Linux is available for Altera's Nios II embedded processor

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Getting Linux support on an FPGA is important; how you get it and who you get it from is really important. So I was excited to hear that the folks at Altera Corporation and Wind River have announced the availability of Linux support for Altera's Nios II embedded processor. Embedded developers deploying products based on the Nios II processor can use this Linux solution across Altera's entire portfolio of FPGAs and HardCopy ASICs.

Wind River's Linux solution for the Nios II processor is based on Linux 2.6 kernel technology, the GNU 4 tool chain, and the Eclipse-based Wind River Workbench Development Suite. This solution adheres to well-known industry standards on Linux and tools and is customized to support the Nios II instruction set, the processor architecture and the custom instructions feature that can be implemented in the FPGA fabric to increase system performance.

Providing software developers a fast start on an FPGA-based platform, the Altera and Wind River development framework offers an integrated, network-enabled processor-system reference design that boots Linux on power-up. Implemented on a Cyclone III FPGA Development Kit, the underlying hardware platform is a fully timing-constrained and performance-optimized processor subsystem design with a Nios II/f core and a number of common system peripherals such as Ethernet, timer and UART. A matching board support package (BSP) and a pre-built Linux kernel for this hardware platform give application developers a familiar and stable environment to jumpstart their application development effort. The same processor system reference design can target any FPGA or HardCopy ASIC in Altera's product portfolio.
Recognized by market-research firm Gartner as the FPGA industry's most widely used embedded processor in terms of design starts, the Nios II embedded processor is deployed in systems because of its flexibility, ease of integration and low cost. The Nios II embedded processor is a configurable, high-performance solution that delivers up to 340 DMIPS of performance in FPGAs and can be implemented in a few cents worth of logic elements. Using Altera's Quartus II software tool suite, including the SOPC Builder tool, embedded developers can create systems with an exact-fit processor and just the right set of peripherals, and target them to Altera's devices.

Availability
The Linux distribution, a Nios II/f-based processor-system reference design, and a BSP for the Altera Cyclone III FPGA Development Kit are available from Wind River. Customers interested in purchasing the Linux solution for use on Altera's Nios II embedded processor should contact Wind River at [www.windriver.com](http://www.windriver.com). To learn more about Altera's Nios II embedded processor, visit [www.altera.com/nios2](http://www.altera.com/nios2).