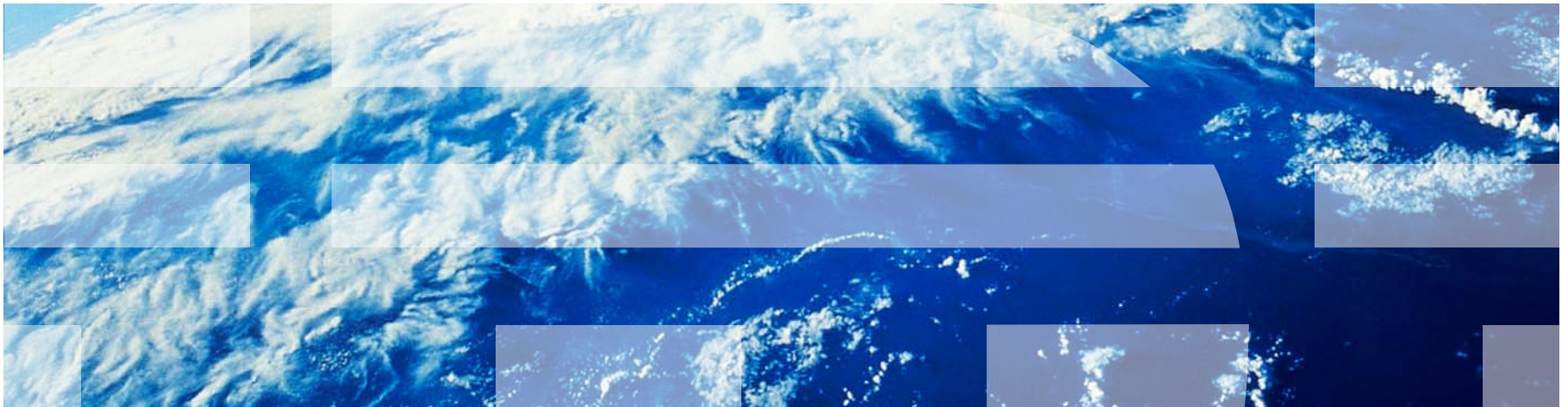


IBM Worklight V6.1.0 Getting Started

Testing IBM Worklight mobile applications with the Mobile Test Workbench



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Overview

- The IBM Mobile Test Workbench for Worklight® provides several unique resources to test Worklight applications.
- With the test workbench, you can create functional tests for IBM Worklight hybrid and native applications running on iOS or Android.
- The test workbench creates tests in a natural language, and provides visual test editing.
- The test workbench runs within Eclipse, and is integrated with Worklight Studio.



Overview – continued

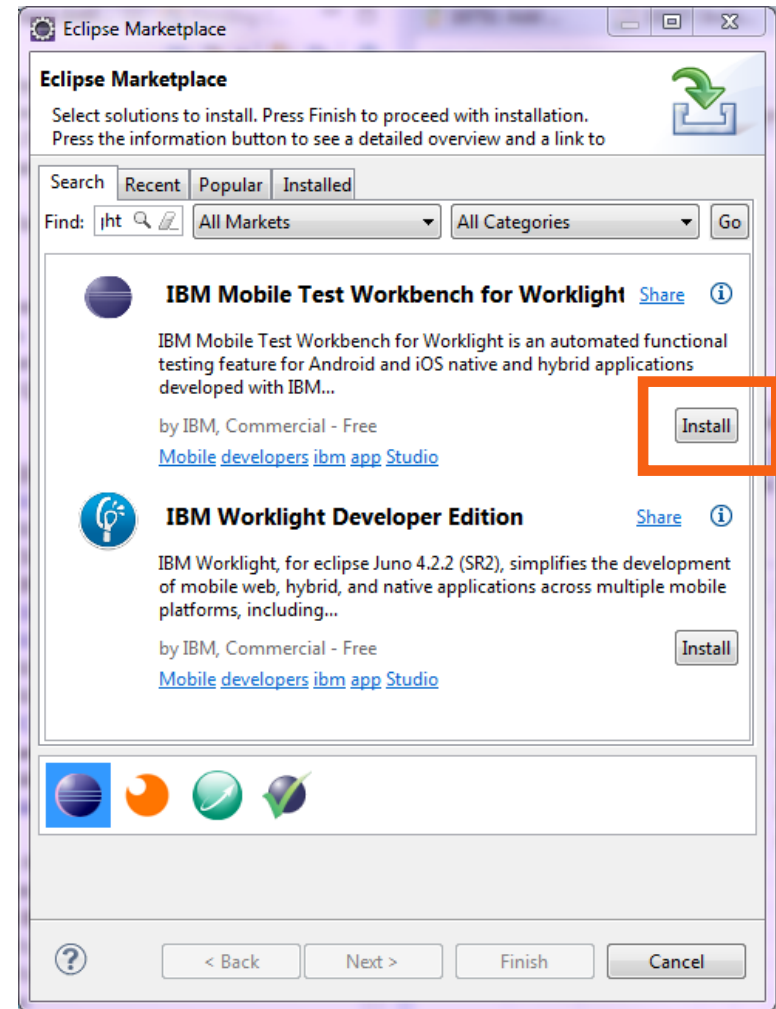
- The testing approach with the test workbench consists of four stages:
 - **Recording**: You first play your test with the recording-ready app, and generate a test script.
 - **Authoring**: You edit and enhance the test script by adding verification points and others instructions.
 - **Playback**: You run the test script on a real device or a simulator.
 - **Reporting**: You generate an HTML report.

