

FloWizard

Rapid Flow Modeling for Design

Features

FloWizard® is the world's leading rapid flow modeling software. It will cut the time it takes to do a CFD analysis by 60% or more. Send your CAD model to FloWizard and rapidly:

- ◆ See the flow field
- ◆ Predict pressure drops
- ◆ Streamline your designs
- ◆ Analyze rotating equipment
- ◆ Calculate complex swirling flows
- ◆ Perform a heat transfer analysis
- ◆ Show flowlines
- ◆ Visualize flow circulations
- ◆ Reduce flow separation
- ◆ Create analysis reports
- ◆ Review your design with your colleagues

FloWizard is used in all industries: automotive, aerospace, electronics, power generation, materials processing, consumer products, flow control, chemicals, equipment manufacturing, biomedical, oil and gas, heating and ventilation, building design, and water treatment.

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Find out more...

**Contact your local Fluent office to find out more about how
FloWizard can benefit your development process
www.flowizard.com · info@fluent.com · (603) 643-2600 (US)**

Specifications

CAD GEOMETRY AND MESH

- ◆ CAD Connections for Pro/ENGINEER®, SolidWorks®, UGS' NX™
- ◆ CATIA, ACIS, Parasolid, STEP, IGES, NASTRAN, PATRAN, ANSYS, GAMBIT, TGrid, and FLUENT
- ◆ Automated tools for flow volume creation, clean-up, and simplification (defeaturing)

GENERAL MODELING CAPABILITIES

- ◆ Compressible and incompressible flow
- ◆ Three-dimensional, steady-state flows
- ◆ Laminar and turbulent flows, with the most advanced turbulence modeling capabilities in the industry
- ◆ Convection and conduction heat transfer
- ◆ Internal and external flow
- ◆ Rotating machinery
- ◆ Automatic solution process

BOUNDARY CONDITIONS

- ◆ Pressures, velocities, mass flow rates, and volumetric flow rates at inlets and outlets
- ◆ Symmetry planes
- ◆ Walls, with or without internal conduction, translating and rotating
- ◆ Heat exchangers
- ◆ Heat sources

MATERIAL PROPERTIES

- ◆ Comprehensive database of gas, liquid, and solid properties
- ◆ User sites can add custom materials to local database installations
- ◆ Users can directly enter properties for additional materials
- ◆ Non-Newtonian materials

MESHING

- ◆ Completely automatic and transparent
- ◆ Resolution and element types automatically tailored for high efficiency and desired accuracy

INTERFACE, GRAPHICS, POSTPROCESSING, AND REPORTING

- ◆ Wizard-driven GUI that is easy for new and infrequent users to learn and use
- ◆ Automatic summary reports of flow and heat transfer information
 - Minimum, maximum, and average pressures, temperatures, and velocities at inlets, outlets, walls, and throughout the domain
 - Pressure drops between all inlets and outlets
 - Heat transfer coefficients on walls
 - Net mass and heat flow rates
- ◆ Convenient visualization of pressure, velocity, and temperature fields on easily swept planes, iso-surfaces, and boundaries
- ◆ Automatic flow pathline animations
- ◆ Automatic HTML reports with embedded alerts and graphics

MANAGED DEPLOYMENT AND COLLABORATION

- ◆ Remote Simulation Facility at Fluent Inc.
- ◆ Standard peer-to-peer collaboration
- ◆ Users can simultaneously connect to shared sessions and collaborate in real time across the world

ONLINE HELP AND DOCUMENTATION

- ◆ Complete hypertext-based online documentation
- ◆ Comprehensive User's Guide
- ◆ Tutorial guide, with model-specific examples
- ◆ Online access to a FloWizard-specific website with product and support resources
- ◆ Online "Getting Started" examples

SUPPORTED HARDWARE

- ◆ FloWizard is supported on Windows XP

