

CAD IMPORT AND FEATURES

Creating and Manipulating Geometries

	COMSOL Multiphysics®	CAD Import Module	CATIA V4 Import Module	CATIA V5 Import Module	INVENTOR Import Module	PRO/E Import Module	VDA-FS Import Module
Free Drawing in 2D (Ellipses, Rectangles, Points, Lines and Bezier Curves)	•						
Free Drawing in 3D (Blocks, Cones, Cylinders, Ellipsoids, Spheres, Points and Lines)	•						
Extruding, Revolving and Embedding 2D Faces to 3D Objects	•						
Creating Arrays of Objects	•						
Create Composite Objects using Boolean Algebra	•						
Coerce to Points, Curves and Solids in 2D	•						
Coerce to Points, Curves, Faces and Solids in 3D	•						

Importing, Repairing and Exporting Geometries

	COMSOL Multiphysics®	CAD Import Module	CATIA V4 Import Module	CATIA V5 Import Module	INVENTOR Import Module	PRO/E Import Module	VDA-FS Import Module
Import NASTRAN® Mesh—Translate them to Geometry Objects	•						
Import MRI, CT and microCT data via Simpleware *ScanFE—Translate them to Geometry Objects	•						
Import STL (.stl) Files	•						
Import VRML (.wrl) Files (Version 1.0)	•						
Import 2D DXF (.dxf) Files (Version R14)	•						
Import* 2D GDS (.gds) Files (Version 2)	•						
Import* Objects from Image Data	•						
Import STEP (.stp) Files (Versions AP203 and AP214)		•					
Import IGES (.igs) Files (Up to Version 5.3)		•					
Import ACIS®/SAT® (.sat) Files (Up to Version R17)		•					
Import Parasolid® (.x_t, .x_b) Files (Up to Version R18.1)		•					
Live Interface with SolidWorks®		•					
Import** CATIA® V4 (.model) Files (Version 4.1.9 through 4.2.4)			•				
Import** CATIA® V5 (.catpart, .catProduct) Files (Version R2 through R17)				•			
Import** Inventor (.ipt) Files (Version 6 through 11)					•		
Import** Pro/E (.prt, .asm) Files (Version 16 through Wildfire 3)						•	
Import** VDA-FS (.vda) Files (Up to Version 2.0)							•
Repair CAD-imported Objects		•					
Knit Faces and Fill Gaps		•					
Defeature (remove) Fillets		•					
Defeature (remove) Small Faces		•					
Defeature (remove) Sliver Faces		•					
Defeature (remove) Spikes		•					
Defeature (remove) Short Edges		•					
Conversion of Imported Geometries to the Parasolid File Format		•					
Export*** of Converted and Manipulated Parasolid Geometries		•					

\* Requires COMSOL Script  
 \*\* Requires the CAD Import Module  
 \*\*\* Only for file formats that are supported by the CAD Import Module

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