Windows Phone 8 - Using native pages

Overview

In this tutorial, integration of native and web "pages" in a Windows Phone 8 application will be explained by using the `WL.NativePage.show()` API to open a native page from JavaScript. With this method, data can be sent from JavaScript to the opened native page, and specify a callback to call after the native page closes.

Connecting to the plugin from the JavaScript code

As a first step, `WL.NativePage.show()` needs to be implemented in order to open the native page:

```
function openNativePage(){
   var params = {
      nameParam : $('#nameInput').val()
   };
   WL.NativePage.show(nativePageClassName, backFromNativePage, params)
;
}
```

- `nativePageClassName`: The name of a native Windows Phone 8 UIViewController instance to start.
- `backFromNativePage`: A callback function to call when the native page closes.
- `params`: optional custom parameters object to pass to the native code.

To handle the callback function:

```
function backFromNativePage(data){
 alert("Received phone number is: " + data.phoneNumber);
}
```

- `backFromNativePage(data)`: After the native closes, it can pass data back to the web part of an application.

Creating a native page

For WP8, the native page must be implemented as a Windows Phone User Control, or extend an existing one.

Step 1

In the new User Control, add `using Cordova.Extension.Commands;` to the .cs file, and use the same package and class name as in the `WL.NativePage` API call in the JavaScript:

```
using Cordova.Extension.Commands;
using Newtonsoft.Json;

namespace NativePagesInHybridApp
{
   public partial class HelloNative : UserControl
   {
```

Step 2

To retrieve custom data parameters that are passed from the web view, the `WLNativePage.Data` method should be used. In the below example, the data is sent as a JSON string. For this purpose, the external JSON.NET library is used to convert the incoming JSON string to a native dictionary. For more information, see http://json.codeplex.com/ (http://json.codeplex.com/)

```
InitializeComponent();
    if (WLNativePage.Data != null) {
        Dictionary<string, string> data = JsonConvert.DeserializeObject<Dictionary<string, string>>(WLNativePage.Dat
a);
        NameReceivedTextBlock.Text = "Hello " + data["nameParam"];
        tb_returnValue.Text = "1234567890";
}
```

Returning control to the web view

When the native page needs to switch back to the web view, it calls the `WLNativePage.backFromNative` method. Data can be passed back to the web view as parameters to the call:

C#:

```
void DoneButton_Click(object sender, RoutedEventArgs e) {
    Dictionary<string, string> data = new Dictionary<string, string> {
        { "phoneNumber", tb_returnValue.Text }
    };

    string json = JsonConvert.SerializeObject(data, Formatting.Indented);
    WLNativePage.backFromNative(this, json);
}
```

JavaScript:

```
  function backFromNativePage(data){
      alert("Received phone number is: " + data.phoneNumber)
  ;
  }
```

Sample application

Click to download (http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v630/UsingNativePagesInHybridAppsProject.zip) the Studio project.

12:18
Show Native Page
Please enter your name:
John Smith
Open native page
12:18
Hello John Smith
Please enter your phone number:
1234567890
Done
12:18
Received phone number is: 1234567890
ok