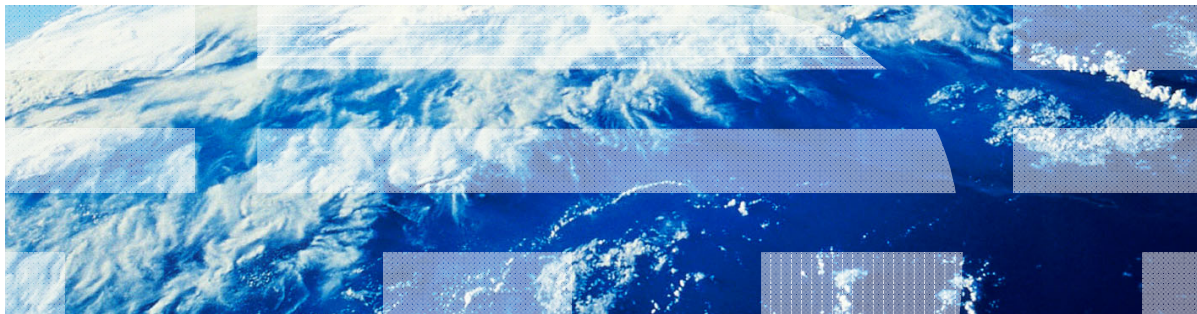


# ***IBM Worklight V5.0.5.1***

## ***Getting Started***

### **Module 3.5 – Previewing Your Application in BlackBerry 10 Environment**



## **Trademarks**

- IBM, the IBM logo, and [ibm.com](http://www.ibm.com) are trademarks or registered trademarks of International Business Machines Corporation, registered in many jurisdictions worldwide. Worklight is a trademark or registered trademark of Worklight, an IBM Company. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at “[Copyright and trademark information](http://www.ibm.com/legal/copytrade.shtml)” at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).
- Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.
- Other company products or service names may be trademarks or service marks of others.
- This document may not be reproduced in whole or in part without the prior written permission of IBM.

## **About IBM®**

- See <http://www.ibm.com/ibm/us/en/>

## Agenda

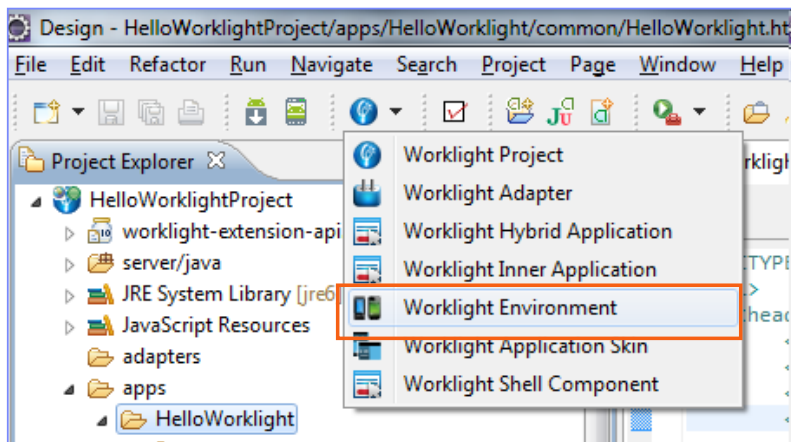
- Adding a BlackBerry 10 environment
- Brief review of the BlackBerry 10 environment folder structure
- Running your application on the BlackBerry Ripple Emulator
- Packaging your application
- Packaging your application and running it on BlackBerry Simulator / handsets

## *Adding a New Environment*

- Prior to creating a BlackBerry 10 application you need to define a **WEBWORKS\_HOME** environment variable.
  - The value of this variable must be the path to your WebWorks SDK.

