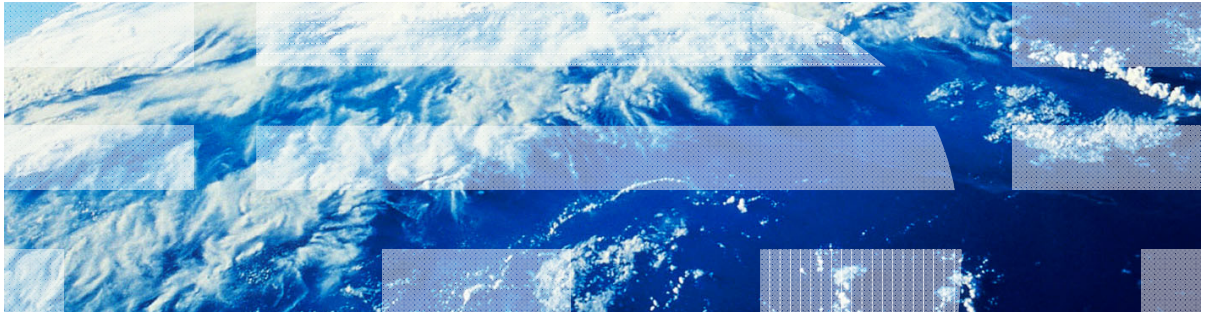


IBM Worklight V5.0.5 ***Getting Started***

Module 60.3 – Running the Dojo Mobile-based Apache Cordova sample



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

Agenda

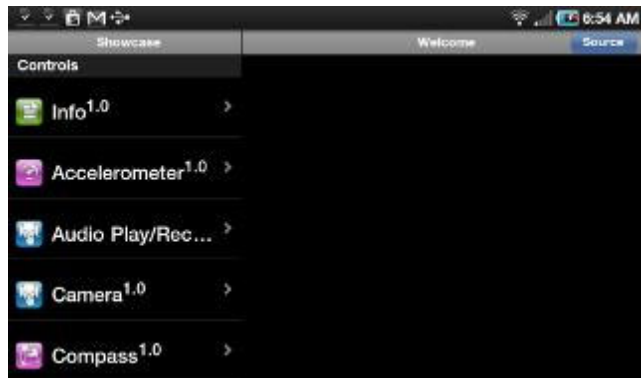
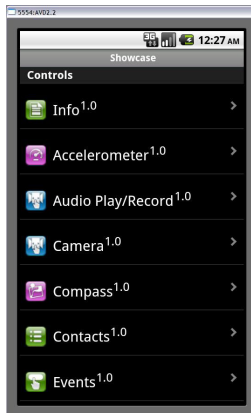
- General information
- Running the Apache Cordova Showcase sample for Android
- Running the Apache Cordova Showcase sample for iOS

About this task

- The Apache Cordova Showcase delivers a sample that demonstrates how the Cordova APIs are used and how Cordova can be combined with Dojo to produce effective applications
- It is similar to the test application that is shipped as part of Cordova, but includes an improved look and feel which uses Dojo Mobile, resulting in an application with a layout similar to the Dojo Showcase
- The code is available within this release as an Eclipse project for Android and as an Xcode project for iOS

About this task

- The Apache Cordova Showcase works in two modes:
 - Single-column - for devices with small screens
 - Two-column - for devices with relatively large screens
- For Android:



About this task

- For iOS:



Generic workflow

- The Android and iOS versions of the Apache Cordova Showcase have the same structure
- The following workflow is common to both versions when running the demo:
 - Load the Apache Cordova Showcase
 - The scrollable demo menu is displayed
 - Switched to the demo view in single-column mode
 - Displayed in the right column in two-column mode
 - Scroll the demo menu and click the demo item
 - The demo is loaded
 - Run the demo
 - Follow the instructions that are provided in **Explore the demos**

Generic workflow

- Click **Source** to display the source view
 - Click the HTML tab to see the HTML template of the demo



```
id="info" dojoType="dojox.mobile.View">
  Platform: 
    Version: 
      UUID: 
        Name: 
          width: 
            Height: 
              Depth: 

```



```
No SIM 11:31 AM
Back Info Demo
HTML JavaScript
<div id="info"
dojoType="dojox.mobile.View">
  <h4>Platform: <span
id="platform"> </span></h4>
  <h4>Version: <span
id="version"> </span></h4>
  <h4>UUID: <span id="uuid">
</span></h4>
  <h4>Name: <span
id="name"> </span></h4>
    <h4>Width: <span id="width">
</span>, Height: <span id="height">
</span>, Color Depth: <span
id="colorDepth"></span></h4>
</div>
```


Generic workflow

- Click the JavaScript tab to see the corresponding JavaScript code for the demo
 - Note that not all demos have JavaScript code

```

Back      info      Demo
HTML      JavaScript

/*
 * COPYRIGHT LICENSE: This information
 * contains sample code provided in source
 * code form. 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 code is written.
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 * WARRANTIES, EXPRESS OR IMPLIED,
 * INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED
 * WARRANTIES OR CONDITIONS OF
 * MERCHANTABILITY, SATISFACTORY QUALITY,
 * FITNESS FOR A PARTICULAR PURPOSE, TITLE,
 * AND ANY WARRANTY OR CONDITION OF NON-
 * INFRINGEMENT. IBM SHALL NOT BE LIABLE FOR
 * ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR
 * CONSEQUENTIAL DAMAGES ARISING OUT
 * OF THE USE OR OPERATION OF THE SAMPLE SOURCE
 * CODE. IBM HAS NO OBLIGATION TO
 * PROVIDE MAINTENANCE, SUPPORT, UPDATES,
 * ENHANCEMENTS OR MODIFICATIONS TO THE
 * SAMPLE SOURCE CODE.
 */
define(["dojo/dom"],
function(dom) {
    return {
        init: function() {
            console.log("initializeInfo()");
        }
    };
}

```

```

No SIM      11:31 AM
Back      Info      Demo
HTML      JavaScript

No JavaScript code.

