Maxwell Technologies and ANSYS Release Ultracapacitor Components Library for Use in Simplorer

Model Library for Next-Generation Energy Storage Systems for Automotive, Industrial and Aerospace Applications

SOUTHPOINTE, Pa., Aug 04, 2009 (BUSINESS WIRE) -- ANSYS, Inc. (NASDAQ: ANSS), a global innovator of simulation software and technologies designed to optimize product development processes, today announced that an ultracapacitor components library from Maxwell Technologies, Inc. (NASDAQ: MXWL), an ANSYS customer, has been made available for use in Simplorer® technology. As a result, automotive, aerospace and industrial power engineers developing hybrid vehicles and other electric-powered products and systems now can easily utilize the energy-storage device models in their simulations.

Dr. John M. Miller, Maxwell Technologies vice president, systems, applications & integration, said that his company selected Simplorer software based on the strength of its simulation capabilities, the IEEE standard modeling language for analog-mixed signal systems, and the focus at ANSYS on providing high-performance, multi-domain system simulation solutions.

"The ultracapacitor component library includes the latest innovations for high-performance Maxwell BOOSTCAP® ultracapacitor cells and multi-cell modules," Miller said. "This will help ensure that our current and future customers have the necessary elements to develop the next generation of energy storage systems for low-emission, fuel-efficient, hybrid powertrains, advanced electrical drive systems, and other transportation and industrial applications. We chose the Simplorer platform because it provides robust modeling capability, is widely used in our target markets and adheres to VHDL-AMS modeling standard."

Ultracapacitors are energy-storage devices that efficiently deliver bursts of high power and recharge rapidly from any energy source over hundreds of thousands to millions of cycles. Maxwell's BOOSTCAP ultracapacitor products currently are being used for backup power in wind turbines and other industrial applications and for braking energy recuperation and torque assist in low-emission, fuel-efficient hybrid-electric/internal-combustion transit buses and electric rail vehicles. They also have been designed into hybrid trucks and automobiles that will move into production over the next few years. Compared to batteries, BOOSTCAP cells deliver up to 100 times the power, last more than 100 times as long, operate more reliably in high- and low-temperature conditions, require little or no maintenance, and reduce environmental issues associated with battery disposal.

The ultracapacitor model library is already being utilized within Simplorer software at Argonne National Laboratory, which supports the U.S. Department of Energy's mission of providing the nation with a safe, reliable and environmentally friendly energy supply. "We use this model to develop experiments that allow our control software to actively couple ultracapacitors with lithium ion batteries. It helps us to predict the behavior of Maxwell ultracapacitors in the simulation phase before running hardware-based experiments," said Ted Bohn, principle investigator on plug-in hybrid electric vehicle (PHEV) prototype vehicle development in the Vehicle Systems Group at Argonne National Laboratory. "Making this model available via download will now allow others working with these advanced technology components to explore the possibilities of reducing the cost of energy storage system components and increasing performance for future plug-in vehicles."

"Hybrid-electric and plug-in electric vehicles and alternative energy research and development are of great interest to our Simplorer customers," said Dr. Marius Rosu, electromechanical product manager at ANSYS, Inc. "For researchers to have access to accurate models of ultracapacitors directly from Maxwell Technologies will make them more productive and speed the pace of their research."

The ultracapacitor components library is available for download at http://www.ansoft.com/modeldb/.

About Maxwell Technologies, Inc.

Maxwell is a leading developer and manufacturer of innovative, cost-effective energy storage and power delivery solutions. Its BOOSTCAP® ultracapacitor cells and multi-cell modules and POWERCACHE® backup power systems provide safe and reliable power solutions for applications in consumer and industrial electronics, transportation and telecommunications. Its CONDIS® high-voltage grading and coupling capacitors help to ensure the safety and reliability of electric utility infrastructure and other applications involving transport, distribution and measurement of high-voltage electrical energy. Its radiation-mitigated

microelectronic products include power modules, memory modules and single board computers that incorporate powerful commercial silicon for superior performance and high reliability in aerospace applications. To learn more, visit http://www.maxwell.com.

About Argonne

The nation's first national laboratory, Argonne National Laboratory conducts basic and applied scientific research across a wide spectrum of disciplines, ranging from high-energy physics to climatology and biotechnology. Since 1990, Argonne has worked with more than 600 companies and numerous federal agencies and other organizations to help advance America's scientific leadership and prepare the nation for the future. Argonne is managed by the University of Chicago Argonne LLC for the U.S. Department of Energy's Office of Science.

About ANSYS, Inc.

ANSYS, Inc., founded in 1970, develops and globally markets engineering simulation software and technologies widely used by engineers and designers across a broad spectrum of industries. The Company focuses on the development of open and flexible solutions that enable users to analyze designs directly on the desktop, providing a common platform for fast, efficient and cost-conscious product development, from design concept to final-stage testing and validation. The Company and its global network of channel partners provide sales, support and training for customers. Headquartered in Canonsburg, Pennsylvania, U.S.A., with more than 60 strategic sales locations throughout the world, ANSYS, Inc. and its subsidiaries employ over 1,600 people and distribute ANSYS products through a network of channel partners in over 40 countries. Visit www.ansys.com for more information.

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