Synopsys Establishes Center of Excellence with Freescale to Speed Development of Automotive Electronic Systems Software

Synopsys Virtualizer Development Kits Accelerate Software Development, Integration and Test for Freescale Automotive Microcontrollers and Processor-based Designs

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Highlights:

- Multi-year collaboration will produce VDKs to enable early software development for Freescale microcontrollers and processors
- Synopsys Virtualizer™ Development Kits (VDKs) enable multicore software development, system integration, fault coverage and test, while increasing automotive software quality and system reliability
- Collaboration extends existing VDK support for Freescale Qorivva® MCU
- VDKs seamlessly integrate with MathWorks Simulink, Synopsys Saber and Vector CANoe for system integration, fault and coverage testing in support of ISO 26262 using a virtual Hardware-in-the-Loop environment interactively or in regression

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 it has collaborated with longtime automotive silicon pioneer Freescale® Semiconductor to create a Center of Excellence program to speed development of automotive electronic system software. The program provides software development solutions for automotive electronic systems based on Freescale automotive microcontrollers (MCUs) and processors using the Freescale Power Architecture® technology and ARM® processor cores. The Center of Excellence consists of a dedicated team of engineers who will develop VDKs with virtual prototypes of Freescale microcontrollers and processors. VDKs are software development kits integrating microcontroller and processor virtual prototypes with software debug and analysis tools to enable development, debug, test and analysis up to 12 months before hardware availability. The collaboration will initially focus on delivering virtual prototypes for the powertrain Qorivva MCUs as part of the existing VDK for Freescale Qorivva.

"The increasing demand for enhanced functionality in automotive systems is driving the need for far more advanced software, simulation and test capabilities," said Ray Cornyn, vice president of Product Management and Marketing for Freescale's Automotive MCU business. "Establishing a Center of Excellence allows our global automotive customers faster access to Freescale's latest product architectures through Synopsys VDKs. This collaboration brings together the unique expertise of both companies to help ensure the earliest availability of VDKs for our mutual customers."

Automotive system developers use VDKs to get an early start developing complex drivers, multicore and AUTOSAR applications. By integrating a VDK into a virtual Hardware-in-the-Loop environment, developers can frontload system integration and test, extend fault and coverage testing in support of the ISO 26262 safety standard and deploy more efficient regression testing approaches.

Freescale 32-bit Qorivva microcontrollers, built on the high-performance Power Architecture technology, are optimized for a wide range of automotive applications including powertrain and hybrid systems, chassis and safety, body electronics and advanced driver assistance systems. Qorivva MCUs offer scalable, highly integrated single core to multicore solutions that deliver quality and long-term reliability for automotive systems. The Center of Excellence collaboration will expand availability of Synopsys' VDK for the existing MPC5643L Qorivva MCU to a broader set of automotive applications.

"Electronic content, including software in vehicles, is increasing rapidly, requiring developers to use more productive tools and methodologies to mitigate development risks and accelerate development cycles," said John Koeter, vice president of marketing for IP and prototyping at Synopsys. "By closely collaborating with Freescale for the delivery of VDKs, we can jointly ensure that tier 1 and OEM suppliers have commercially supported models, the most advanced virtual prototyping tools and a reliable long-term roadmap supporting the Freescale automotive microcontrollers and processors."

Availability & Resources

The VDK for Freescale Qorivva MCU is available now. To learn more visit:

- VDK for Freescale Qorivva: https://www.synopsys.com/verification/virtual-prototyping/vdk/vdk-for-nxp-mpc.html

About Synopsys

Synopsys, Inc. (Nasdaq:SNPS) accelerates innovation in the global electronics market. As a leader in electronic design automation (EDA) and semiconductor IP, Synopsys delivers software, IP and services to 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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