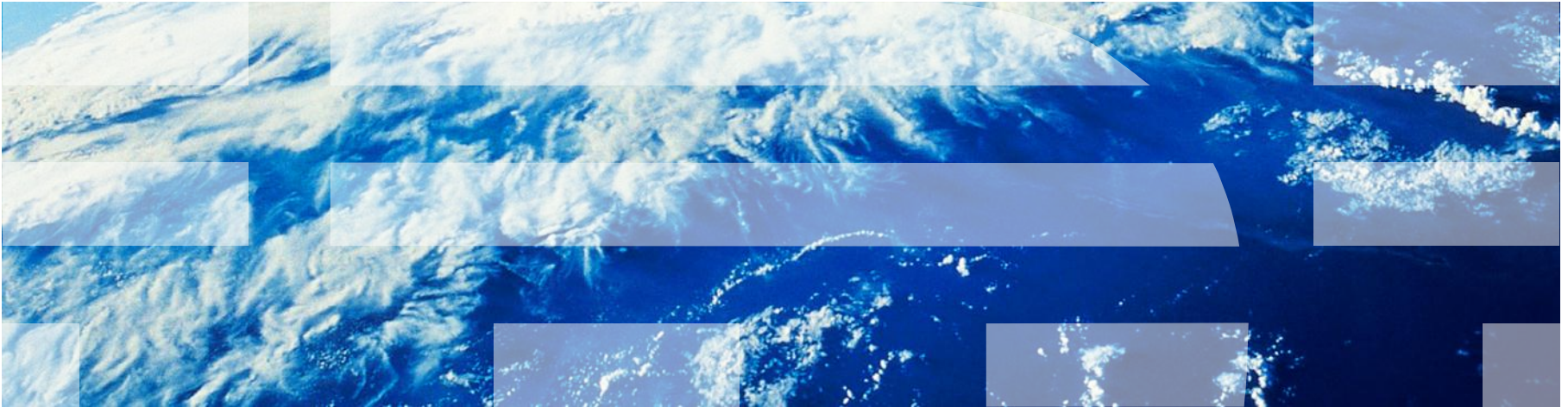


# ***IBM Worklight Foundation V6.2.0 Getting Started***

## **Previewing your application on BlackBerry 10**



## ***Trademarks***

- IBM, the IBM logo, ibm.com, and Worklight are trademarks or registered trademarks of International Business Machines Corporation, registered in many jurisdictions worldwide. 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®***

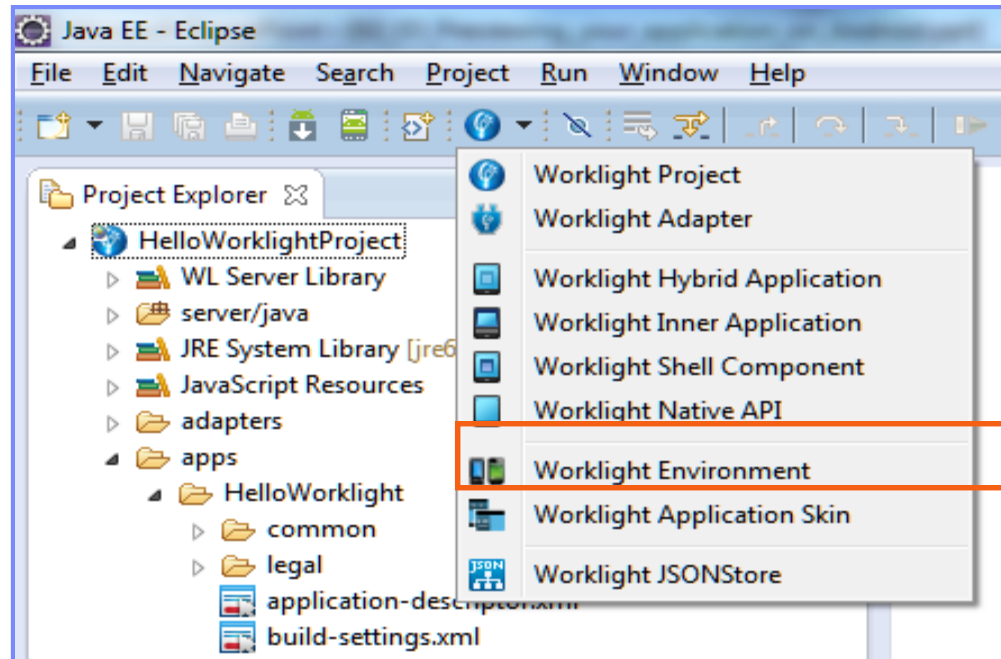
- See <http://www.ibm.com/ibm/us/en/>

# Agenda

- Adding a BlackBerry 10 environment
- Review of the BlackBerry 10 environment folder structure
- Previewing your application with the Mobile Browser Simulator
- Previewing your application on the BlackBerry Ripple Emulator
- Packaging your application
- Running your application and running it on BlackBerry Simulator / handsets

