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## NEWS

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# InnerPulse to Utilize Realistic Simulation from Dassault Systèmes

## *Abaqus FEA Associative Integration with SolidWorks CAD Software Accelerates Medical Device Innovation*

**Paris, France and Providence, R.I., USA, March 16, 2010** – Dassault Systèmes (DS) (Euronext Paris: #13065, DSY.PA), a world leader in 3D and Product Lifecycle Management (PLM) solutions, today announced that InnerPulse, a medical device company pioneering a novel technology for those patients with cardiac rhythm disorders, has selected Abaqus finite element analysis (FEA) software from SIMULIA to assist in development of their technology designed in SolidWorks CAD software.

Sudden cardiac death (SCD) remains a major threat despite advances in medication and other treatments. According to the Sudden Cardiac Arrest Association, approximately one American life is lost every two minutes and it has been estimated that SCD claims more than 7,000,000 lives per year worldwide—the overwhelming majority of those deaths are caused by ventricular fibrillation, or rapid, uncoordinated contractions.

InnerPulse has developed a percutaneous implantable defibrillator (PICD) which enables physicians to implant the life-saving defibrillators within a patient's vasculature using a catheter procedure – making the procedure minimally invasive and less expensive. Leveraging SolidWorks for design and the realistic simulation capabilities in Abaqus FEA software, the design engineers at InnerPulse are able to perform accurate analysis for concurrent device and tool design which is saving valuable development time and costs.

"It was important for us to be able to model the way Nitinol material in our PICD anchoring technology will behave throughout the complete manufacturing process. The powerful nonlinear material capabilities in Abaqus allowed us to meet those requirements," stated Cinnamon Larson, Ph.D., senior mechanical engineer, InnerPulse, Inc. "By using the Abaqus/CAE Associative Interface for SolidWorks, we were able to easily synchronize our SolidWorks design model and the Abaqus simulation model throughout the development process— this not only enhances collaboration between our designers and analysis

experts, but it also improves our productivity and reduces design time significantly."

"SIMULIA has a specific focus on providing realistic simulation solutions that meet the demands of the medical device industry," stated Ken Short, VP, Strategy and Marketing, SIMULIA, Dassault Systèmes. "We are committed to developing innovative technology to meet our customer's needs for both devices and biological tissue simulation."

The heavily regulated nature of the medical industry puts stringent demands on controlling the processes, quality, and reliability of the devices being manufactured. Physics-based computer modeling tools such as finite element analysis and fluid-structure interaction are playing an increasingly important role in the medical device development process. The 3D design and realistic simulation solutions from SolidWorks and SIMULIA make it possible to evaluate the realistic performance and safety of design concepts quickly and accurately, prior to committing to costly prototype development and physical testing.

#### **About SIMULIA**

SIMULIA is the Dassault Systèmes brand that delivers a scalable portfolio of Realistic Simulation solutions including the Abaqus product suite for Unified Finite Element Analysis, multiphysics solutions for insight into challenging engineering problems, and SIMULIA SLM for managing simulation data, processes, and intellectual property. By building on established technology, respected quality, and superior customer service, SIMULIA makes realistic simulation an integral business practice that improves product performance, reduces physical prototypes, and drives innovation. Headquartered in Providence, RI, USA, SIMULIA provides sales, services, and support through a global network of regional offices and distributors. For more information, visit [www.simulia.com](http://www.simulia.com).

#### **About Dassault Systèmes**

As a world leader in 3D and Product Lifecycle Management (PLM) solutions, Dassault Systèmes brings value to more than 115,000 customers in 80 countries. A pioneer in the 3D software market since 1981, Dassault Systèmes develops and markets PLM application software and services that support industrial processes and 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. Dassault Systèmes' shares are listed on Euronext Paris (#13065, DSY.PA) and Dassault Systèmes' ADRs may be traded on the US Over-The-Counter (OTC) market (DASTY). For more information, visit [www.3ds.com](http://www.3ds.com).

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