# Creo® Flow Analysis Extension (FAE)

A complete computational fluid dynamics (CFD) solution for product designers and analysts

Creo Flow Analysis extension puts CFD in the hands of every engineer. As products become more complex and timelines shorten, you need a CFD solution that allows you to analyze liquid and gas flow early in your design process. With Creo FAE, you can reduce expensive hardware testing and gain unique insight into your products.

No need to learn a new tool or sacrifice accuracy for ease-of-use. You can perform your analysis in the familiar Creo design environment with the same user interface. We've partnered with Simerics, a leader in simulation software for fluid pumps, valves, compressors, motors, and systems. Now you have a fast, highly-accurate CFD solver integrated into your Creo workflow and made for you, the engineer and designer.

- Part of PTC's portfolio of simulation products designed to fit the needs of engineers

- Integrated CAD and CFD with full associativity

- Easy model creation: One-step creation of solid and fluid domains; automatic creation of high-efficiency, high-quality mesh that maintains shape and aspect ratio; comprehensive physics

- Faster turnaround: proprietary algorithm speeds run-time and convergence on multi cores

- Scalable: three levels of capabilities for users ranging from engineer to analyst.
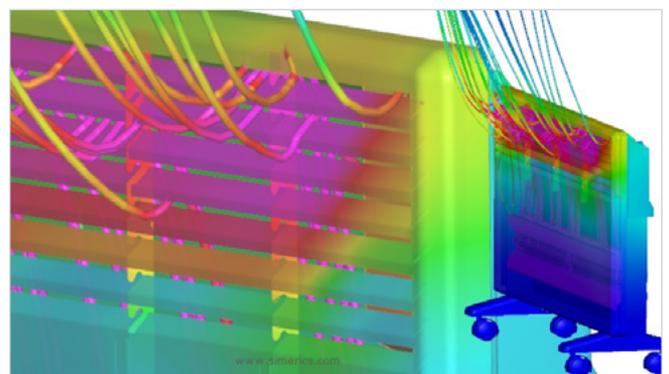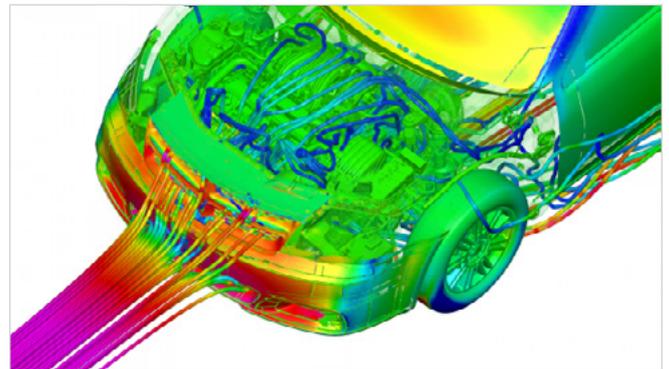
The Creo Advantage

Creo is a 3D CAD solution that helps you build better products faster by accelerating product innovation, reusing the very best of your designs and replacing assumptions with facts. Go from the earliest phases of product design to a smart, connected product with Creo. Add augmented reality to allow everyone to visualize your design. In the fast changing world of the Industrial IoT, no other company can get you to the substantial value as quickly and effectively as PTC.

Capability	Creo Flow Analysis Basic	Creo Flow Analysis Plus	Creo Flow Analysis Premium
Calculate Internal and External Flows	●	●	●
Animate Flow results in real-time	●	●	●
Parallel Processing Simulation	●	●	●
Simulate Flow	●	●	●
Heat Transfer	●	●	●
Turbulence	●	●	●
Particle - Simulate individual particles in the context of the flow		●	●
Radiation - Heat transfer due to emission of electromagnetic waves		●	●
Species- Simulating the mixing of liquids with similar densities.		●	●
Moving/Sliding Meshing - Simulate the movement of individual components in a flow analysis		●	●
Cavitation - Simulates Vapor, Free Gas and Liquid (bubbles) compressibility			●
Multiphase - Used when simulating gas and liquid together			●
Multicomponent - Another mixing capability used for multiple gases and density			●
Dynamics - Simulate interaction of fluids and solids			●

Platform support and system requirements

Please visit the PTC support page for the most up-to-date platform support and system requirements.

For more information, visit PTC.Com/product/Creo or contact your local sales representative.

Language support

English, German, French, Italian, Spanish, Japanese, Chinese (Simplified and Traditional), Korean, Brazilian Portuguese and Russian.

*Creo Flow Analysis extension requires the installation of Creo 4.0 Maintenance release (M040) or later as well as the installation of Creo Advanced Assembly Extension