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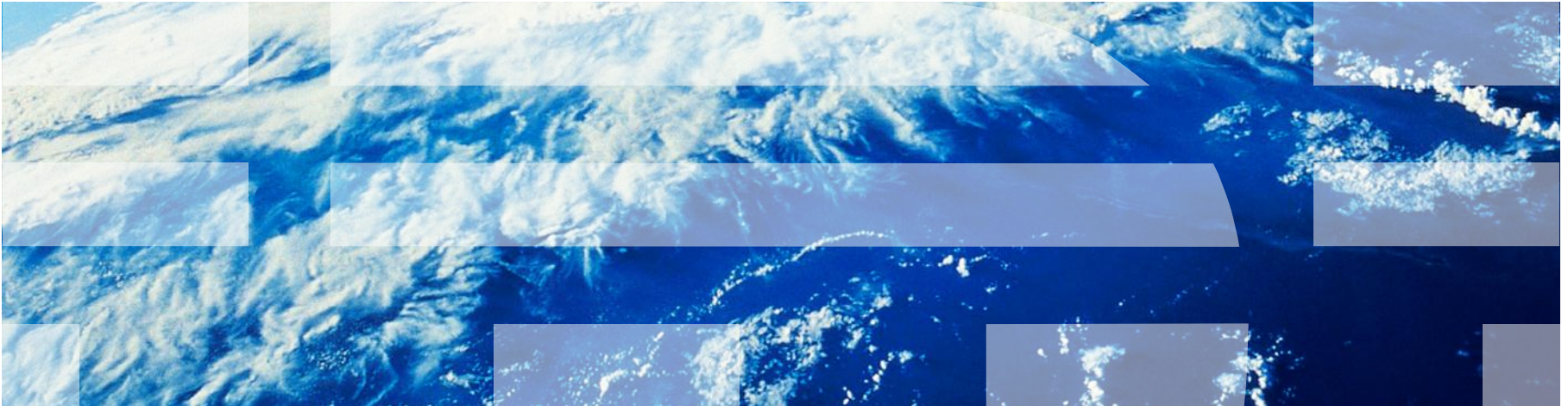
IBM Worklight Foundation V6.2.0
Getting Started

Testing 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 that run 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, go to **Help > Eclipse Marketplace**, and search for **Worklight**.

- When you locate the IBM Mobile Test Workbench for Worklight, click **Install**.

- Note: 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.
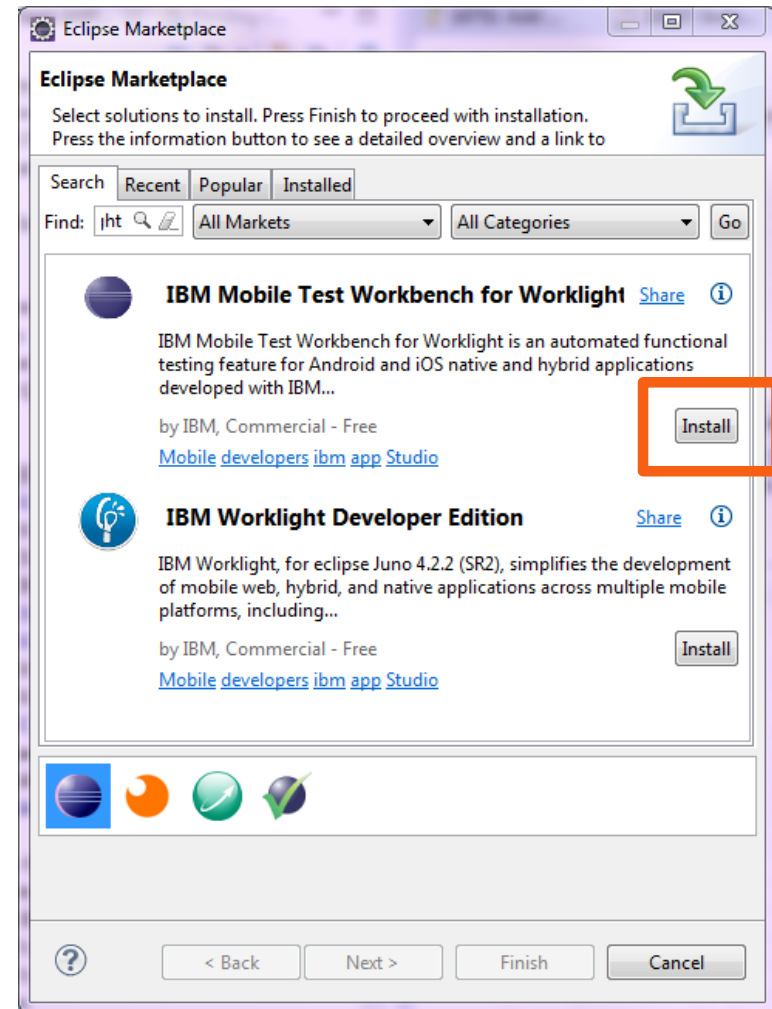
Installing and configuring – continued

