Autodesk[®] Algor[®] Simulation

Predict product performance.



Design Validation and Optimization

Physical prototypes are costly. Optimizing designs and eliminating errors before manufacturing helps increase efficiency, productivity, and innovation for competitive advantage.

Facing these issues?

- Designers and engineers need to make accurate design decisions without building multiple physical prototypes.
- Confidence in simulation results is required before investing resources in design changes or new products.
- Product designs include a wide range of materials—not just common metals.
- Motion, fluid flow, and the combination of multiple physical effects are critical design considerations.
- Engineering managers want to expand the simulation toolkit without retraining the design team.
- Product design teams need to perform simulation on geometry from multiple CAD software tools.

Predict product performance with Autodesk Algor Simulation. The Autodesk[®] Algor[®] Simulation product line, part of the Autodesk[®] solution for Digital Prototyping, provides a broad range of analysis tools that enable designers and engineers to bring product performance knowledge into early stages of the design cycle—helping to improve collaboration, design better and safer products, save time, and reduce manufacturing costs.

Perform Accurate Simulations Efficiently

Simulation enables critical engineering decisions to be made earlier in the design process. With Autodesk Algor Simulation software, designers and engineers have the tools to more easily study initial design intent and then accurately predict the performance of a complete digital prototype. When working with CAD geometry, automatic meshing tools produce high-quality elements on the first pass—ensuring simulation accuracy within the areas of greatest engineering concern, and helping to predict product performance in less time. Built-in modeling capabilities enable designers and engineers to directly edit the mesh to help with the accurate placement of loads and constraints or to create simplified geometry for proof-of-concept studies. In addition to increased productivity through modeling flexibility, design concepts can be quickly validated before resources are invested in significant design changes or new products.





Choose The Right Materials

Support for a wide range of linear and nonlinear materials allows for better understanding of the real-world behavior of products. Whatever materials are included in a design, from metal to rubber, material data is vital to the accuracy of an engineering simulation—allowing designers and engineers to learn more about how a product will perform or even how it might fail.

Expand The Engineering Simulation Toolkit Easily

Decisions to further integrate engineering simulation into the design process often lead to unexpected costs and delays to retrain the product design team. By providing an entire range of validation and optimization tools within the same easy-to-use interface, Autodesk Algor Simulation software lets designers and engineers start with mainstream tools and then expand their toolkit to include more advanced analysis such as Mechanical Event Simulation (MES) and computational fluid dynamics (CFD)—without the need to learn new workflows.

Combine Multiple Physical Effects In Advanced Simulations

Real-world product behavior is often the result of multiple physical effects interacting simultaneously. Advanced simulation setup is made easier through the use of standard engineering terminology, visual process guidance, and user-friendly tools and wizards that automate the transfer of simulation results between multiple analyses—focusing designers and engineers on product performance, not advanced numerical or simulation methods.

Collaborate In A Multi-CAD Environment

Manufacturers often create and share designs in multiple CAD software tools, making it difficult to integrate engineering simulation tools into an existing design process without requiring significant and costly changes. Autodesk Algor Simulation software supports efficient workflows in today's multi-CAD environment by providing direct geometry exchange and full associativity with Autodesk[®] Inventor[®], Pro/ENGINEER, Solid Edge, SolidWorks, and other software.

Simulate More And Build Fewer Physical Prototypes

Necessary design changes become more apparent when a product's real-world environment is fully simulated, but computationally intensive analyses can be time and resource intensive. Fast solvers in Autodesk Algor Simulation software utilize the power of all available computing resources to perform parallel and distributed processing, allowing designers and engineers to study more realistic digital prototypes in a practical amount of time.



Learn More About Your Product's Performance

Through easy-to-use tools, extensive CAD support, and proven technology, Autodesk Algor Simulation software helps you predict the realworld performance of products while reducing reliance on physical prototypes. Design validation and optimization through extensive engineering simulation helps you bring better products to market faster and at less cost.



Digital Prototyping for the Manufacturing Market

Autodesk is a world-leading supplier of engineering software, providing companies with tools to experience their ideas before they are real. By putting powerful Digital Prototyping technology within the reach of mainstream manufacturers, Autodesk is changing the way manufacturers think about their design processes and is helping them create more productive workflows. The Autodesk approach to Digital Prototyping is unique in that it is scalable, attainable, and cost-effective, which allows a broader group of manufacturers to realize the benefits with minimal disruption to existing workflows, and provides the most straightforward path to creating and maintaining a single digital model in a multidisciplinary engineering environment.

Learn More or Purchase

Access specialists worldwide who can provide product expertise, a deep understanding of your industry, and value that extends beyond your software purchase. To purchase Autodesk Algor Simulation software, contact an Autodesk Premier Solutions Provider or Autodesk Authorized Reseller. Locate a reseller near you at, **www.autodesk.com/reseller.**

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