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Installing and configuring



- To use the IBM Mobile Test Workbench for Worklight, you must install an Eclipse plug-in into an existing instance of Worklight Studio.
- In Worklight Studio, use **Help > Eclipse Marketplace**, and search for **Worklight**.
- When you locate the IBM Mobile Test Workbench for Worklight, click **Install**.
- Note that both Worklight Studio V6.0 and IBM Mobile Test Workbench for Worklight run in Eclipse 4.2.2 (Juno).
- New installations of IBM Mobile Test Workbench for Worklight require the latest version of Worklight Studio.



Installing and configuring – continued

- After the test workbench is installed, you can see that a new **Test Workbench** perspective is available in Eclipse:



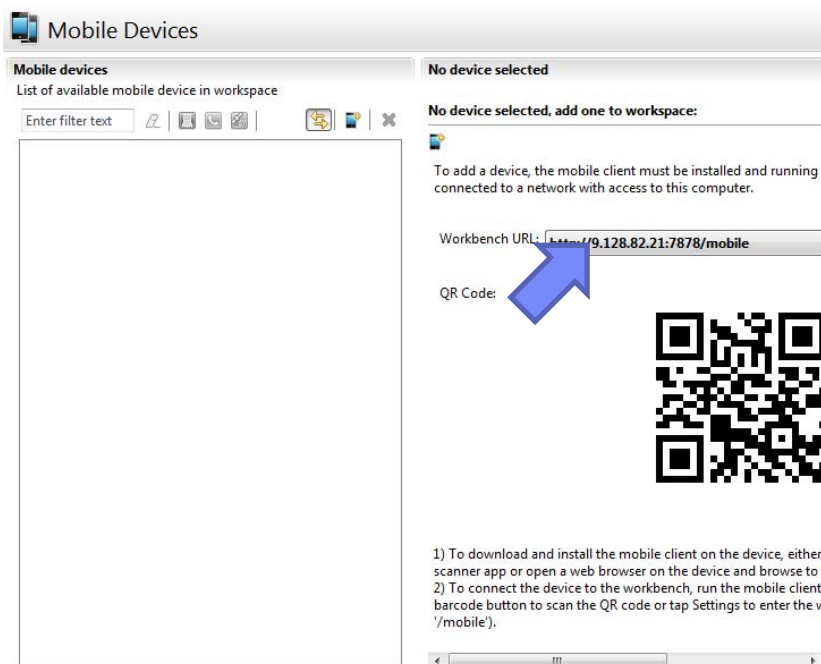
- Also note the following icons in the Eclipse toolbar:
 -  opens the **Mobile Applications** view. This view lists all the applications that are available for testing.
 -  opens the **Mobile Devices** view. This view lists the devices that you use to test your application.

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The mobile client

- With the mobile client application, you can record tests, run test playbacks, and view reports on the mobile device.
- This mobile application must be installed on a real device or on a simulator.
- The mobile client communicates with the test workbench to install applications, to store test scripts, and to test results. Note the **Workbench URL** in the **Mobile Devices** view.

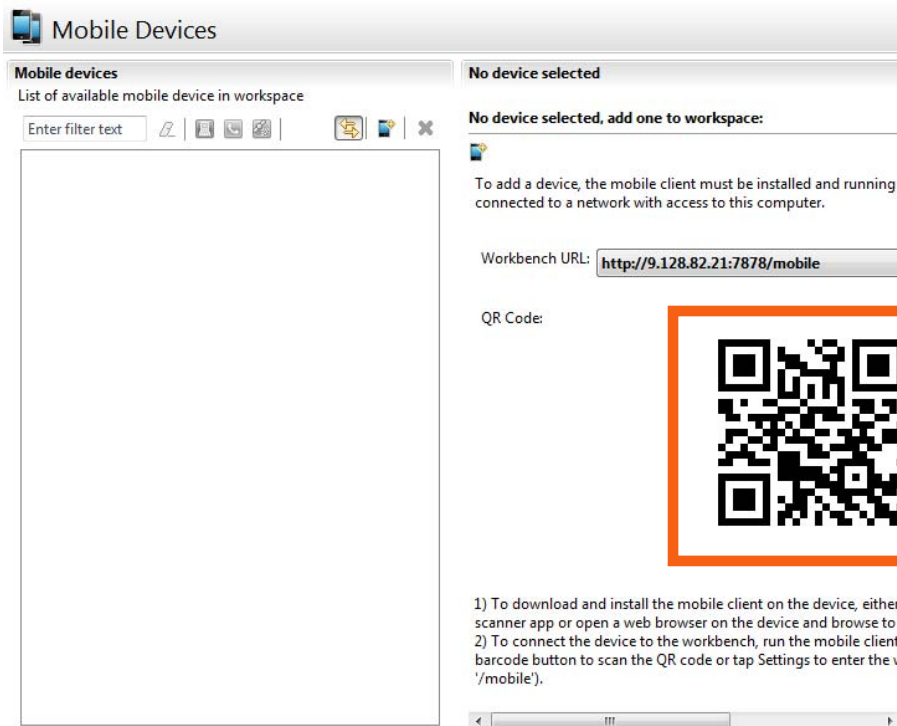


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Installing the Android mobile client