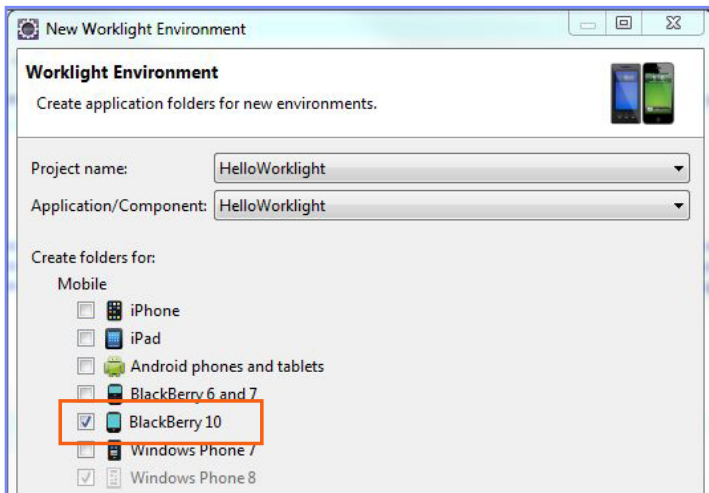
## Adding a New Environment

- Click the IBM Worklight® icon, and select **Worklight Environment** to add an environment to your application.



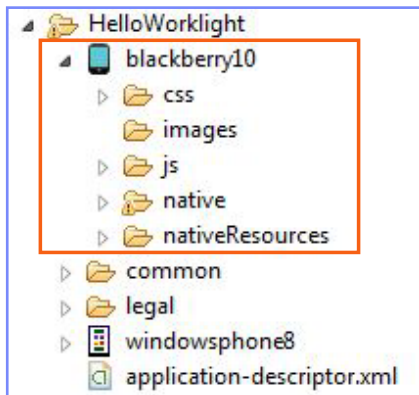
## Adding a New Environment

- Select the **BlackBerry 10** check box, and then click **Finish**.



## Adding a New Environment

- A **blackberry10** folder is automatically added.



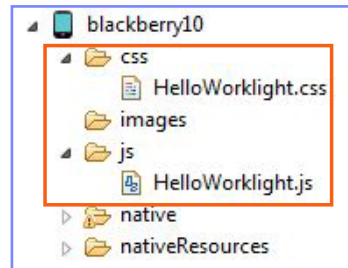
## Agenda

- Adding a BlackBerry 10 environment
- Brief review of the BlackBerry 10 environment folder structure
- Running your application on the BlackBerry Ripple Emulator
- Packaging your application
- Packaging your application and running it on BlackBerry Simulator / handsets



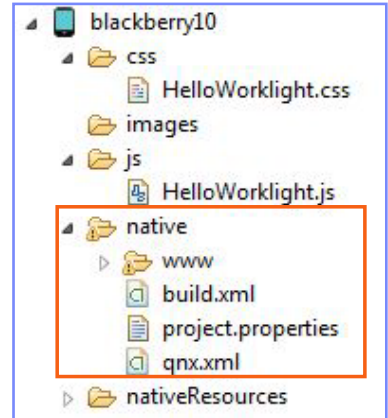
## Review of the BlackBerry 10 Environment Folder Structure

- The BlackBerry 10 environment includes the following folders:
  - **css** – The properties that are specified here override the CSS files from the **common** folder.
  - **images** – BlackBerry-specific images can be added here. If an image with the same file name exists in the **common** folder, it is overwritten in the BlackBerry application.
  - **js** – JavaScript that can extend, and override if required, JavaScript from the **common** folder.



## Review of the BlackBerry 10 Environment Folder Structure

- The **native** folder contains automatically generated, ready to be packaged, BlackBerry app code
  - The css, html, and js files in the **native** folder are regenerated every time that the application is built, so any changes made to these files are lost.
- The **nativeResources** folder contains resources that are used by the native code.

