

Windows Phone 8 - Using native pages in hybrid applications

Overview

This tutorial explains how to create and integrate native and web "pages" in a Windows Phone 8 application by using the `WL.NativePage.show()` API to open a native page from JavaScript.

With this method, you can have data sent from JavaScript to the open native page and specify a callback to be called after the native page closes.

This tutorial covers the following topics:

- Connecting to the plugin from the JavaScript code
- Creating a native page
- Returning control to the web view
- Sample application

Connecting to the plugin from the JavaScript code

1. Implement the `WL.NativePage.show()` to open the native page.

```
1 function openNativePage(){
2     var params = {
3         nameParam : $('#nameInput').val()
4     };
5     WL.NativePage.show(nativePageClassName, backFromNativePage, params);
6 }
```

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

2. To handle the callback function:

```
1 function backFromNativePage(data){
2     alert("Received phone number is: " + data.phoneNumber);
3 }
```

The `backFromNativePage(data)` parameter can pass data back to the web part of an application after the native closes.

Creating a native page

For Windows Phone 8, implement the native page 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:

```
1  using Cordova.Extension.Commands;
2  using Newtonsoft.Json;
3  namespace NativePagesInHybridApp
4  {
5      public partial class HelloNative : UserControl<br />
6      {
```

Step 2

To retrieve custom data parameters that are passed from the web view, use the `WLNativePage.Data: (NSDictionary*)data` method.

In the example below, 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 the `JSON.NET` (<http://json.codeplex.com/>) page.

```
1      InitializeComponent();
2      if (WLNativePage.Data != null)
3      {
4          Dictionary<string, string> data = JsonConvert.DeserializeObject<Dictionary<string, string>>(V
5          NameReceivedTextBlock.Text = "Hello " + data["nameParam"];
6          tb_returnValue.Text = "1234567890";
7      }
```

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.

Objective-C

```

1 void DoneButton_Click(object sender, RoutedEventArgs e)
2 {
3     Dictionary<string, string> data = new Dictionary<string, string>
4     {
5         { "phoneNumber", tb_returnValue.Text }
6     };
7     string json = JsonConvert.SerializeObject(data, Formatting.Indented);
8     WLNativePage.backFromNative(this, json);
9 }
10 }
11 }

```

JavaScript

```

1 function backFromNativePage(data){
2     alert("Received phone number is: " + data.phoneNumber);
3 }

```

Sample application

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