- 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.
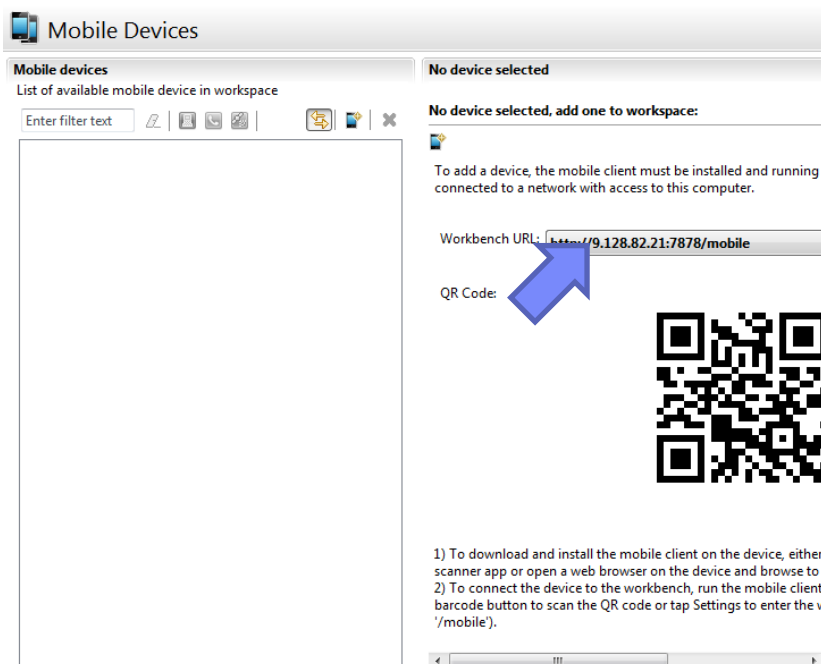
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The mobile client

- 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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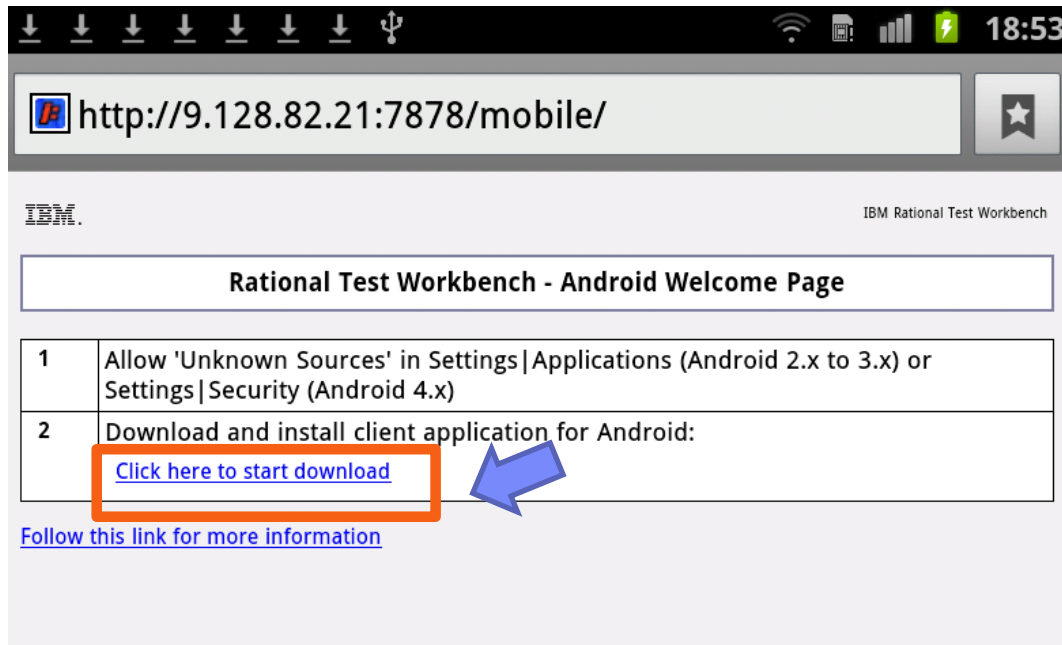- Running a test