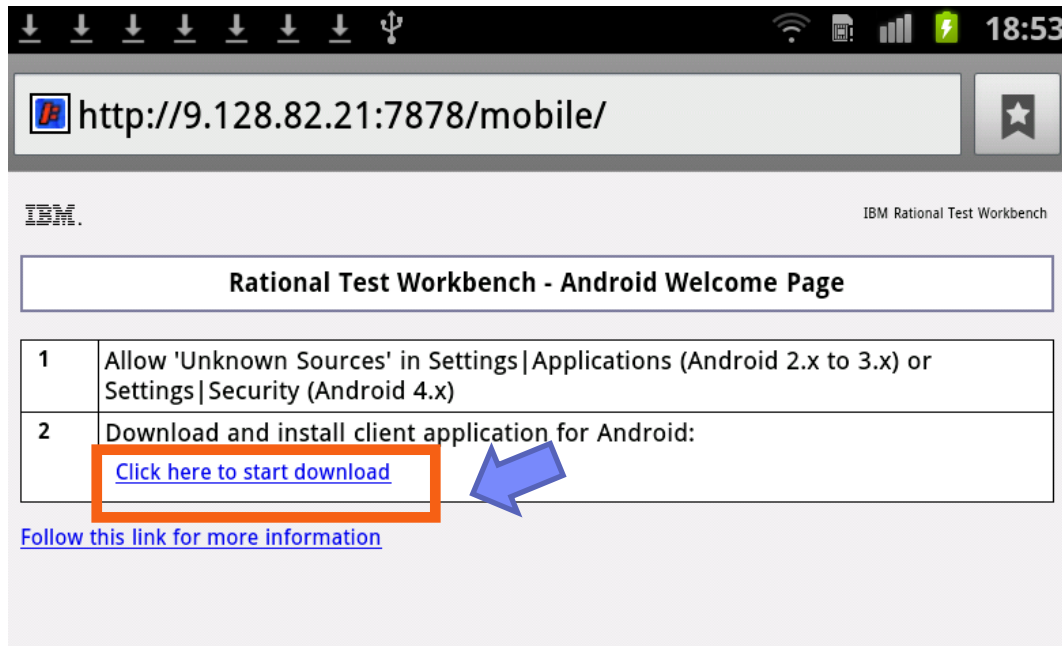
- To install the mobile client on an Android device or a simulator:
 - Use the QR code that is available in the **Mobile Devices** view to open an installation page on the device.



The screenshot shows a software interface titled "Mobile Devices". On the left, there is a section labeled "Mobile devices" with the subtitle "List of available mobile device in workspace". Below this is a search bar with the placeholder text "Enter filter text" and several icons. The main area of this section is currently empty. On the right, there is a section titled "No device selected". Below this, it says "No device selected, add one to workspace:". There is a small icon of a mobile device. Below that, a text box explains: "To add a device, the mobile client must be installed and running connected to a network with access to this computer." Underneath, there is a field for "Workbench URL:" with the value "http://9.128.82.21:7878/mobile". Below the URL field, there is a label "QR Code:" followed by a large QR code that is highlighted with a thick orange border. At the bottom of the right section, there are two numbered instructions: "1) To download and install the mobile client on the device, either scanner app or open a web browser on the device and browse to" and "2) To connect the device to the workbench, run the mobile client barcode button to scan the QR code or tap Settings to enter the w '/mobile')." At the very bottom of the interface, there is a horizontal scrollbar.

Installing the Android mobile client – continued

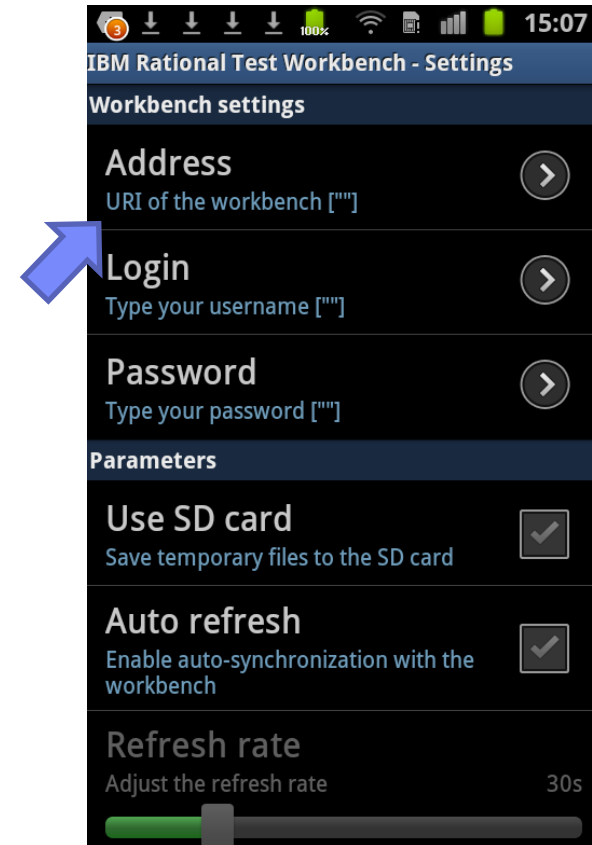
- On the device, the QR code opens a page that displays installation instructions:



- Follow the instructions to download and install the mobile application on your Android device.