```

Generic workflow

- Click **Demo** to return to the demo view
 - In single-column mode, you can also click **Back**
- Select another demo from the demo menu
 - In single-column mode, click **Back** to return to the demo menu and pick other demos
 - In two-column mode, you can directly click items in the demo menu to jump to different demos

Agenda

- General information
- Running the Apache Cordova Showcase sample for Android
- Running the Apache Cordova Showcase sample for iOS

Before you begin

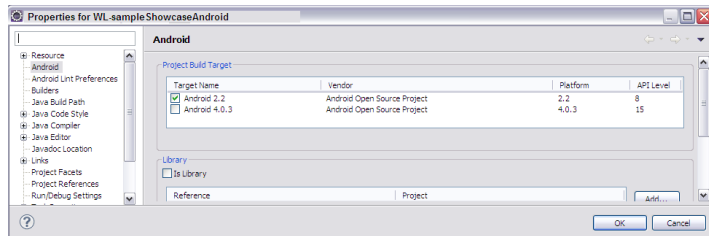
- See the following modules for how to build and deploy the Showcase:
 - Module 2 Setting Up Your Development Environment
 - Module 2.2 Setting Up Your Android Development Environment

Known limitations

There are some known limitations in this Showcase. The following instructions describe how to implement workarounds to these limitations:

- Zooming on Android tablets

- On Android 3.0+ tablets, the Showcase is automatically zoomed which gives a poor user experience
- To disable zooming, perform the following steps to set the SDK version to 11 or above:
 - Right-click the generated Android project and then **Properties**



- Click **Android** in the properties list
- Change **Project Build Target** to Android 3.0 or above and click **OK**
- Edit AndroidManifest.xml in the root of the generated project
 - Set android:minSdkVersion to the API level of the **Project Build Target**

```

</application>
<uses-sdk android:minSdkVersion="15" />
</manifest>

```

Known limitations

- Enable Showcase features
 - Edit AndroidManifest.xml in the root of the generated project
 - Add the following permission elements:

<uses-permission android:name="android.permission.CAMERA" />	Allows access to the camera device
<uses-permission android:name="android.permission.VIBRATE" />	Allows access to the device vibrator
<uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION" />	Allows access to a coarse location such as Cell-ID or WiFi
<uses-permission android:name="android.permission.ACCESS_FINE_LOCATION" />	Allows access to a fine location such as GPS
<uses-permission android:name="android.permission.ACCESS_LOCATION_EXTRA_COMMANDS" />	Allows access to extra location provider commands
<uses-permission android:name="android.permission.READ_PHONE_STATE" />	Allows read only access to phone state
<uses-permission android:name="android.permission.INTERNET" />	Allows network sockets to be opened
<uses-permission android:name="android.permission.RECEIVE_SMS" />	Allows incoming SMS messages to be monitored, recorded, or processed
<uses-permission android:name="android.permission.RECORD_AUDIO" />	Allows audio to be recorded
<uses-permission android:name="android.permission.MODIFY_AUDIO_SETTINGS" />	Allows global audio settings to be modified
<uses-permission android:name="android.permission.READ_CONTACTS" />	Allows user's contacts data to be read
<uses-permission android:name="android.permission.WRITE_CONTACTS" />	Allows user's contacts data to be written (but not read)
<uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />	Allows external storage to be written to
<uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />	Allows access to network information
<uses-permission android:name="android.permission.ACCESS_WIFI_STATE" />	Allows access to Wi-Fi network information

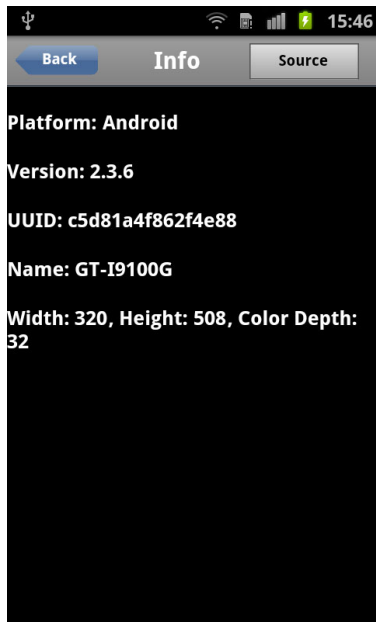
- Please also check the product Release Notes for information about known defects

Explore the demos

- Run a demo by selecting any entry in the demo menu

Explore the demos

- Info
 - Check that the information displayed is similar to what is shown on the right



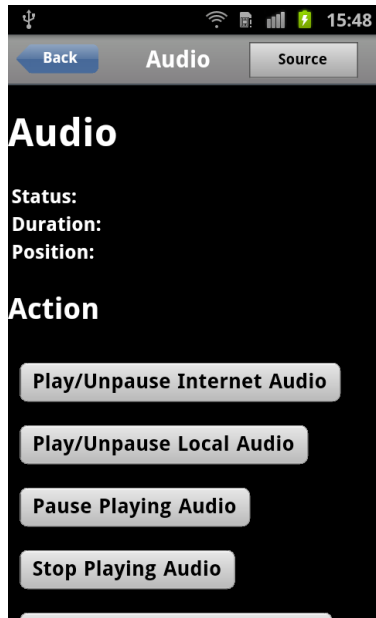
Explore the demos

- Accelerometer
 - Click **Get Acceleration** to populate the X, Y, and Z attributes
 - Actual values depend on whether the device was moving when the button was pressed
 - Click **Start Watching Accelerometer**
 - Status set to Running
 - X, Y, and Z values continuously update
 - Click **Stop Watching Accelerometer**
 - Status set to Stopped
 - X, Y, and Z values stop updating



