

# Mazda Adopts Synopsys' Virtual Prototyping Solution for Electronic Control Unit Verification

Virtual Prototypes Reduce Test Costs, Simplify Corner-Case Testing

## Highlights:

- Synopsys' virtual prototyping solution provides significant time and cost reductions in verifying highly complex systems like Mazda's Electronic Control Units (ECUs).
- Mazda is enhancing ECU safety, reliability and quality by using highly accurate models in Synopsys' high-speed simulation environment.
- Synopsys' CoMET®-METeor® simulation environment makes it easy to integrate other development tools into one cohesive environment.

MOUNTAIN VIEW, Calif., Jan. 11, 2011 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced that Mazda Motor Corporation, a leading producer of automobiles, has adopted Synopsys' CoMET®-METeor® virtual prototyping solution to verify their Electronic Control Units (ECUs). Over the last year, Mazda has been using the METeor embedded software development environment to conduct its ECU system verification in a virtual environment. By decreasing the number of tests on real automobiles and hardware-in-the-loop simulation (HILS) test equipment, the virtual prototyping solution will enable Mazda to save significant time and cost. Mazda has been using the CoMET virtual prototype design tool to create accurate models for normally dangerous live tests and difficult to reproduce conditions, and to enhance levels of safety, reliability and quality.

"Today, the ECU is the most important device in automobiles based on performance and cost. We need virtual prototyping not only to accelerate ECU development time while lowering cost, but also to ensure that our ECUs are safe and reliable," said Mr. Hisayoshi Naito general manager, Vehicle Development Division, Mazda. "We selected Synopsys' CoMET-METeor virtual prototyping solution because of its cycle-accurate modeling and high-speed simulation capabilities."

"Today's automotive makers struggle with the added complexity of millions of lines of software code affecting everything from energy use to safety features. Virtual prototyping has become an essential part of the design flow to help solve this problem," said John Koeter, vice president of marketing for the Solutions Group at Synopsys. "Especially for ECUs, achieving system validation and software development earlier in the flow and with higher quality is crucial to an automobile's success in the end market."

Virtual prototypes are software models of complete systems. System and software developers use virtual prototyping technology to develop and debug designs with pre-silicon development environments months before hardware is available. Synopsys' virtual prototyping solution improves developer productivity with ease of integration, non-intrusive multicore debugging and analysis, real-time execution speeds, and the ability to apply real-world user interfaces. This solution enables concurrent development of hardware and software, significantly shortening embedded system suppliers' hardware/software integration and test cycle time resulting in accelerated time to market.

## 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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