

# Fluid Analysis

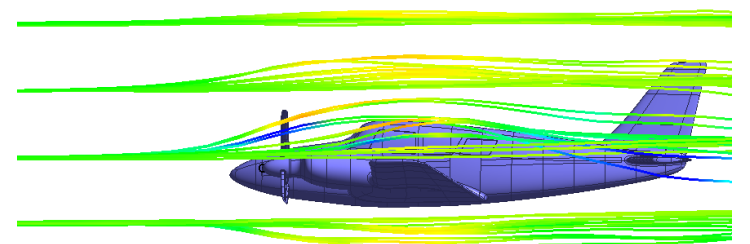
3D/2D Computational Fluid Dynamics Analysis Software

## Drive Your Ideas to Reality

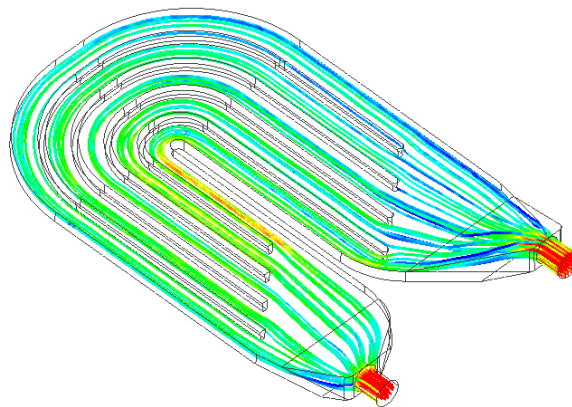
Fluid solver simulates turbulent flows such as air cooling and water cooling. Distributions of the flow velocity and the pressure can be calculated when a solid is placed in the space where the fluid is flowing at a constant velocity. Coupled with thermal solver, the temperature distribution resulting from the flow velocity distribution can be solved.

## Capabilities at a Glance

- Turbulent flow
- Laminar flow
- Forced convection
- Fluid velocity
- Force on Wall
- Cooling
- Thermal-coupled analysis of heat sink and fin



Flow velocity analysis around the airplane



Cooler for Power Control Unit

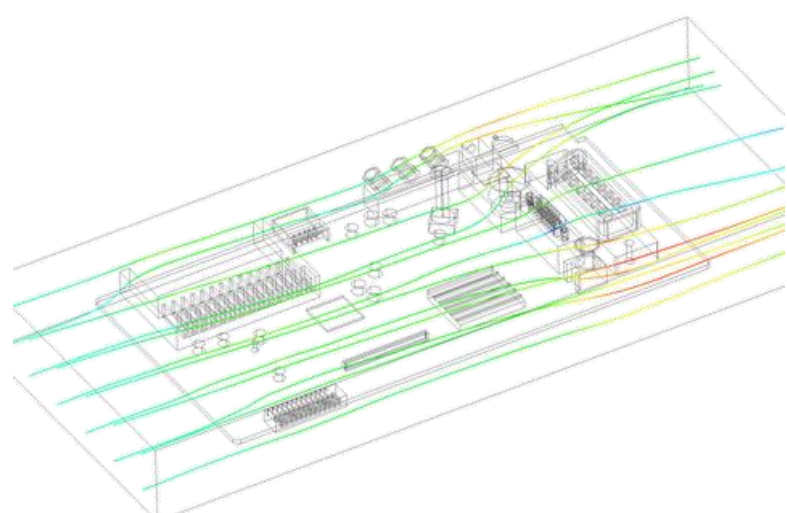
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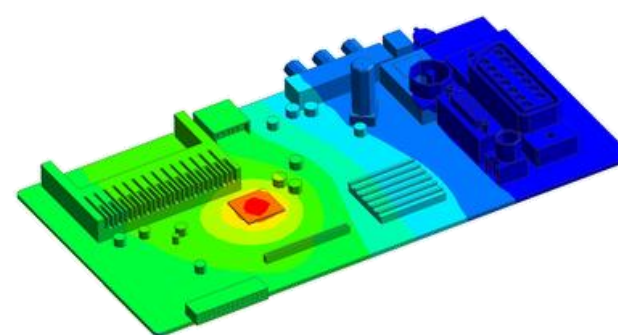
## 3D/2D Computational Fluid Dynamics Analysis Software

### Optimization Is What Counts

How you optimize your design is important, especially in the early stages of your engineering activity. It will reduce the incurring time and cost of, product development and making/re-working prototype samples. The fluid solver provides you with the best possible solution to your design by calculating the items like flow velocity distribution and force on wall.



Flow velocity distribution



Temperature distribution

IC Module

### Further Benefits

#### Comprehensive Functionalities

All in one package from modeling to meshing, simulation, and to results display.

#### Intuitive Operations

Rich in graphical user interface.  
Automatic meshing suitable for each analysis condition.

#### Efficient Engineering

Capable of batch processing and parametric analysis that are essential for optimizing your design. VBA macro function is available.

#### Database Management

A wide range of data can be stored and shared among a group of users; materials, body attributes, and analysis conditions

#### CAD Translator

Supports various kinds of CAD formats to import and export, and lets you use the data on hand straight away.

#### Multiphysics

In addition to the fluid analysis, Femtet has a solver for the thermal analysis. A coupled analysis of the two solvers is possible.