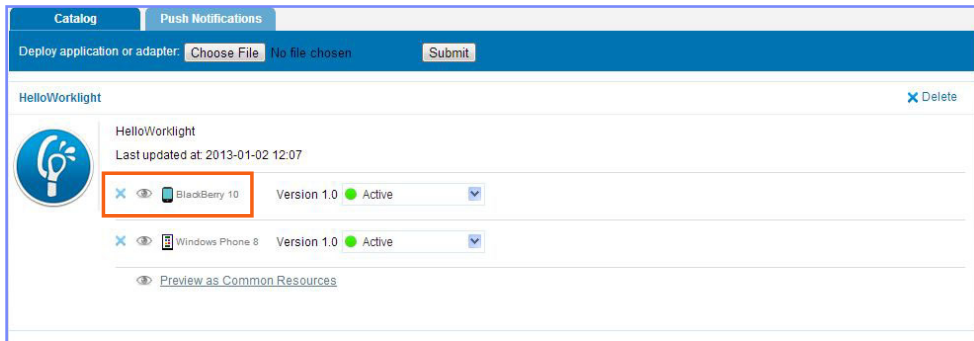


## Agenda

- Adding a BlackBerry environment
- Brief review of the BlackBerry environment folder structure
- Running your application on the BlackBerry Ripple Emulator
- Packaging your application
- Packaging your application and running it on BlackBerry Simulator / handsets

## Previewing in Ripple

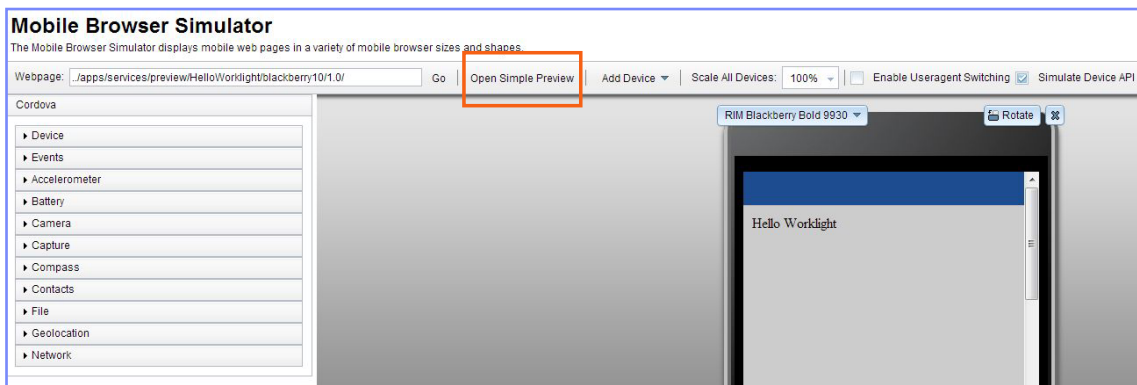
- Ripple is available only on Google Chrome.
- Right-click your app and select **Run As > Build all and deploy** to build it.
- Open Worklight Console and choose **preview as BlackBerry 10**.



- A preview page automatically opens.

## Previewing in Ripple

- Click **Open Simple Preview** at the top.



## Previewing in Ripple

- Click the ripple icon on the right top bar of your browser, and click **Enable** to view the selected application in Ripple.

**Ripple Mission Control**

This is the Ripple control panel, where you can enable and disable Ripple for the current page URL and all pages contained within it.

Enable

Disable

---

**Ripple Services**

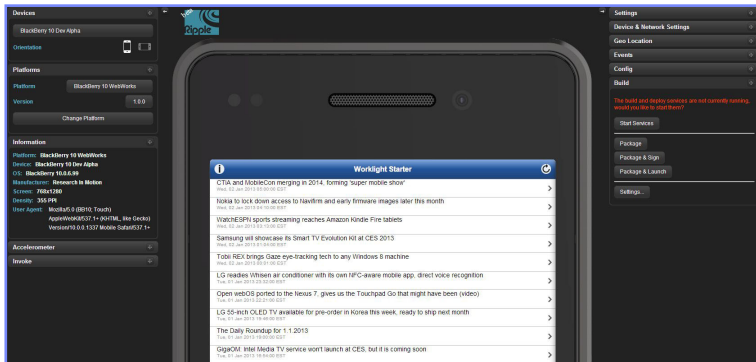
Here you can start and stop the Ripple services. The services will give you the ability to build, sign, and deploy your BlackBerry WebWorks application as well as provide you with a local web server on port 9910

Start Ripple Services

Auto start services everytime Chrome is launched

Ripple services are now running on <http://localhost:9910>

New to Ripple? Hit up the [Main Documentation](#) to get started.