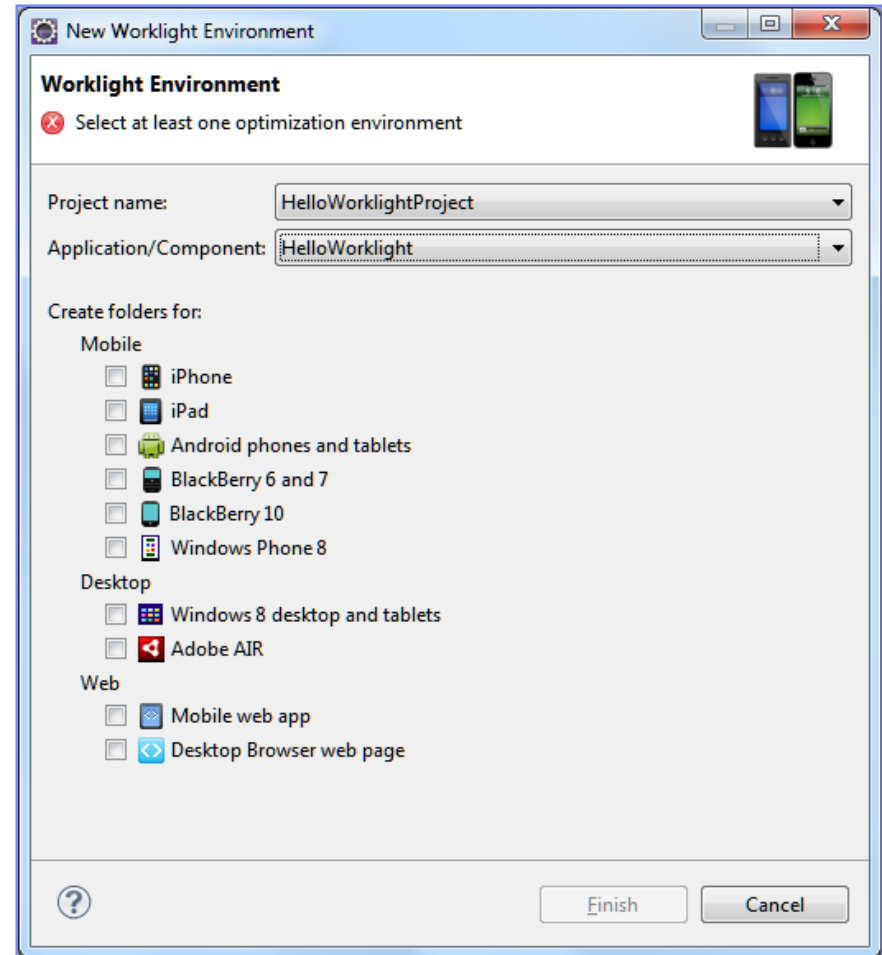
## Adding a BlackBerry 10 environment

- You must define a **WEBWORKS\_HOME** environment variable. The value of this variable must be the path to your WebWorks SDK.
- Create your Worklight BlackBerry 10 application.
- Click the Worklight® icon, and select **Worklight Environment** to add an environment to your application.



## Adding a BlackBerry 10 environment - continued

- Select the **BlackBerry 10** check box, and then click **Finish**.
- A `blackberry10` folder is automatically added.

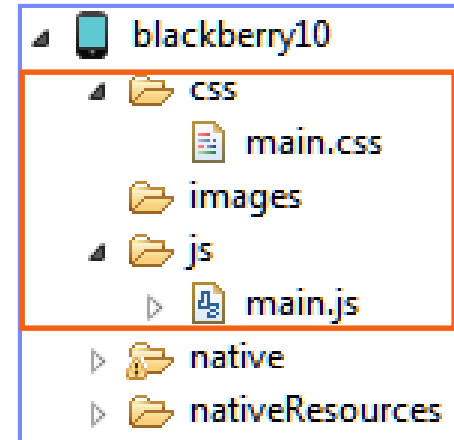


# Agenda

- Adding a BlackBerry 10 environment
- Review of the BlackBerry 10 environment folder structure
- Previewing your application with the Mobile Browser Simulator
- Previewing your application on the BlackBerry Ripple Emulator
- Packaging your application
- Running your application and running it on BlackBerry Simulator / handsets

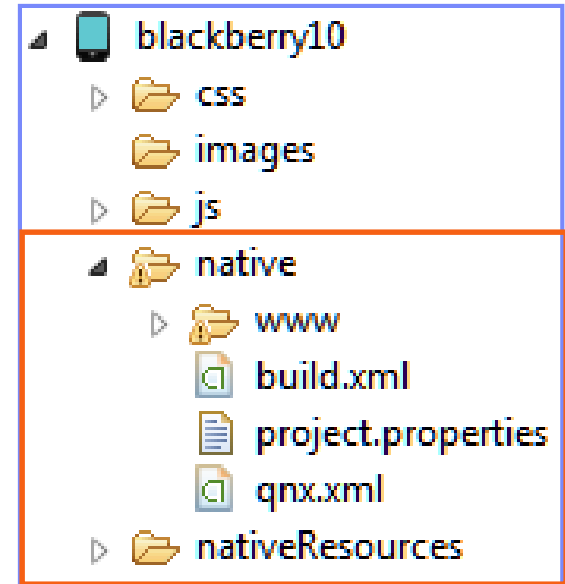
## Review of the BlackBerry 10 environment folder structure

- 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` – Contains JavaScript™ that can extend and, if required, override JavaScript from the `common` folder.



