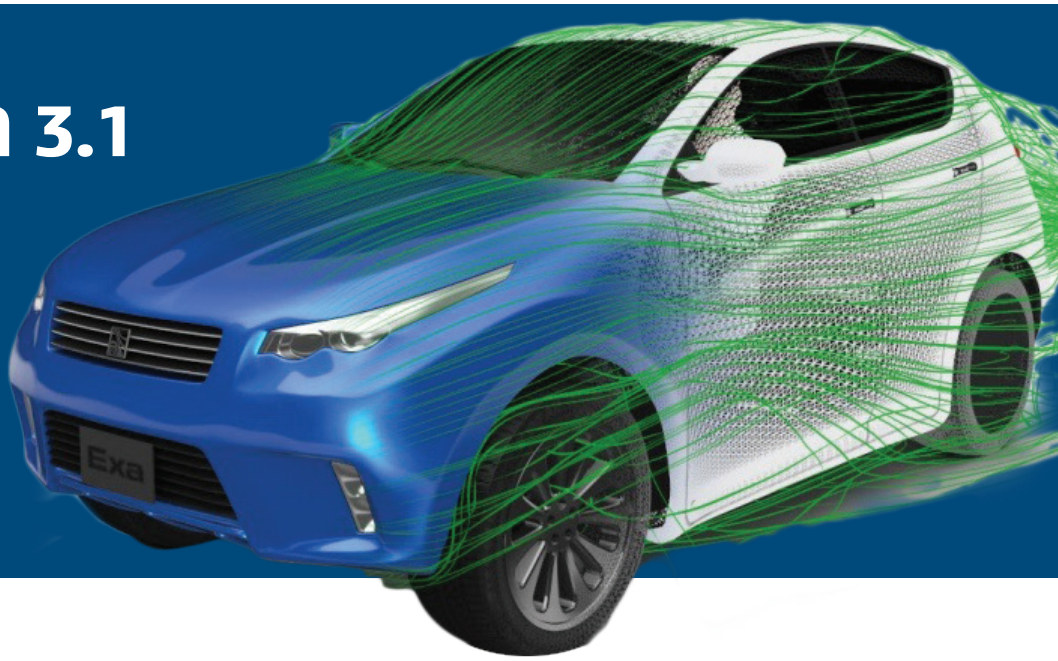
SIMULIA

3DEXPERIENCE®

PowerDELTA 3.1



SIMULATE REALITY

PowerDELTA® by SIMULIA provides an end-to-end solution from geometry preparation through simulation and optimization in PowerFLOW®, eliminating manual third-party tools. With the industry's fastest time to the highest quality simulation meshes, it accelerates collaboration between design and engineering teams, improving products and processes for leading manufacturers.

EARLIER ENGINEERING INFLUENCE

Geometry creation, mesh analysis, and mesh editing capabilities in PowerDELTA 3.1 enable engineering to prepare even incomplete geometry for simulation processes, including studio surfaces and past program data. By driving early concept designs with the right design direction to maximize performance, PowerDELTA 3.1 can help teams reduce cycle time, rework, and redesign efforts later - saving valuable resources and costs while improving product reliability, durability, and compliance.

UNMATCHED SPEED AND QUALITY

Only PowerDELTA creates simulation-ready meshes with an industry-leading combination of speed and quality. With the highest resolution surface meshes for PowerFLOW simulations available in the industry's fastest times, engineering turnaround is reduced 20 - 75%, with throughput increased by as much as 2X, so that product design and development teams receive the most accurate, real-world simulation results sooner.

BETTER CONCURRENT DESIGN

A single, evolving model managed in PowerDELTA can be leveraged by all of the simulation methodologies throughout the PowerFLOW suite. Easily organize and distribute even large assemblies across various teams and engineering disciplines for a better concurrent design process. Easily accept geometry changes sourced from both CAD design and engineering teams. Access intuitive morphing and optimization processes maximize your ability to find the right design direction.

"PowerDELTA's intuitive mesh editing capabilities have improved our product development workflow and performance."

—Amit Godbole, Product Development Engineer, Sullair LLC

DASSAULT SYSTEMES

FEATURES AND BENEFITS

Gap Detection and Closure

Automatically detect and resolve gaps in CAD level. This feature accelerates the surface mesh preparation process by reducing interactive time and simplifying gap resolution process.

Geometry Editing

Engineers have new geometry editing tools, such as face extension, filleting, remove face, scaling..., so watertight geometry can be prepared efficiently with high degree of accuracy.

Surface mesh Prepartation for Simulation

Diagnose and heal poor quality geometry, then create simulation-ready meshes with tessellation and wrapping. Industry-leading speed reduces turnaround time by 50%.

Create CAD Geometry

Edit or create simple CAD geometry to augment early or incomplete models. Engineering can inform design with simulation results sooner to reduce cycle time and rework.

Simulation Model Management

Import CAD and interactively sort and organize it with a visual drag-and-drop process. Feature templates, history tree, and audit trail accelerate iteration and comparison.

Swap in Updated Parts

Changes made by the design or engineering teams can easily be cascaded into a single model with part swapping technology to improve concurrent design.

Large Assembly Distribution

Now simulate models with tens of thousands of parts with a fast and easy prepration process. Reduce hardware requirements for one engineer or distribute work to a team.

Better ease-of-use, intuitive workflows help ensure quick ramp-up and adoption by new users and non-CFD experts alike, accelerating work while reducing errors.

Parametric Mesh Modeling

Parametric features for tessellation, wrapping, hole filling, decimation, mesh editing, and more. Simply change parameters and regenerate to produce updated meshes.

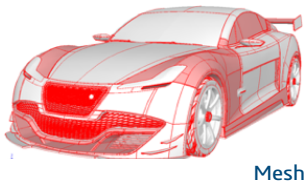
Real-Time, Studio-Quality Lattice Morphing

Isolate and modify regions of a model's geometry in real-time to prepare for optimization. Then, easily generate multiple design iterations to optimize results.

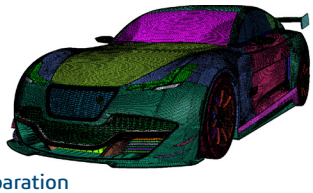
Improved Usability & Performance

Better ease-of-use, intuitive workflows help ensure quick ramp-up and adoption by new users and non-CFD experts alike, accelerating work while reducing errors.

Input CAD

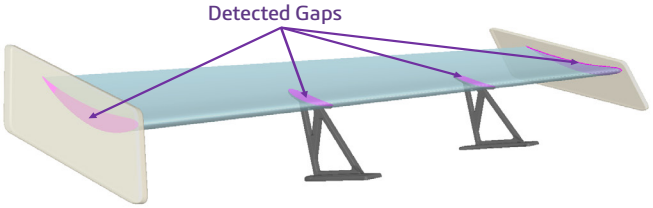


Final mesh



Mesh Preparation

Detected Gaps



Gap Diagnostics

Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.3ds.com**.

3DEXPERIENCE®

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