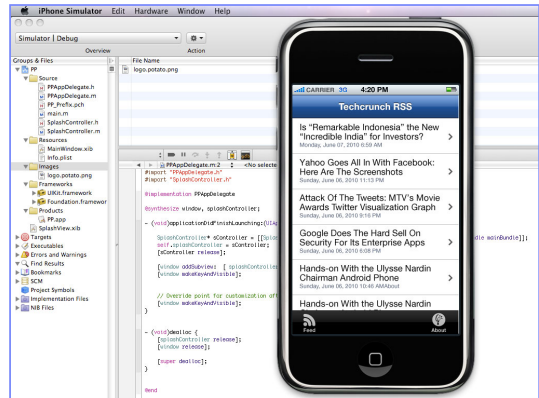


- Your iOS app resources are previewed in the Mobile Browser Simulator, enabling you to debug it using the facilities of the browser, such as Firebug or Developer toolbar.

Debugging the application

Phase 2: Testing on the iOS simulator

- Preview your application on the iOS simulator.
- Experience the “more native” feel of an application.
- Use **Xcode console** to debug your application using the iOS simulator.



Debugging the application

Phase 3: Testing on an iOS Device

- To debug your iOS application on an iOS device, you first need to register as a member of the iOS Developer Program.
- Enroll at **developer.apple.com**.
- Prepare and install your developer certificates and provisioning profile.
- Full details of the process can be found in the Apple developer site.
 - <http://developer.apple.com/programs/iphone/test.html>



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- **Deployment**

Deployment: iPhone

- The iOS app deployment is done through the Apple App Store:
 - Prepare your app for submission.
 - IMPORTANT: Before building a production version of your application make sure that the **worklightSettings** property inside your `application-descriptor.xml` file is set to **false**.
 - App Store approval process.
 - Managing apps on the App Store.

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

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