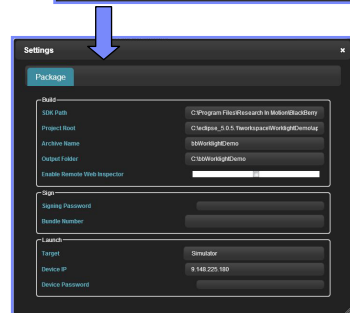
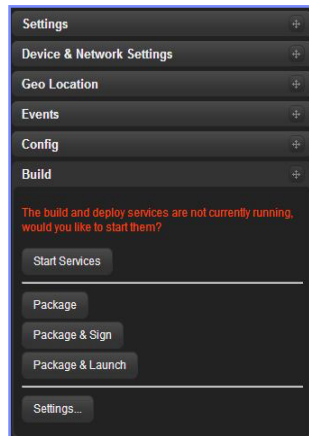


## Agenda

- Adding a BlackBerry environment
- Brief review of the BlackBerry environment folder structure
- Running your application on the BlackBerry Ripple Emulator
- **Packaging your application**
- Run application on a BlackBerry Simulator / handsets

## Packaging Your Application

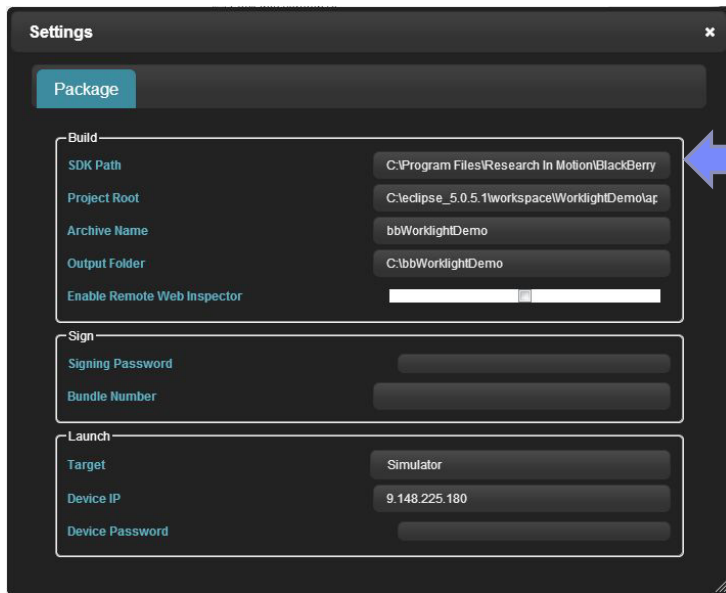
- As described in module 2.3, you must have BlackBerry WebWorks SDK installed to package an application for a simulator or mobile device.
- In BlackBerry Ripple, at the bottom of the right menu, select **Settings**.
  - A window opens.





# Packaging Your Application

- Complete the following values:



**Settings** [X]

**Package**

**Build**

SDK Path: C:\Program Files\Research In Motion\BlackBerry

Project Root: C:\eclipse\_5.0.5.1\workspace\WorklightDemo\app

Archive Name: bbWorklightDemo

Output Folder: C:\bbWorklightDemo

Enable Remote Web Inspector:

**Sign**

Signing Password:

Bundle Number:

**Launch**

Target: Simulator

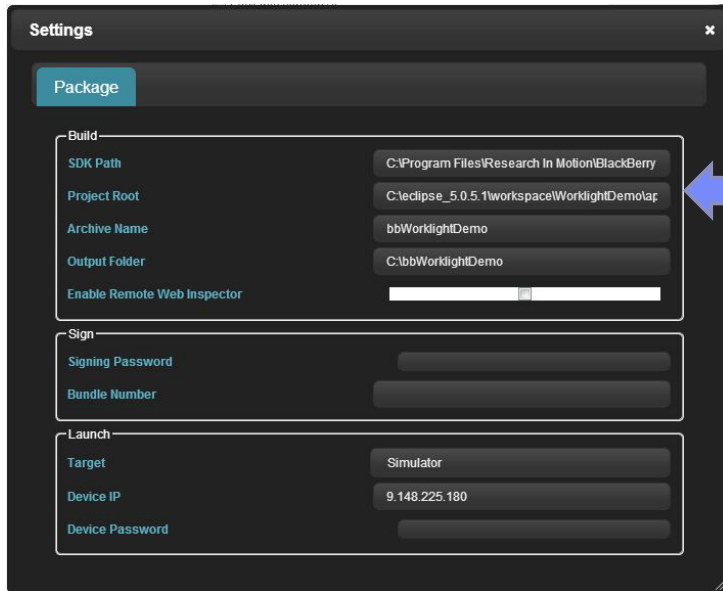
Device IP: 9.148.225.180

Device Password:

Path where  
BlackBerry  
WebWorks SDK is  
installed

# Packaging Your Application

- Complete the following values:



The screenshot shows the Eclipse IDE Settings dialog, Package tab. The Build section is highlighted with a blue arrow pointing to the Project Root field. The Project Root field contains the path C:\eclipse\_5.0.5.1\workspace\WorklightDemo\app. The other fields in the Build section are: SDK Path (C:\Program Files\Research In Motion\BlackBerry), Archive Name (bbWorklightDemo), Output Folder (C:\bbWorklightDemo), and Enable Remote Web Inspector (checkbox). The Sign section contains Signing Password, Bundle Number, and Launch section contains Target (Simulator), Device IP (9.148.225.180), and Device Password.

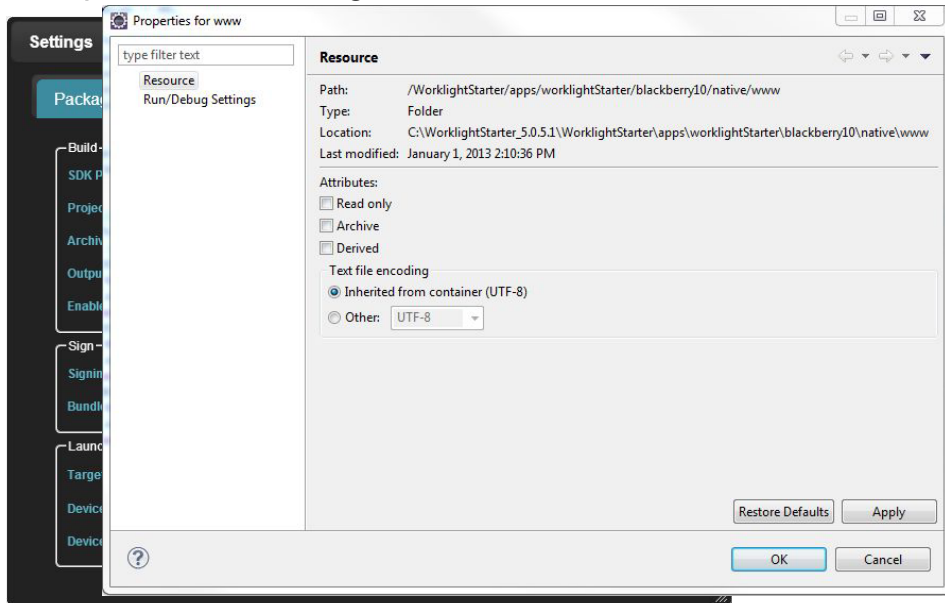
Section	Field	Value
Build	SDK Path	C:\Program Files\Research In Motion\BlackBerry
	Project Root	C:\eclipse_5.0.5.1\workspace\WorklightDemo\app
	Archive Name	bbWorklightDemo
	Output Folder	C:\bbWorklightDemo
	Enable Remote Web Inspector	<input type="checkbox"/>
Sign	Signing Password	
	Bundle Number	
Launch	Target	Simulator
	Device IP	9.148.225.180
	Device Password	

The root folder of your project

To find the root folder, right-click the **native/www** folder in your Eclipse **blackberry10** folder, and select **Properties**.