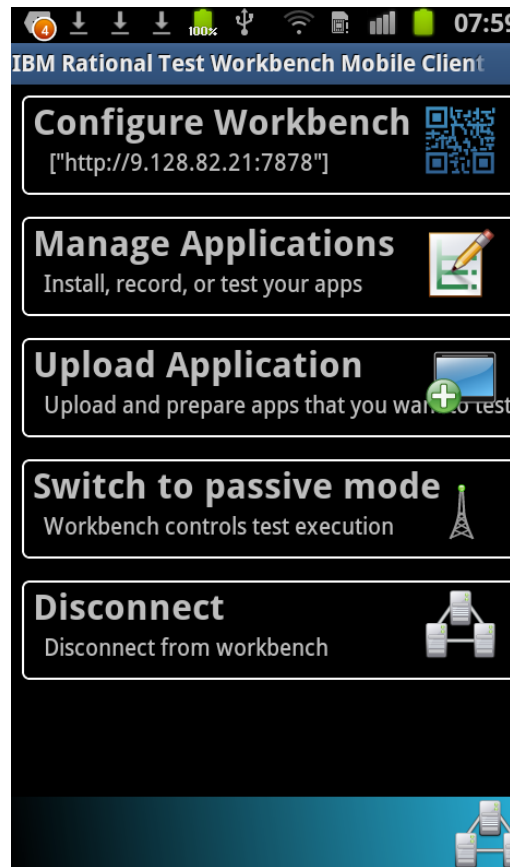
Installing the Android mobile client – continued

- When the **IBM Rational Test Workbench** application is installed on your device, start the application.
- You start by configuring the address of the test workbench in the **Workbench settings** section.
- The URL is the same as the URL of the page opened by the QR code, without `/mobile` at the end.
 - The URL has the following structure: `http://<your-ip-address>:7878`



Installing the Android mobile client – continued

- If the connection is correctly established, you can see the connection icon at the bottom of the screen.



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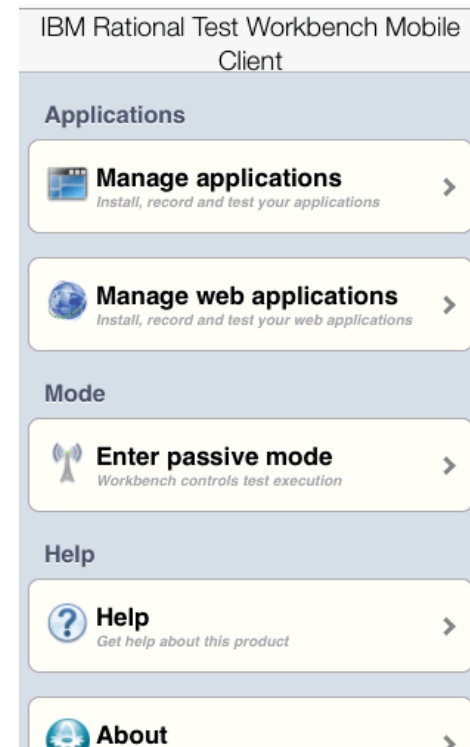
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Installing the iOS mobile client

- On iOS , the mobile client is a web application that runs in the Safari or Chrome browser on your device. To run the client, type the Workbench URL in the following format, in a browser on your device:

http://Workbench_URL:port/mobile

- When using the mobile test client on an iOS device, make sure to enable pop-up windows. Pop-up windows must be allowed for the Workbench IP address. Safari silently disables pop-up windows, and Google Chrome prompts you to allow pop up windows.

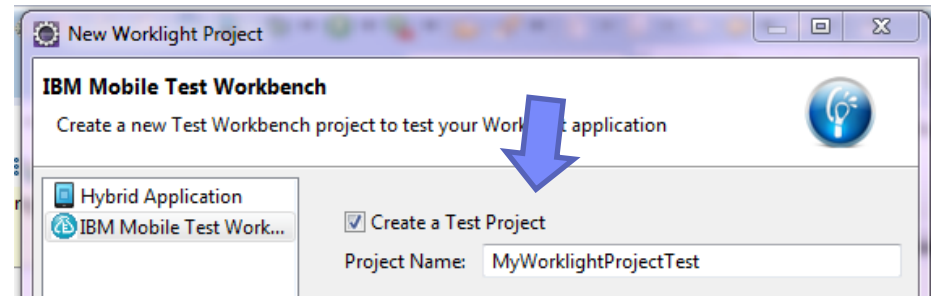
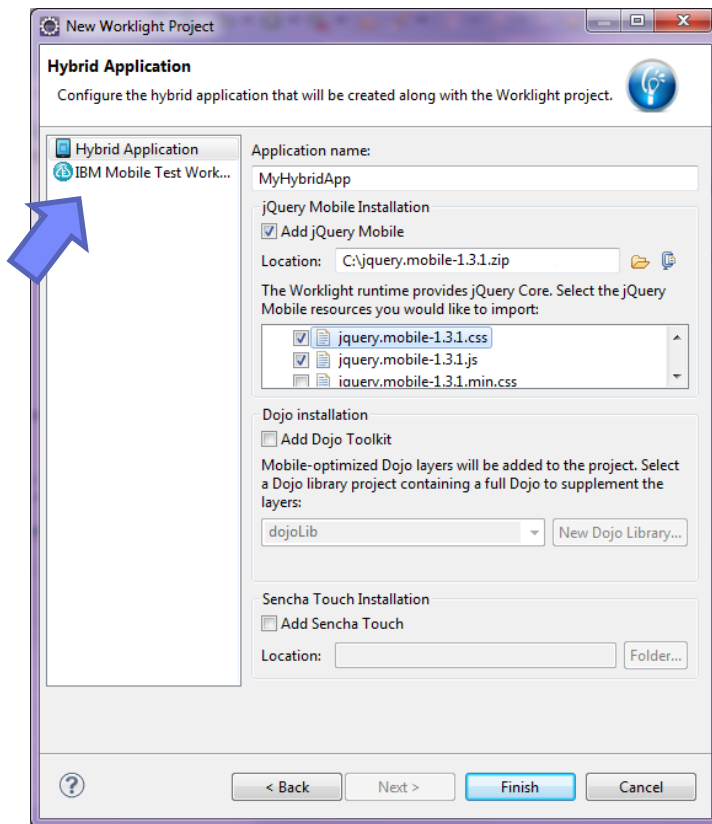


