MobileFirst Platform {dev}

Windows Phone 8 – Using native pages in hybrid applications

Relevant to:
Hybrid

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.

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

   - `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:

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

   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:

```
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, 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 page.

```
InitializeComponent();
            if (WLNativePage.Data != null)
            {
                Dictionary<string, string> data =
JsonConvert.DeserializeObject<Dictionary<string, string>>
(WLNativePage.Data);
                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.

Objective-C

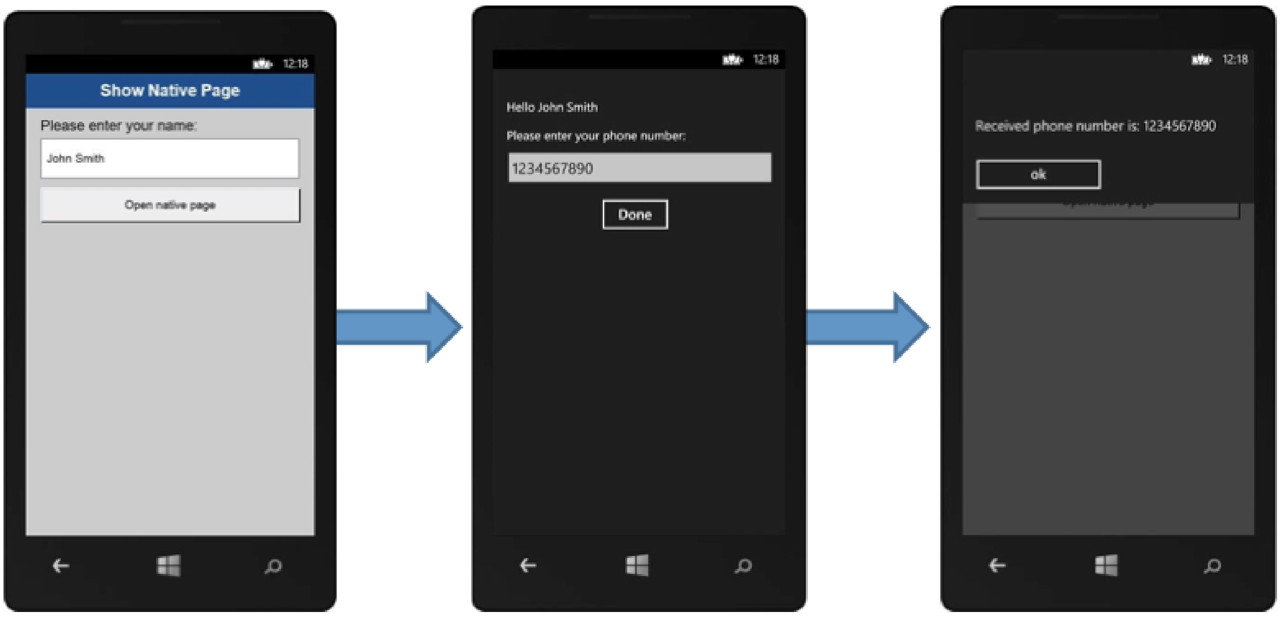
```
    void DoneButton_Click(object sender, RoutedEventArgs e)
        {
            Dictionary<string, string> data = new Dictionary<string,
string>
            {
                { "phoneNumber", tb_returnValue.Text }
            };

            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 the MobileFirst 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