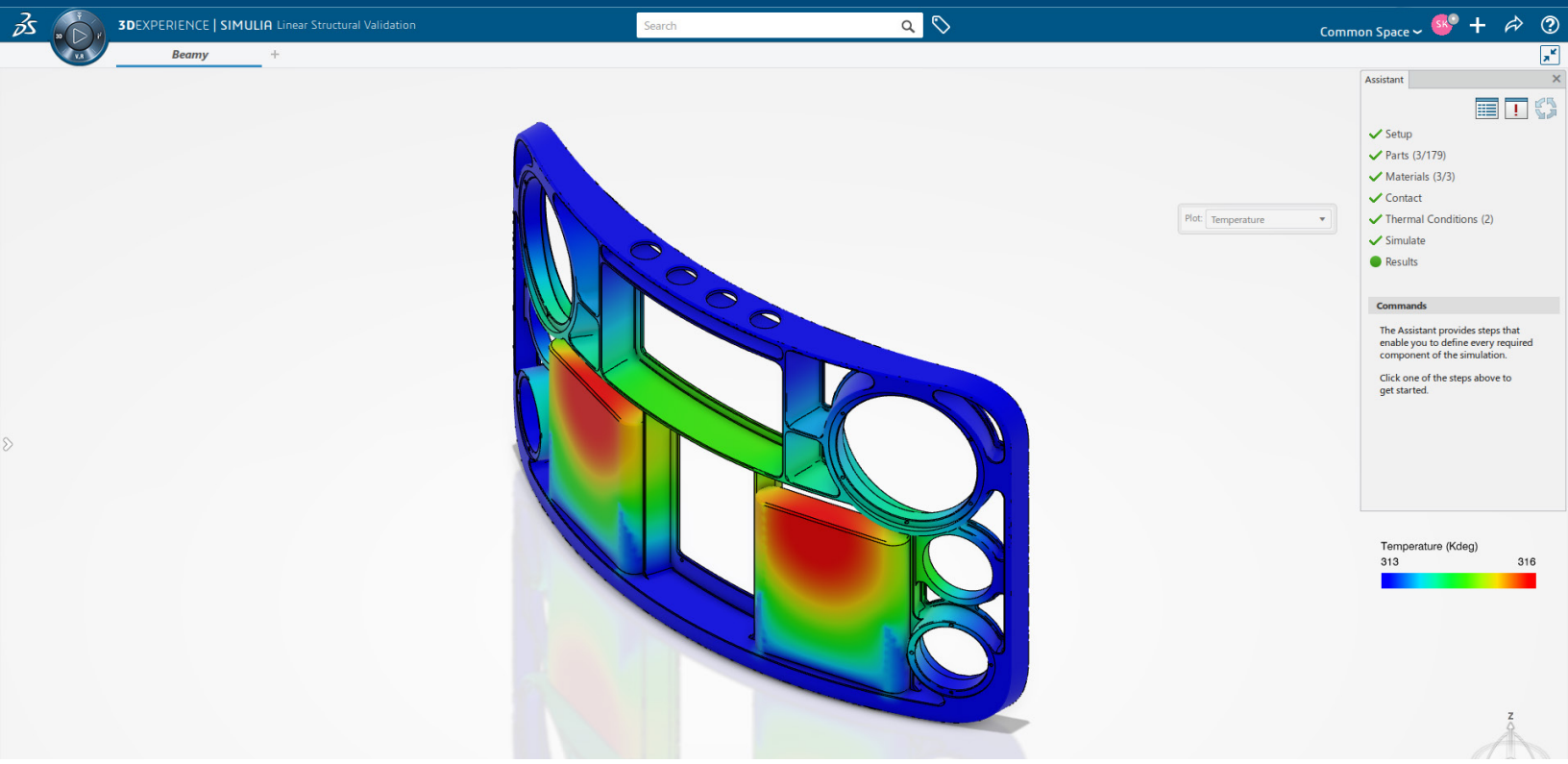
LINEAR STRUCTURAL VALIDATION
3DEXPERIENCE USER ROLE



AN INTUITIVE DESIGN SIMULATION SOLUTION FOR DESIGNERS LOOKING FOR EFFICIENT PRODUCT PERFORMANCE ASSESSMENT UNDER LINEAR STATIC CONDITIONS TO GUIDE THE DESIGN PROCESS

Structural Designer provides intuitive design simulation-based guidance during product design process to easily get the technical insights needed for informed design decisions.

