For Immediate Release:

Impulse & Convey to Support C-to-FPGA for Accelerated Computing

Algorithmic Design Cuts Development Time for Accelerated Computing

Bellevue, WA – November 5, 2010 – Impulse Accelerated Technologies today announced that the Impulse C-to-FPGA compiler will be extended to support Convey's HC-1 Hybrid-Core server. The companies are collaborating to integrate the Impulse compiler into the Convey Personality Development Kit (PDK), allowing C-language algorithms to be deployed as FPGA hardware accelerators in high performance computing applications.

The Impulse compiler tools support automatic pipeline generation, instruction scheduling and other optimizations for increased algorithm throughput. The integration will combine Impulse compiler-generated hardware kernel functions with Convey's proprietary shared memory accelerator architecture. Target applications include bioinformatics, financial computing, and image processing.

Impulse C is the most widely used high level synthesis method of moving software applications to FPGA coprocessors. Researchers at the University of Washington benchmarked a 1/3 reduction in development time in designing in C rather than HDL. More significantly, the team benchmarked a 7/8 reduction in iteration time.

"For software developers, the Convey system offers seamless programming selection between software and hardware elements, and it provides a remarkable amount of programmable logic," said Brian Durwood, CEO and co-founder of Impulse. He continued, "Impulse C is ideal for creating custom algorithms for the Convey HC-1 platforms, and allows developers to utilize the FPGA coprocessors in a fraction of the time hand coding would require."

Impulse C allows developers to more easily partition their application code between CPUs and hardware accelerators. The compiler supports automated and user-directed parallel optimizations, resulting in faster processing speeds and lower power consumption. The Impulse C compiler generates hardware in standard formats, allowing the hardware code to be simulated and mapped to Convey hardware personalities with minimal effort.

"We are very excited to work with Impulse because their tools provide our hybrid-core customers with the boost in productivity needed to quickly develop new personalities or instruction sets. Our partnership will help customers innovate on hybrid-core platforms and accelerate applications in a wide variety of industries," said Bruce Toal, CEO and co-founder, Convey Computer.

About Impulse
Founded in 2002, Impulse Accelerated Technologies provides C-to-FPGA tools, custom IP, training and FPGA design consulting. Impulse products are used worldwide by customers in automotive, financial, government, university and medical electronics domains. www.ImpulseAccelerated.com