SpaceClaim Engineer
3D for innovative engineering

SpaceClaim® Engineer is the engineering organization's most versatile 3D modeler. It transforms businesses by empowering all engineers, not just CAD users, to create and manipulate precise 3D models.

TODAY'S ENGINEERING CHALLENGE: EXTENDING THE VALUE OF 3D TO EVERYDAY ENGINEERING COMMUNICATION

SpaceClaim Engineer brings 3D solid modeling to the desktops of engineers and analysts who work in a 3D world but don't want to become experts in traditional feature-based CAD systems.

SpaceClaim helps engineers interact with CAD geometry in exciting new ways. Any engineer can make dramatic edits to models, conceptualize on-the-fly, and communicate quickly and easily with colleagues, customers, and suppliers. Engineering teams can finish projects with ease, in a fraction of the time. Sales and business development groups can win more business by using SpaceClaim to communicate their proposals in compelling and realistic 3D.

SpaceClaim's 3D Direct Modeling technology revolutionizes the way you think about working with 3D solid models because it lets you focus on your design without the complexity of traditional CAD. For example, you can reuse data without planning and remix geometry from other designs, even those created in CAD systems. You can take a design where it needs to go, regardless of how it was built or the CAD system in which it was created.

Create new concepts and share them with other engineers before entering the detailed design phase: together, you get the concepts right and avoid expensive last-minute design changes. From a blank slate, start drawing 3D shapes as easily and freely as you would on the back of a napkin. De-feature and simplify parts for analysis or manufacturing and optimize the design without being constrained by original modeling intent.

POWERFUL, STRAIGHTFORWARD 3D

> Pull, Move, Fill, and Combine tools enable hands-on 3D design

> Quickly create and iterate design concepts

> Create solid models without the complexity of traditional feature-based CAD

RICH ENVIRONMENT FOR ENGINEERING

> Create multi-discipline concept models for engineering consensus prior to detailed design

> Perform what-if studies by editing designs, regardless of how they were created

> Powerful capabilities that clean up imported geometry and simplify models for analysis
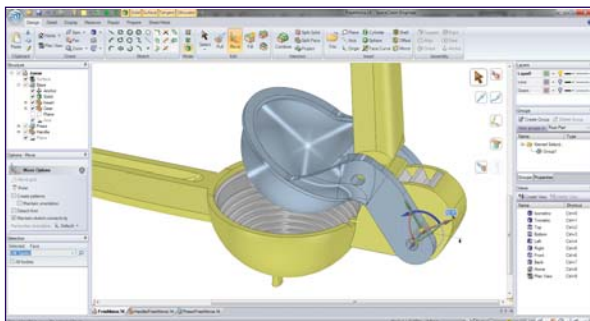
SpaceClaim Engineer's 3D mechanism capabilities include gear and tangent placement conditions and are completely integrated with SpaceClaim's direct modeling of parts and assemblies.
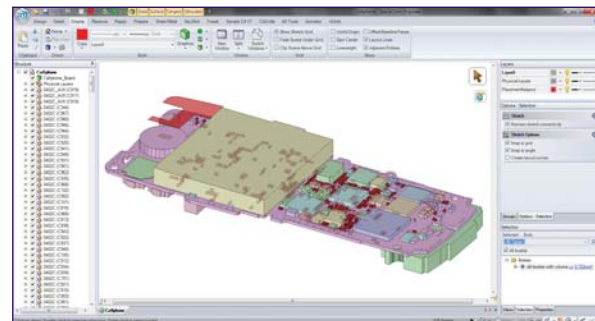
SpaceClaim Engineer includes tools to automatically find and remove small features, greatly accelerating model preparation.

Intuitive tools such as Pull and Move let you directly select portions of the model and move them where you want. The Combine tool slices and divides parts into pieces and lets you merge in portions from other designs. The Fill tool cleans up small features and fills holes. Together, these direct modeling tools let you get your job done without resorting to traditional CAD.

FEATURES

INDUSTRY-LEADING DIRECT MODELING
Direct modeling tools scale from simple shapes to complex blends and surfaces. Pull and Move tools work on both face- and edge-based editing, allowing maximum flexibility. Add hints for thin walls, mirrored, concentric, rounded, and chamfered geometry.

3D CROSS SECTION CREATION AND MANIPULATION
Draw 3D extruded, revolved, and swept geometry without ever leaving a 2D cross section. Sketch out a new concept and get a solid 3D design without having to perform extra work. Import a complex assembly, section through it, and immediately edit the section using the same Pull and Move tools you use in 3D.

PARAMETERS WITHOUT CONSTRAINTS
Change the value of a dimension, simply by selecting what you want to move and editing the value: your geometry goes to the right place. There's no need to set up complicated systems of constraints. Different users can set up and save their own sets of dimensions so that others can work with the model the way they want.

FLEXIBLE ASSEMBLY STRUCTURE
Turn a part into an assembly or vice versa. Create assembly structure *before* you've drawn a shape, or draw a dozen parts and create the structure later. Never worry about inter-component relationships preventing changes. Export subassemblies into external files for reuse in other designs, or incorporate an existing design for unique customization without impacting other designs.

DESIGN IN ANY CONTEXT
The same tools work to edit assemblies, parts, drawing views, and 3D markups enable you to create and make changes wherever you see the need. You don't have to worry about switching to the right mode.

FAST, VERSATILE SHEET METAL
Direct modeling becomes even faster when working with sheet metal. SpaceClaim can quickly convert solids to sheet metal, interactively helping explore unfold options. Automatic bend and corner relief, easy junction swapping, and a library of form features fill out the capabilities. You can even design in flat patterns and 3D simultaneously.

SYSTEM REQUIREMENTS:

Operating Systems: Microsoft Windows XP with Service Pack 2; Microsoft Windows Vista, Windows 7

Video Card: Requires Full Direct X 9c, February 2007 edition or greater; hardware support, 64MB or graphics memory or higher; Shader 3.0 hardware support, 32 bits per pixel, 1024x768 minimum resolution; latest graphics driver

CPU: Pentium 4 2.0 GHZ or Athlon 2000+ or faster; 32-bit (x86) or 64-bit (x64) processor

RAM: Minimum: 512MB RAM (32-bit); 1Gb RAM (64-bit)

FITS INTO YOUR EXISTING DESIGN PROCESS

> Work with popular common formats: ACIS, STEP, IGES, ECAD, Rhinoceros, SketchUp, CGR, DWG, DXF, STL, OBJ, XAML, VRML, and 3D PDF (requires Adobe Acrobat 9 Pro Extended)

> Works with many leading CAD, CAE, and CAM tools (e.g., SpaceClaim works seamlessly with ANSYS Workbench and GAMBIT, ALGOR, CFdesign, VisualCAM/VisualMILL; many SpaceClaim customers use COMSOL)

> Includes a plug-in for direct integration with Rhinoceros

> Create high-quality solids to drive detailed-design in CAD

OPTIONAL MODULES

> Data Exchange Package I: Pro/ENGINEER, Autodesk Inventor, CATIA v4, VDA

> Data Exchange Package II: SolidWorks, Parasolid, NX

> CATIA v5 Data Exchange

> JT Open Data Exchange

> TraceParts standard parts Library

> Luxion KeyShot photorealistic rendering

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