## Review of the BlackBerry 10 environment folder structure - continued

- The `native` folder contains automatically generated BlackBerry app code that is ready to be packaged.
  - The CSS, HTML, and js files in the `native/www` 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.



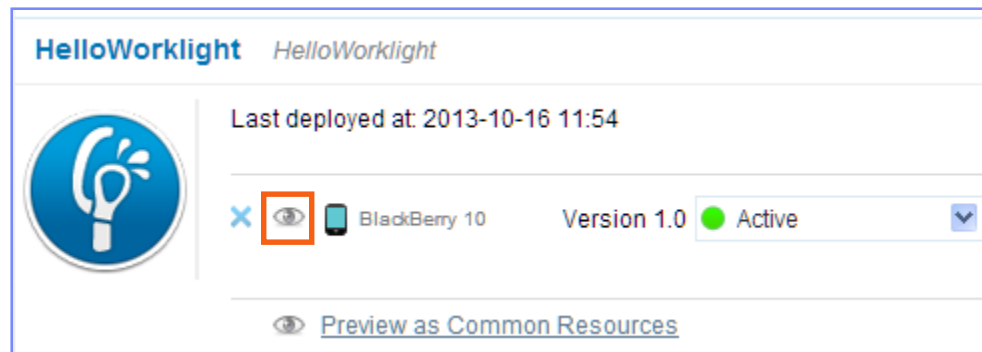


# Agenda

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

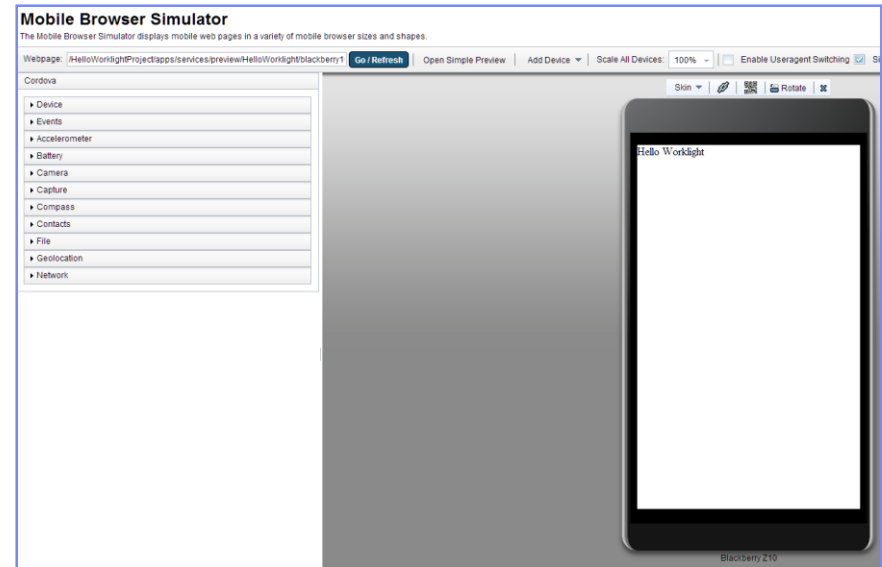
## Previewing your application with the Mobile Browser Simulator

- Once your application is built and deployed in Worklight Studio, you can preview it in the Mobile Browser Simulator.
- Right-click the project and then **Open Worklight Console**, or browse to the Worklight Console, and then click the preview icon beside the environment name.



## Previewing your application with the Mobile Browser Simulator - continued

- The Mobile Browser Simulator (MBS) can be used to emulate Cordova, or to preview your application with different device skins.
  - *Limitation about the Mobile Browser Simulator.*
    - To preview an application that contains security tests that rely on the device (such as auto-provisioning or authenticity), you must temporarily change the security test settings so that they do not use the device identification.



