ARM and Synopsys Sign ARM Cortex Processor Models Agreement

Synopsys to Sell ARM Fast Models and Develop New Fast-Timed Models of ARM Cortex™ Processors

MOUNTAIN VIEW, Calif. and CAMBRIDGE, England, Sept. 29, 2011 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) and ARM® today announced a licensing agreement enabling Synopsys to distribute ARM's Fast Models and create models of ARM Cortex Series processors. Designers will be able to accelerate embedded software development for ARM technology-based designs by up to nine months by creating virtual prototypes using ARM models with Synopsys' DesignWare® TLM, SystemC TLM Libraries and Virtualizer™ tool set. ARM Fast Models and other ARM transaction-level models (TLMs) are listed on the newly launched TLMCentral web portal.

"The combination of ARM Fast Models, ARM software tools and Synopsys' solution for virtual prototyping delivers a powerful capability to developers of ARM technology-based SoCs," said John Cornish, Executive Vice President, System Design Division, ARM. "Synopsys' ability to integrate ARM Fast Models has already provided great benefits to ARM partners who use Synopsys' technology to accelerate software development. The new agreement includes the latest generation of ARM and Synopsys products, and enhances hardware/software performance validation for joint customers."

Combining ARM processor models with Synopsys' Virtualizer tool set and broad portfolio of transaction-level models enables design teams to rapidly create and deploy virtual prototypes. The agreement allows Synopsys to distribute ARM Fast Models of Cortex processors that ARM has validated against its processor validation suite. This includes modeling of advanced ARM technologies, such as TrustZone® and Vector Floating Point (VFP). In addition to the Virtualizer tool set's advanced debug and analysis capabilities, designers can also take advantage of the performance and early availability of these models. This allows them to accelerate virtual prototype development, enabling software design to start up to 12 months before the first silicon is available.

Synopsys' technology for developing fast-timed models of ARM processors provides designers with solutions early in the design cycle that are orders of magnitude faster than RTL simulation or emulation. Synopsys-developed fast-timed models offer the timing accuracy needed for comprehensive system performance optimization. They also support speeds suitable for executing complex software applications, including those that run on multicore platforms.

"SoC designers are increasingly turning to multicore implementations to meet their performance objectives, which makes developing and testing software a more complex, effort-intensive task," said Joachim Kunkel, senior vice president and general manager for IP & systems at Synopsys. "This agreement with ARM immediately extends our solution for fast and accurate system-level simulation, making Synopsys the leading supplier of virtual prototyping tools, models and services for the latest generation of ARM technology-based designs. This offering enables our mutual customers to start software development earlier and dramatically boost their design productivity."

Availability

The ARM Fast Models for Cortex processors are available now from Synopsys. Customers interested in fast-timed models can contact Synopsys immediately. Fast Models and other TLMs from ARM and Synopsys are listed on www.TLMCentral.com, the first industry-wide source for transaction-level model information. For more information on Synopsys' Virtual Prototyping Solution, including models, tools and services, visit: 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 https://www.synopsys.com.

About ARM

ARM designs the technology that is at the heart of advanced digital products, from wireless, networking and consumer entertainment solutions to imaging, automotive, security and storage devices. ARM's comprehensive product offering includes 32-bit RISC microprocessors, graphics processors, video engines, enabling software, cell libraries, embedded memories, high-

speed connectivity products, peripherals and development tools. Combined with comprehensive design services, training, support and maintenance, and the company's broad Partner community, they provide a total system solution that offers a fast, reliable path to market for leading electronics companies. Find out more about ARM by following these links:

- ARM website: https://www.arm.com/products/graphics-and-multimedia
- ARM Connected Community®: http://www.arm.com/community/
- Mali Developer Center: www.malideveloper.com
- ARM Blogs: http://blogs.arm.com/
- ARMFlix on YouTube: http://www.youtube.com/user/ARMflix
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