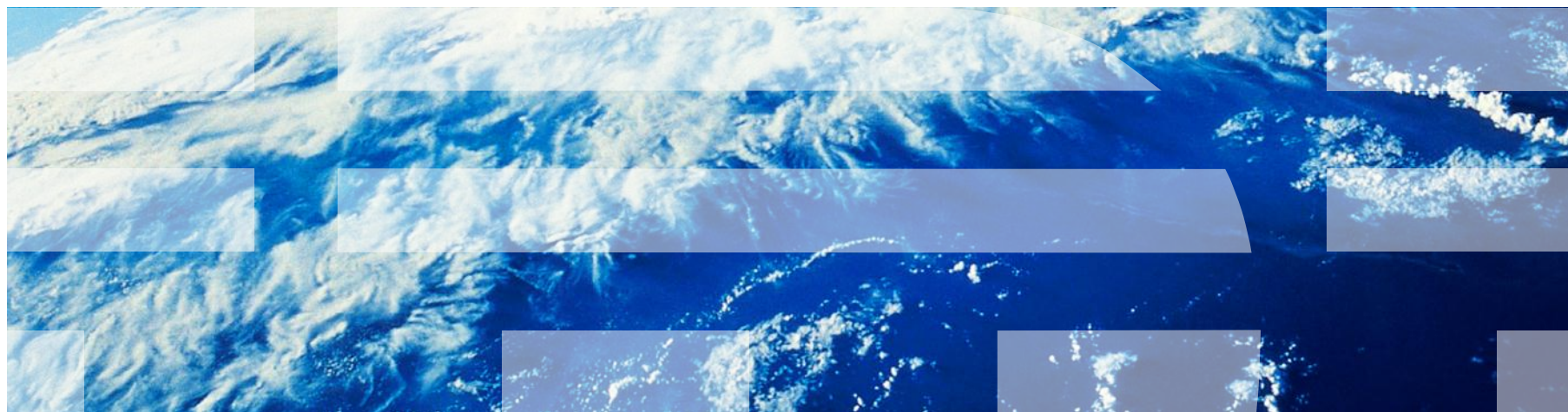


IBM Worklight Foundation V6.2.0 Getting Started

Invoking adapter procedures from native Windows Phone 8 applications



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Agenda

- Creating and configuring a Windows Phone 8 native application
- Initializing WLCClient
- Invoking a Worklight procedure
- Receiving a procedure response

Creating and configuring a Windows Phone 8 native project

- To create and configure a Windows Phone 8 native project, first follow through the training module *“Creating your first Native WP8 Worklight application”*.

Agenda

- Creating and configuring a Windows Phone 8 native application
- **Initializing WLCClient**
- Invoking a Worklight procedure
- Receiving a procedure response

Initializing WLClient

- Start by creating an instance of the `WLClient`.

```
WLClient client = WLClient.getInstance();
```

- To establish a connection to the Worklight Server, use the `connect` method by specifying the `MyConnectResponseListener` class instance as a parameter.

```
client.connect(new MyConnectResponseListener(this));
```

- You learn how to create it in the following slides.

Initializing *WLClient* – continued

- The `WLClient` instance tries to connect to the Worklight Server according to the properties of the `wlclient.properties` file.
- After the connection is established, it invokes one of the methods of the `MyConnectResponseListener` class.
- First, specify that the `MyConnectResponseListener` class implements the `WLResponseListener` interface.

```
public class MyConnectResponseListener : WLResponseListener
```

- The `WLResponseListener` interface defines two methods:
 - The `public void onSuccess (WLResponse response) { }`
 - The `public void onFailure (WLFailResponse response) { }`
- Use the previous methods to process connection success or connection failure.

Agenda

- Creating and configuring a Windows Phone 8 native application
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- **Invoking a Worklight procedure**
- Receiving a procedure response

Invoking a Worklight procedure

- After the connection is established with a Worklight Server, you can use the `WLClient` instance to invoke adapter procedures.

```
WLProcedureInvocationData invocationData =  
    new WLProcedureInvocationData("RSSReader", "getStories");  
invocationData.setParameters(new Object[]{});  
String myContextObject = "InvokingAdapterProceduresWP8";  
WLRequestOptions options = new WLRequestOptions();  
options.setInvocationContext(myContextObject);  
WLClient.getInstance().invokeProcedure(invocationData,  
    new MyInvokeListener(this), options);
```

- Create a `WLProcedureInvocationData` object with the adapter and procedure names.

Invoking a Worklight procedure – continued

- After the connection is established with a Worklight Server, you can use the `WLClient` instance to invoke adapter procedures.

```
WLProcedureInvocationData invocationData =  
    new WLProcedureInvocationData("RSSReader", "getStories");  
invocationData.setParameters(new Object[]{});  
String myContextObject = "InvokingAdapterProceduresWP8";  
WLRequestOptions options = new WLRequestOptions();  
options.setInvocationContext(myContextObject);  
WLClient.getInstance().invokeProcedure(invocationData,  
    new MyInvokeListener(this), options);
```

- Add the required parameters as an object array and set request options (for example: `Invocation Context`).