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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.
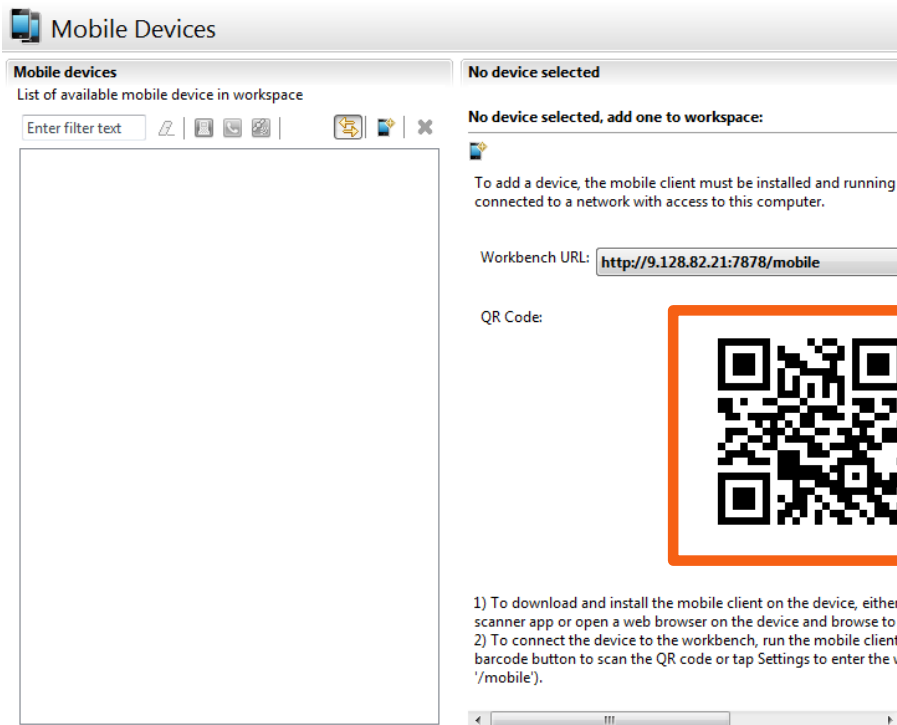
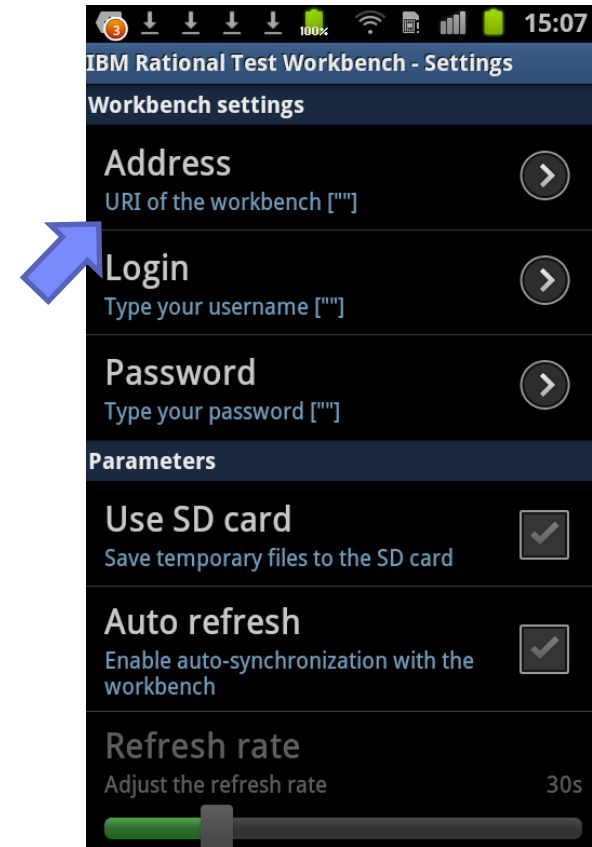# *Installing the Android mobile client – continued*

- 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.
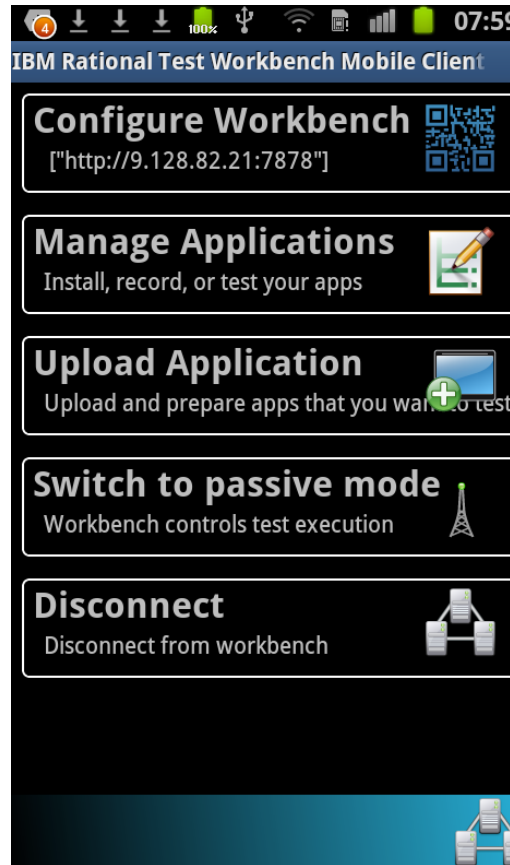
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Installing the iOS mobile client

