

Altera Embeds Synopsys' Virtual Prototyping Technology in New ARM-based SoC FPGA Offering

OEM Agreement Enables Altera to Deliver Virtual Target Enabling Early Software Development Targeting SoC FPGAs

MOUNTAIN VIEW, Calif., Oct. 12, 2011 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS), a world leader in software and IP used in the design, verification and manufacture of electronic components and systems, today announced the use of its comprehensive and proven [Virtual Prototyping Solution](#) in Altera Corporation's (Nasdaq: ALTR) newly announced SoC FPGA Virtual Target software development platform. The Virtual Target enables engineers to begin writing software for systems based on Altera's SoC FPGAs months before hardware availability, reducing development time and costs. Altera chose to leverage Synopsys' Virtual Prototyping Solution due to its comprehensive and proven technology, highly productive debugging and analysis tools for multicore platforms and broad model portfolio, which includes transaction-level models of the ARM® Cortex™ - A9 processor and Synopsys DesignWare® IP.

"Being able to deliver a Virtual Target based on Synopsys' virtual prototyping technology is key to helping our customers address the growing software complexity in their SoC FPGA-based designs," said Vince Hu, vice president of product and corporate marketing, Altera Corporation. "The combination of Altera's innovative SoC FPGA technology and Synopsys' proven modeling tools and expertise enables our customers to start embedded software development earlier and complete it faster. In addition, the unmatched control and visibility of the design afforded by Synopsys' powerful virtual prototyping debug and analysis tools deliver significant productivity advantages to our customers doing multicore design."

By supplying its customers with an SoC FPGA Virtual Target, Altera is delivering significant time and cost savings to software developers, enabling them to debug and fix software defects in a matter of days rather than weeks. In addition, it provides significant productivity increases compared to the use of traditional development platforms such as emulators and hardware simulators. Since the SoC FPGA Virtual Target is binary- and register-compatible with the final SoC FPGA development board that it models, Altera's customers can save software development time and almost eliminate integration time once the SoC FPGA is available. Synopsys' Virtual Prototyping Solution supports commercial and open source debug tools, making it easy for Altera's customers to initiate their software development. Altera's software development teams and partners have already been using the Virtual Target to port operating systems such as Linux and VxWorks as well as develop complex device drivers.

"Virtual prototyping provides significant value to the electronic systems supply chain because it gives both hardware and software developers a common design platform and a head start on software development," said John Koeter, vice president of IP and systems marketing at Synopsys. "By leveraging the same technology that is integrated into Synopsys' Virtual Prototyping Solution, Altera's customers gain access to a proven solution that easily integrates with their existing development flow and enables them to manage the increasing software complexity of multicore SoC FPGA design."

For more information about Altera and Synopsys' collaboration on the Virtual Target, click [here](#).

About Synopsys' Virtual Prototyping Solution

Synopsys' Virtual Prototyping Solution includes the Virtualizer tool set, a broad portfolio of transaction-level models, and services. This solution enables early software development, hardware/software integration and system validation. For more information about the Synopsys Virtualizer™ tool set or the comprehensive Virtual Prototyping Solution, please visit: <http://www.synopsys.com/VirtualPrototyping>.

About Synopsys

Synopsys, Inc. (Nasdaq:SNPS) is a world leader in electronic design automation (EDA), supplying the global electronics market with the software, intellectual property (IP) and services used in semiconductor design, verification and manufacturing. Synopsys' comprehensive, integrated portfolio of implementation, verification, IP, manufacturing and field-programmable gate array (FPGA) solutions helps address the key challenges designers and manufacturers face today, such as power and yield management, system-to-silicon verification and time-to-results. These technology-leading solutions help give Synopsys customers a competitive edge in bringing the best products to market quickly while reducing costs and schedule risk. Synopsys is headquartered in Mountain View, California, and has approximately 70 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at <http://www.synopsys.com>.

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