ANSYS 12.1 Enhancements Support Fast Product Design and Validation

Latest Engineering Simulation Release Builds More Automation into Product Development Process

SOUTHPOINTE, Pa., Dec 07, 2009 (BUSINESS WIRE) -- ANSYS, Inc. (NASDAQ: ANSS), a global innovator of simulation software and technologies designed to optimize product development processes, today announced the availability of ANSYS(R) 12.1 technology to support customers in Simulation Driven Product Development(TM). This latest release incorporates tools that further automate the product development process, making it easier to create designs that will succeed in the marketplace. In addition, ANSYS 12.1 extends the integration of its products with several best-in-class industry applications -- for electronics, polymer and glass-forming, and hydrodynamic applications -- into the ANSYS(R) Workbench(TM) environment, resulting in faster modeling times and an unparalleled breadth of cross-physics integration. These enhancements and others can help organizations develop more innovative products, lower development and manufacturing costs, and accelerate time to market.

In April, ANSYS released version 12.0 of its integrated technology, which marked a new direction in advanced single-physics and multiphysics analysis. An updated version of the company's simulation platform, ANSYS Workbench, was part of the release and provided integrated support for additional world-class ANSYS solvers. The platform also delivered greater flexibility in how simulation procedures are defined and introduced drag-and-drop multiphysics problem setup. Smart Engineering Simulation(TM) delivered by ANSYS 12.1 enhances this complete system development by automating the design and analysis cycles. Such automation enables parametric studies and design optimization across multiple physics, increases the accuracy and completeness of virtual prototypes, and allows for capture and reuse of simulation processes and data.

New to release 12.1 are tools that extend the already existing capability of real-world simulation authoring in the ANSYS Workbench platform, introducing the ability to record, customize and automate analysis steps through journaling and scripting. Journaling captures operations that modify data in an ANSYS Workbench simulation session and records them in a journal file. Such a file can be replayed to return the state of a resumed ANSYS Workbench session. Alternatively, a journal can be modified to change or incorporate additional operations, which are referred to as scripting. ANSYS Workbench journaling and scripting allow users to easily replay previously recorded journals or to reconstruct previously created projects, automate repetitive tasks or execute simulation projects in batch mode. The new automation and customization solution now links all ANSYS Workbench integrated solver and modeling technologies.

"ANSYS 12.1 software leverages these new capabilities within the ANSYS Workbench environment so customers have additional unique opportunities to find the best designs, in the shortest time, and gain a competitive edge in their global marketplace," said Jim Cashman, president and CEO, ANSYS, Inc. "Smart Engineering Simulation is about finding the best possible solution for the real world -- not the world that exists in a vacuum -- in the least amount of time using the fewest resources, enabling customers to study product designs from a multiphysics viewpoint. The automation capabilities available in version 12.1 can be leveraged within the framework itself, through the integration of other ANSYS technologies into ANSYS Workbench, and via external tools."

A hallmark of the ANSYS portfolio is the integration of products -- such as structural mechanics and fluid dynamics -- within ANSYS Workbench to enable truly coupled physics analysis. For release 12.1, ANSYS integrates three of its industry-specific applications within the ANSYS Workbench framework -- for electronics, polymer and glass-forming, and hydrodynamic analyses. This integration extends automation and process compression of the platform's geometry, meshing, parameters and post-processing solution to these industry segments. With ANSYS(R) Icepak(TM), which is used for rapid creation of complex electronic assembly models, this integration results in MCAD connectivity and the ability to create multiphysics thermal-stress solutions using ANSYS(R) Mechanical(TM) software. In polymer processing and glass-forming applications, the integration of ANSYS(R) POLYFLOW(TM) software gives die engineers the ability to predict stresses that occur during cool-down following high-temperature production processes. ANSYS(R) AQWA(TM) users -- who study loads caused by waves on offshore structures and marine vessels -- can benefit from the direct linkage to ANSYS(R) DesignModeler(TM) through importing of external CAD geometry and using geometric parameterization.

Another significant framework enhancement at release 12.1 is the External Connection add-in, which allows applications that are not yet integrated with ANSYS Workbench to communicate with the framework by sharing parameters in the workflow. By enabling easy data transfer, the add-in allows external applications to take advantage of the automation that ANSYS 12.1 provides. The External Connection triggers access to other ANSYS Workbench functionality, including design of experiments,
sensitivity and six sigma design studies.

The latest-generation ANSYS Workbench framework was purposely designed so it could easily integrate with other software tools in a customer's design process. Organizations already are realizing clear benefits from using the environment. "The new schematic interface of ANSYS Workbench provides a clear view of the simulation project and excellent understanding of the process that defines the simulation," said Riccardo Testi from Piaggio, which has been using the platform introduced with ANSYS 12.0. "In addition to being very intuitive to set up, the schematic is an excellent information tool that shows others -- even those not involved in setting up the simulation -- the steps of the simulation, what tools are used and where data is exchanged."

For downloadable images, visit http://www.ansys.com/newsimages.

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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