

Solid Edge Feature Recognizer

Adding intelligence to imported CAD models

fact sheet

solidedge.com

Summary

Solid Edge Feature Recognizer is an add-on module that converts imported 3D CAD designs into intelligent, parametric feature-based solid models. Augmenting the translation capabilities of Solid Edge, Feature Recognizer supports both automatic and interactive methods for applying feature intelligence to geometry from other CAD systems. By enabling designers to edit imported models with Solid Edge design tools, Feature Recognizer improves the use of legacy CAD designs, facilitates exchange of 3D model data, and streamlines migration to Solid Edge from different CAD systems.

Features

Parametric features added to translated CAD geometry.

Broad range of mechanical part features interpreted.

Both interactive and automatic modes may be used for applying feature based modeling intelligence.

Base features such as blocks or cylinders are produced, as well as a tree and history of modeling operations, that define the fully recognized model.

Benefits

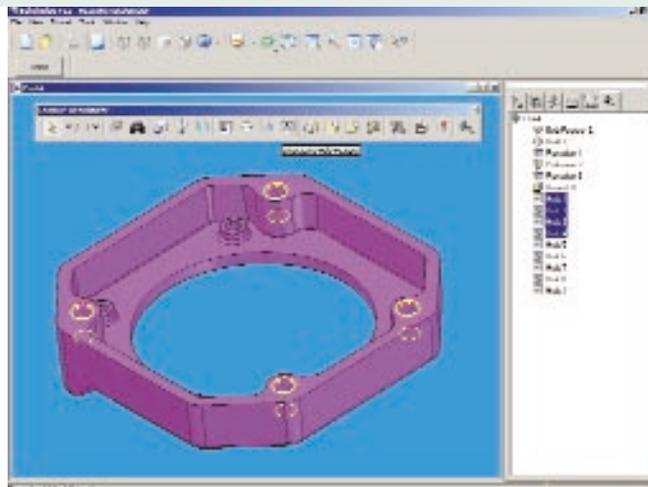
Advances use of legacy designs and makes imported CAD data more valuable and usable.

Facilitates the exchange and import of CAD data that may be altered with Solid Edge's streamlined, feature-based modeling tools.

Streamlines the migration from old CAD systems.

Combination of interactive and automatic feature recognition yields optimal, complete results.

Resulting model can be changed or further developed with standard feature-based modeling commands.



Adding parametric features to solid models

Feature recognition makes imported CAD data more useful by adding Solid Edge parametric features to model geometry. Because of proprietary differences in CAD systems, models translated into Solid Edge are imported as solid bodies, without feature modeling intelligence. Though imported CAD models may embody the geo-

metry of common mechanical features, they cannot be altered with Solid Edge's streamlined feature-based modeling tools. Feature Recognizer interprets the features in the imported solid and replaces the single solid body with features that can be edited.

Augments CAD data converters

Feature Recognizer provides a structured process that works smoothly with Solid Edge's built-in data conversion tools. Solid Edge designers can open CAD models in other standard formats, including IGES, Parasolid®, Pro/E, STEP, and Unigraphics®. Feature Recognizer is activated as an option from the File Open dialog, and presents a feature recognition toolbar when the file is opened in the part modeling environment. Feature Recognizer guides the user through the process, prompting for required input at each step.

Solid Edge Feature Recognizer can interpret a broad range of common mechanical part features. These include protrusions and cutouts, revolved protrusions and cutouts, holes, draft, chamfers, rounds, and Boolean features.

System requirements

Solid Edge Feature Recognizer is available as an extra module, and shares Solid Edge system requirements:

Minimum system configuration

Intel Pentium or AMD Athlon processor-based PC
Windows XP, Windows NT 4.0 Service Pack 6 or later, Windows 2000, Windows ME, or Windows 98, second edition
128 MB RAM
420 MB of disk space for installation
Minimum resolution:
1,024 x 768, 65K colors
CD-ROM (local or network) for installation

Recommended system configuration

Windows 2000, Pentium III or Pentium 4 or AMD Athlon, 256 MB or more RAM, OpenGL accelerator with 65K colors.
Language support for Solid Feature Recognizer:
Chinese
English
French
German
Italian
Japanese
Spanish

Automatic and interactive tools

Feature Recognizer supports interactive, automatic, or combined modes for applying feature-based modeling intelligence. In automatic mode, Feature Recognizer evaluates the imported model and attempts to identify and apply features in the model without user input. Automatic feature recognition cannot recognize every feature, especially when encountering complex geometry and intersecting features. In such cases, the designer provides input cues in interactive mode, identifying which feature types and the faces or edges are to be used in applying the feature.

Because different modeling approaches can produce the same part, feature recognition is not always a one-step process. A combination of automatic and interactive modes yields optimal results and more complete feature recognition. Each command applies new features, then suppresses them to simplify the model. When the process is complete, Feature Recognizer produces a base feature such as a block or cylinder, as well as a tree and history of Solid Edge modeling operations that define the fully recognized model. The resulting model can be changed or further developed with standard Solid Edge feature-based modeling commands, which enable designers to change dimensions and locations or reorder the features.

 For more information, contact your Solid Edge Reseller:

 **Contact**
PLM Solutions
Americas
800-498-5351
Europe
44-1276-705170
Asia-Pacific
852-2230-3333
solidedge.com