Explore the demos

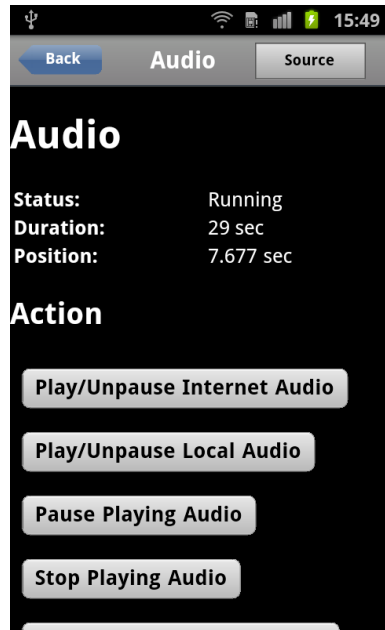
- Audio Play/Record
 - Internet Audio
 - Click **Play/Unpause Internet Audio** to hear music play*
 - Click **Pause Playing Audio** to pause the music
 - Click **Play/Unpause Internet Audio** again to resume play*
 - Click **Stop Playing Audio** to stop play
 - Local Audio
 - Click **Play/Unpause Local Audio** to hear speech play
 - Click **Pause Playing Audio** to pause the speech
 - Click **Play/Unpause Local Audio** again to resume play
 - Click **Stop Playing Audio** to stop play



* Assumes a working network connection

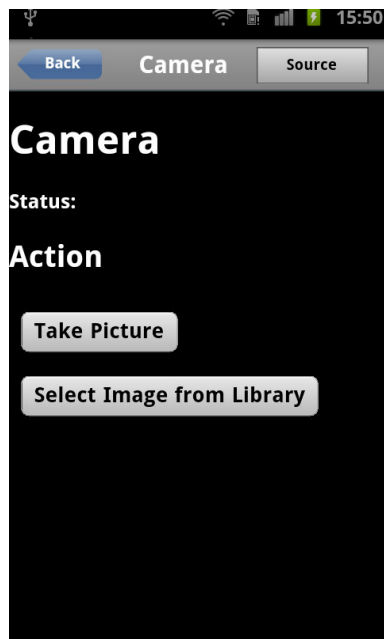
Explore the demos

- Audio Play/Record
 - Recorded Audio
 - Click **Record Audio for 10 seconds** to start recording
 - Notification beep may be heard
 - Status set to Running
 - Talk into the microphone for 10 seconds
 - Notification beep sounds again
 - Status set to Stopped
 - Click **Play/Unpause Recorded Audio** to play back recorded audio
 - Click **Pause Playing Audio** to pause playback
 - Click **Play/Unpause Local Audio** again to resume play



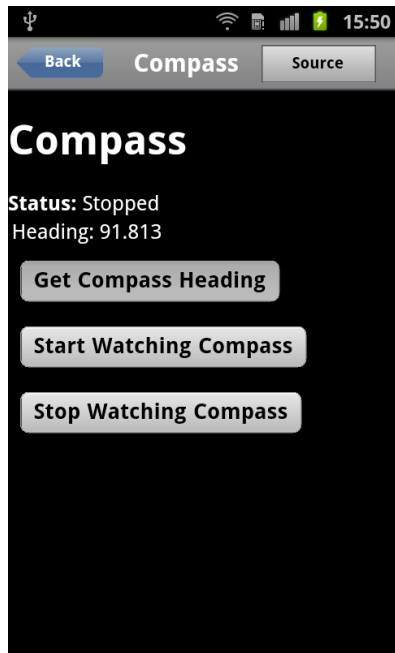
Explore the demos

- Camera
 - Click **Take Picture** to switch to your camera application
 - Take and save a picture
 - Control returns to the demo
 - Picture image is displayed
 - Status set to Success
 - Click **Select Image from Library** to switch to your image library application
 - Select an image
 - Control returns to the demo
 - Selected image is displayed
 - Status set to Success



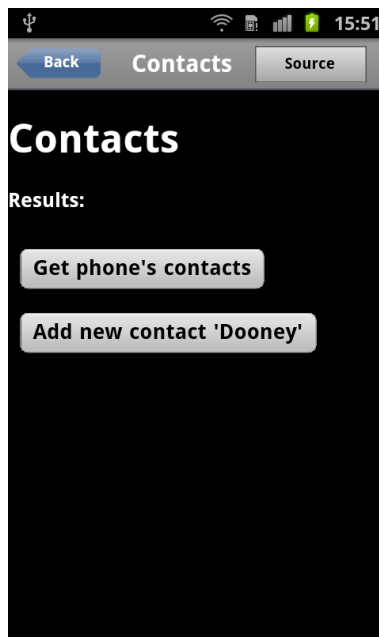
Explore the demos

- Compass
 - Click **Get Compass Heading** to populate **Heading** attribute with current compass heading
 - Click **Start Watching Compass**
 - Status set to Watching
 - **Heading** value continuously updates as device changes direction
 - Click **Stop Watching Compass**
 - Status set to Stopped
 - **Heading** value stops updating



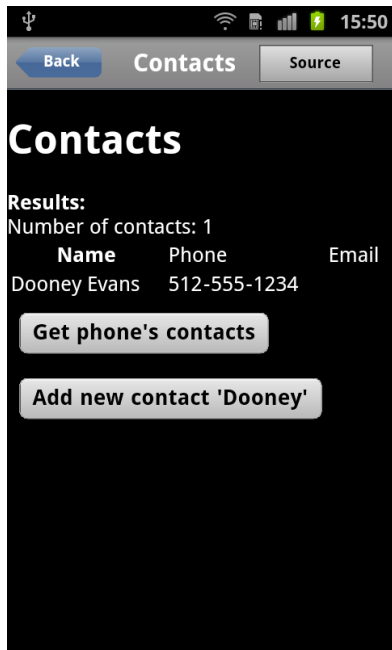
Explore the demos

- Contacts
 - Click **Get phone's contacts** to display a list of contacts in your device



