Integrating Bluetooth OPNs with Windows Phone 8

Introduction

Although Opticon's scanners rely on Bluetooth HID-mode or SPP-mode profiles to communicate barcode scans with a host device, Windows Phone 7 & 8 do not ship with support for these profiles out of the box. Rather, they ship with support for the RFCOMM protocol that HID and SPP-mode profiles are built upon. The purpose of this SDK is to provide SPP-mode support so that an app developer can transmit and receive data, and manage the connection, all from within their Windows Phone app. This support can allow app developers to create apps which leverage the features of an Opticon Bluetooth device to facilitate fast data acquisition using a Windows Phone device.

Using the SDK

For complete SDK documentation, see the OpticonBluetoothAPIDocs.chm

To utilize the SDK, simply add a reference to the OpticonBluetoothAPI.dll file in Visual Studio by following Microsoft's tutorial:

http://msdn.microsoft.com/en-us/library/wkze6zky.aspx

Once this is done, all of the functions listed in the OpticonBluetoothAPIDocs.chm help file will be available. Please see the reference for more information about specific functions. The reference is contained within a chm help file, OpticonBluetoothAPIDocs.chm which should have been included with your copy of the SDK.

Example

An example Visual Studio project is also included with the SDK, to demonstrate how to integrate an Opticon OPN-2002 or OPN-2005 using the API. When the included solution is built, it will create an application for Windows Phone 8. This application is deployable on a live device, and it should provide a good idea of the capabilities of the API.

The example application supports the following features:

- **Connection Management:** The application can be commanded to search through the list of paired devices for supported devices. To do this, choose the *Find Paired Devices* button. If a supported device has been paired with the phone, it will be displayed in this list. Touch the desired device and choose *Connect to selected* to establish a connection.
- **Bidirectional Communication**: To test receipt from the scanner, simply scan any supported barcode. The barcode data will appear in the application. To test transmission to the scanner, touch the *Send Z1* button. This causes a command to be transmitted to the scanner. As a result, the firmware versions for the connected scanner will be displayed as output.

Please note that although the app supports managing connections, initial pairings with supported devices must still be created using the Windows Phone settings app or the Windows Phone Bluetooth API. See Microsoft's Knowledge Base for more information:

http://msdn.microsoft.com/en-us/library/windowsphone/develop/jj207007(v=vs.105).aspx

Supported Devices

Currently, only the OPN-2002 and OPN-2005 are tested and known to work with this API. Please contact Opticon Technical Support for more information about support for our other devices.

If you have any questions or comments, please contact Opticon Technical Support. Call us at 1.800.636.0090 x2127 Monday through Friday from 7:00 AM to 5:00 PM Pacific time, or email us at support@opticonusa.com.