Synopsys Signs Multiyear Collaboration Agreement with ARM for Early Software Development for ARMv8 Processors

New Virtualizer Development Kits for ARMv8 Processors Enable Early Software Development Up To One Year in Advance of Silicon

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Highlights:

- Synopsys® and ARM extend collaboration agreement to include ARM® Fast Models of ARMv8 processors
- Synopsys VDK Family for ARMv8 Processors enables OS bring-up, firmware and driver development for products using ARMv8 processors up to a year before board availability
- Multicore/multi-cluster software analysis capabilities allow developers to optimize software for product performance and energy efficiency
- Semiconductor vendors can create a VDK for their SoC for use by their own software developers as well as those at their customers and partners

Synopsys, Inc. (Nasdaq:SNPS), a global leader providing software, IP and services used to accelerate innovation in chips and electronic systems, today announced the extension of its software development tools offering for ARM processor-based systems with the VDK Family for ARMv8 Processors. Synopsys VDKs (Virtualizer™ Development Kits) are software development kits using virtual prototypes as the embedded target. Utilizing the VDK for ARMv8 processors, software teams can start development of software for ARMv8-based SoC (system-on-chip) designs up to 12 months prior to board availability, accelerating operating system bring-up as well as firmware, device driver and middleware development. The new VDK Family builds on the success of the VDK Family for ARMv7 Processors, which Synopsys announced last year.

Alongside its traditional 32-bit instruction set, ARMv8 introduced AArch64, a power-optimized 64-bit instruction set and execution state for future generations of mobile, consumer, networking and enterprise SoCs. Synopsys VDKs include support for AArch64, offering visibility and controllability to accelerate the development and debug of software running on ARMv8 architecture compliant processors. This enables developers to optimize software for product performance and energy efficiency. The VDK Family for ARMv8 Processors comes pre-configured with reference virtual prototypes that incorporate models of ARMv8 processors such as the Cortex™-A57 and Cortex-A53, as well as big.LITTLE™ configurations and models of Synopsys DesignWare® Interface IP. Synopsys VDKs also provide support for Linux software stacks as a starting point for developing actual product software.

"When companies adopt the Cortex-A57 and Cortex-A53 processors based upon the ARMv8 architecture, they gain access to a robust ecosystem of 64-bit software and development tools," said John Cornish, executive vice president, system design division, ARM. "The VDK Family for ARMv8 Processors from Synopsys integrates ARM Fast Model technology to give software developers an efficient platform to support early code development and analysis."

Synopsys' VDKs offer a plug-n-play integration with the most popular software debuggers and facilitate a broad range of software development use cases to meet the needs of semiconductor companies' own software developers as well as those at their customers and partners. The new VDKs include multicore software debug and analysis tools, reference software stacks and ARMv8 processor-based reference designs to provide an out-of-the-box software development platform. In addition, companies can customize these designs with the Virtualizer tool set to represent their specific ARMv8 SoCs. The VDKs also allow software engineers to efficiently develop software to support individual IP components, such as porting device drivers for DesignWare Interface IP, as well as to perform full software bring-up for the entire SoC.

"Synopsys and ARM continue to work together to help product development teams take maximum advantage of ARM's latest processors and accelerate their product development cycles, which are increasingly software-dependent," said Joachim Kunkel, senior vice president and general manager for IP and systems at Synopsys. "The VDK Family for ARMv8 Processors enables software developers to start work on their next-generation devices earlier and complete it sooner, while helping to ensure their code is optimized for performance and power efficiency."

Availability & Resources

The Synopsys VDK Family for ARMv8 Processors is planned to be available in April 2013.

- Learn more about VDKs: http://www.synopsys.com/Systems/VirtualPrototyping/Pages/VDK4big-LITTLE.aspx

About Synopsys
Synopsys, Inc. (Nasdaq:SNPS) accelerates innovation in the global electronics market. As a leader in electronic design automation (EDA) and semiconductor IP, its software, IP and services help engineers address their design, verification, system and manufacturing challenges. Since 1986, engineers around the world have been using Synopsys technology to design and create billions of chips and systems. Learn more at http://www.synopsys.com.

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