SIMULIA

3DEXPERIENCE®

SIMULIA DURABILITY PERFORMANCE ENGINEER 3DEXPERIENCE USER ROLE

ASSESS THE STRUCTURAL PERFORMANCE AND DURABILITY OF PRODUCTS DURING THE DESIGN PROCESS WITH PROVEN SIMULIA ABAQUS AND FE-SAFE TECHNOLOGIES AND INTUITIVELY GUIDE DESIGN DECISIONS ON A SECURE CLOUD-BASED PLATFORM

Leverage powerful and intuitive simulation tools to perform advanced non-linear structural and multi-event durability simulations

OVERVIEW

SIMULIA Durability Performance Engineer enables design engineers to assess the structural performance and durability of products with accuracy during the design process and intuitively guide design decisions. It offers powerful and intuitive tools needed to perform sophisticated multistep structural simulations, powered by market leaders Abaqus technology, as well as fatigue simulation to predict accurate fatigue lives.

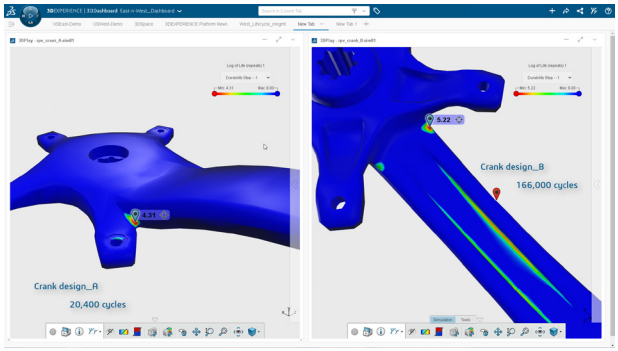
DASSAULT SYSTEMES

Durability Performance Engineer is a comprehensive structural and fatigue analysis solution to assess the performance of products – early during the design engineering process - with confidence, accuracy and speed. It delivers a unique, easy and integrated workflow, allowing all engineers, to benefit from advanced simulation solutions.

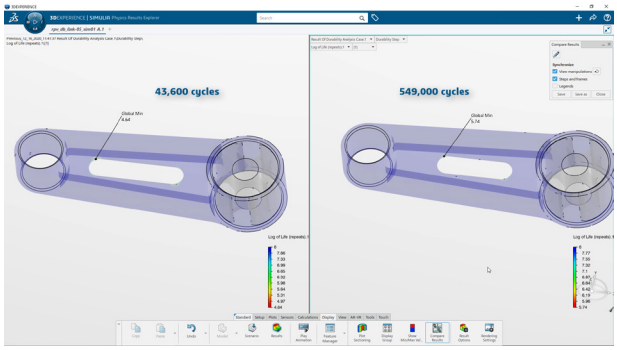
With SIMULIA Durability Performance Engineer, design engineers can quickly understand not only the structural integrity but also durability of the final product to determine its performance in real life without requiring expensive prototypes and time-consuming physical testing.

KEY CAPABILITIES

- Accurate stress: assess the product structural performance with the proven Abaqus technology under linear and nonlinear static, thermal, frequency, thermal-stress, linear dynamic and quasi-static conditions.
- Design for life: predict accurate fatigue lives with the proven fe-safe technology to guarantee your product durability.
- Easy to use: perform strength and durability assessment with a guided workflow, customizable, for fast adoption and reduced learning curve
- Decide faster: share easily simulation results and collaborate on any design projects from anywhere
- Save time: run simulation locally or remotely on the cloud up to 8 cores to free-up your local machine resources. Possibility to scale up to high performance computers (HPC) to solve large models.
- Perform seamless collaboration workflows with **3D**EXPERIENCE® platform
- Part of your SOLIDWORKS design workflow: connected and associative with SOLIDWORKS with possibility to reuse SOLIDWORKS Simulation studies
- Avoid late re-design, minimize physical tests, reduce warranty costs, extend life in service
- Accelerate structural performance simulation with unique automated model creation for large assemblies
- Accelerate design innovation by solving engineering challenges for your 3D design with full data associativity



Comparison of durability results between two design iterations of a bicycle crankset.



Comparison of durability results between two design iterations of a suspension link.

BENEFITS

- Empowers product engineers with the ability to perform sophisticated structural simulations during the design process powered by the market-leading Abaqus technology
- Offers fatigue simulation to predict accurate fatigue lives and ensure complex engineering products are designed for durability, helping avoid late re-design, minimize physical tests, reduce warranty costs, and extend life in service
- Enables users to efficiently work with what-if-scenarios through seamless associativity with geometry
- Allows multistep structural scenarios for product performance and quality testing during the product design process
- Accelerates structural performance simulation with automated model creation for large assemblies
- Enables the visualization of high-performance results particularly for very large models

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

Dassault Systèmes, the **3D**EXPERIENCE 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 **3D**EXPERIENCE 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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DASSAULT SYSTEMES | The **3D**EXPERIENCE® Company

Americas
Dassault Systèmes
175 Wyman Street
Waltham, Massachusetts
02451-1223
USA

Europe/Middle East/Africa
Dassault Systèmes
10, rue Marcel Dassault
CS 40501
78946 Vélizy-Villacoublay Cedex
France

Asia-Pacific
Dassault Systèmes K.K.
ThinkPark Tower
2-1-1 Osaki, Shinagawa-ku,
Tokyo 141-6020
Japan