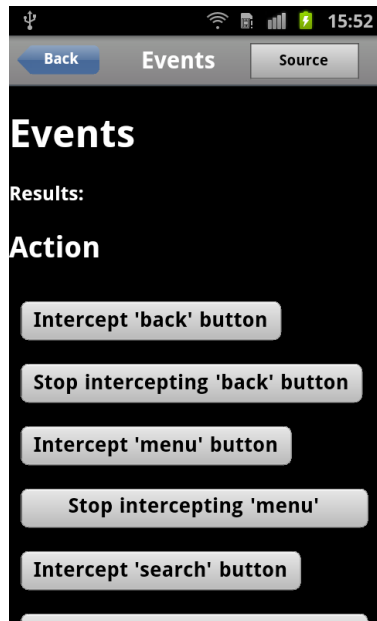
Explore the demos

- Contacts
 - Click **Add new contact 'Dooney'** to add a contact to your device
 - An error message is displayed if contact exists
 - Click **Get phone's contacts** again to verify that the list of contacts now includes the new entry for Dooney



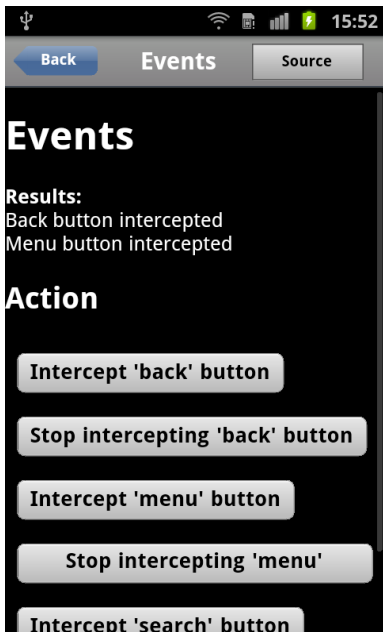
Explore the demos

- Events
 - Click **Intercept 'back' button** to intercept **Back** button clicks, then click **Back** on your device
 - Message 'Back button intercepted' is displayed
 - Click **Stop intercepting 'back' button** to switch intercept off
 - Click **Intercept 'menu' button** to intercept **Menu** button clicks, then click **Menu** on your device
 - Message 'Menu button intercepted' is displayed
 - Click **Stop intercepting 'menu'** to switch intercept off



Explore the demos

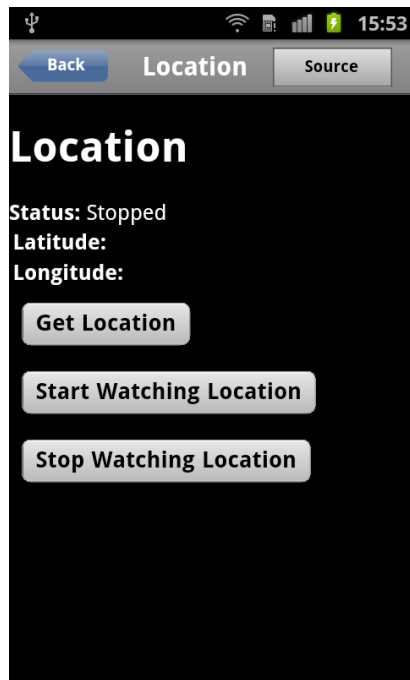
- Events
 - Click **Intercept 'search' button** to intercept **Search** button clicks, then click **Search** on your device
 - Message 'Search button intercepted' is displayed
 - Click **Stop intercepting 'search'** to switch intercept off



Explore the demos

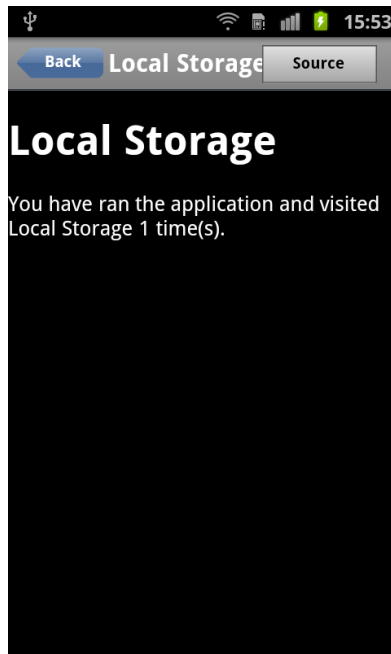
- Location*
 - Click **Get Location** to populate **Latitude** and **Longitude** attributes with current location
 - Click **Start Watching Location**
 - Status set to Watching
 - **Latitude** and **Longitude** values continuously update as device moves
 - Click **Stop Watching Location**
 - Status set to Stopped
 - **Latitude** and **Longitude** values stop updating

* Assumes a working GPS or wireless-based location



Explore the demos

- Local Storage
 - Note the value of the counter that is displayed in the message
 - Exit the Showcase, restart it, and reselect **Local Storage**
 - Check that the counter is incremented by one
 - The counter does not increment simply by leaving this view and coming back; you must exit the Showcase