Structural Designer was developed with designers in mind. The design process is made up of multiple iterations, multiple 'what if' ideas to successfully deliver the right product to manufacturing. With Structural Designer, any designer can assess product behavior for each design iteration to improve product performance and reduce time and cost of product development process.

Structural Designer delivers linear static, natural frequency, buckling and steady-state thermal simulation capabilities for fast and efficient product testing experience.

Advanced Simulation Technology Made Easy

The Structural Designer user experience is designed to greatly accelerate simulation adoption during the design process. Sophisticated simulation technology is used automatically, while the options presented to users are meaningful and intuitive for fast product integration in the engineering process. Automation with control is the key. The finite element mesh is created automatically and can be refined easily with local mesh control on geometry. With the embedded Assistant, users receive continuous guidance regarding where they stand in the simulation process and what they need to do next, reducing the learning curve and accelerating the usage of simulation in product development.

Virtual Testing of Product Performance

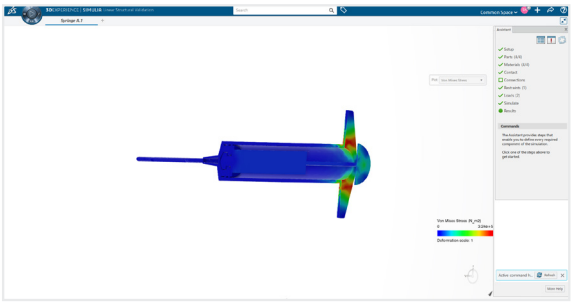
With Structural Designer design engineers can experience product performance virtually so that they can make better-informed design decisions. The simulation experience fits within the familiar design environment, enabling design engineers to take the step into simulation without a disruption in user experience. The strong CAD associativity with CATIA* and SOLIDWORKS* enables users to easily assess the impact of any design changes on product behavior without needing to redefine the simulation set up. Armed with knowledge of how a product will behave under various load situations, the design engineer can gain insights into innovative ideas, possible design flaws and improvements that otherwise would not even be considered.

Connected on the Cloud and Built for Collaboration

Structural Designer is part of the natural collaboration of the design process and is built on the social innovation foundation of the Dassault Systèmes' **3DEXPERIENCE®** platform. All product development stakeholders, from the design team to suppliers and customers, are able to communicate seamlessly wherever they may be to review simulation results for informed business and technical decisions. The on-cloud offer reduces total cost of ownership, provides increased flexibility and enables fast deployment for enterprises of all sizes.

Key Functionality Highlights

As a natural extension of the design experience on the **3DEXPERIENCE** platform, Structural Designer enables users to study product behavior and to explore the performance and durability of different design options, all from within their familiar design environment. It offers:



- A guided workflow for all simulation types at each step of the simulation to help the user understand what to do next for a successful product testing uses the latest Abaqus simulation technology for state of the art accuracy and performance. Intuitiveness and accuracy is then offered for all Designers.
- Fast calculation based on linear simulations to get the insight user needs as fast as possible during the design process.
- Linear Stress, frequency, steady-state thermal and buckling simulation on solid parts and solid assemblies for ad-hoc design simulation capabilities
- Common connections between components available: pin, spring, rigid, bonded
- Automatic contact detection for accurate and fast set up
- Deformable, intermittent contact between parts
- Automatically generates the right mesh with local control enabled
- Always-available embedded compute licensing (up to 4 cores) allows the user to run simulation on the local machine at anytime
- Easily scalable to add non-linearity with other roles (DRD, SSU etc)

Part of a complete SIMULIA portfolio

Structural Designer is one of the roles among the complete SIMULIA **3DEXPERIENCE** portfolio so manufacturing companies can find adequate solution to their evolving needs, always in the same user interface. From Design Simulation to Design Optimization to Multiphysics Simulation to Simulation process Management, SIMULIA delivers realistic simulation applications that enable users to explore real world product behavior.

*Additional roles might be needed.

Our **3D**EXPERIENCE® 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**.

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