

Synopsys Expands Virtualizer Development Kit for Renesas RH850 with Support for RH850/P1x Series

Virtualizer Development Kit Speeds Software Development, Integration and Test of Chassis Electronic Control Units for Renesas MCUs

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Highlights:

- Virtual prototype for Renesas RH850/P1x series of MCUs now available for use with the VDK for Renesas RH850 and builds upon the existing F1x, C1x and E1x series support
- Synopsys VDK for Renesas RH850, a software development kit that uses virtual prototypes as a target, improves quality and reliability, and reduces development costs
- VDK can be customized to represent any RH850/P1x series variant including P1x-C in support of chassis application development such as electric power steering, electronic stability control and anti-lock braking system
- Joint development between both companies through the Center of Excellence continues to accelerate automotive Tier 1 and OEM access to virtual prototypes for RH850 MCUs

Synopsys, Inc. (Nasdaq: SNPS) today expanded its Virtualizer™ Development Kit (VDK) portfolio for Renesas' RH850 MCU with a virtual prototype for the new RH850/P1x series targeting chassis electronic control units (ECUs). The latest virtual prototype builds upon the existing VDK for Renesas RH850 MCUs, which includes support for the F1x, E1x and C1x series MCUs. The Synopsys VDK for Renesas' RH850/P1x is a software development kit that uses a virtual prototype as a target to enable automotive engineers to start software development, integration and test months before physical hardware and testbenches are available, resulting in higher product quality and reduced development cost. The Renesas RH850/P1x virtual prototype was developed through the Center of Excellence collaboration between Renesas and Synopsys, which uses joint engineering teams to develop models and VDKs optimized for Renesas RH850 MCUs.

"The scalability, performance and reliability of the Renesas RH850/P1x MCU series is ideal for our customers developing chassis applications," said Naoki Yada, senior manager of Automotive Control Technical Strategy Department at Renesas Electronics Corporation. "As software content and complexity of chassis applications increases, our customers benefit from our Center of Excellence collaboration with Synopsys by having access to a complete virtual prototyping solution from a preferred provider to accelerate software development, integration and test and deliver increasingly reliable products faster."

The VDK for Renesas RH850's software debug and analysis tools, combined with support for Synopsys Saber, Mathworks Simulink and Vector CANoe tools enable system integration and testing using a virtual Hardware-in-the-Loop environment. The combined solution accelerates integration and functional safety testing (ISO 26262), resulting in higher ECU and vehicle software quality. Companies can further customize the VDK for RH850/P1x to support all versions of the RH850/P1x or P1x-C MCUs using the [Virtualizer](#) tool set and can also call on Synopsys' expert [virtual prototyping services](#) to accelerate customization.

"Chassis and safety applications such as electric power steering, stability systems and brake systems are increasingly relying on more complex embedded software and must comply with the ISO 26262 functional safety standards," said John Koeter, vice president of marketing for IP and Prototyping at Synopsys. "Expanding our VDK portfolio for Renesas' RH850 MCUs with support for RH850/P1x helps Tier 1 and OEM companies perform earlier, faster and better software testing including fault and coverage testing for these applications."

Availability & Resources

The Virtualizer toolset and the VDK for Renesas RH850 including the RH850/P1x are available now. To learn more visit:

- Virtual prototyping in automotive: <http://www.synopsys.com/autovdk>
- Virtualizer: <http://www.synopsys.com/Prototyping/Virtualizer>
- VDK for Renesas RH850: <https://www.synopsys.com/verification/virtual-prototyping/vdk/vdk-for-renesas.html>

About Synopsys

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semiconductor IP, and is also a leader in software quality and security testing with its Coverity® solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest quality and security, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

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