Impulse C is the Latest Software-to-FPGA Tool to Support the Intel® Front Side Bus

Impulse C provides a platform-independent environment for hardware/software codesign and partitioning between Intel processors and FPGA-based FSB coprocessors

Kirkland Washington - September 14, 2007 Impulse Accelerated Technologies Inc. today announced that they are the latest software-to-FPGA tools provider to support the Intel front side bus (FSB) architecture. In a related announcement, Impulse has announced that it is in development of a Platform Support Package targeting the Intel® QuickAssist Technology Accelerator Abstraction layer for FSB-connected FPGA accelerators.

According to David Pellerin, CTO and co-founder of Impulse, "Tight integration between the Impulse C compiler and the Intel FSB interface will allow software and hardware developers to more easily create accelerated algorithms and take advantage of the massive levels of parallelism and performance provide by FPGA devices."

The Impulse C compiler allows application developers to rapidly experiment with this FPGA-accelerated algorithms, using familiar C-language programming techniques. By using the FPGA as a highly parallel coprocessor, applications that include financial modeling, scientific computing, bioinformatics and defense can be quickly developed, optimized and deployed.

"Developers of high-performance applications are demanding more options for algorithm acceleration", said Lorie Wigle, Director of Server Technology and Initiatives Marketing, Intel Corporation. "The Intel front side bus provides a high-performance channel for processor-to-accelerator communication, and we believe that Impulse C will help to facilitate and encourage the use of FSB for FPGA-based coprocessing."

The Impulse C compiler plays a key role in bringing more software developers into FPGA technologies. During the software-to-hardware compilation process, the programmer's original C code is automatically optimized for parallelism. This optimization, in which C statements are analyzed and translated directly to FPGA hardware, is the key to making code running on a relatively slow clock speed FPGA outperform a processor running at a much higher clock rate. Using the Impulse tools in combination with FPGA devices, users can expect to achieve 10X acceleration and 10X power reduction over their existing processor-based solutions. When compared to traditional methods of hardware design, this approach can cut weeks or even months off of the development cycle for high performance computing applications.

This high performance computing methodology supplies additional design capability to application developers targeting Intel Xeon® processor/FPGA-based platforms. These platforms can provide high performance application acceleration ranging from 10x to 100x compared to processors alone, while simultaneously reducing overall system power consumption. These platforms are quickly gaining interest in computing sectors such as image processing, financial analysis, medical imaging, data analytics, text searches, network security and scientific computing.

About Impulse

Impulse C allows software and hardware engineers to rapidly and cost-effectively move designs originating in ANSI C to FPGA coprocessors. For more information on Impulse C to FPGA software, visit www.ImpulseC.com.

###

Editor Contacts:

Brian Durwood
Impulse Accelerated Technologies, Inc.
(425) 605-9543 ext 109
brian.durwood@ImpulseC.com