Ansys / 3D DESIGN

Ansys 2024 R2

3D DESIGN

Capabilities Chart (Version 2024 R2)

● – Full Support ▲ – Limited Capability ■ – Requires More than 1 Product

	SPACECLAIM	DESIGNMODELER	DISCOVERY
FLUIDS			
Transient Flow			●
Incompressible Flow			●
Compressible Flow			▲
Porous Media			●
Rotating Fluid Zone			●
Intake and Exhaust Fans			●
GEOMETRY			
Direct Modeling Technology	●		●
Feature Based Modeling Technology	●	●	●
Open Data from All Major CAD Systems	●	●	●
Modify Imported Geometry	●	●	●
Defeaturing and Simplification Tools	●	●	●
Model Repair	●	●	●
Add Parameters for Design Exploration	●	●	●
Extract Mid-Surfaces/Shells and Beams	●	●	●
Extract Fluid Volumes	●	●	●
Shared Topology for Conformal Meshing	●	●	●
Boundary Condition Mapping	●	●	●
Reverse Engineering Faceted Data	●		●
Prep for Additive Manufacturing	●		●
Subdivisional Modeling			●
HEAT TRANSFER			
Steady-state Solid Conduction			●
Transient Solid Conduction			●
Natural Convection			●
Conjugate Heat Transfer			●
Internal and External Radiation			●

	SPACECLAIM	DESIGNMODELER	DISCOVERY
GRANTA MATERIALS DATA FOR SIMULATION			
Materials Data for Simulation			■
MULTIPHYSICS			
Conjugate Heat Transfer			●
Thermal-Stress			●
STRUCTURAL			
Static Structural Analysis			●
Modal Analysis			●
Pre-Stressed Models Analysis			●
Point Masses			●
Springs			●
Joints			●
Nonlinear Contact			▲
Pre-Tension Bolts			●
Large Deformation			■
Topology Optimization			●
TOOL INTEROPERABILITY			
Supported running on the Ansys Cloud Direct in browser interactively	●	●	●
Geometry Transfer to Workbench, Fluent, and Mechanical	●	●	●
Physics Transfer to Fluent, Mechanical, and HFSS			●
HIGH FREQUENCY ELECTROMAGNETICS			
Automated Antenna Simulation Workflow			●
DTD Solution with Automated Graded Cartesian Grid			●
Circuit Port Excitations			●
Mode Port Excitations			●
Electric and Magnetic Material Properties			●
S Parameters including Smith Charts and Touchstone Export			●
Electric and Magnetic Field Results			●
Antenna Parameter Calculation			●

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