- 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 you use 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.
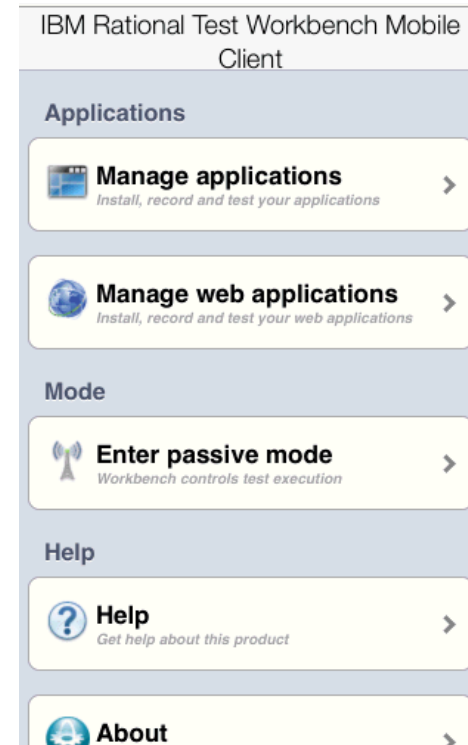
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Creating a test project

- 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** wizard, and by selecting **Create a Test Project**.

Creating a test project – continued

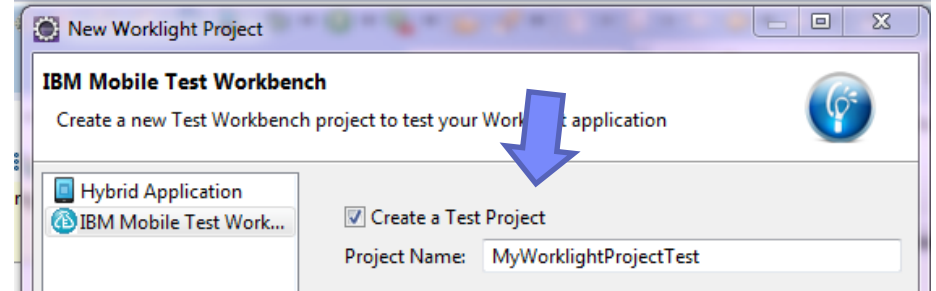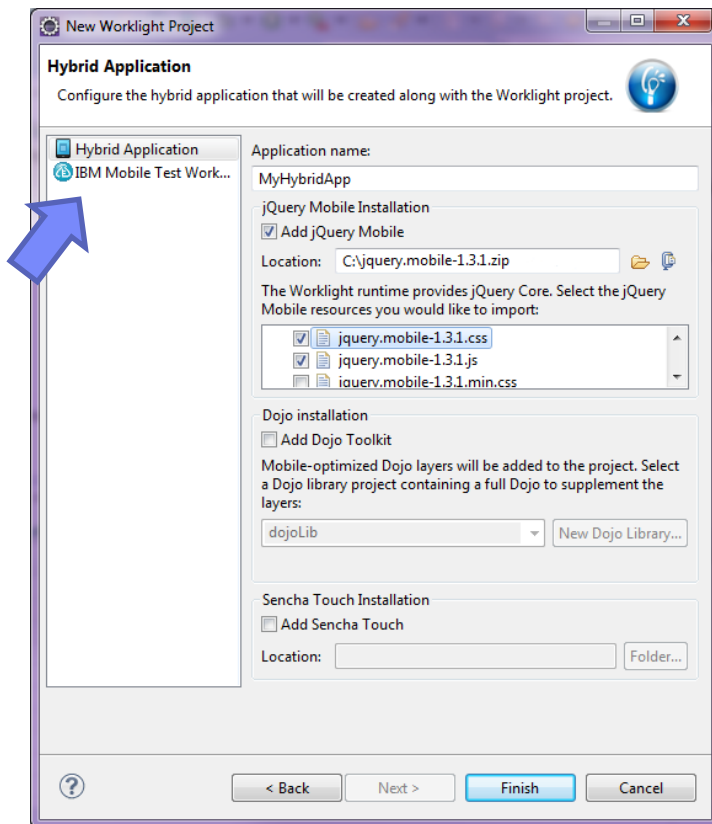- You can also go to **File > New > Test Workbench Project** to create a test project.