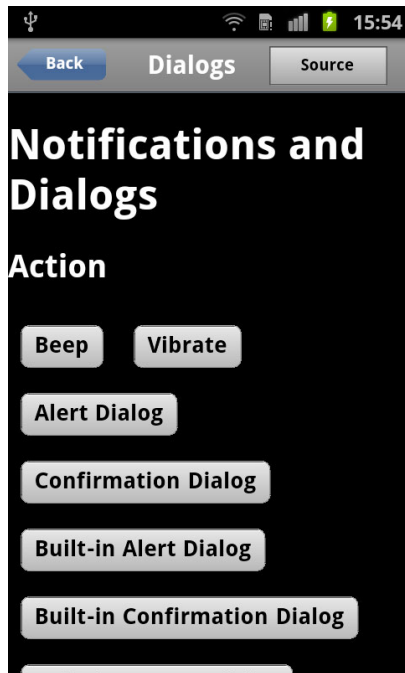
Explore the demos

- Miscellaneous content
 - Click **Call 911** to initiate a call to 911 (emergency assistance in the US and Canada)
 - If your device is not call-enabled, an error message is displayed
 - Click **Send Mail** to switch to your mail application
 - To:, Subject:, and Body fields are pre-populated with test data
 - Click **Send SMS** to switch to your SMS application
 - Click **Load Web Page** to switch to your browser application
 - Click **Map IBM HQ** to switch to Google Maps and locate IBM HQ
 - Click **Search Android Market** to switch to the Android Market application
 - Click **View Image App** to switch to your image viewing and manipulation application
 - **Note:** This feature is not supported on Android 3.x devices



Explore the demos

- Notification/Dialogs
 - Click **Beep** to cause your device to beep
 - Click **Vibrate** to cause your device to vibrate, if the device is capable
 - Click **Alert Dialog**
 - An alert window with **Continue** pops up
 - Click **Confirmation Dialog**
 - A confirmation window with **Yes**, **No**, and **Maybe** pops up
 - Click one of those buttons to pop up another alert indicating which button was pressed
 - Click **Built-in Alert Dialog**
 - An alert window with **OK** pops up
 - Click **Built-in Confirmation Dialog**
 - A confirmation window with **OK** and **Cancel** pops up



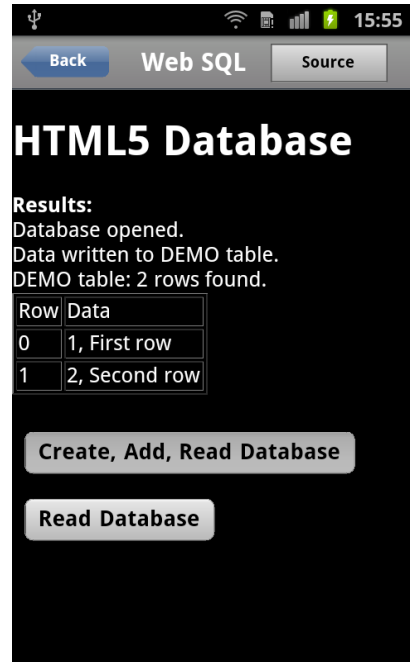
Explore the demos

- Notification/Dialogs
 - Click **Built-in Prompt Dialog**
 - A prompt window with an input field and **OK** and **Cancel** pops up
 - Click in the input field to get a keyboard widget
 - Change the text and click either button



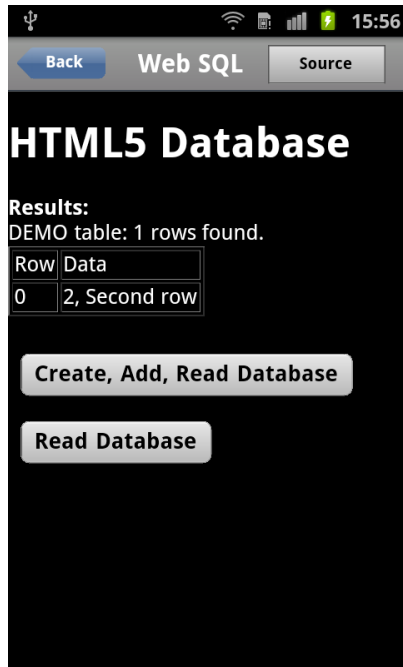
Explore the demos

- Web SQL
 - Click **Create, Add, Read Database**
 - Results show:
 - Database opened
 - Data written to DEMO table
 - SQL search results



Explore the demos

- Web SQL
 - Click **Read Database**
 - Results show a different SQL search result set
 - Note
 - If the database has not been created since your last install of the Showcase, clicking **Read Database** before **Create, Add, Read Database** displays an error message
 - The database persists until the Showcase is reinstalled



Related information

- For more information about Dojo Mobile widgets, including views, see the following link: <http://docs.dojocampus.org/dojox/mobile>

Agenda

- General information
- Running the Apache Cordova Showcase sample for Android
- Running the Apache Cordova Showcase sample for iOS

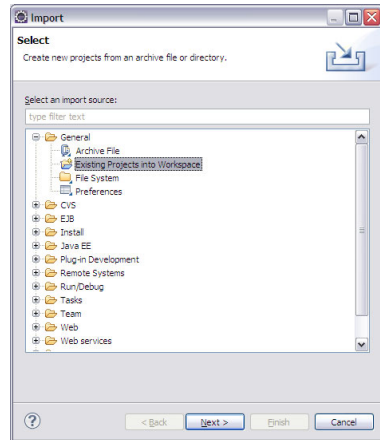
Before you begin

- See the following modules for how to build and deploy the Showcase:
 - Module 2 Setting Up Your Development Environment
 - Module 2.1 Setting Up Your iOS Development Environment

Known limitations

There are some known limitations in this Showcase. The following instructions describe how to implement workarounds to these limitations:

- Importing a Worklight® project
 - The import window does not close when importing an existing project into the workspace for the first time
 - This behavior is a known Eclipse defect
 - https://bugs.eclipse.org/bugs/show_bug.cgi?id=337913
 - To resolve this situation, perform the following steps:
 - Exit the Worklight Studio
 - Right-click the Eclipse icon and then **Close**
 - Restart the Worklight Studio
 - Delete the partially imported project from the workspace
 - Import the project again
 - The project is successfully imported



