Resource request from native Windows 8 Universal applications

Overview

To create and configure a Windows 8 (Universal) native project, first follow the Configuring a native Windows 8 application with the MobileFirst Platform SDK (../../hello-world/configuring-a-native-windows-8-application-with-the-mfp-sdk/) tutorial.

MobileFirst applications can access resources using the `WLResourceRequest` REST API.
This tutorial explains how to use the `WLResourceRequest` API with an HTTP adapter.

Initializing WLClient

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

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

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

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

   ```
   public class MyConnectResponseListener : WLResponseListener
   ```

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

Invoking an adapter procedure

After the connection is established with a MobileFirst Server instance, you can use the `WLResourceRequest` class to invoke adapter procedures or call any REST resources.

1. Define the URI of the resource. For a JavaScript HTTP adapter:
   `/adapters/{AdapterName}/{ProcedureName}`

```
URI adapterPath = new URI("/adapters/RSSReader/getFeed");
```

2. Create a `WLResourceRequest` object and choose the HTTP Method (GET, POST, etc).

```
WLResourceRequest request = new WLResourceRequest(adapterPath,WLResourceRequest.G
ET);
```

3. Add the required parameters.
   - For JavaScript-based adapters, use the `params` parameter name to set an array of parameters.

     ```
     request.setQueryParameter("params","['MobileFirst_Platform']");
     ```

   - For Java adapters or other resources, you can use `setQueryParameter` for each parameter.

     ```
     request.setQueryParameter("param1","value1");
     request.setQueryParameter("param2","value2");
     ```

   - Trigger the request with `.send()`.
     Specify a `MyInvokeListener` class instance as a parameter.
     You learn how to define this class instance in the next section.

     ```
     request.send(new MyInvokeListener());
     ```

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 InvokingAdapterProceduresWin8{
   public class MyInvokeListener : WLResponseListene
r
   { }
{
```

The `onSuccess` and `onFailure` methods are invoked by the `WLClient` instance. The response object contains the response data. You can use its methods and properties to retrieve the required information.

```
public void onSuccess(WLResponse response)
{
    WLProcedureInvocationResult invocationResponse = ((WLProcedureInvocationResult) response)
;
    JObject items;
    try
    {
        items = invocationResponse.getResponseJSON();
        await dispatcher.RunAsync(CoreDispatcherPriority.Normal, () =>
        {
            myMainPage.AddTextToReceivedTextBlock("Response Success: " + items.ToString());
        });
    }
    catch (JsonReaderException e)
    {
         Debug.WriteLine("JSONException : " + e.Message);
    }
}

public void onFailure(WLFailResponse response)
{
    await dispatcher.RunAsync(CoreDispatcherPriority.Normal, () =>
    {
        myMainPage.AddTextToReceivedTextBlock("Response failed: " + response.ToString());
    });
}
```

Sample application

Click to download (https://github.com/MobileFirst-Platform-Developer-Center/InvokingAdapterProcedures/tree/release71) the MobileFirst project.

Click to download (https://github.com/MobileFirst-Platform-Developer-Center/InvokingAdapterProceduresWin8/tree/release71) the Native project.

- The `InvokingAdapterProcedures` project contains a **MobileFirst Native API** to deploy to MobileFirst Server.
- The `InvokingAdapterProceduresWin8` project contains a **native Windows 8 Universal application** that uses a MobileFirst native API library to communicate with a MobileFirst Server instance.

Make sure to update the `wlclient.properties` file in **InvokingAdapterProceduresWin8** with the relevant server settings.

IBM MobileFirst Platform Foundation

Invoke Adapter Procedures

Connect Server

Invoke Procedure

Console Info

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--Donald Trump says he "can't guarantee" that all of the workers he employs have legal status in the United States, and warned that if he were to discover any illegal immigrants working for him, "We would get rid of them immediately."
--Stocks hammered | How media fueled crash | Investors hit
--Nicole Elliott was browsing a Georgia animal shelter's Facebook page two weeks ago when she saw him: a scruffy charcoal-gray dog with sad eyes.
--A Baghdad court sentenced 24 men to death by hanging Wednesday over a June 2014 massacre committed by militants near the Iraqi city of Tikrit, said a spokesman for the Supreme Judicial Council.
--The President of war-torn Syria has accepted a billion-dollar helping hand from his supporters in Iran.
--Terror groups such as ISIS are using encrypted programs to prevent law enforcement officials from accessing their communications with recruits, presenting a major new obstacle to tracking terrorists, FBI director James Comey told lawmakers Wednesday.
--The Washington Redskins football team lost a key battle in court on Wednesday over their trademark registration, as a federal judge ruled to cancel the NFL team's registration, stating that the logo might denigrate Native Americans.
--Concerns over altitude sickness in Bolivia may force the Pope to turn to a local remedy. CNN's Shasta Darlington reports.
--Reporter, college dean among dozens of suspicious deaths
--Tony Moreno, whose 7-month-old son died after Moreno allegedly jumped off a Connecticut bridge with the infant, has been charged with murder, prosecutors said Wednesday.