

## PRESS RELEASE

# Design space exploration reaches out to a broader engineering community with Optimus 10.17

**Recent Optimus product releases have consistently focused on increasing the flexibility and efficiency of simulation-based engineering processes – thereby maximizing customers' return-on-simulation. In line with this approach, the latest 10.17 release once more extends Optimus with multiple new and more powerful software interfaces.**

### Enabling an 'Engineer by Objectives' strategy

All new interfaces are built on Optimus' unique UCI/UCA infrastructure. It enables customers to connect any commercial software with legacy and in-house simulation tools and data models into a single workflow. Optimus' workflow automation & design space exploration technologies orchestrate the simulation process to identify feasible design candidates that deliver benchmark performance. This approach allows manufacturers to implement an 'Engineer by Objectives' development strategy.

Optimus' wide range of software interfaces frees engineering teams from non-value adding tasks. So do the interfaces eliminate manual model changes and data processing during the execution of virtual experiments. The time savings are tremendous, creating new opportunities to gain deeper engineering insights from the simulation results and to make better-informed decisions.

### Evaluating impact of tolerancing on product performance

The new direct interface for CETOL 6 $\sigma$  supports the efficient optimization of engineering challenges involving mechanical tolerance analysis. Product development teams use Sigmetrix' CETOL 6 $\sigma$  tolerance analysis software to acquire the insights needed to confidently release designs to manufacturing. The new Optimus interface for CETOL 6 $\sigma$  now enables them to evaluate the impact of assembly and component tolerances on product performance. This knowledge is key in developing products that can be manufactured easily and cost-efficiently while reliably delivering the expected product quality.

The new interface makes it really easy to set up an automated simulation workflow containing CETOL 6 $\sigma$  model entries. A powerful embedded search engine offers dedicated filters. The filters greatly simplify the selection of design parameters and result measurements from the CETOL 6 $\sigma$  model – allowing effortless parameterization and automation of the analysis.

### Introducing support for CST STUDIO SUITE<sup>®</sup>

The electromagnetic simulation software CST STUDIO SUITE<sup>®</sup> from CST Computer Simulation Technology AG provides accurate and efficient computational solutions for electromagnetic designs. Thanks to the integrated design environment, users can access a full range of electromagnetic solver technologies. This allows them to address design challenges across the electromagnetic spectrum: from static and low frequency to microwave and RF, for a range of applications including EDA & electronics, EMC & EMI and charged particle dynamics.

With Optimus' new interface for CST STUDIO SUITE<sup>®</sup>, users can run parametric electromagnetic simulation campaigns involving CST STUDIO SUITE. These campaigns free them from repetitive manual model changes and data processing. With Optimus – offering Design of Experiments (DOE), Response Surface Modeling (RSM) and

numerical optimization methods – engineering teams can quickly identify product designs that meet a combination of objectives set by multiple (often competing) performance targets. At the same time design constraints imposed by manufacturing realities or stringent regulatory and standardization requirements, can be consistently taken into account.

### **Enabling parallel execution of MSC Adams**

Optimus 10.17 has also been extended to support parallel execution of multiple MSC Adams runs, either using Optimus' local parallel capabilities, Optimus Parallel Services, or third-party queuing systems. Optimus Parallel Services (introduced with Optimus 10.12) is Noesis Solutions' fit-for-purpose lightweight queuing system that is easy to install and configure in a network environment without advanced IT infrastructure. In any of these MSC Adams-involved parallel execution scenarios, Optimus orchestrates the remote execution of inputs substitution, simulations and results extraction.

### **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 Objectives' 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.noessolutions.com](http://www.noessolutions.com).

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