General information when developing for Windows Phone 8

Overview

This tutorial presents general development information for the Windows Phone 8 environment in the following topics:

- Project structure
- Designing for Windows Phone 8
- Environment-specific images
- Accessing native capabilities by using Apache Cordova
- Optimizing applications
- Publishing

Project structure

A Windows Phone 8 app that is developed by using IBM MobileFirst Platform Foundation comprises the following components:

- A CS main class that hosts an instance of a WebView component
- A set of CS and JavaScript libraries that provide access to various device features and capabilities
- Web application code that is provided by the developer, that is written in HTML, CSS, and JavaScript, and that runs in one or more instances of the browser, hosted within the `Main` class
- All application components, including the web code that the developer provides, packaged into a single Windows Phone 8 project

If you use a source control management system (such as Rational Team Concert™, Git, Subversion, and so on), see the topic about integrating with source control system, in the user documentation.

Designing for Windows Phone 8

Guidelines
When you develop applications, it is useful to always consult the Microsoft Design (http://dev.windowsphone.com/en-us/design) and Develop (http://dev.windowsphone.com/en-us/develop) websites.

Environment-specific images

If you decide to implement the Application Bar feature in an app, you must put the various icons in the appropriate folder, in `*your-project-name*\apps\*your-app-name*\windowsphone8\nativeResources\applicationBar`.

The MobileFirst builder then copies these images to the native folder of the generated project.

The icons of the Application Bar must be 100x100 pixels and have a white foreground on a transparent background by using an alpha channel.
The Application Bar colorizes the icon according to the current style settings. Using colored icons can result in an unpredictable display.
Images that are not in the acceptable dimensions are scaled to fit, which can potentially lower the overall

image quality of the Application Bar icon.
The circle that is displayed on each icon button is drawn by the Application Bar. Do not include it in the source image.

Accessing native capabilities by using Apache Cordova

You can use the Apache Cordova framework in Windows Phone 8 applications to access the native elements of a device, such as contacts, geolocation services, media services, or the accelerometer.

For more information about Apache Cordova development, see the Apache Cordova overview (../../adding-native-functionality/apache-cordova-overview) tutorial.

Optimizing applications

When developing a mobile application, you can use minification and concatenation to reduce the size and number of files that are used within the application. This feature is available for the following environments: Android, iOS, Windows 8, Windows Phone 8, BlackBerry 10, Mobile Web and Desktop Browser.

> For more information about minification and concatenation, see the topic about optimizing MobileFirst applications, in the user documentation.

Publishing

To publish a Windows Phone 8 application, you must be a registered Windows Phone Developer so that you can submit your applications to the Windows Phone Store.

1. Register from this page: https://dev.windows.com/en-us/join (http://create.msdn.com).
2. Make sure to meet the prerequisites for your application certification by Microsoft.
3. Submit your application for review.
   Only after going through the prerequisites is submission possible.

For more information about Windows Phone Store application deployment, see the Microsoft MSDN Library website (search for "Windows Phone Store development").