# Packaging Your Application

- Complete the following values:



the folder of  
project

the root  
right-click the  
www folder in  
Eclipse  
blackberry10 folder,  
select  
properties.

# Packaging Your Application

- Complete the following values:

Settings

Package

Build

SDK Path: C:\Program Files\Research In Motion\BlackBerry

Project Root: C:\eclipse\_5.0.5.1\workspace\WorklightDemo\app

Archive Name: bbWorklightDemo

Output Folder: C:\bbWorklightDemo

Enable Remote Web Inspector:

Sign

Signing Password:

Bundle Number:

Launch

Target: Simulator

Device IP: 9.148.225.180

Device Password:

The name for your archive, and the folder where to output the application

Specify a folder outside your project.

## Packaging Your Application

- Complete the following values:

The screenshot shows a 'Settings' dialog box with a dark theme. The 'Package' tab is selected. It contains three sections: 'Build', 'Sign', and 'Launch'. The 'Build' section has fields for SDK Path, Project Root, Archive Name, and Output Folder, and a checkbox for 'Enable Remote Web Inspector'. The 'Sign' section has fields for 'Signing Password' and 'Bundle Number'. The 'Launch' section has fields for 'Target', 'Device IP', and 'Device Password'. A blue arrow points from the 'Signing Password' field to a callout box on the right.

Section	Field	Value
Build	SDK Path	C:\Program Files\Research In Motion\BlackBerry
	Project Root	C:\eclipse_5.0.5.1\workspace\WorklightDemo\app
	Archive Name	bbWorklightDemo
	Output Folder	C:\bbWorklightDemo
Sign	Signing Password	[Redacted]
	Bundle Number	[Redacted]
Launch	Target	Simulator
	Device IP	9.148.225.180
	Device Password	[Redacted]

Sign your app with a BlackBerry 10 developer certificate to run it on a BlackBerry 10 handset. Specify your certificate password here.

Signing is **NOT** required to run the application in the BlackBerry 10 Simulator.

# Packaging Your Application

- Complete the following values:

**Settings** [x]

**Package**

**Build**

SDK Path: C:\Program Files\Research In Motion\BlackBerry

Project Root: C:\eclipse\_5.0.5.1\workspace\WorklightDemo\app

Archive Name: bbWorklightDemo

Output Folder: C:\bbWorklightDemo

Enable Remote Web Inspector:

**Sign**

Signing Password:

Bundle Number:

**Launch**

Target: Simulator

Device IP: 9.148.225.180

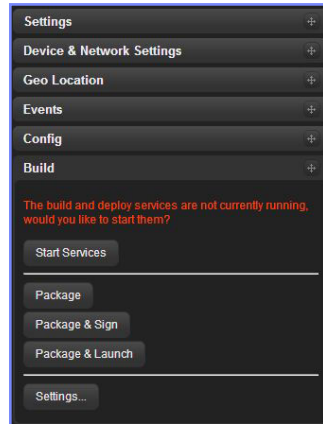
Device Password:

Select your target:  
device or simulator.

Then, enter the  
device IP and  
password.

## Packaging Your Application

- Before you package the application, click **Start Services**.
- Package your application.
- At the end of the packaging process, you receive indication about the process success or failure.
- For more information about application packaging, see the BlackBerry Developer website.