Invoking a Worklight procedure – continued

- After the connection is established with a Worklight Server, you can use the `WLClient` instance to invoke adapter procedures.

```
WLProcedureInvocationData invocationData =  
    new WLProcedureInvocationData("RSSReader", "getStories");  
invocationData.setParameters(new Object[]{});  
String myContextObject = "InvokingAdapterProceduresWP8";  
WLRequestOptions options = new WLRequestOptions();  
options.setInvocationContext(myContextObject);  
WLClient.getInstance().invokeProcedure(invocationData,  
    new MyInvokeListener(this), options);
```

- Get the existing `WLClient` instance and use it to invoke an adapter procedure.
- Specify the `MyInvokeListener` class instance as a parameter.
- You learn how to define it in the following slides.

Agenda

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Receiving a procedure response

- After the procedure invocation is completed, the `WLClient` instance calls one of the methods of the `MyInvokeListener` class.
- As before, you must specify that the `MyInvokeListener` class implements the `WLResponseListener` interface.

```
using IBM.Worklight;
namespace InvokingAdapterProceduresWP8{
    public class MyInvokeListener : WLResponseListener
    { }
}
```

- The `onSuccess` and `onFailure` methods are invoked by the `WLClient`.

Receiving a procedure response – continued

- If the procedure invocation is successful, the `onSuccess` method of `MyInvokeListener` is invoked.
- Use it to get data that is retrieved from the adapter.

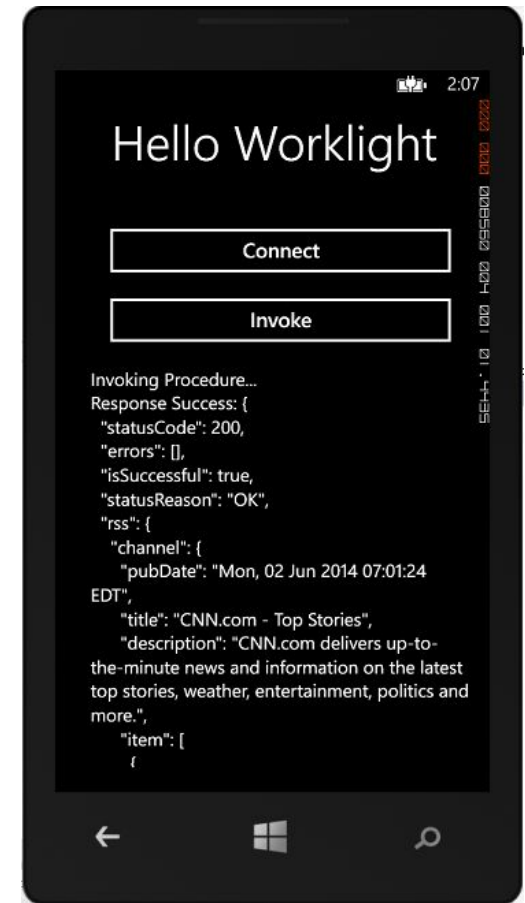
```
public void onSuccess(WLResponse response)
{
    WLProcedureInvocationResult invocationResponse = ((WLProcedureInvocationResult) response);
    JObject items;
    try
    {
        items = invocationResponse.getResponseJSON();
        Deployment.Current.Dispatcher.BeginInvoke(() =>
        {
            myMainPage.AddTextToReceivedTextBlock("Response Success: " + items.ToString());
        });
    }
    catch (JsonReaderException e)
    {
        Deployment.Current.Dispatcher.BeginInvoke(() =>
        {
            myMainPage.AddTextToReceivedTextBlock("JSONException : " + e.Message);
        });
    }
}

public void onFailure(WLFailResponse response)
{
    Deployment.Current.Dispatcher.BeginInvoke(() =>
    {
        myMainPage.AddTextToReceivedTextBlock("Response failed: " + response.ToString());
    });
}
```

- The `response` object contains the response data.
- You can use its methods and properties to retrieve the required information.

Receiving a procedure response – continued

- You can find the sample for this training module in the Getting Started page of the Worklight documentation website at <http://www.ibm.com/mobile-docs>.
- The sample contains two projects:
 - The `InvokingAdapterProceduresNativeProject.zip` file contains a Worklight Native API to deploy to your Worklight Server.
 - The `InvokingAdapterProceduresWP8project.zip` file contains a native Windows Phone 8 application that uses a Worklight native API library to communicate with a Worklight Server.
- Make sure to update the `wlclient.properties` file in `InvokingAdapterProceduresWP8` with the relevant server settings.



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