



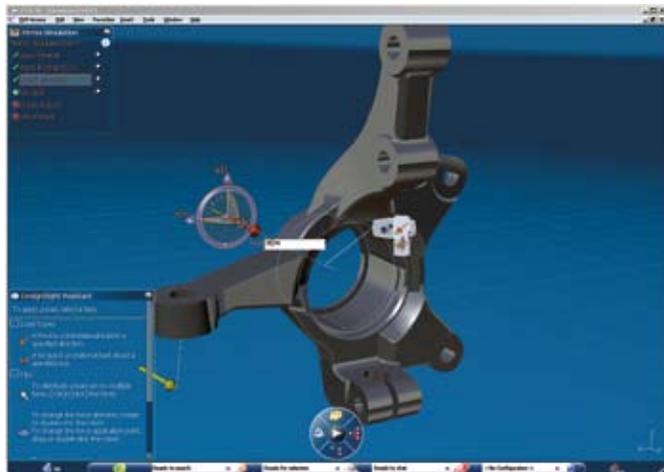
SIMULIA – DesignSight Structure (DSR)

Enables designers, design engineers, and other occasional users of simulation to evaluate part designs under realistic loading conditions

Overview

DesignSight Structure (DSR) is the first in a suite of DesignSight simulation products to enable occasional users of simulation to model the complexities of real-world scenarios. The product models single parts under a variety of loading conditions with the goal of providing insights to help designers improve their designs.

The DesignSight suite enables product designers with minimal simulation knowledge to assess compliance with performance and manufacturability requirements. An intuitive user interface and robust analysis capabilities provide feedback on product performance. DesignSight is a scalable product line that allows product designers to pass models to simulation specialists using more advanced FEA tools from SIMULIA for more detailed study, as well as re-use simulation templates developed by subject matter experts.



Using DesignSight Structure, the designer interacts with the robot to define the load application location, orientation, and magnitude on the steering knuckle.

Product Highlights

- Simulates realistic behavior under structural loading conditions.
- Uses the same Abaqus technology used by expert analysts.
- Robust nonlinear technology.
- High performance on multi-core workstations.
- Run on remote HPC clusters if Abaqus tokens are available.
- Automatically generates the right mesh with adaptive refinement.
- Based on the new V6 lifelike user experience.
- Provides guidance at all times to help the user understand what to do next.
- Natural extension of the design experience.
- Advanced simulation technology with an easy-to-use interface.

Features and Benefits

Enables designers to improve their designs through simulation

DesignSight is a natural extension of the design experience in V6, enabling users to study their design's behavior and to explore different design options. DesignSight is designed to be easy to use and includes functionality required to simulate the complexities of real-world behavior.

Enables occasional users of simulation to simulate their models under realistic loading conditions

The user experience eliminates the need to understand analysis technology. Advanced analysis technology is handled automatically, while the options presented to the user are intuitive and explained in the language of designers. For example, nonlinear analysis is performed automatically so that the user does not need to choose between linear and nonlinear. Another example is that the finite element mesh is created and adaptively refined automatically to ensure high-quality results for each scenario. To make the user experience even more tractable, users receive continuous guidance regarding where they are in the simulation process and what they need to do next, so that they are never lost.

Simulations automatically managed through the integrated ENOVIA V6 IP management platform

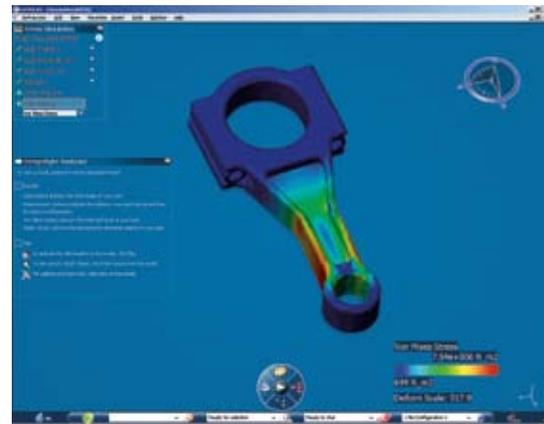
DesignSight leverages the values and benefits of V6. In particular, DesignSight provides a 3D lifelike experience, where the user interacts directly with the 3D model rather than icons and dialog boxes. V6 PLM manages all aspects of design, from part design to product assembly and all the way through to simulation attributes and results.

Provides high-quality results using the latest Abaqus simulation technology

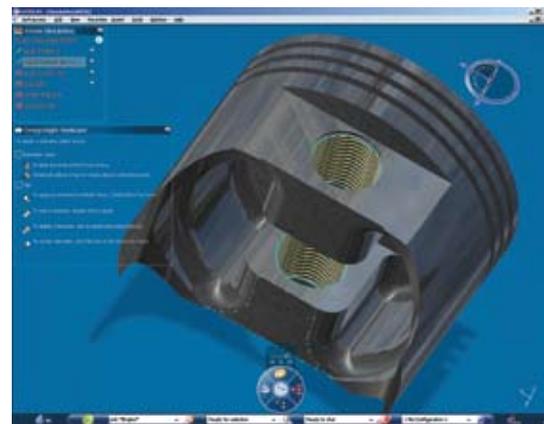
DesignSight uses the same, proven Abaqus technology used by expert analysts. Designers get reliable results backed by more than 30 years of development. Using the same technology in both designer and expert simulation fosters collaboration among the broad range of simulation users within the enterprise.

Rapid turnaround time of large models using high-performance computing resources to enable more design iterations

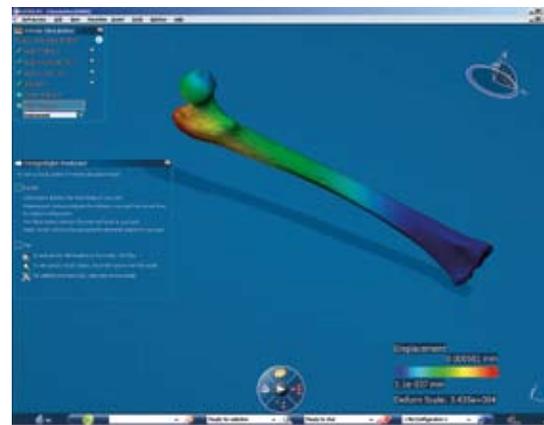
DesignSight includes cutting-edge computation technology to utilize the power of modern multi-core workstations to obtain simulation results quickly. Users with access to a compute cluster and Abaqus tokens can seamlessly run the simulation on the cluster and use up to 128 cores for extremely rapid turnaround times of large models.



DesignSight enables the designer to quickly evaluate the stress in a part and validate the design.



DesignSight provides unique, embedded help tools that guide users through the steps to define a simulation. The Stress Simulation panel and the DesignSight Assistant are always available to ensure that the necessary tasks are clear.



Using DesignSight Structure (DSR), the designer can study the reaction of parts subjected to a load and visualize the resulting displacement as illustrated by this complex human bone model.

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