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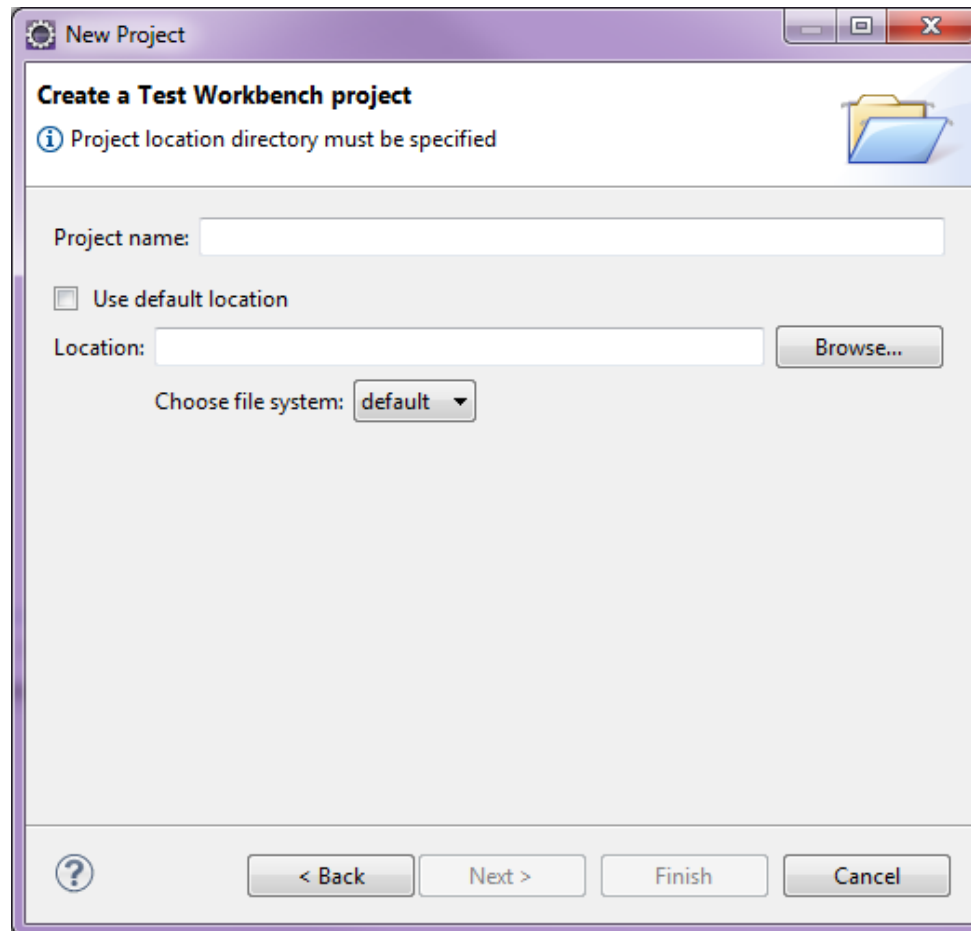
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Preparing the application for testing

- 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**.
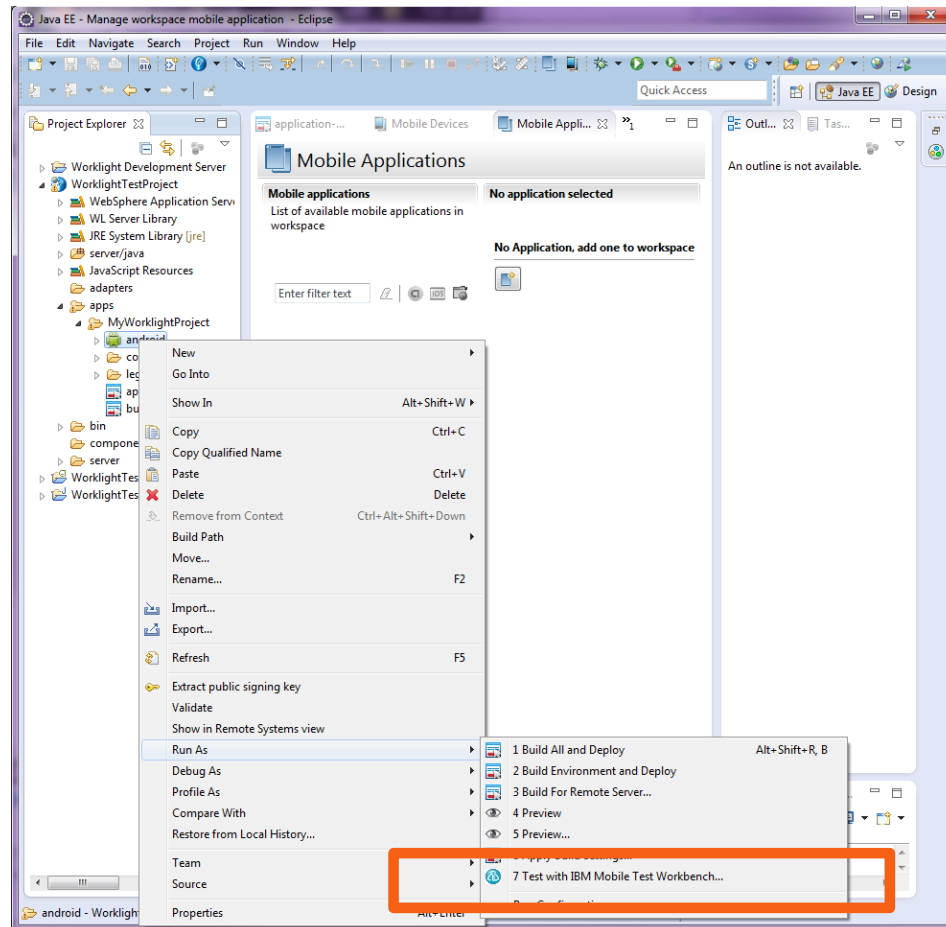
Preparing the application for testing – continued

