



# 3DEXPERIENCE WORKS STRUCTURAL SIMULATION



## OVERVIEW

The **3DEXPERIENCE** Works Structural Simulation portfolio includes connected, powerful, and collaborative simulation solutions on the cloud-based **3DEXPERIENCE**® platform. It empowers you to accelerate design innovation by solving engineering challenges for your **SOLIDWORKS**® 3D designs with full data associativity.

You can perform any structural analysis tasks with confidence, from the simplest linear static analysis to the most complex nonlinear drop test and impact analyses, by leveraging the built-in market-proven Abaqus solver technology.

The intuitive, interactive **3DEXPERIENCE** platform enables your teams to share and visualize 3D simulation results and collaborate in real time from anywhere with a web browser. You can also easily create and assign tasks and manage multiple projects to speed up project delivery. You have the option to run your simulation on your local computer or remotely on the cloud freeing up your local machine during the run.



## THE SCALABLE PORTFOLIO INCLUDES:

- **Structural Designer:** an intuitive and guided simulation solution for designers who need to assess product performance under linear static, thermal and frequency conditions.
- **Structural Engineer:** a role for design engineers providing linear static, thermal and frequency analysis solution with solid, shell and beam meshing to assess product performance.
- **Structural Performance Engineer:** a role for design engineers to assess the product performance under linear and nonlinear static, thermal, frequency, thermal-stress, linear dynamic and quasi-static conditions.
- **Structural Mechanics Engineer:** a role for design engineers and simulation experts to solve, in addition to what Structural Performance Engineer solves, nonlinear dynamic high-speed events, material calibration and geometry simplification.
- **Durability Performance Engineer, Durability and Mechanics Engineer:** roles for simulation experts to assess the structural performance and durability of products during the design process and intuitively guide design decisions.

All SIMULIAworks solutions offer an integrated workflow with SOLIDWORKS 3D CAD and use the same user interface making it easier for your engineers to come up to speed with new solutions.

## TECHNICAL HIGHLIGHTS

### Easy to access and easy to use

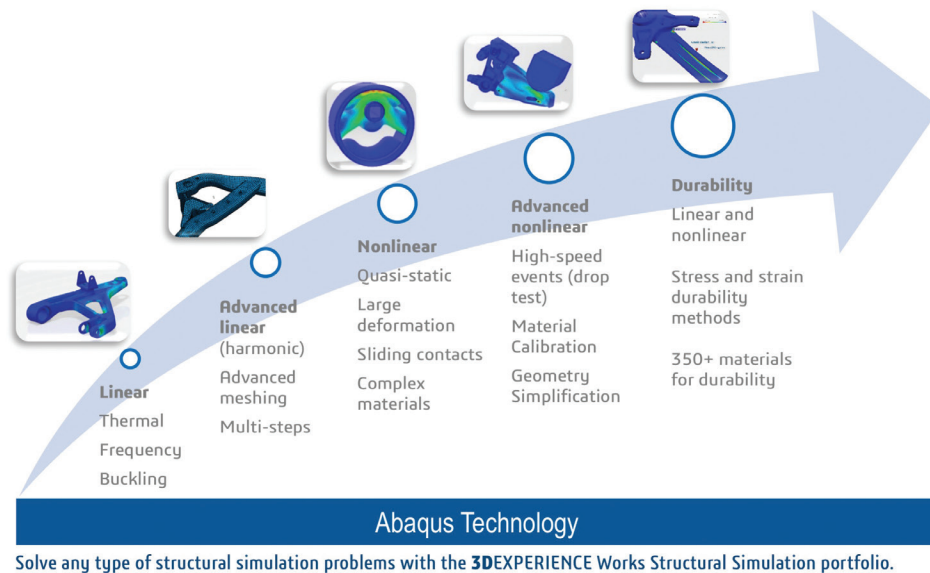
- Continuity, associativity and traceability with SOLIDWORKS for efficient what-if scenarios during the design process
- Guided simulation setup with a customizable User Assistant panel for fast adoption and a reduced learning curve
- Subscription licensing model to match the length of your project (3 months or 1 year)

### Powerful structural simulation technology

- Built-in Abaqus technology for linear, nonlinear, static, quasi-static, dynamic, linear and non-linear materials, sliding contact interactions, large deformations, and large strain validation
- Realistic fatigue multi-events and multi-directional loading for accurate durability calculations
- Material calibration for accurate material behavior modeling

### Collaborative, secure platform in the cloud

- Single, centralized, secure location on the cloud for all your engineering data, enabling the right people to access the right information at the right time
- Cloud computing for handling validation of larger models without taxing your local machine



## Our 3DEXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating 'virtual experience twins' of the real world with our 3DEXPERIENCE platform and applications, our customers push the boundaries of innovation, learning and production.

Dassault Systèmes' 20,000 employees are bringing value to more than 270,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit [www.3ds.com](http://www.3ds.com).



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