Known limitations

- Screen rotation
 - Apache Cordova disables screen rotation by default
 - To enable free rotation, perform the following step:
 - Edit CDVMainViewController.m
 - Update method **shouldAutorotateToInterfaceOrientation** to always return **YES** in the generated native Xcode project

```
- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    // Return YES for supported orientations
    return (interfaceOrientation == YES);
}
```

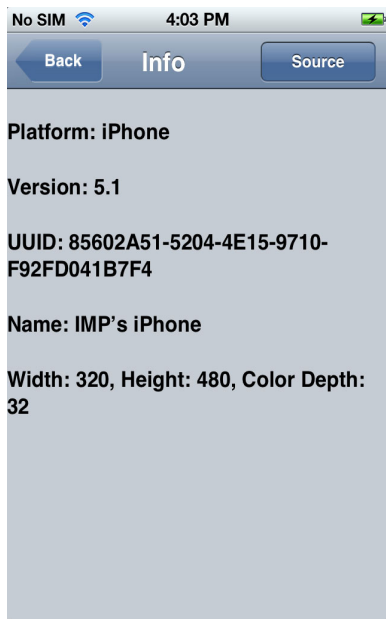
- Please also check the product Release Notes for information about known defects

Explore the demos

- Run a demo by selecting any entry in the demo menu

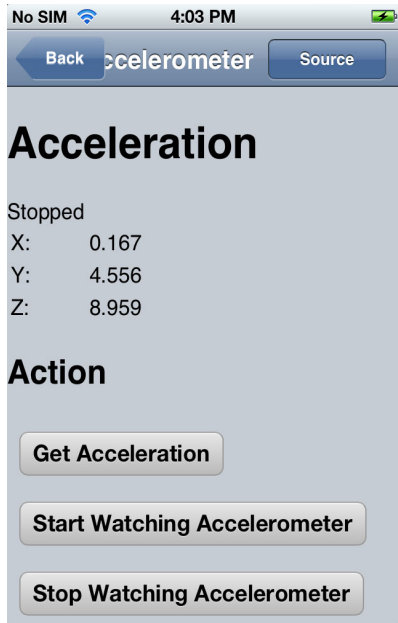
Explore the demos

- Info
 - Check that the information displayed is similar to what is shown on the right



Explore the demos

- Accelerometer
 - Click **Get Acceleration** to populate the X, Y, and Z attributes
 - Actual values depend on whether the device was moving when the button was pressed
 - Click **Start Watching Accelerometer**
 - Status set to Running
 - X, Y, and Z values continuously update
 - Click **Stop Watching Accelerometer**
 - Status set to Stopped
 - X, Y, and Z values stop updating



Explore the demos

- Audio Play/Record
 - Internet Audio
 - Click **Play/Unpause Internet Audio** to hear music play*
 - Click **Pause Playing Audio** to pause the music
 - Click **Play/Unpause Internet Audio** again to resume play*
 - Click **Stop Playing Audio** to stop play
 - Local Audio
 - Click **Play/Unpause Local Audio** to hear speech play
 - Click **Pause Playing Audio** to pause the speech
 - Click **Play/Unpause Local Audio** again to resume play
 - Click **Stop Playing Audio** to stop play



* Assumes a working network connection

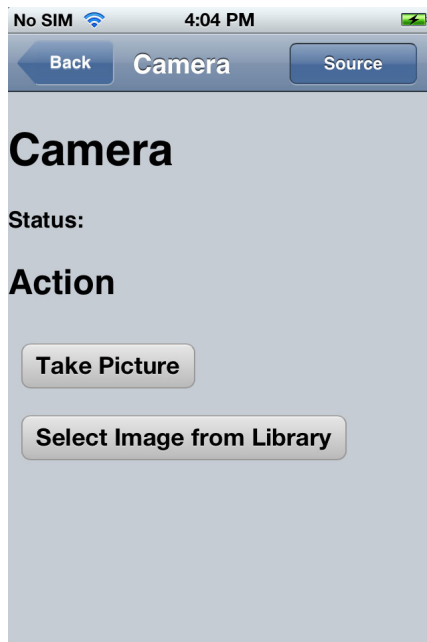
Explore the demos

- Audio Play/Record
 - Recorded Audio
 - Click **Record Audio for 10 seconds** to start recording
 - Notification beep may be heard
 - Status set to Running
 - Talk into the microphone for 10 seconds
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 - Status set to Stopped
 - Click **Play/Unpause Recorded Audio** to play back recorded audio
 - Click **Pause Playing Audio** to pause playback
 - Click **Play/Unpause Local Audio** again to resume play



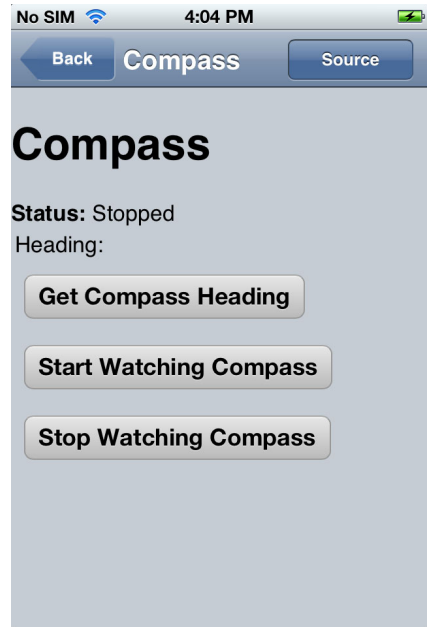
Explore the demos

- Camera
 - Click **Take Picture** to switch to your camera application
 - Take and save a picture
 - Control returns to the demo
 - Picture image is displayed
 - Status set to Success
 - Click **Select Image from Library** to switch to your image library application
 - Select an image
 - Control returns to the demo
 - Selected image is displayed
 - Status set to Success



