

CoCreate® Modeling

The world's leading explicit 3D CAD system

Quickly create and modify 3D product designs through on-the-fly interactions with geometry.

An explicit approach to 3D design is ideal for companies pursuing a lightweight and flexible design strategy in order to combat short design cycles and pressures to create one-off product designs quickly.

Faster design cycles

An explicit approach saves time because it offers responsive, on-the-fly interaction with your geometry. Plus, it captures information economically and embeds it in the model definition. That adds up to speed. Use that faster development to add iterations and quality to your design. Or, get to market earlier and extend your product's market life. You decide how it best serves your business.

Flexible to unexpected and radical changes

The development of one-off product designs (one of a kind, new to market products or custom, design-to-order products) face changing requirements throughout the design cycle. CoCreate Modeling allows unexpected changes to be made more easily, more frequently and later into the design process.

Flexible design teams

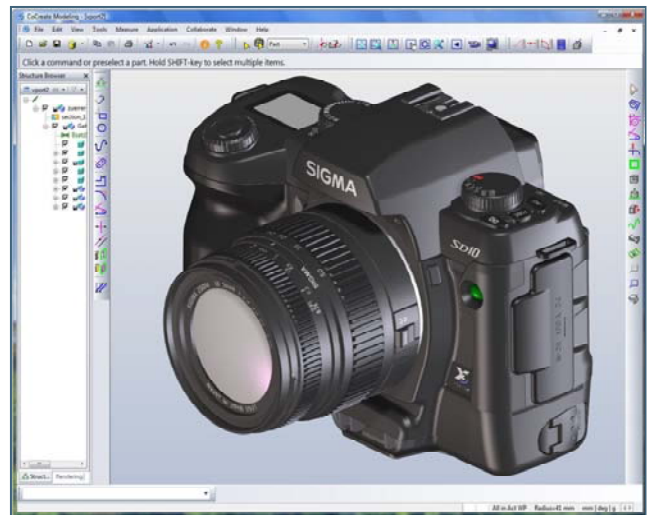
Any team member can pick up and work on an explicit 3D product design in the same way that anyone can pick up and work on a Microsoft® Word document. As a result, design responsibility is easily reassigned when different engineers (or even engineering teams) become unavailable during the course of a project.

Flexible for working with multi-source CAD data

An explicit 3D CAD system excels at the import and modification of multi-source CAD data, benefiting companies working across an extended supply chain for procured components or subcontracted design.

Easiest approach to learn and use

An explicit approach is the easiest to learn and use approach to 3D design. Try it.



An explicit approach makes 3D design creation and modification fast, easy, and flexible. Rapidly evolve a product design in unpredictable and new directions where modifications cannot be anticipated in advance

Key Benefits

- Shave time off design cycles by repurposing (or radically transforming) existing designs into new and completely different products
- Rapidly iterate product designs to create better opportunities for market-winning products
- Accommodate major, unexpected design changes at any stage of development while keeping the transition to manufacturing on schedule
- Increase engineering productivity by eliminating resource bottlenecks and project delays via flexible design teams
- Directly leverage multi-source CAD data from suppliers and subcontractors in the design process
- Easily move from 2D to 3D. Easily switch from other 3D CAD systems. All legacy 2D and 3D CAD data carries forward in CoCreate Modeling

Features and Specifications

Explicit Modeling

- Interact intelligently and on-the-fly with geometry
- Easily create and edit 3D product designs with familiar 'copy & paste' and 'drag & drop' interactions
- A feature is anything you want it to be in context of 3D modeling operations with automatic feature recognition
- Combined part and assembly mode. Design top down, bottom up, or a mix of both

Sheet Metal Design

- Design 3D sheet metal parts
- Create and modify bends and lips, including reliefs
- Design in the flat or design in the fold, with bend animations
- Associative 2D flat patterns

Surfacing

- Create sculptured shapes and add more style to designs
- Sweep, loft, 3D curves, and helix shapes
- Tools to repair or modify native and imported surfaces

Rendering

- Real-time rendering to instantly see results
- Create photo-realistic images for presentations, design reviews, illustrations, and point-of-sale marketing materials
- Complete catalog of real-world materials, light sources, and rendering schemes

Digital Prototyping

- Compare similar 3D designs just like you would compare documents in Microsoft Word
- Clash analysis locates conflicts before you build a physical product
- Use 3D configurations to define part and assembly positions, on/off states, and camera positions
- Micron accuracy (10^{-6} mm geometric resolution)

Large Assembly Handling (100,000+ parts)

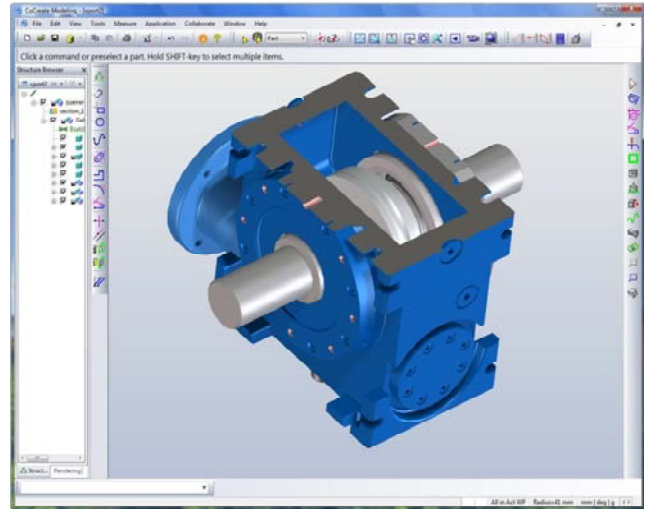
- Power up to Microsoft Windows 64-bit Edition. Up to 128 GB RAM available for your largest assemblies
- Preserve system resources for better performance by using lightweight graphics. Models reload in full geometry automatically as you need them. Requires CoCreate Model Manager.

Machining Features

- Integrate machining features into the design
- Direct CAM output
- Transfer machined features automatically to associative drawings

Product Manufacturing Information

- Complete 3D geometric dimensions and tolerances (GD&T), manufacturing symbols, note documentation, and tool containers for parts and assemblies



CoCreate Modeling is packed with an extensive list of features. Extra capabilities are easily added for specialized needs through a complete set of add-on modules

Associative Drawings

- Automatically create standard compliant drawings
- 3D design changes update across drawings, associatively
- Automatically generate an accurate bill of materials (BOM) table on drawings
- Export to downstream manufacturing processes with Autodesk® DWG™ & DXF™, and 2D IGES

Data Exchange

- Use imported designs as if native to CoCreate Modeling
- Import and export 3D via STEP, 3D IGES, SAT, and Printed Circuit Board IDF
- Export 3D as VRML and STL
- Import 2D via Autodesk DWG™ & DXF™, and 2D IGES
- Support lightweight publishing and viewing of eDrawings®
- Take advantage of automatic integrity check and repair

Prerequisites

None

System Requirements

CoCreate Modeling 2008 supported operating systems:

- Windows Vista® 32-bit and 64-bit Editions of Ultimate, Enterprise, and Business
- Windows® XP™ Professional 32-bit and 64-bit Editions

For more information, visit www.ptc.com/products/cocreate

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