

PRESS RELEASE

New interface-rich release confirms Optimus as leading full-process PIDO platform

Leuven (Belgium), February 11 - 2014 – Only 2 months ago, the Optimus 10.12 release added 7 new software interfaces, bringing the number of Optimus interfaces to a total of 23. The latest Optimus 10.13 release, today announced by Noesis Solutions, introduces another 3 new interfaces for Siemens NX CAD, Siemens NX CAE and MSC Adams/View. Further extensions and performance improvements to existing interfaces add support for the latest PTC Creo Parametric 2.0 and ANSYS Workbench 15.0. In addition, the new release provides support for ANSYS RSM HPC Parametric Pack and parallelization capabilities for the existing MATLAB interface.

Following its 'Design by Objective' development strategy, Optimus steers the simulation process toward feasible design candidates that deliver benchmark performance – connecting commercial, legacy and in-house simulation tools and data models. Optimus' extremely wide range of interfaces frees design engineers from repetitive manual model changes and data processing during the execution of virtual experiments. The time savings are tremendous, which allow design engineers to focus on value-adding tasks using Optimus' powerful post-processing toolset – gaining deeper engineering insights from enriched simulation results.

Facilitating design optimization using MSC Adams/View

The new direct interface for MSC Adams/View typically facilitates the use of multi-body dynamics to better understand the dynamics of moving parts, or how loads and forces propagate through mechanical systems. By automatically scanning all model parameters and system response metrics defined in the Adams/View command files, Optimus eliminates the need for manual parameterization and batch mode execution altogether.

Thanks to this new Optimus interface, parametric simulation campaigns involving MSC Adams quickly provide a comprehensive data set to be further processed by Optimus' state-of-the-art Design of Experiments (DOE) and Response Surface Modeling (RSM). This helps design engineers fully and rapidly grasp the unexplored design space potential up-front and acquire deeper insight when evaluating the performance of the proposed design candidates. With Optimus' support for Adams/View server mode, communication lines with Adams/View remain open throughout the execution of a series of virtual experiments – reducing simulation overhead costs.

Siemens NX CAD and NX CAE direct interfacing

With regard to Siemens NX, Optimus 10.13 includes NX CAD and NX CAE direct interfaces. Both interfaces support automatic parameter parsing through expressions defined in NX, substantially reducing the need for manual user interaction and parameterization. Support of NX server mode enables Optimus to launch the Siemens NX software once, and then manage numerous subsequent model adaptations and runs during the simulation and optimization process – all performed automatically.

Thanks to both new interfaces, Optimus enables engineering teams aligned on Siemens NX to steer any simulation sequence toward feasible design candidates delivering superior performance. Major product improvements and significant time gains are therefore realized in engineering projects involving NX CAD and/or CAE, also benefiting from NX' powerful interfacing with a wide range of FE solvers such as NX Nastran, Abaqus and LS-DYNA. The Optimus interface for NX CAD also supports custom journal files allowing the definition of any specific user action, such as export to STEP or IGES formats.

Fully compatible with all major parametric 3D CAD solutions

Among the upgraded interfaces featured in Optimus 10.13 is the PTC Creo Parametric 2.0 interface. This interface update additionally supports Pro/ENGINEER Wildfire 5.0 as well as Creo Parametric 1.0. With interfaces available for the current versions of PTC Creo Parametric, CATIA V5 and NX CAD, Optimus now fully supports all major parametric 3D CAD solutions. Whatever CAD solution engineering teams are using, Optimus 10.13 ensures a streamlined design process where any changes implemented into the CAD model automatically propagate to downstream CAE models throughout the entire simulation workflow, delivering better results faster than before.

Introducing support of ANSYS Remote Solve Manager & HPC Parametric Pack

Optimus 10.13 not only supports the ANSYS 15 version released just recently, but also adds support for ANSYS' scalable solutions for the simultaneous execution of multiple design points (ANSYS 14.5/15). First, Optimus 10.13 supports the ANSYS Workbench-based Remote Solve Manager (RSM). This is a job queuing system that efficiently manages analyses on Windows and Linux operating systems. The RSM enables virtual experiments to be executed simultaneously in the background on local workstations or on remote servers.

There is even more to gain with Optimus' support of ANSYS HPC Parametric Pack license (ANSYS 14.5/15). This HPC Parametric Pack license delivers scalable parallel processing for single simulation jobs, enabling multiple simultaneous design evaluations with no additional ANSYS application licenses required. This cost-effective solution is very attractive in combination with Optimus parametric analysis and optimization, reducing both simulation cost and elapsed time.

Enabling parallel execution of MATLAB

Optimus 10.13 has also been extended to support parallel execution of multiple MATLAB 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' new lightweight queuing system that is easy to install and configure in a network environment without advanced IT infrastructure. In any of these MATLAB-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 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.

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