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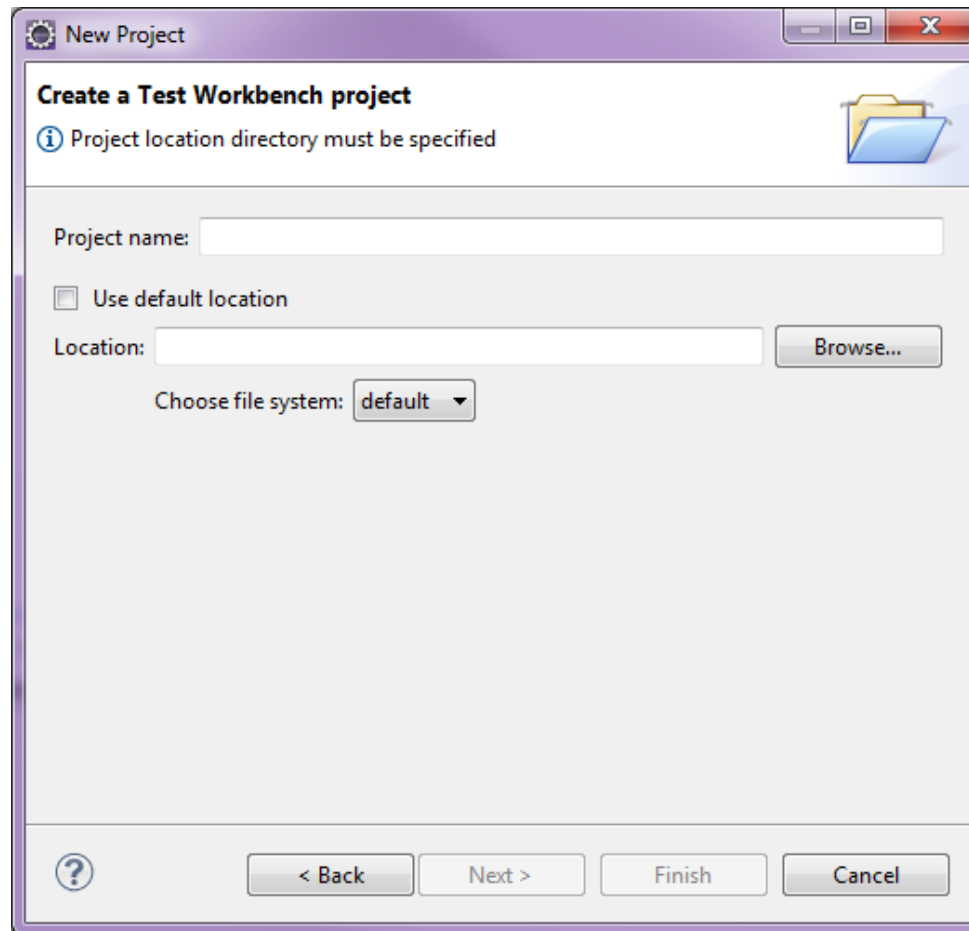
Creating a test project

- To start testing an IBM Worklight application, you must create a test project.
- You can create your test project at the same time as you create your IBM Worklight project, by clicking **IBM Mobile Test Workbench** in the **New Worklight Project** dialog, and by selecting **Create a Test Project**.



Creating a test project – continued

- You can also use **File > New > Test Workbench Project** to create a test project.