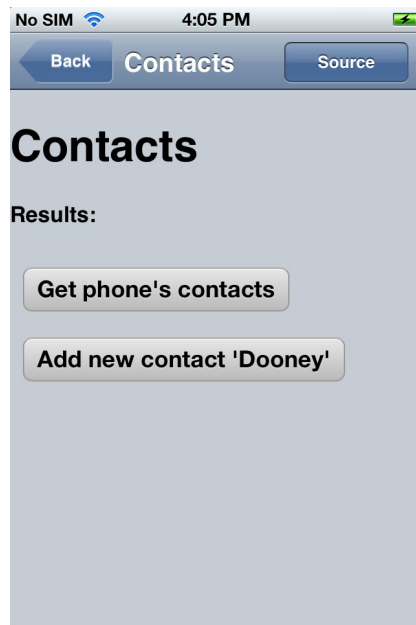
Explore the demos

- Compass
 - Click **Get Compass Heading** to populate **Heading** attribute with current compass heading
 - Click **Start Watching Compass**
 - Status set to Watching
 - **Heading** value continuously updates as device changes direction
 - Click **Stop Watching Compass**
 - Status set to Stopped
 - **Heading** value stops updating



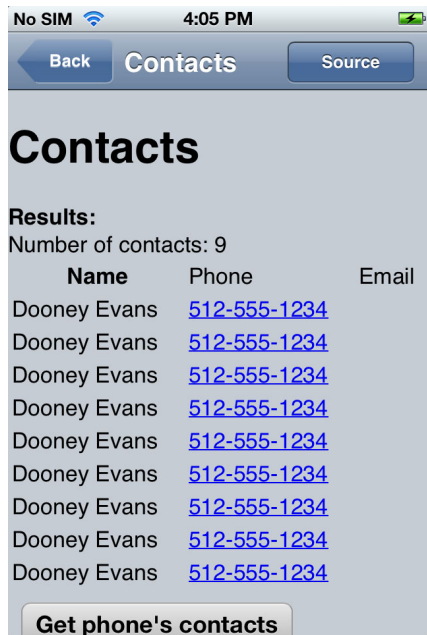
Explore the demos

- Contacts
 - Click **Get phone's contacts** to display a list of contacts in your device



Explore the demos

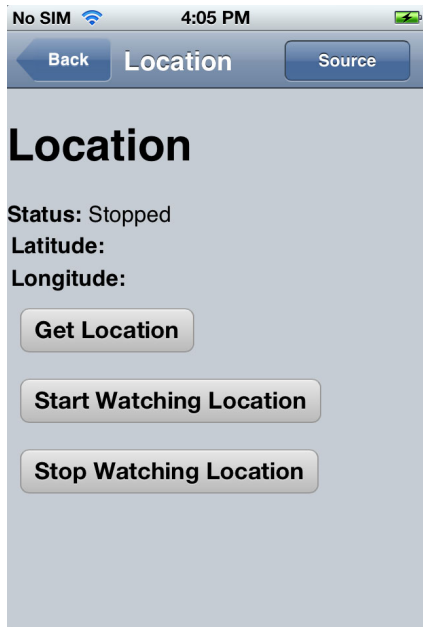
- Contacts
 - Click **Add new contact 'Dooney'** to add a contact to your device
 - An error message is displayed if contact exists
 - Click **Get phone's contacts** again to verify that the list of contacts now includes the new entry for Dooney



Explore the demos

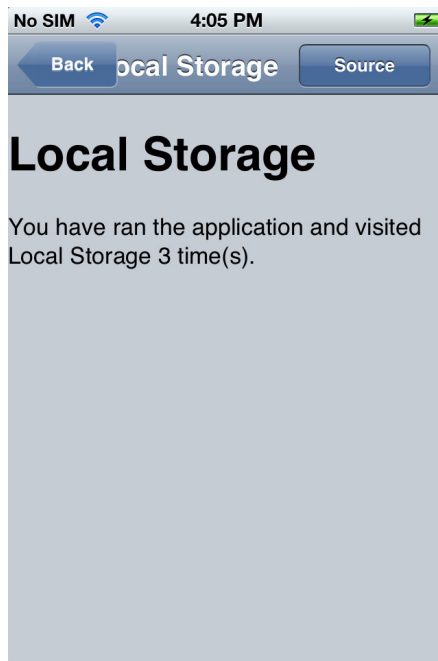
- Location*
 - Click **Get Location** to populate **Latitude** and **Longitude** attributes with current location
 - Click **Start Watching Location**
 - Status set to Watching
 - **Latitude** and **Longitude** values continuously update as device moves
 - Click **Stop Watching Location**
 - Status set to Stopped
 - **Latitude** and **Longitude** values stop updating

* Assumes a working GPS or wireless-based location



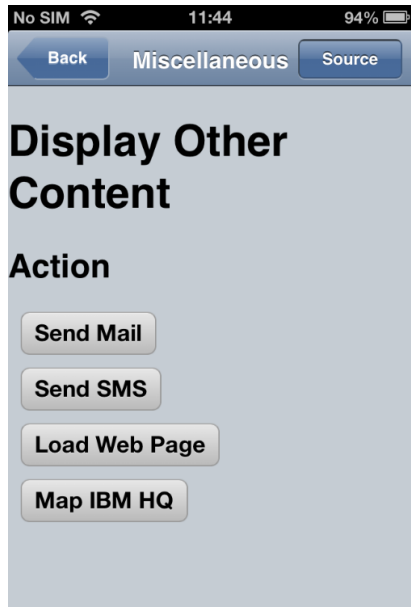
Explore the demos

- Local Storage
 - Note the value of the counter that is displayed in the message
 - Exit the Showcase, restart it, and reselect **Local Storage**
 - Check that the counter is incremented by one
 - The counter does not increment simply by leaving this view and coming back; you must exit the Showcase