- You can now see the test-ready application in the **Mobile Applications** view in the test workbench, and on the mobile client.
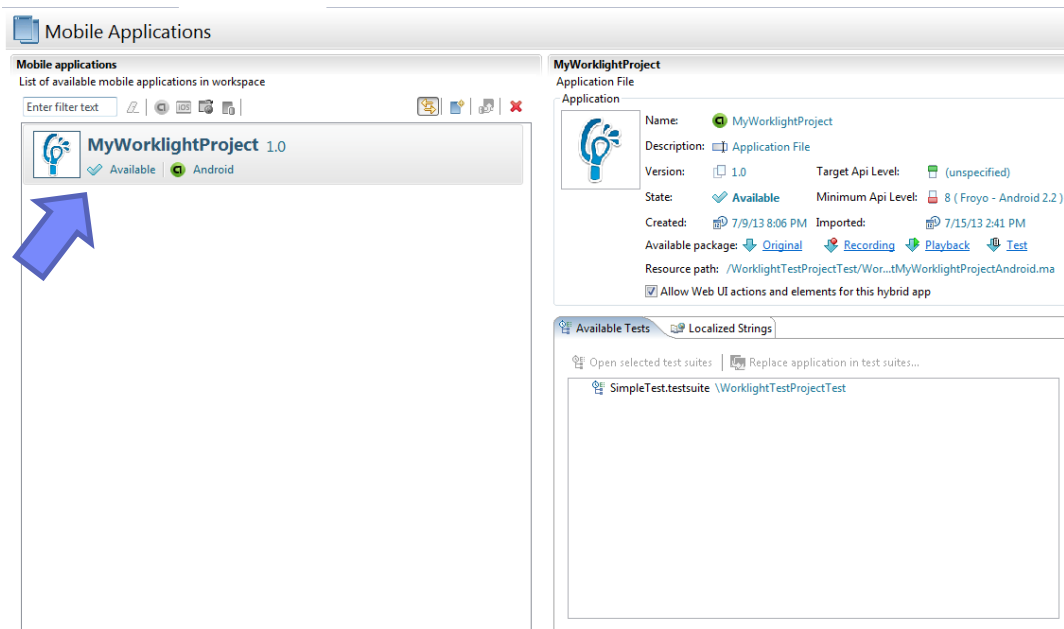
- The status of the application must be **Available** in the **Mobile Applications** view before you can start recording a test.

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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 **Install**. When the installation is completed, click **Record.**
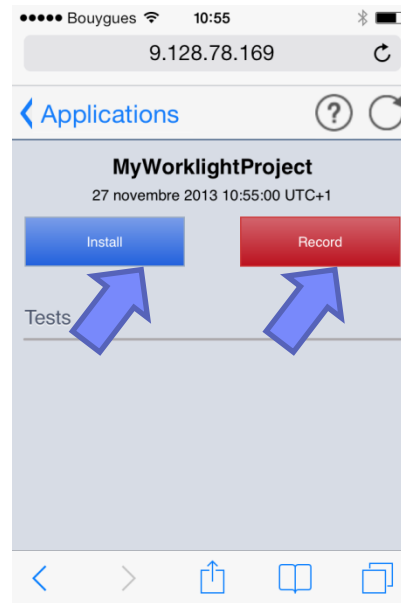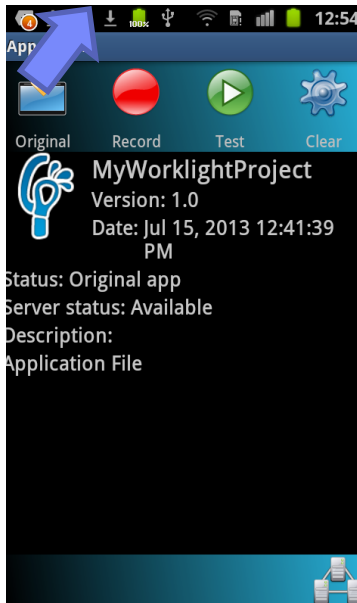
Creating a test – continued

- The application runs on the device or emulator.