# Agenda

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

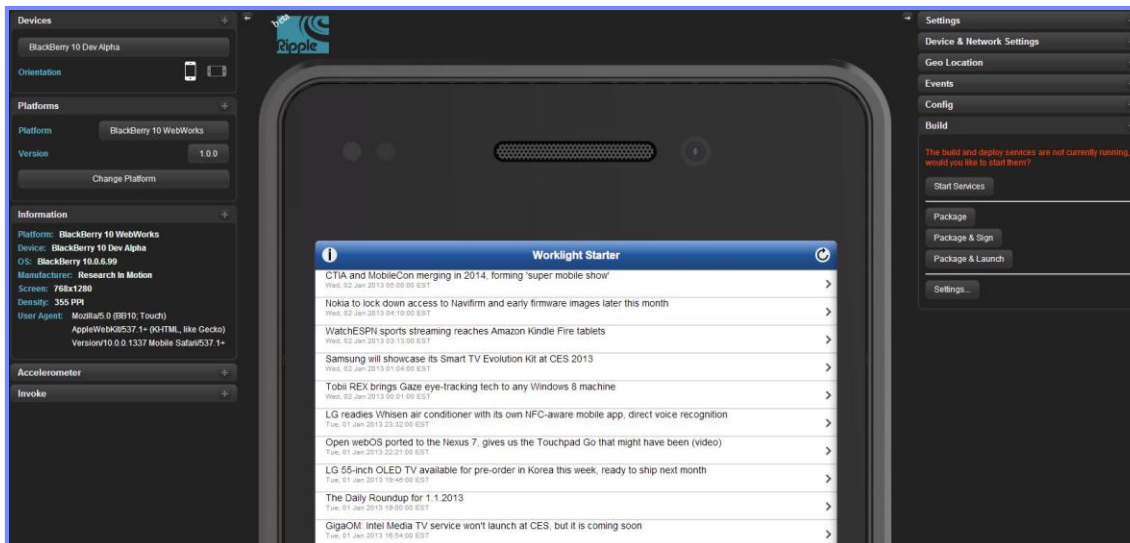
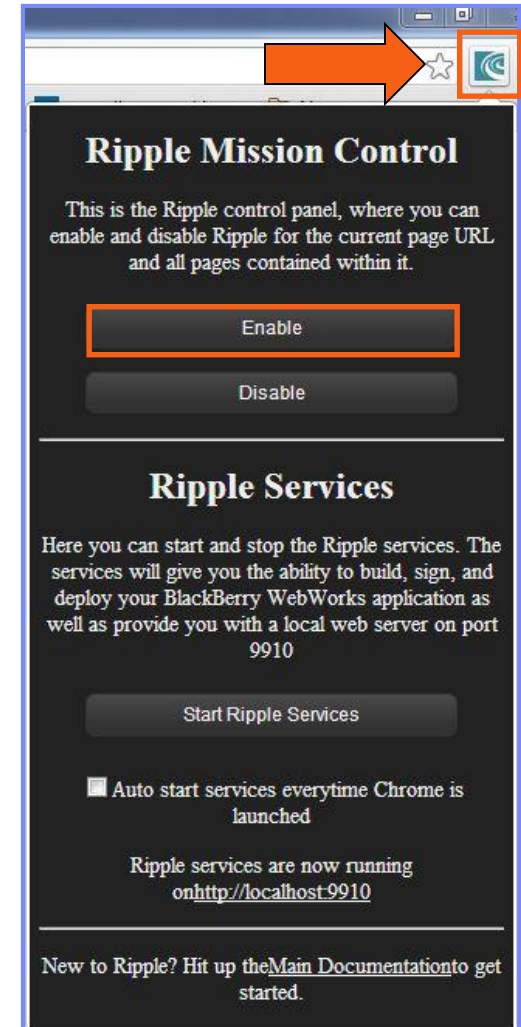
## Previewing your application on the BlackBerry Ripple Emulator

- Click **Open Simple Preview**.
- Make sure to enable the Ripple plug-in in Chrome.



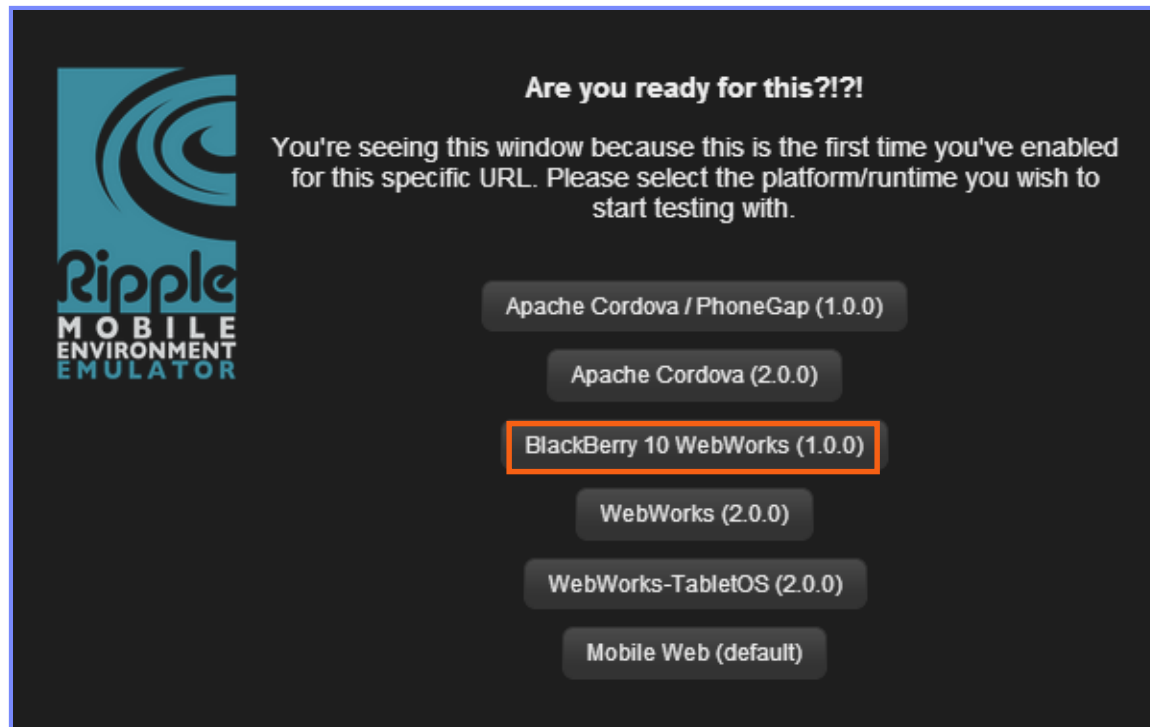
# Previewing your application on the BlackBerry Ripple Emulator - continued

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



## *Previewing your application on the BlackBerry Ripple Emulator - continued*

- If you get the following screen, choose **BlackBerry 10 WebWorks (1.0.0)** to proceed with previewing the application.



