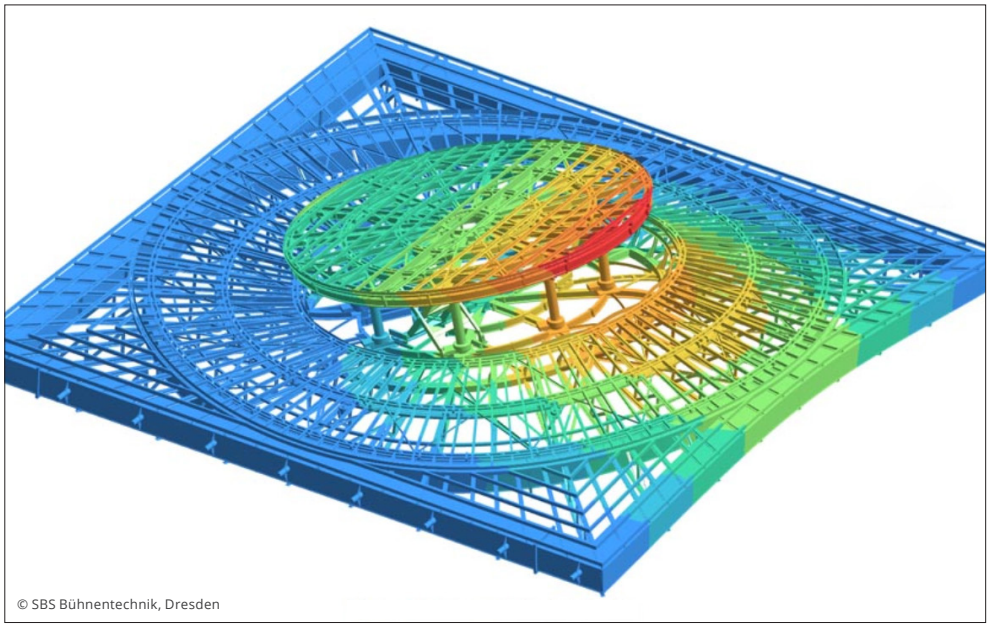
Altair SimSolid™

Simulate at the Speed of Design



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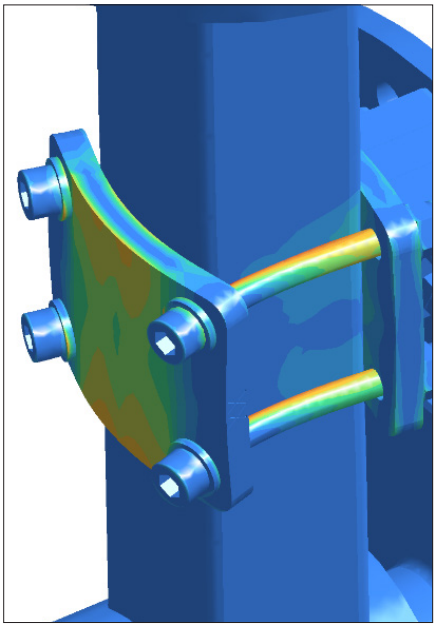


Altair SimSolid is a virtual testing and simulation environment developed specifically for rapidly evolving design processes. It eliminates geometry simplification and meshing, the two most time-consuming and expertise-extensive tasks done in traditional FEA, enabling the analysis on **multiple iterations** of **fully-featured CAD assemblies** in minutes. SimSolid can analyze the most complex parts and large assemblies on a desktop class computer, providing **accurate results** in seconds to minutes.

5 Reasons why **SimSolid** is Reinventing **Simulation**

1. **Explore More:** The extreme speed of SimSolid allows you to run and compare numerous design options quickly and efficiently. Your setup and loading conditions are automatically applied to any updates on CAD geometry reducing time consuming and repetitive rework.
2. **Design Faster:** SimSolid is built to be used in the concept development phase of design. By introducing simulation early in the product development process, you can confidently make design decision without compromising performance and risking time-consuming and costly redesign iterations. With SimSolid, model preparation is done in just minutes.
3. **Design Confidently:** SimSolid is incredibly accurate, it allows you to predict product performance and uncover any costly flaws or areas of improvement early on in the design process.
4. **Analysis Directly on CAD:** With SimSolid, there is no need to simplify your CAD geometry, for the most accurate and efficient results, run simulations directly on fully featured CAD geometry including connections, bolts, welds, and more. SimSolid is even tolerant of imprecise geometry.
5. **Zero Hardware Investment:** SimSolid runs directly on your CAD workstation or laptop, there is no need to invest in expensive hardware or GPUs.

Download your free trial today at **altair.com/simsolid**

Product Highlights

No Geometry Approximation: With SimSolid, your simulation model stays the same as your actual CAD design model. That means you will be able to describe and simulate physics without the burden and time consuming simplification of geometry.

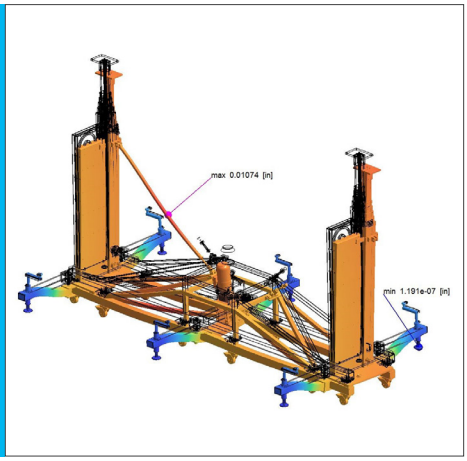
Works with all Major CAD Software: SimSolid has a direct data integration to all mainstream desktop- and Cloud-based CAD systems. Furthermore, it accepts standard STL or neutral format output from any CAD program. Updates to CAD models are directly reflected inside of SimSolid and all previously set up loading and boundary conditions are automatically applied to updated geometry.

Understand Loads and Paths: Bolts, joints, contacts are automatically detected and easily defined, keeping the simulation model truthful to the design specifications.

Fast and Robust Workflow: With extremely fast structural analysis results, designers can test multiple iterations to identify optimal concepts that meet both aesthetic and engineering performance criteria, reducing costly redesigns.

"When we are ordering tons and tons of the raw materials for our chains, a pound here and a pound there starts becoming important, so that's where we spend a lot of time trying to optimize our product. Applying SimSolid to this challenge in the long run will make us a lot of money."

Bob Adams,
Engineering ManagerSerapid, Inc.



Capabilities

SOLUTIONS

- Modal
- Linear Statics
- Nonlinear Statics
- Frequency Response
- Thermal
- Thermal-Stress
- Inertia Relief
- Bolt Pretension

MATERIALS

- Isotropic
- Elastoplastic
- Rigid
- User Extensible

CONNECTIONS

- Auto-connections
- Bonded, Sliding and Separation with Friction
- Spot Welds
- Seam Welds
- Virtual Connectors

RESULTS

- Contours and Animations
- Displacements, Stresses/ Strains
- Frequencies and Mode Shapes
- XY Plots
- Modal Participation Factors
- Forces: Reaction, Contact, Bolts and Welds
- Min/Max Labels
- Safety Factors
- Bookmarks

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