Bluetopia® Protocol Stack Information

Introduction

Thank you for selecting the Bluetopia, the Bluetooth Protocol Stack by Stonestreet One. This release has been prepared to support the Freescale K60 Platform using MQX and the IAR Embedded Workbench. Please contact Stonestreet One for any technical support issues.

This release includes the core protocol stack, Generic Attribute Profile (GATT), Generic Access Profile Service (GAPS), and iAP over SPP (iSPP).

Hardware/Software Requirements

- Development platform capable of supporting required IAR tools
- K60N512 Tower system and TWR-SER module (with PAN1316 or similar)

C/C++ Application Development Notes

This section details specific usage information on how to effectively use Bluetopia with C/C++ Compilers.

In order to include all necessary prototypes/constants, the programmer needs to only include the **SS1BTPS.h** header file (for the core library). In order to include all necessary prototypes/constants for profiles, the programmer needs to only include the **SS1BT**xxx.**h** for the specific profile (where, 'xxx" is the profile name).

Users using C++ **MUST** use the following code to include the **SS1BTPS.H** Header File in their C++ Source:

```
extern "C" {
    #include "SS1BTPS.h"
} ;
```

Users using C (and NOT C++) do NOT need to include the above code snippet and can simply include the **SS1BTPS.h** Header File as normal, for example:

```
#include "SS1BTPS.h"
```

All API structures that are used with Bluetopia at the hardware device interface level are aligned on default packing boundaries. This shouldn't pose much of a problem because most of the structures are aligned such that they would not cause too many packing problems otherwise. Lower level structures are aligned based on compiler switches as specified by the customer.

RealView Library Notes

The libraries contained in this distribution were compiled using the RealView compiler. Users simply are required to link with the **Bluetopia.a** library for core stack functionality (stored in the folder **lib**). All other profiles and support libraries have a corresponding library directory (also named **lib**) which contains the library required for linking.

Building the Sample Applications

This release includes the following sample applications located in "TWR-K60N512\Samples":

- SPPDemo
- SPPLEDemo
- ISPPDemo

Sample Application Notes

This release includes a sample application directory with source code which demonstrates the use of the Bluetopia stack regarding the Serial Port Profile, Generic Attribute Profile, Generic Access Profile Service, and iAP over SPP. These sample applications are simple, command line applications which will display a list of available commands.

Input and Output can be utilized by plugging in the TWR-SER DB9 to a PC via a straight serial cable. The parameters for this port are:

Baud:	115,200
Data Bits:	8
Parity:	None
Stop Bits:	1
Flow Control:	None
Local Echo:	Off