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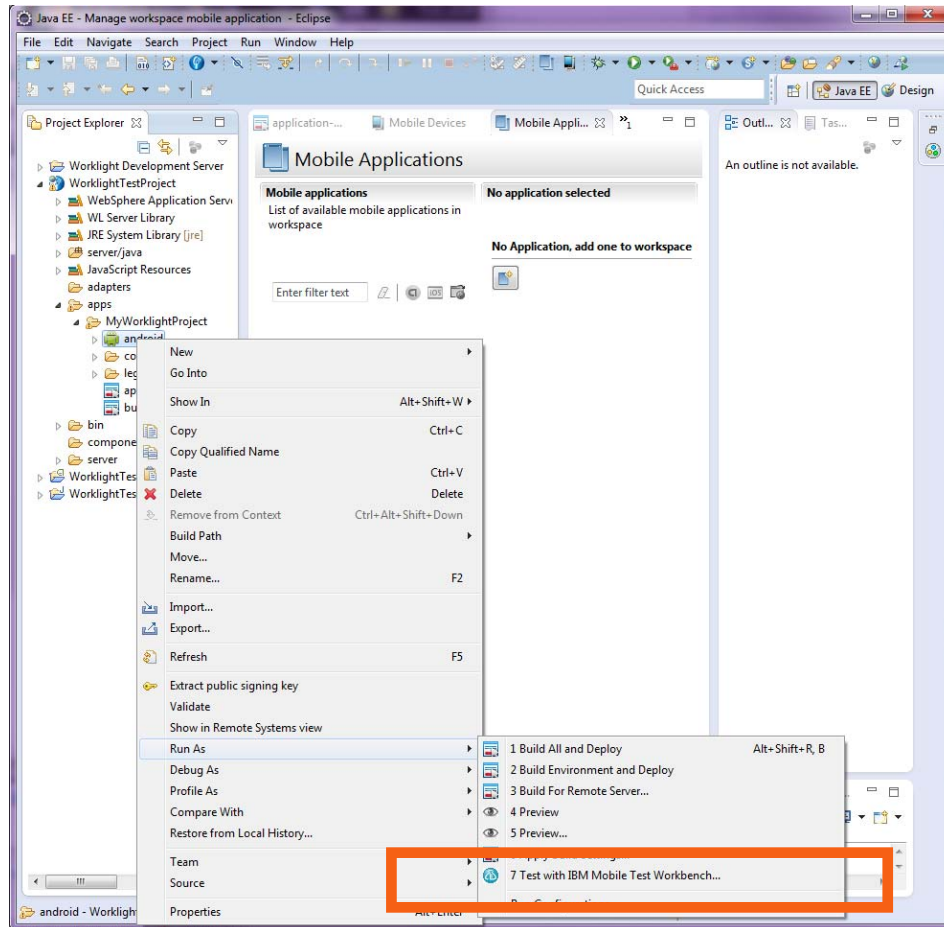
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Preparing the application for testing

- Before you can test an IBM Worklight hybrid application, you must make sure that:
 - (If you test an Android app) You created the native Android project in Worklight Studio by clicking **Run As > Build Android Environment**, and you created the application binary (the APK file) by using the Android tools.
 - For more information about Worklight Android applications, see the module **Previewing your application on Android**, under category 2 of the tutorials.
 - (If you test an iOS application) You created the Xcode project in Worklight Studio by clicking **Run As > Build iPhone Environment**, and the appropriate certificate is specified in the Xcode project in case you want to test on a real device.
 - For more information about Worklight iOS applications, see the module **Previewing your application on iOS**, under category 2 of the tutorials.
 - You performed a build and deployment action on your project by right-clicking the project name, and clicking **Run As > Run on Worklight Development Server**.

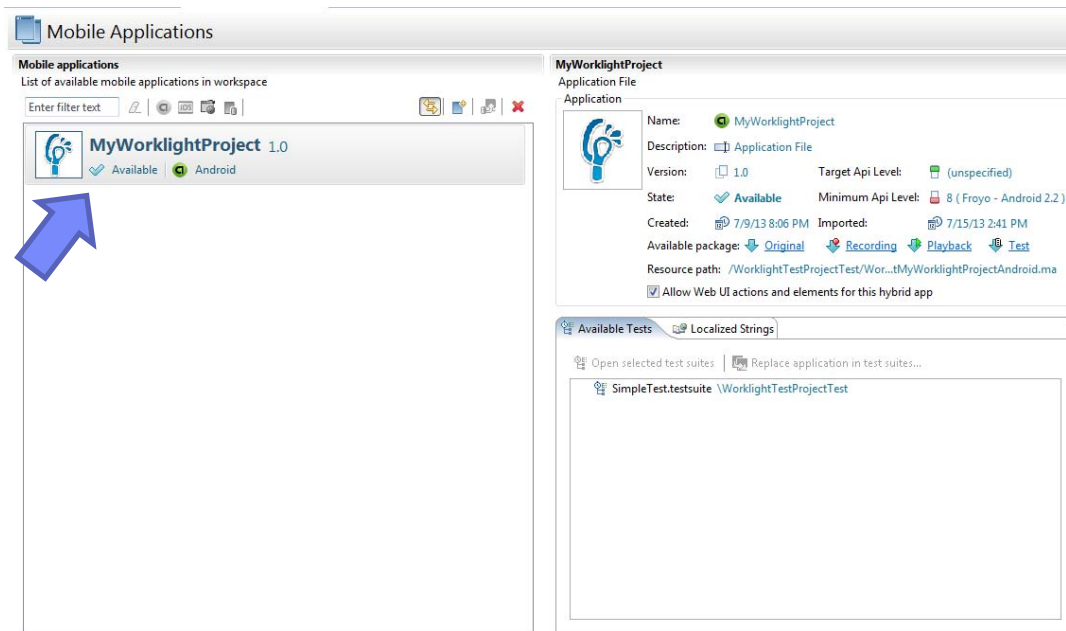
Preparing the application for testing – continued

- Right-click the android, iphone, or ipad environment in your IBM Worklight application, and click **Run As > Test with IBM Mobile Test Workbench**.



