



BOOST Software™

A full Bluetooth™ protocol stack, co-developed with the BOOST Core™. Modular and flexible to suit all Bluetooth applications.

Product Features

- BQB qualified to Bluetooth specification v1.1
- Written in C and SDL
- Developed and validated for ARM™ processor, but easily ported to other target processors
- Supports piconet and scatternet operation in master and slave modes
- Supports Bluetooth low power modes (sniff, hold, park)
- Supports all packet types

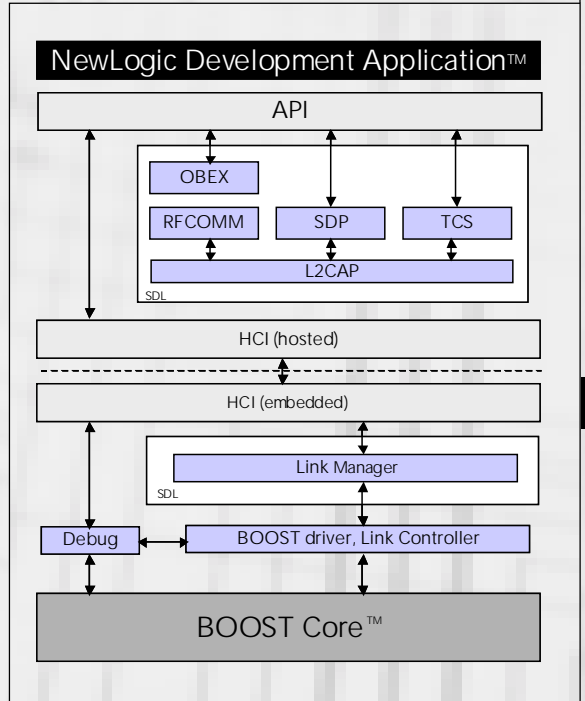
Package Description

The BOOST Software consists of the following layers: LC, LM, HCI, L2CAP, SDP, RFCOMM, TCS and OBEX. It is supplied with a user-friendly test harness (NewLogic Development Application) running under Windows™. The package also includes a real time Operating System. The hardware/software co-development and co-validation of the BOOST Software and BOOST Core ensures an easy and shortened integration phase. Hence, time-to-market for your Bluetooth product is kept to an absolute minimum.

Bluetooth Profiles

The BOOST Software blocks support the requirements for the various Bluetooth profiles as follows:

Profiles/Blocks	SDP	RFCOMM	TCS	OBEX
Generic Access				
Service Discovery Application	•			
Cordless Telephony	•		•	
Intercom	•		•	
Serial Port	•	•		
Headset	•	•		
LAN Access	•	•		
Generic Object Exchange	•	•		•
Object Push	•	•		•
File Transfer	•	•		•
Synchronization	•	•		•



Quality and Testability

Most of the stack has been developed using Telelogic™ SDL. This allows an improved simulation of each single layer and of the complete system.

The SDL language also improves the readability and the maintainability of the software, thus guaranteeing an easy evolution towards future standard modifications.

Moreover, the BOOST Software also includes built-in debug, test and trace capabilities which can be analyzed graphically using the NewLogic Development Application.



Customization

The BOOST Software can be adapted to all Bluetooth applications, ranging from low-end, cost driven products to high-end devices with extensive feature sets:

- Configurable in 2 models, hosted (with HCI) and fully embedded (without HCI).
- The number and the capability of the links can be customized, allowing optimization of the required RAM size as well as the size of the software stack.
- The stack can easily be ported to the most popular real-time Operating Systems (the OS is accessed through an OS abstraction layer).
- Porting to other processors is straightforward (16 or 32 bit processor recommended).
- Extensive use of SDL coding permits easy maintenance of the protocol stack.
- Comprehensive user documentation supplied.

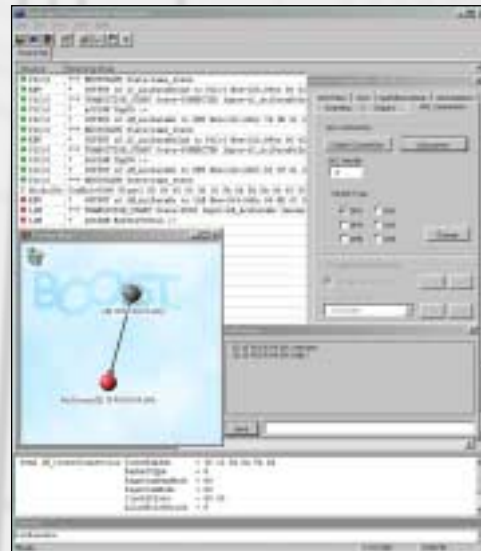
Memory Requirements

As outlined above, the ROM and RAM size requirements are heavily dependent on the configuration selected. The values for a typical headset application are listed below.

- ROM requirements for the embedded part of a hosted stack (LC + LM + HCI + OS): 110 KBytes.
- RAM requirements for the same application (system memory, including stack, heap and message queues): 9,5 KBytes.
- ROM requirements for a fully embedded stack (LC + LM + L2CAP + RFCOMM + SDP + OS + BMC + APPLI): 160 KBytes.
- RAM requirements for the same application: 15 KBytes.

The NewLogic Development Application

Here is a screen shot of this powerful development environment running under Windows™



About NewLogic

NewLogic is an independently owned and operated company based in Lustenau, Austria. Founded in 1997, NewLogic provides System-On-Chip (SoC) design services and silicon IP development for leading semiconductor and systems companies. NewLogic's

comprehensive IP portfolio includes embedded non-volatile memory, DSP, mixed signal and RF cores for the communications, automotive and consumer electronics markets.