## Agenda

- Adding a BlackBerry environment
- Brief review of the BlackBerry environment folder structure
- Running your application on the BlackBerry Ripple Emulator
- Packaging your application
- Run application on a BlackBerry Simulator / handsets



## Run application on a BlackBerry Simulator / handsets

- To load and run your application on a simulator or device, open a command prompt and navigate to the dependencies\tools\bin folder under your BlackBerry 10 SDK folder.

- Then, use the following command to load and run your application:

```
blackberry-deploy -installApp -password
<simulator password> -device <simulator
IP address> -package <BAR file path>
```

- Use the following command to remove your application:

```
blackberry-deploy -uninstallApp -device
<IP_address> -package <bar file name> -
password <device password>
```



## ***Run application Using Cordova Ant tool***

- Worklight BlackBerry 10 application supports Cordova Ant tool to package and run your application.
- After you build your Worklight application, open the project.properties file under the /native directory and edit it as follows:
  - To run on a device:
    - qnx.device.ip = <Device IP>
    - qnx.device.password = <Device password>
    - qnx.device.pin = <Device PIN number>
    - qnx.sigtool.password = <BlackBerry 10 Code Signing Password>
  - To run on a simulator:
    - qnx.sim.ip = <simulator IP>
    - qnx.sim.password = <simulator password>
- To get a BlackBerry 10 Code Signing keys visit:  
<https://www.blackberry.com/SignedKeys/codesigning.html>

## ***Run application Using Cordova Ant tool***

- To run an application on a device or a simulator, use the following Cordova ant script:
  - ant qnx debug-device
  - ant qnx load-device
  - ant qnx debug-simulator
  - ant qnx load-simulator

# Notices

- Permission for the use of these publications is granted subject to these terms and conditions.
- This information was developed for products and services offered in the U.S.A.
- IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.
- IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:
  - IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.
- For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:
  - Intellectual Property Licensing  
Legal and Intellectual Property Law  
IBM Japan Ltd.  
1623-14, Shimotsuruma, Yamato-shi  
Kanagawa 242-8502 Japan
- **The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:**  
INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.
- This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.
- Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.
- IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.
- Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:
  - IBM Corporation  
Dept F6, Bldg 1  
294 Route 100  
Somers NY 10589-3216  
USA
- Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.
- The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.
- Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

## COPYRIGHT LICENSE:

- This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs.
- Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:  
© (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. \_enter the year or years\_. All rights reserved.

# Support and comments

- For the entire IBM Worklight documentation set, training material and online forums where you can post questions, see the IBM website at:
  - <http://www.ibm.com/mobile-docs>
- **Support**
  - Software Subscription and Support (also referred to as Software Maintenance) is included with licenses purchased through Passport Advantage and Passport Advantage Express. For additional information about the International Passport Advantage Agreement and the IBM International Passport Advantage Express Agreement, visit the Passport Advantage website at:
    - <http://www.ibm.com/software/passportadvantage>
  - If you have a Software Subscription and Support in effect, IBM provides you assistance for your routine, short duration installation and usage (how-to) questions, and code-related questions. For additional details, consult your IBM Software Support Handbook at:
    - <http://www.ibm.com/support/handbook>
- **Comments**
  - We appreciate your comments about this publication. Please comment on specific errors or omissions, accuracy, organization, subject matter, or completeness of this document. The comments you send should pertain to only the information in this manual or product and the way in which the information is presented.
  - For technical questions and information about products and prices, please contact your IBM branch office, your IBM business partner, or your authorized remarketer.
  - When you send comments to IBM, you grant IBM a nonexclusive right to use or distribute your comments in any way it believes appropriate without incurring any obligation to you. IBM or any other organizations will only use the personal information that you supply to contact you about the issues that you state.
  - Thank you for your support.
  - Submit your comments in the IBM Worklight forums at:
    - <https://www.ibm.com/developerworks/mobile/mobileforum.html>
  - If you would like a response from IBM, please provide the following information:
    - Name
    - Address
    - Company or Organization
    - Phone No.
    - Email address

***Thank You***

