

Multi-Profile Bluetooth Software Development Tool

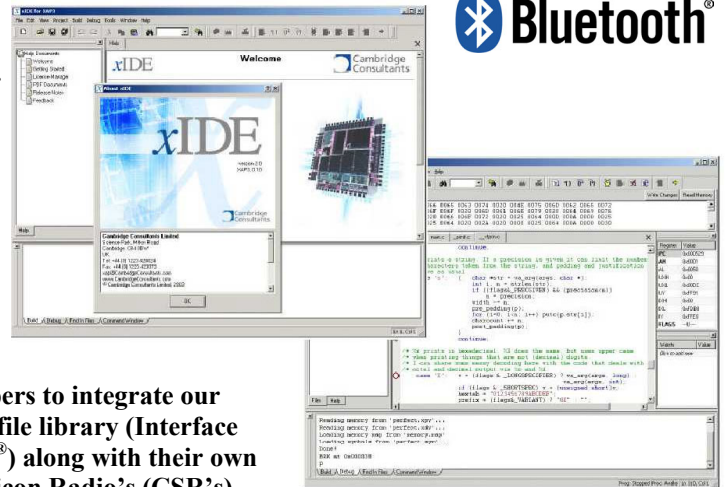
xIDE for Interface Express™

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Sophisticated Bluetooth® products require sophisticated Bluetooth software. This can involve processing data at higher rates, often supporting multiple Bluetooth profiles. This has normally required running the Bluetooth protocol stack and application software on a host processor talking over an HCI link to a Bluetooth device.

Cambridge Consultants now offer an integrated software development environment (xIDE) that enables developers to integrate our fully qualified, easy-to-use Bluetooth profile library (Interface Express®) and protocol stack (BlueStack®) along with their own applications directly onto Cambridge Silicon Radio's (CSR's) BlueCore™ devices. This tool enables developers to achieve full-rate Bluetooth data transfer with an on-chip application, enabling sophisticated host-less application development for CSR's BlueCore™ chip. By increasing the performance of the on-chip software, developers can reduce the cost of their Bluetooth enabled products, reduce the time to get products to market and significantly increase their competitiveness.



Since being spun-out of Cambridge Consultants in 1999, CSR have become the market leading Bluetooth chip supplier. Cambridge Consultants originally developed the XAP2 RISC microprocessor used within CSR's family of BlueCore™ devices, so it is not surprising that we have worked closely together over the last six years. The latest output of this collaboration is xIDE for Interface Express™ – a toolkit that enables developers to fully access the processing power within BlueCore™.

Benefits of using this toolset

The xIDE for Interface Express™ toolkit provides the following benefits to developers:

- Powerful integrated development environment that allows editing, compilation, build and debug from within a single tool, making development more productive
- Source code and build files managed using a project filing system that will be familiar to users of similar integrated development environments, helping developers to get up to speed quickly
- The developed software runs natively on the XAP2 microprocessor within BlueCore™, making more power available to your application
 - data transfer at full Bluetooth data rate of >700kbit/s
 - full, seven slave, piconet capability
- Bluetooth qualified software with a rich array of profiles, enables the development of sophisticated products with simplified qualification
- Reference applications provide guidance to developers, simplifying development and accelerating projects



Simplified integration

The toolkit provides reference applications to enable developers to get started quickly. Examples include:

- CTP access point
- Printer interface
- In-car Hands-free with phonebook download
- Advanced headset
- Phone access data acquisition
- Storage device access
- Serial Port remote control and data transfer



Multi-Profile Bluetooth Software Development Tool

Software with an impressive pedigree

Cambridge Consultants has been developing standards-based on-chip radio software for many years. As a member of the Bluetooth Special Interest Group, Cambridge Consultants has been involved from the early days of the development of the Bluetooth standard. Today, our software forms the basis of over 65% of all qualified Bluetooth designs including mobile telephones from Samsung, NEC and Alcatel. Since forming our 'spin-out' company, Cambridge Silicon Radio (CSR), the industry leading single-chip Bluetooth vendor, we have continued to develop and extend our Bluetooth software offering, enabling us to offer complete turnkey Bluetooth development.

Our qualified Bluetooth profiles include:

AVRCP	A2DP	BIP	BPP	CTP	DUN
FAX	FTP	GAP	GOEP	HFP	HCRP
HSP	HID	ICP	OPP	PAN	SAP
SDAP	SPP	SYN			

Applications can be developed as completely on-chip or mostly on chip. In the completely on-chip case, no external processor is used and the entire application resides on the BlueCore™ device. In the mostly on-chip case, a simple UART protocol can be used to interface to other devices, where these devices need to have no understanding of Bluetooth protocol operation or specification.

Either way, the development of high-performance on chip software will shorten development times, reduce product costs and increase the competitiveness of your Bluetooth enabled products.

Technical Specifications

Operating system required: Windows 2000
Windows XP

Processor Requirements: Minimum: Pentium 3 1000MHz
Recommended: Pentium 4 1800MHz

Memory Requirements: Minimum: 256Mbyte
Recommended: 512Mbyte

Interface Requirements: Parallel port, used as SPI interface to BlueCore™

Licensing: Per seat FlexLM licence
Provided as single machine licences
or Floating Licences via
FlexLM Licence server

Debugging Hardware: Requires CSR Casira endpoint
or equivalent hardware with
SPI Interface access to
BlueCore™ device



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Cambridge Consultants Ltd
Science Park, Milton Road
Cambridge England CB4 0DW

Tel: +44 (0) 1223 420024
Fax: +44 (0) 1223 423373

info@CambridgeConsultants.com
www.CambridgeConsultants.com

S4989-BS-031