

PRESS RELEASE

## **New Optimus interfaces enable automated design optimization with MSC Software simulation products**

Leuven (Belgium), November 14 - 2013 – Noesis Solutions, renowned for Optimus simulation process integration and parametric design optimization software, today announced the release of new direct interfaces for MSC Nastran and Adams. The development of these new interfaces is significantly facilitated by Noesis Solutions' official membership of MSC Software's Technology Partner Program. By automating and directing simulations to run without user intervention, Optimus is able to evaluate a huge number of design variants in a limited time frame. This further extends the engineering insight delivered by simulation, enabling MSC simulation software users to identify leading candidate designs offering benchmark performance.

### **Design optimization based on multidisciplinary simulation**

MSC Software's engineering simulation technology is used by leading manufacturers for finite element analysis (FEA), acoustics, multidiscipline, multibody dynamics, materials and control systems simulation. The simulation software tools accurately and reliably predict how products will behave in the real world to help engineers design more innovative products. MSC pioneered many of the technologies that are now relied upon by industry to analyze and predict a broad range of design performance attributes.

The technology partnership between Noesis Solutions and MSC Software focuses on establishing new direct interfacing between Optimus and MSC simulation software products. The new interfaces for MSC Nastran and Adams delivered by this partnership make it easier for MSC Software users to set up and execute a parametric simulation campaign with Optimus. The integration component will automatically extract all relevant parameters from MSC software model files and parse simulation result files to extract the product performance metrics needed for optimization.

Using Optimus, design engineers typically perform Design of Experiments (DOE) to define a virtual experiment plan that acquires the most relevant design information possible with minimum simulation effort. Response Surface Modeling (RSM) condenses complex simulations to help design engineers fully understand the unexplored design space potential up-front. Finally, Optimus manages an automated and coordinated search to identify those design parameter values that meet a combination of multiple (often competing) performance targets. Throughout the process, Optimus consistently takes into account design constraints imposed by manufacturing realities and stringent regulatory and standardization requirements.

### **Finding the best product design in the shortest time possible**

"Optimus is known for capturing and automating simulation workflows without any programming skills. The new direct interfaces for MSC Software products make it easier for Optimus users to parameterize any virtual design model and automate the execution of all multidiscipline simulations," said Naji El Masri, Noesis Solutions CTO. "This proven process frees engineers from repetitive tasks, enabling them to identify better performing designs much faster than through conventional methods. It strengthens manufacturers' competitive edge by delivering the best product design in the shortest time possible, while saving tremendously on engineering, manufacturing and material cost."

John Janevic, Vice President of Strategic Operations, said, "We are pleased that our cooperation with Noesis Solutions, a member of our Technology Partner Program, has enabled them to efficiently develop and deliver this new interfacing capability. It will offer customers a powerful method to quickly and robustly evaluate complex design spaces. MSC's users will have an exciting new option for automating their simulation-based design process."

## About Noesis Solutions

Noesis Solutions is a simulation innovation partner to manufacturers in automotive, aerospace, and other engineering-intensive industries. Specialized in simulation process integration and numerical design optimization, its flagship software Optimus helps customers adopt an 'Engineer by Objective' development strategy to resolve their toughest multi-disciplinary engineering challenges. Optimus identifies the best design candidates by managing a parametric simulation campaign that orchestrates customers' software tools. Customers using this approach report design time savings averaging over 30%, while achieving 10% or more product performance improvements.

Noesis Solutions operates through a network of subsidiaries and representatives in key locations around the world. For more information, please visit [www.noesisolutions.com](http://www.noesisolutions.com).

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