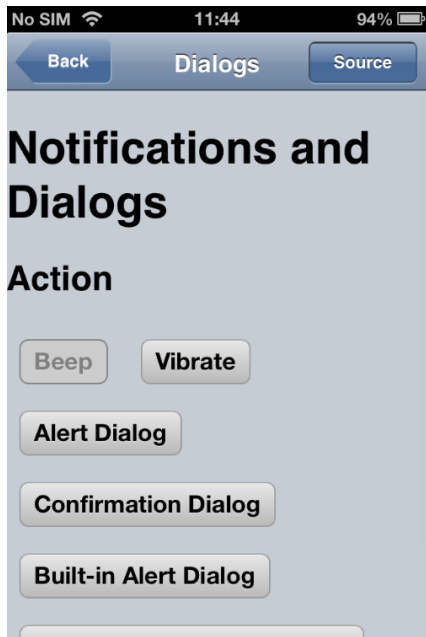
Explore the demos

- Miscellaneous content
 - Click **Send Mail** to switch to your mail application
 - To:, Subject:, and Body fields are pre-populated with test data
 - Click **Send SMS** to switch to your SMS application
 - Click **Load Web Page** to switch to your browser application
 - Click **Map IBM HQ** to switch to Google Maps and locate IBM HQ



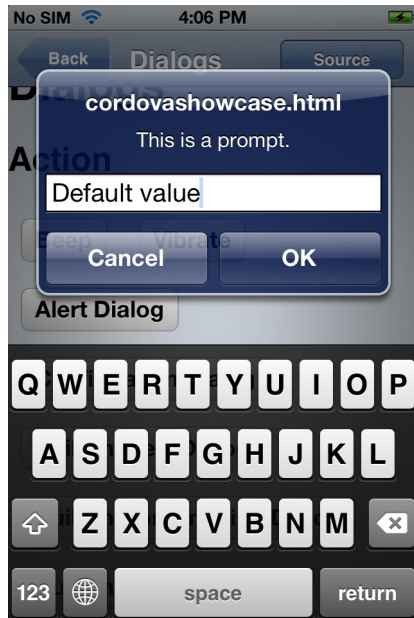
Explore the demos

- Notification/Dialogs
 - **Beep** is not supported on iOS devices
 - Click **Vibrate** to cause your device to vibrate, if the device is capable
 - **Note:** This feature is not supported on iOS 6 devices
 - Click **Alert Dialog**
 - An alert window with **Continue** pops up
 - Click **Confirmation Dialog**
 - A confirmation window with **Yes**, **No**, and **Maybe** pops up
 - Click one of those buttons to pop up another alert indicating which button was pressed
 - Click **Built-in Alert Dialog**
 - An alert window with **OK** pops up
 - Click **Built-in Confirmation Dialog**
 - A confirmation window with **OK** and **Cancel** pops up



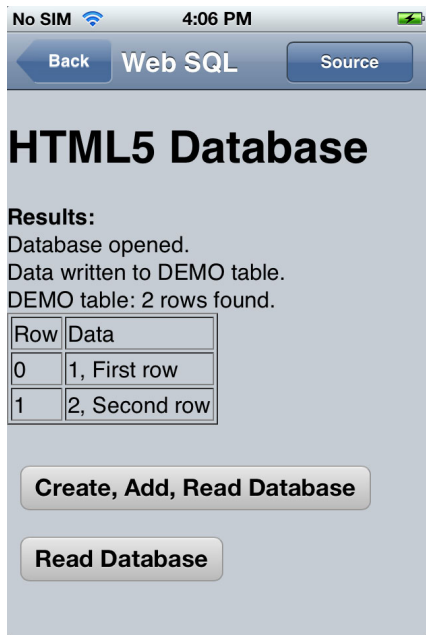
Explore the demos

- Notification/Dialogs
 - Click **Built-in Prompt Dialog**
 - A prompt window with an input field and **OK** and **Cancel** pops up
 - Click in the input field to get a keyboard widget
 - Change the text and click either button



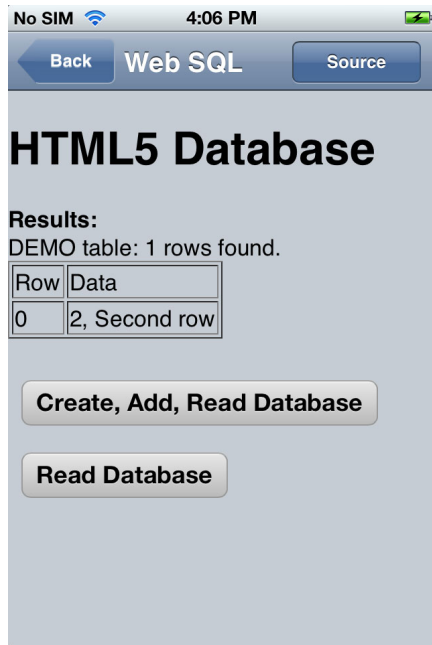
Explore the demos

- Web SQL
 - Click **Create, Add, Read Database**
 - Results show:
 - Database opened
 - Data written to DEMO table
 - SQL search results



Explore the demos

- Web SQL
 - Click **Read Database**
 - Results show a different SQL search result set
 - Note
 - If the database has not been created since your last install of the Showcase, clicking **Read Database** before **Create**, **Add**, **Read Database** displays an error message
 - The database persists until the Showcase is reinstalled



Related information

- For more information about Dojo Mobile widgets, including views, see the following link: <http://docs.dojocampus.org/dojox/mobile>

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