

# Resource request from Native Windows 8.1 Universal and Windows 10 UWP applications

## Overview

MobileFirst applications can access resources using the `WLResourceRequest` REST API. The REST API works with all adapters and external resources.

### Prerequisites:

- Ensure you have added the MobileFirst Platform SDK to your Native Windows 8.1 Universal ([../adding-the-mfpf-sdk/adding-the-mfpf-sdk-to-windows-8-applications](#)) or Windows 10 UWP ([../adding-the-mfpf-sdk/adding-the-mfpf-sdk-to-windows-10-applications](#)) project.
- Learn how to create adapters ([../adapters/adapters-overview/](#)).

## WLResourceRequest

The `WLResourceRequest` class handles resource requests to adapters or external resources.

Create a `WLResourceRequest` object and specify the path to the resource and the HTTP method. Available methods are: `WLHttpMethodGet`, `WLHttpMethodPost`, `WLHttpMethodPut` and `WLHttpMethodDelete`.

1. Define the URI of the resource:

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

- For JavaScript adapters, use `/adapters/{AdapterName}/{procedureName}`
- For Java adapters, use `/adapters/{AdapterName}/{path}`
- To access resources outside of the project, use the full URL

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

```
WLResourceRequest request = new WLResourceRequest(adapterPath, WLResourceRequest.GET);
```

3. Add the required parameters:

- In JavaScript adapters, which use ordered nameless parameters, pass an array of parameters with the name `params`:

```
request.setQueryParameter("params", "[param1', 'param2']");
```

- In Java adapters or external resources, use the `setQueryParameter` method for each parameter:

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

4. Call the resource by using the `.send()` method.

Specify a `MyInvokeListener` class instance:

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

See the user documentation to learn more about `WLResourceRequest` and other signatures for the `send` method, which are not covered in this tutorial.

## The response

When the resource call is completed, the framework calls one of the methods of the `MyInvokeListener` class.

1. Specify that the `MyInvokeListener` class implements the `WLResponseListener` interface:

```
public class MyInvokeListener : WLResponseListener{  
}
```

2. Implement the `onSuccess` and `onFailure` methods.

If the resource call is successful, the `onSuccess` method is called. Otherwise, the `onFailure` method is called. Use these methods to get the data that is retrieved from the adapter.

The `response` object contains the response data and 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());  
    });  
}
```

## For more information

For more information about `WLResourceRequest`, refer to the user documentation.

## Sample application

The ResourceRequestWin8 and ResourceRequestWin10 projects contain a native Windows 8 Universal/Windows 10 UWP application that makes a resource request using a Java adapter.

The adapter Maven project contains the Java adapter to be used during the resource request call.

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/ResourceRequestWin8/tree/release80>) the Native project.

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/ResourceRequestWin10/tree/release80>) the Native project.

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/Adapters/tree/release80>) the adapter Maven project.

## Sample usage

1. From the command line, navigate to the Visual Studio project.
2. Ensure the sample is registered in the MobileFirst Server by running the command: `mfpdev app register`.
3. The sample uses the `JavaAdapter` contained in the Adapters Maven project. Use either Maven or MobileFirst Developer CLI to build and deploy the adapter (`../adapters/creating-adapters/`).
4. import the project to Visual Studio, and run the sample by clicking the *\*Run* button.