Simufact Welding 7 Speeds Up Simulations of Sheet Metal Structures

Solid-shell elements reduce calculation time of thin-walled sheet metal parts

Hamburg, July 20, 2017 – Simufact, an MSC Software company, announces the release of Simufact Welding 7, which includes significant new functionality to its industry leading welding simulation software used by OEMs and suppliers worldwide.

New functionalities include:

Performance:

Fast simulation of thin-walled sheet parts - Assemblies made of thin metal sheets can be calculated more quickly because the required number of elements in the model drops significantly due to the new solid shell elements feature.

Faster and more efficient calculation of large models - The segment-to-segment method implemented in the new solver allows faster and more efficient calculation of large models with many contact surfaces. This contact description uses DDM (Domain Decomposition Method) a parallel computation framework which utilized parallel computation efficiently.

Fast calculation method for resistance spot welding processes – Shorter computing time for complex and large assemblies through newly implemented Thermal Cycle method.

Simplify the model set-up with Robot assistant – Easy definition of new welding robots with multiple welding paths, heat sources and fillet seams.

Functionality & Ease of Use

Higher accuracy of the clamping conditions – Users can take into account possible rotations and movements of the tools along the surface to predict the real clamping behavior.

Practical oriented 3D measurement for a better validation of simulation results - Users will now be able to compare their simulated model with their target design or with 3D measurement data as a reference model. Simulated deformations can be evaluated relative to the reference geometry.

Increased quality of simulation by adding additional coating data - 16 common coatings enable the user to take into account the electrical properties of coated sheets and to further increase the quality of the resistance spot welding simulation.

Improved compatibility of Simufact Welding by incorporating UNV files – Allows importing of UNV files - improving the compatibility of the welding software with third-party software and interoperability in the process chain.
Please find the detailed press release as well as accompanying press pictures for download on the Simufact website.

About Simufact
Simufact Engineering – an MSC Software company – is a global operating software company providing process simulation products and services to manufacturing industries. Today, after more than 20 years of developing and supporting simulation solutions for the design and optimization of manufacturing techniques in metal processing, the Hamburg (Germany) headquartered company has established as one of the leaders in this business area. Simufact succeeds in extending its global market share backed up by a dynamically growing customer base exceeding a number of 700 customers. A strong and continuously growing network composed of local offices and channel partners ensures global support. The software primarily aims at the automotive industry, mechanical engineering, aerospace industry and their respective suppliers. Typical fields of application for Simufact software are hot forging, cold forming, sheet metal forming, rolling, ring rolling, open die forging, mechanical joining, heat treatment, different welding processes, and most recently additive manufacturing.

For more information about Simufact Engineering please visit www.simufact.com.

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