Software with X- Factor

July 29 2004

Cambridge Consultants launches xIDE - a generic Integrated Development Environment (IDE) that can be customized for embedded system and semiconductor companies to create software development kits for ASSP, structured ASIC, platform or SoC products. xIDE reduces time to market, risk and software costs for companies requiring application-specific development tools, both for their own use and for delivery to customers.

Both UNIX/Linux and Windows versions of xIDE are available now, and custom plug-ins can be created for any embedded processor, IP core, interface or complete product. The customized xIDE can be OEM-branded by the semiconductor company, enabling in-house developers to ship attractive and highly functional tools in short timescales.

Most modern semiconductor products are programmable or configurable, and the increased use of embedded microprocessors in platform devices, system-on-chip and structured ASICs makes the availability of a software development environment de-rigeur. For example, when the device is an ASSP (application specific standard product) - being sold perhaps by a fabless semiconductor company to equipment manufacturers - developing a software development and debug environment is an expensive and lengthy process. The alternative of referring customers to third-party tool vendors is often unacceptable. Toolkits built from re-usable xIDE technology will produce fully-functional development environments that accelerate semiconductor product sales and are branded with the semiconductor company's identity, to create a common look and feel for a product range, effectively advertising on the developer's computer.

Typical xIDE configurations consist of a graphical user interface and a core development and debugging toolset, together with customized plug-ins for the software tool-chain of the target microprocessor, peripherals and, if necessary, third-party compilers. A complete system that allows developers to write, build and debug their embedded software within a homogeneous software project management environment can be created within a few weeks.

This new software tool and customization service has its roots in Cambridge Consultants' ASIC design and silicon intellectual property business, where it is already proven and in use by clients. For example one of the world's most successful wireless chip companies uses xIDE internally and ships it to external developers and customers. System developers can employ standard interfaces such as JTAG and SPI and they can also use Cambridge Consultants' SIF pods, hardware emulator, non-intrusive in-circuit debugger and Flash memory programming tools. Engineers and programmers using xIDE are presented with a seamless and consistent view of development from simulation and hardware

emulation through to first silicon and deployment on target hardware.

"Software development kits are frequently just as complex to create as the underlying hardware, and substantially increase the risk and timescales of semiconductor development projects," says Alistair Morfey, Head of Cambridge Consultants' ASICs Group. "As a result development tools often lag the introduction of hardware, and are less than ideal in the way they operate. By using xIDE, developers can start programming work on the processor simulator straight away and later, when the hardware is ready, they use xIDE to download code, typically to Flash memory. Our xIDE technology can provide complex multi-processor chips and systems with a modern cross-platform software development environment, which delivers a consistent interface to users - regardless of whether the underlying processors are developed in-house or sourced from third parties."

Cambridge Consultants' xIDE runs natively on Windows, Linux, UNIX or Mac OSX. Its feature set can be customized for individual companies, and it can include an on-line help system, a multiple document text editor with syntax highlighting, a built-in scripting language (Python) to automate repetitive tasks, and sophisticated support for managing embedded software development projects. It delivers these features using either a familiar industry-standard look-and-feel, or a branding concept unique to the embedded systems or semiconductor company.

Source: Cambridge Consultants