Preparing the application for testing – continued

- You can now see the test-ready application in the **Mobile Applications** view in the test workbench, and on the mobile client.



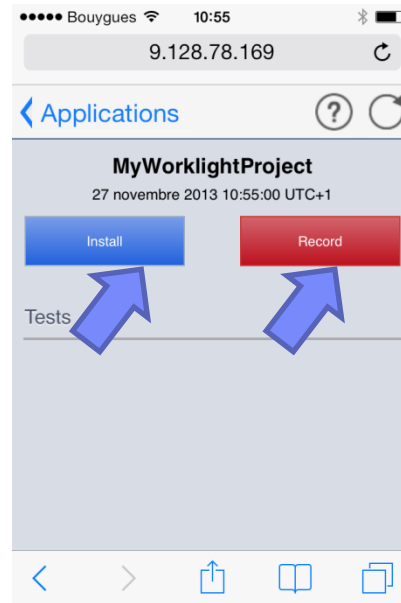
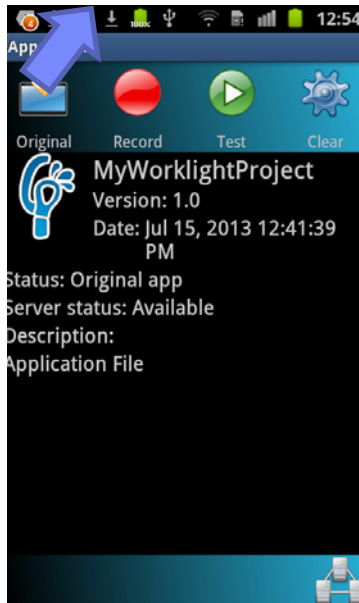
- The status of the application must be **Available** in the **Mobile Applications** view before you can start recording a test.

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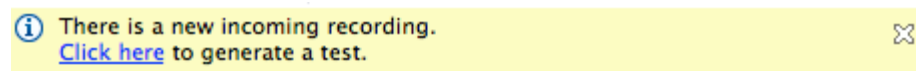
Creating a test

- To start recording a test on the Android client: select the application in the list of managed apps, and click **Record** in the mobile client on the device.
- To start recording a test on the iOS web client: select the application in the list of managed apps, install the app on the device by clicking the **Install** button. When the installation is completed, click **Record**.



Creating a test – continued

- The application runs on the device or emulator.
- Everything you do with the application is recorded and sent to the test workbench. For example, the script records the moment when you press a button, or enter text in an entry field.
- Close the application to stop the recording using the **Home** (iOS) or **Back** (Android) buttons.
- A message indicating the availability of a new recording is displayed on the test workbench.



- Follow the wizard instructions to generate a test from the recording. You will be asked to store the test in the test project.
- For more information about how to create a test, see the IBM Worklight user documentation at:

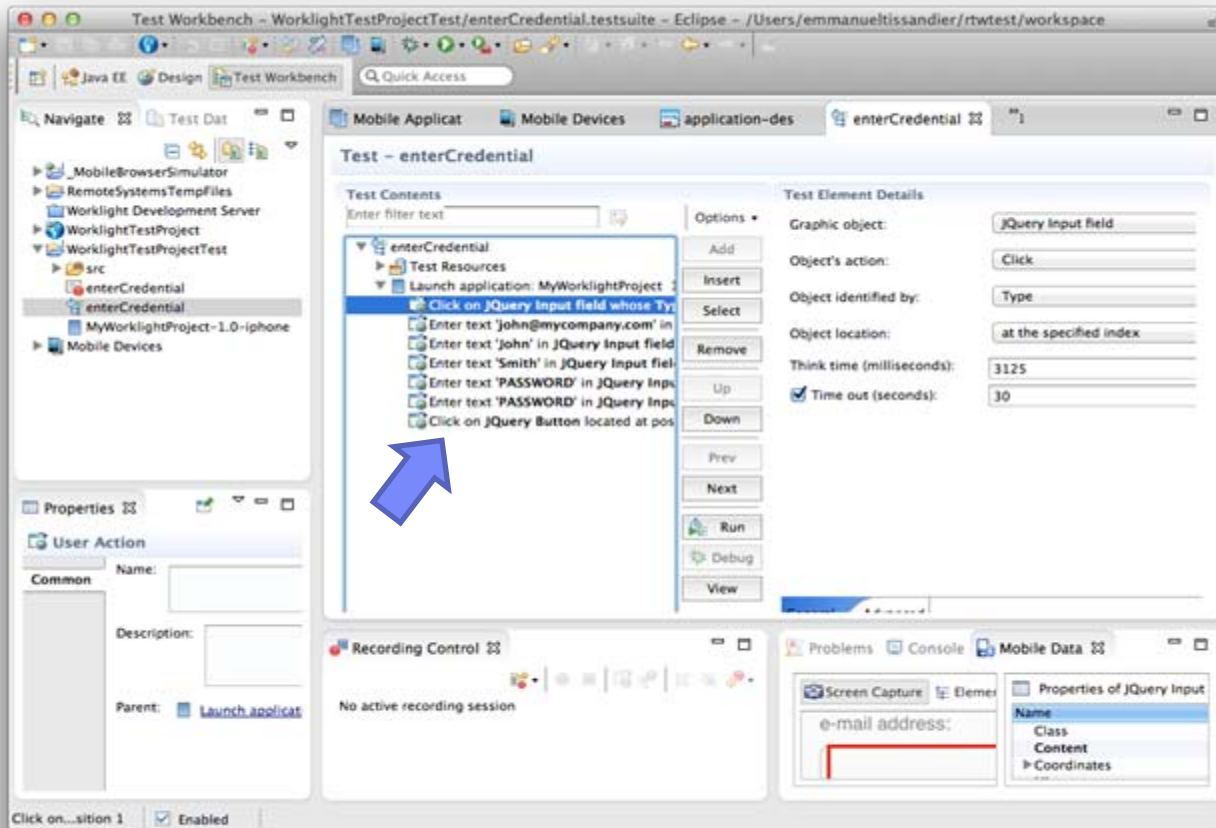
http://pic.dhe.ibm.com/infocenter/wrklight/v6r1m0/topic/com.ibm.rational.test.lt.mob.wl.ditaval.doc/topics/tintro_create_test.html.