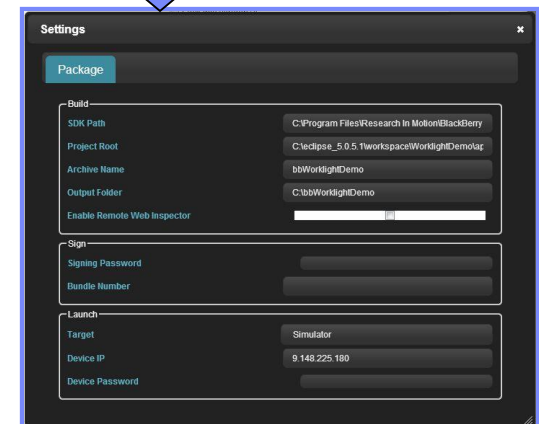
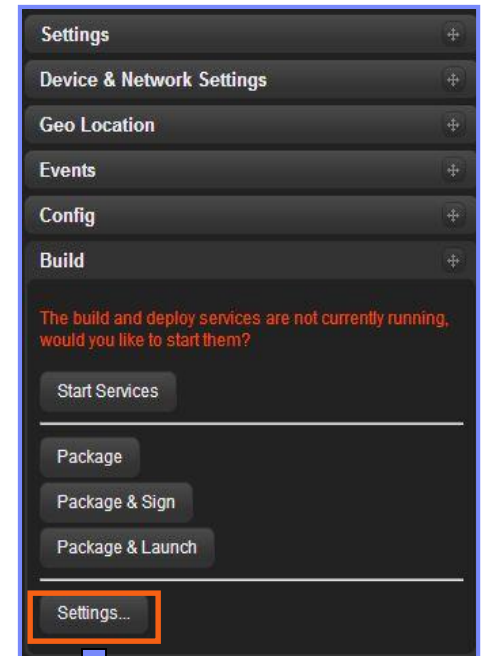
# Agenda

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



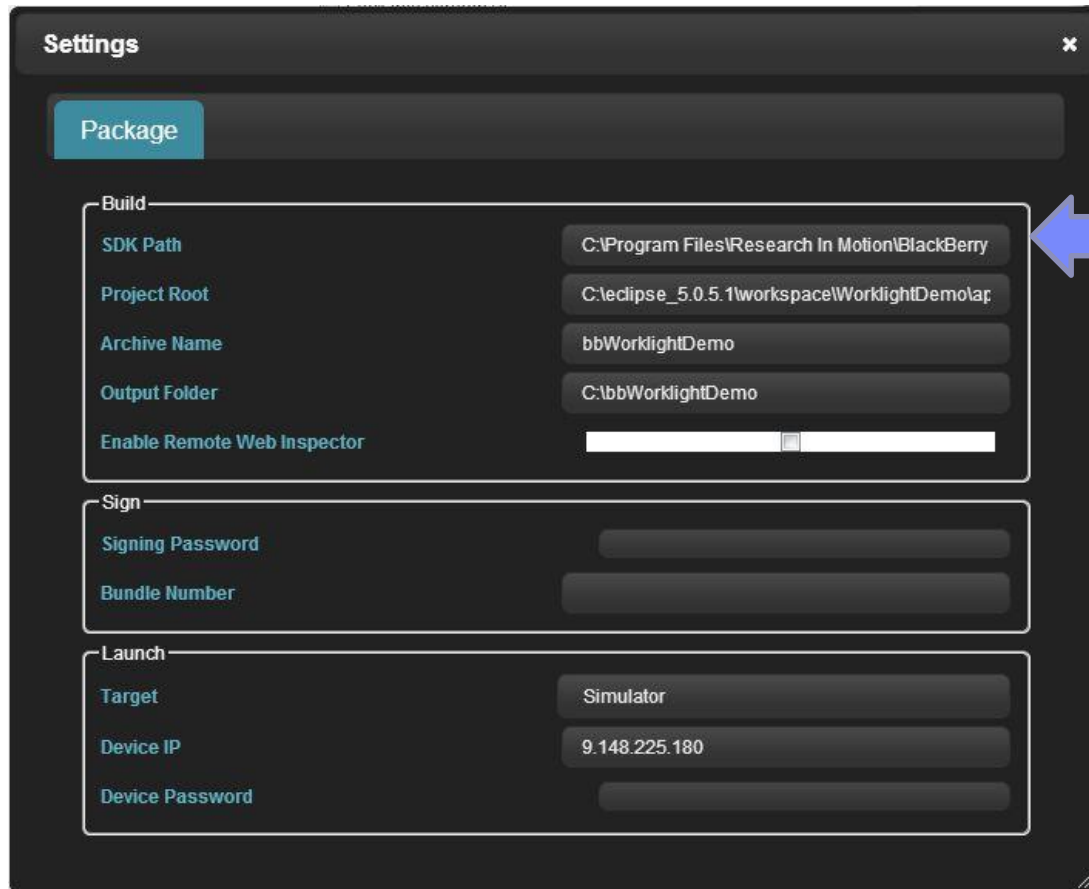
# Packaging your application

- 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**.



