Dassault Systèmes Announces Isight 5.5 for Simulation Automation and Design Optimization

Latest Release from SIMULIA Brand Supports Open Integration of Modeling and Simulation of Integrated Systems within Isight Simulation Process Flows

VÉLIZY-VILLACOUBLAY, France and PROVIDENCE, R.I., USA, April 19, 2011 — Dassault Systèmes (Euronext Paris: #13065, DSY.PA), a world leader in 3D and Product Lifecycle Management (PLM) solutions, today announced the latest enhancements for modeling and simulation of integrated systems within Isight 5.5, the market-leading open desktop solution for simulation process automation and design optimization from SIMULIA, the Dassault Systèmes brand for realistic simulation.

Isight provides designers, engineers, and researchers with an open system for integrating design and simulation models—created with various CAD, CAE and other software applications—to automate the execution of hundreds or even thousands of simulations. Isight allows users to save time and improve their products by optimizing them against performance or cost metrics through statistical methods such as Design of Experiments (DOE) or Design for Six Sigma.

"Isight allows us to quickly evaluate a large number of design possibilities and identify those that meet our required parameters," said Abel Pardo, stress engineer at aerospace company Grupo TAM. "We now have a clear understanding of which variables are most critical when manufacturing composite panels in order to meet our stringent quality and safety criteria."

Among the new components delivered to enhance the integration of modeling and simulation tools, Isight 5.5 provides support for Dymola (also from Dassault Systèmes) which leverages the popular open Modelica language. This allows Isight users to develop process flows which simulate the dynamic behavior and complex interactions between engineering disciplines, such as mechanical, electrical, thermodynamic, hydraulic, pneumatic, thermal and Modelica-defined control systems.

"Today more and more products feature a tight coupling between physical behavior and embedded computer systems," said Alex Van der Velden, product manager for Isight at Dassault Systèmes. "A good example of this is a vehicle electronic stability control system. The Dymola component in Isight allows our customers to optimize their products for overall targeted system behavior."

Isight 5.5 also includes additional optimization capabilities, such as Mixed-Integer Sequential Quadratic Programming (MISQP) for solving problems with "integer" and "real" variables.

"Common design optimization problems that combine discrete and continuous parameters are often extremely difficult to solve," stated Dr. Klaus Schittkowski, professor for applied computer

science at the University of Bayreuth in Germany. “For instance, when we try to find the smallest bolt possible while not stripping the threads, only discrete combinations of bolt diameter and hole, pitch, flange diameter, thickness of the plate and nut height can be considered due to ISO regulations.” Schittkowski continued, “The search space is no longer continuous and lacks derivatives, and has many isolated points and coupled parameters. The state-of-the-art Isight embedded MISQP code excels at solving these types of problems efficiently.”

Further optimization enhancements in the Isight 5.5 release include a custom exploration strategy—which enables users to create custom search techniques at the application programming interface (API) level—as well as support for easier integration of legacy C or Fortran algorithms.

For additional product information, visit: http://simulia.com/products/isight.html.

###

About Dassault Systèmes

As a world leader in 3D and Product Lifecycle Management (PLM) solutions, Dassault Systèmes brings value to more than 130,000 customers in 80 countries. A pioneer in the 3D software market since 1981, Dassault Systèmes applications provide a 3D vision of the entire lifecycle of products from conception to maintenance to recycling. The Dassault Systèmes portfolio consists of CATIA for designing the virtual product - SolidWorks for 3D mechanical design - DELMIA for virtual production - SIMULIA for virtual testing - ENOVIA for global collaborative lifecycle management, and 3DVIA for online 3D lifelike experiences. For more information, visit http://www.3ds.com.

Dassault Systèmes Press Contacts

Derek Lane (NAM)	derek.lane@3ds.com	+1 (818) 673-2243
Elena Fernandez (LATAM)	elena.fernandez@3ds.com	+1 (978) 442-2790
Arnaud Malherbe (EMEA)	arnaud.malherbe@3ds.com	+33 (1) 61 62 87 73
Shirley Liu (China)	shirley.liu@3ds.com	+86 10 6536 2228
Namrata Gadhok (APAC)	namrata.gadhok@3ds.com	+91 (124) 457 7100
Mikiko Igarashi (Japan)	mikiko.igarashi@3ds.com	+81-3-5442-4138
Hyunjung Lee (Korea)	hyunjung.lee@3ds.com	+82 2 3270 7801