

# Using advanced software and computing power to optimize designs

#### **Benefits**

- Use advanced software and computing power to optimize designs
- Realize the value of additive manufacturing
- Improve machine efficiency with lower component weight
- Reduce component cost by using less material
- · Create highly aesthetic products
- Reduce multi-part assemblies to single components

## Summary

The Solid Edge® software Generative Design Pro module provides advanced software and computing power so you can optimize designs. By using Solid Edge Generative Design Pro, you can create attractive organic-looking designs. Once the designer inputs requirements like design space, material, loads, target weight, safety factor,

manufacturing constraints, etc., Solid Edge Generative Design Pro applies finite element methods (FEM) and computing power to analyze hundreds of potential solutions; then offers the optimum shape that meets the design requirements. The resulting high-quality output is a mesh (or facet) based 3D computer-aided design (CAD) model that can be edited further or sent directly to a 3D printer.

### **Features**

Solid Edge Generative Design Pro is a powerful solution that enables quick creation of optimized, lightweight product designs. It provides the latest topology optimization technology for fast and accurate design optimization. This allows you to run multiple weight targets, load cases and constraint scenarios simultaneously when needed.



Solid Edge Generative Design Pro leverages Convergent Modeling to enable the use of mesh data downstream.

# Solid Edge Generative Design Pro

Solid Edge Generative Design Pro also integrates with your current product development process. By using Convergent Modeling™ technology and synchronous technology, meshed models are seamlessly integrated into the normal model editing process. With standard Solid Edge commands, you can add features to integrated components like cutouts, holes and bosses. You can create 2D drawings from the 3D model, or directly manufacture the component using additive manufacturing. With today's high-resolution 3D printers, parts with such complex shape are easy to work with, which can lead to an overall faster time-to-market for new products. Furthermore, Solid Edge Generative Design Pro can be used to create shapes suitable for traditional manufacturing methods.

### What is included

Solid Edge Generative Design Pro is an add-on product for Solid Edge Design. You must currently be running a Solid Edge base license to be eligible for adding Solid Edge Generative Design Pro.

### **Extending value**

Solid Edge is a portfolio of affordable, easy-to-deploy, maintain and use software tools that advance all aspects of the product development process — mechanical and electrical design, simulation, manufacturing, technical documentation, data management and cloud-based collaboration.



### **Recommended system requirements**

- 64-bit Windows 10 operating system
- 8 gigabytes (GB) random access memory (RAM) or more
- True color (32 bit) or 16 million colors (24 bit)
- Screen resolution: 1280 x 1024 or higher, widescreen format

# Minimum system configuration

- Any of the above 64-bit operating systems
- 4 GB RAM or more
- 65K colors
- Screen resolution: 1280 x 1024 or higher
- 10.0 GB of disk space is required to install Solid Edge

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