## Packaging your application – continued

- Complete the following fields:



The screenshot shows the 'Settings' dialog box with the 'Package' tab selected. The 'Build' section contains the following fields:

Field	Value
SDK Path	C:\Program Files\Research In Motion\BlackBerry
Project Root	C:\eclipse_5.0.5.1\workspace\WorklightDemo\ap
Archive Name	bbWorklightDemo
Output Folder	C:\bbWorklightDemo
Enable Remote Web Inspector	<input type="checkbox"/>

The 'Sign' section contains the following fields:

Field	Value
Signing Password	
Bundle Number	

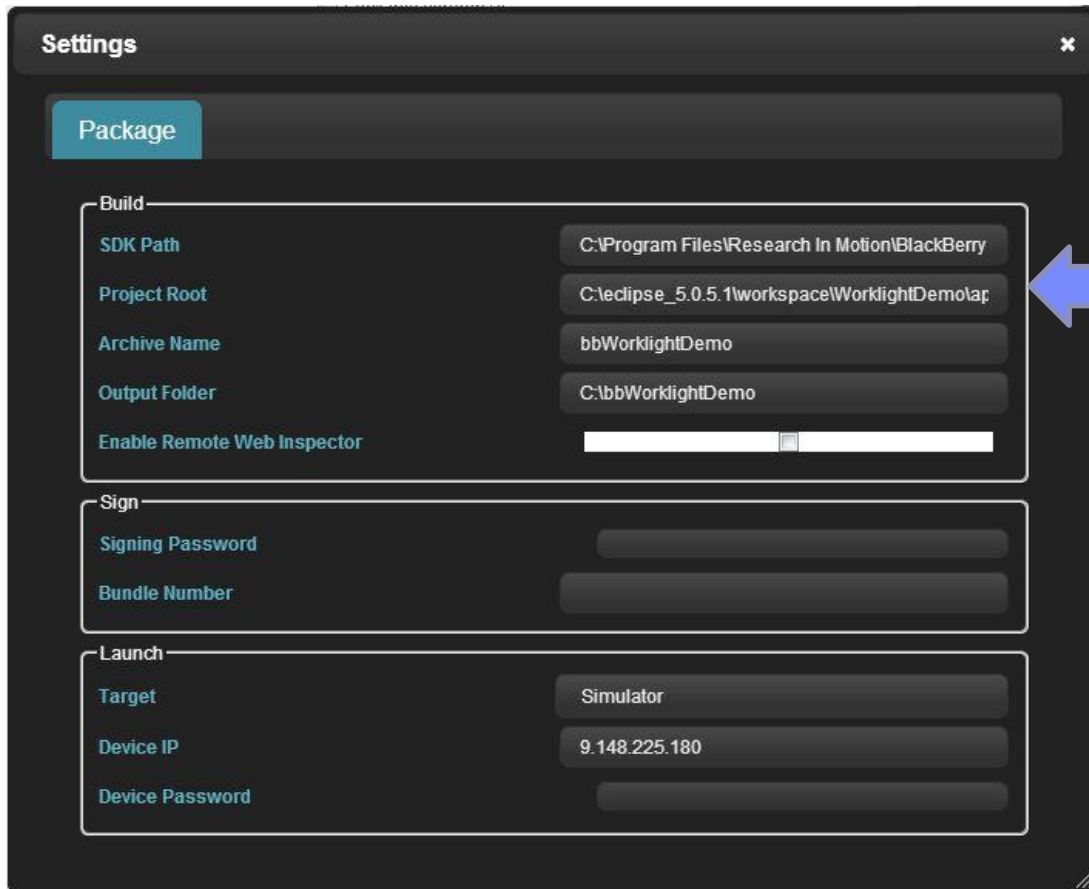
The 'Launch' section contains the following fields:

Field	Value
Target	Simulator
Device IP	9.148.225.180
Device Password	

Path where BlackBerry WebWorks SDK is installed

## Packaging your application – continued

- Complete the following fields:



The screenshot shows the 'Settings' dialog box with the 'Package' tab selected. The 'Build' section contains the following fields:

Field	Value
SDK Path	C:\Program Files\Research In Motion\BlackBerry
Project Root	C:\eclipse_5.0.5.1\workspace\WorklightDemo\ap
Archive Name	bbWorklightDemo
Output Folder	C:\bbWorklightDemo
Enable Remote Web Inspector	<input type="checkbox"/>

The 'Sign' section contains the following fields:

Field	Value
Signing Password	
Bundle Number	

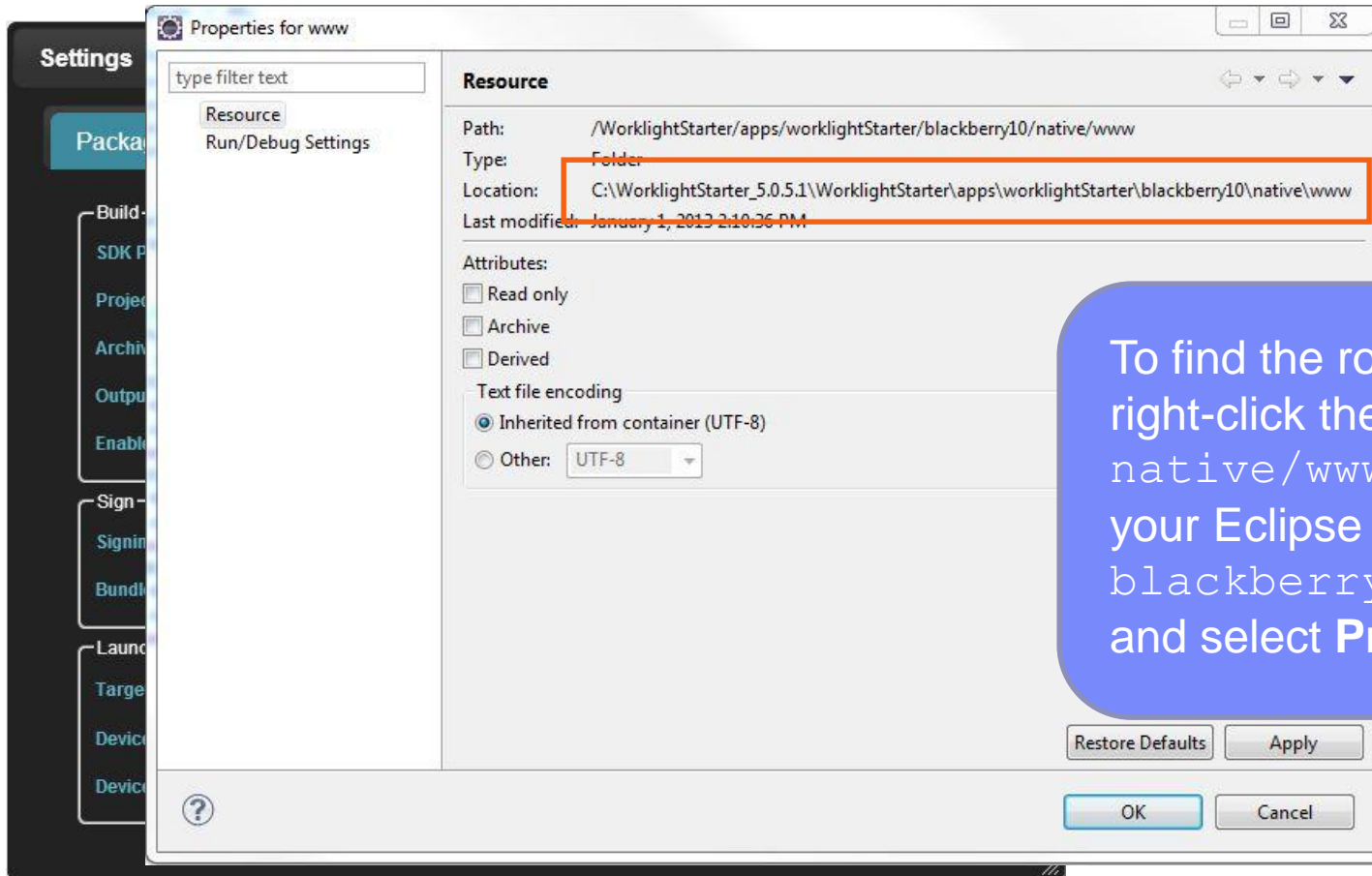
The 'Launch' section contains the following fields:

Field	Value
Target	Simulator
Device IP	9.148.225.180
Device Password	

The root folder of your project.

# Packaging your application – continued

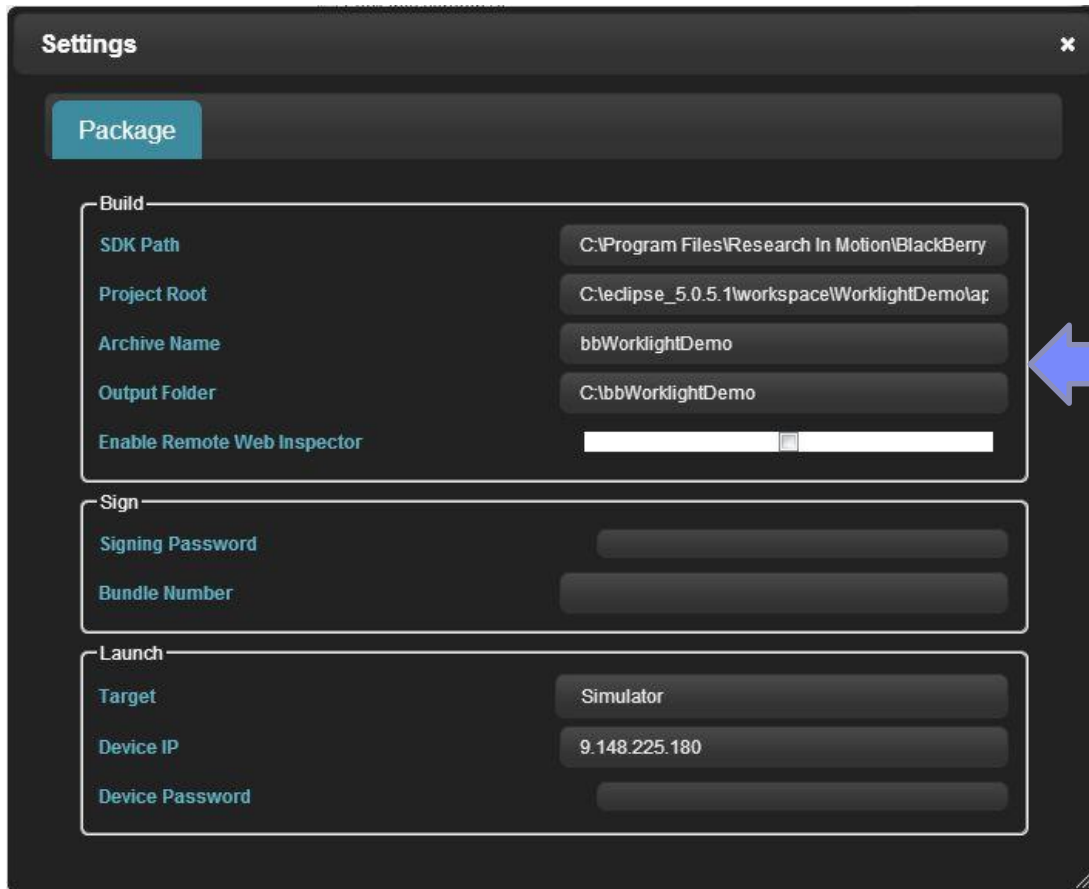
- Complete the following fields:



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

## Packaging your application – continued

- Complete the following fields:



The screenshot shows the 'Settings' dialog box with the 'Package' tab selected. The 'Build' section contains the following fields:

Field	Value
SDK Path	C:\Program Files\Research In Motion\BlackBerry
Project Root	C:\eclipse_5.0.5.1\workspace\WorklightDemo\ap
Archive Name	bbWorklightDemo
Output Folder	C:\bbWorklightDemo
Enable Remote Web Inspector	<input type="checkbox"/>

The 'Sign' section contains the following fields:

Field	Value
Signing Password	
Bundle Number	

The 'Launch' section contains the following fields:

Field	Value
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 – continued

- Complete the following fields:

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

Sign you 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 – continued

- Complete the following fields:

Settings

Package

Build

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

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

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:

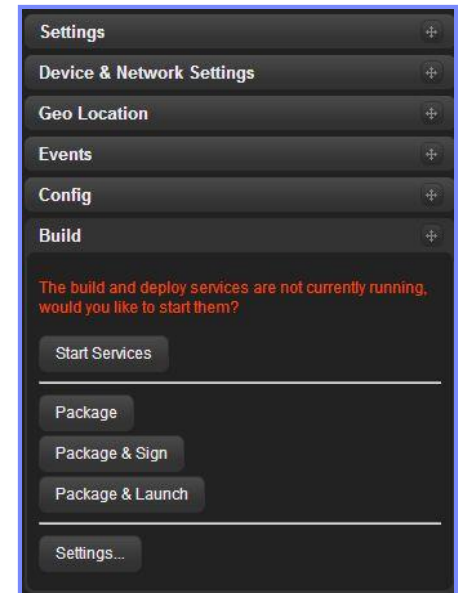
Select your target:  
device or simulator.

Then, enter the  
device IP and  
password.

The Device IP  
address can be found  
by using either the  
BlackBerry Desktop  
Manager, or in the  
device settings.

## *Packaging your application – continued*

- 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
- Review of the BlackBerry environment folder structure
- Previewing your application with the Mobile Browser Simulator
- Previewing 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 packaged application on a simulator or device, open a command prompt and navigate to the dependencies\tools\bin folder under your BlackBerry 10 SDK folder.
- 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 with 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, see <https://www.blackberry.com/SignedKeys/codesigning.html>

## ***Run application with Cordova Ant tool - continued***

- To run an application on a device or a simulator, use the following Cordova ant scripts:
  - 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.

## Privacy Policy Considerations

- IBM Software products, including software as a service solutions, ("Software Offerings") may use cookies or other technologies to collect product usage information, to help improve the end user experience, to tailor interactions with the end user or for other purposes. In many cases no personally identifiable information is collected by the Software Offerings. Some of our Software Offerings can help enable you to collect personally identifiable information. If this Software Offering uses cookies to collect personally identifiable information, specific information about this offering's use of cookies is set forth below.
- Depending upon the configurations deployed, this Software Offering may use session cookies that collect session information (generated by the application server). These cookies contain no personally identifiable information and are required for session management. Additionally, persistent cookies may be randomly generated to recognize and manage anonymous users. These cookies also contain no personally identifiable information and are required.
- If the configurations deployed for this Software Offering provide you as customer the ability to collect personally identifiable information from end users via cookies and other technologies, you should seek your own legal advice about any laws applicable to such data collection, including any requirements for notice and consent. For more information about the use of various technologies, including cookies, for these purposes, see IBM's Privacy Policy at <http://www.ibm.com/privacy> and IBM's Online Privacy Statement at <http://www.ibm.com/privacy/details> the sections entitled "Cookies, Web Beacons and Other Technologies" and the "IBM Software Products and Software-as-a-Service Privacy Statement" at <http://www.ibm.com/software/info/product-privacy>.

# 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 Developer Edition support community at:
    - <https://www.ibm.com/developerworks/mobile/worklight/connect.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***