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Editing a test

- After the recording, you can edit the test in the natural language editor.



Editing a test – continued

- You can edit the test to insert **verification points** (for example, to verify the value of a user interface element), to replace recorded test values with variable test data, or to add dynamic data to the test.

The screenshot displays the IBM Worklight test editor interface. On the left, the 'Test Contents' pane shows a tree view of test steps. The selected step is 'Click on JQuery Input field whose Type is text'. On the right, the 'Test Element Details' pane shows the configuration for this step. The 'Options' menu is open, and a blue arrow points to the 'Select' button. The configuration details are as follows:

Property	Value
Graphic object:	JQuery Input field
Object's action:	Click
Object identified by:	Type
Object location:	at the specified index
Think time (milliseconds):	3125
Time out (seconds):	<input checked="" type="checkbox"/> 30

- For more information about how to edit the test script, see the IBM Worklight user documentation at:

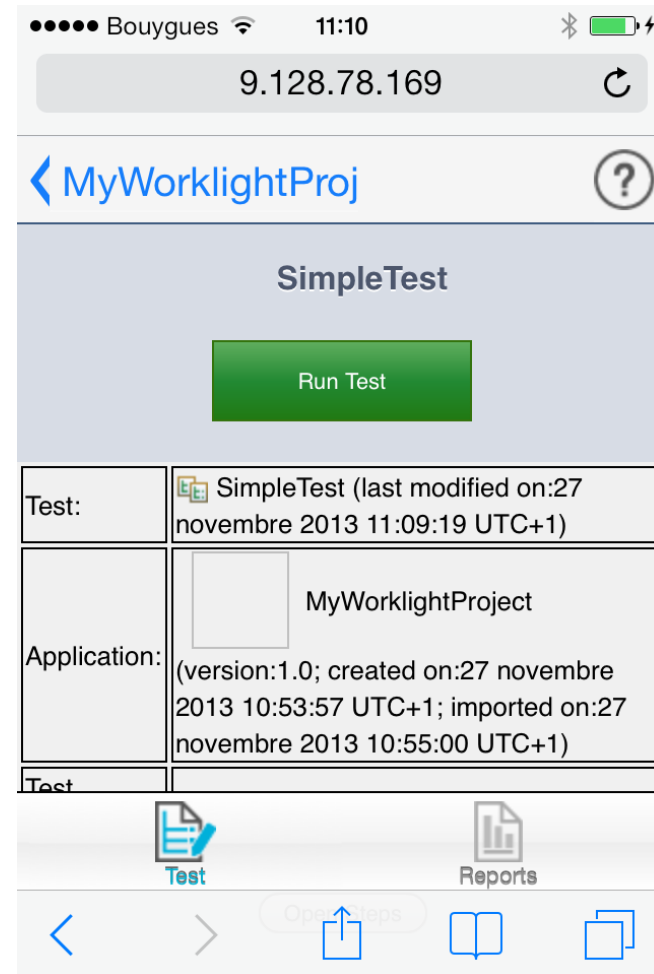
<http://pic.dhe.ibm.com/infocenter/wrklght/v6r1m0/topic/com.ibm.rational.test.lt.mob.wl.ditaval.doc/topics/cmobtesteditovw.html>.

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Running a test

- Run a test to ensure that the app matches the expected behavior that is defined in the verification points.
- During the test, each verification point is checked, and receives a **pass**, **fail**, or **inconclusive** status.
- The available tests are visible in the mobile client, and you can run the test from this application.



Running a test – continued

- After the test is completed, a report is generated and shows the status of the test and all the verification points.
- You can read the report on the device, or on the Eclipse test workbench.

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What's Next

- In this module, you learnt how to set up and install the IBM Mobile Test Workbench for Worklight, and how to record a first test and run a playback.
- For more information about IBM Worklight functional testing and the IBM Mobile Test Workbench for Worklight, see the IBM Worklight user documentation at:
http://pic.dhe.ibm.com/infocenter/wrklight/v6r1m0/topic/com.ibm.worklight.mobtest.doc/topics/c_wl_mobile_test_ovw.html.

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