- Everything that 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 by clicking **Home** (iOS) or **Back** (Android).

- A message that reports the availability of a new recording is displayed on the test workbench.

- Follow the wizard instructions to generate a test from the recording. You are then asked to store the test in the test project.

- For more information about how to create a test, see the Rational Test Workbench Mobile Test Edition user documentation at: http://www.ibm.com/support/knowledgecenter/SS2HS7_8.5.1/com.ibm.ration al.test.lt.mob.rtwm.ditaval.doc/topics/tintro_create_test.html.
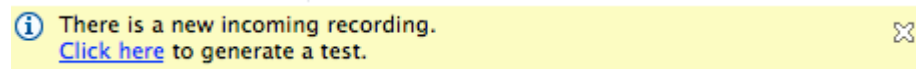
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Editing a test

- After the recording, you can edit the test in the natural language editor.
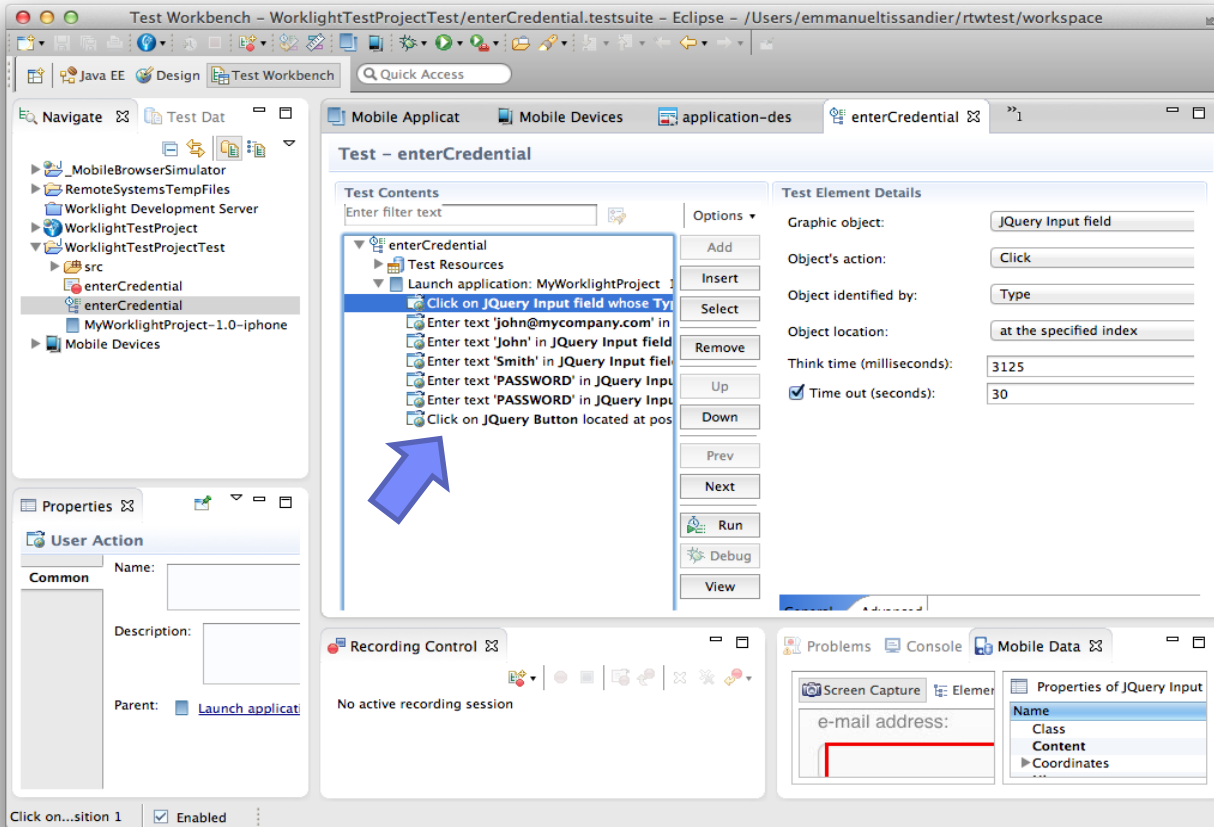
Editing a test – continued

- 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.
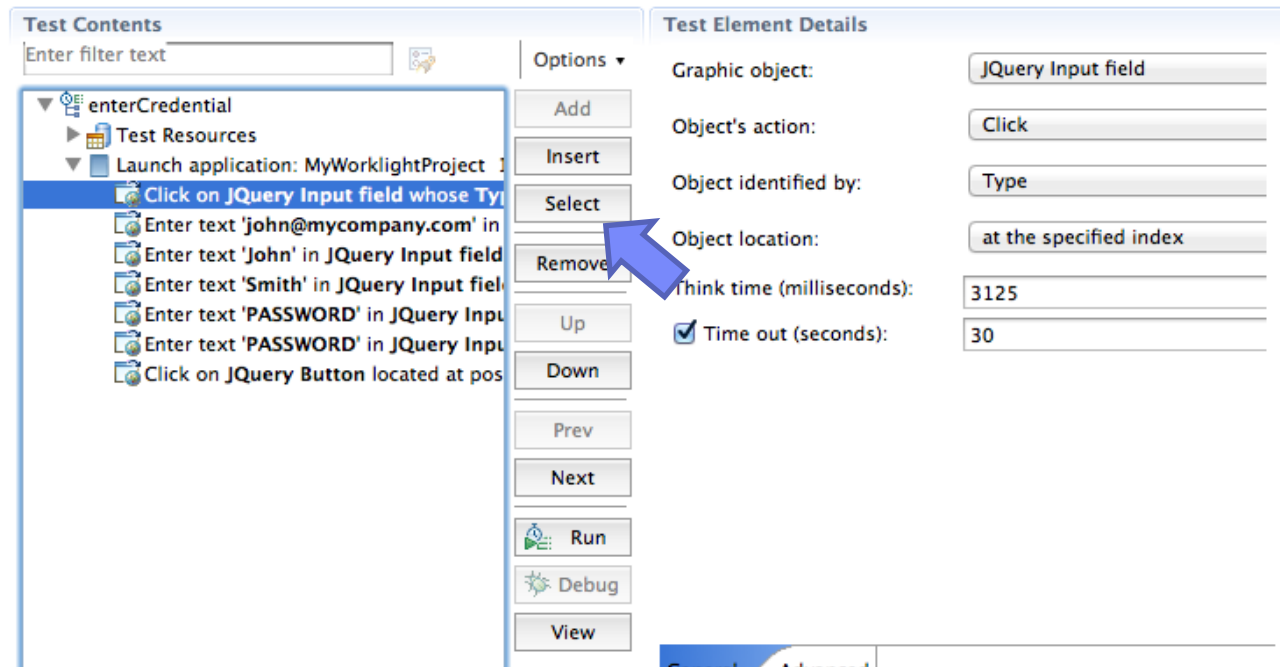
- For more information about how to edit the test script, see the Rational Test Workbench Mobile Test Edition user documentation at :
  http://www.ibm.com/support/knowledgecenter/SS2HS7_8.5.1/com.ibm.rational.test.lt.mob.rtwm.ditaval.doc/topics/cmobtesteditovw.html.

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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.
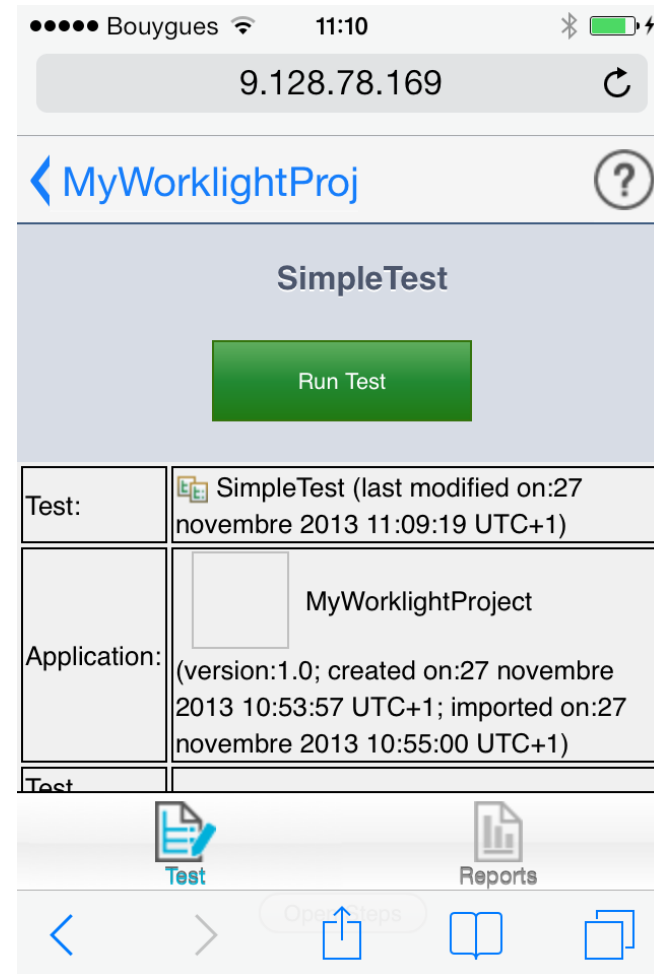
Running a test – continued

- 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 learned 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://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.test.doc/test/c_wl_mobile_test_ovw.html.

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