

PASSAGE®/FLOW Software

OVERVIEW

PASSAGE®/FLOW is a general purpose three-dimensional finite element program used for the solution of fluid dynamics and heat transfer problems.

- Together with **PASSAGE®/SYSFLOW**, it can be used to provide a solution of component and system design issues for product and process design.
- Together with **PASSAGE®/DEM**, the software can be used to provide a solution of problems where micro- and macro-scale issues are combined.

INDUSTRIES

Product Design:

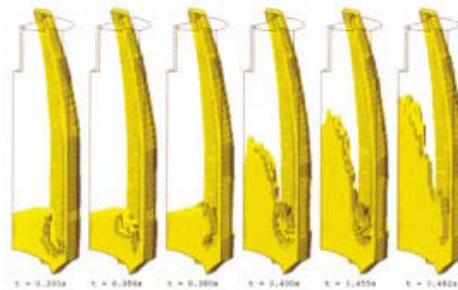
- On and Off-Highway Vehicles
- Equipment (Electrical, Hydraulic, Pneumatic)
 - Electric motors, generators
- Appliances
 - refrigerators, air-conditioners
- Ink jet and electro-photographic printers
- Semiconductors

Process Design:

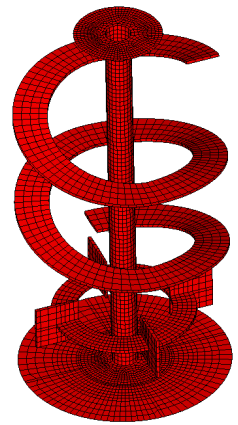
- Food
- Pharmaceuticals and Chemicals
- Metals, Plastics,
- Glass, Ceramics
- Powder

APPLICATIONS

- Process Modeling: heating, cooling, pollution control, casting, molding, forming, mixing, wetting, filtration, fermentation and filling,
- Product Design: energy efficiency, noise, performance
- Flow of liquids, gasses, and powders with free surface, mixing, melting/freezing,
- Flows in magnetic and electrical fields coupled with structural deformations,
- Flows through complex stationary and rotating passages; pressure losses and flow induced noise problems.

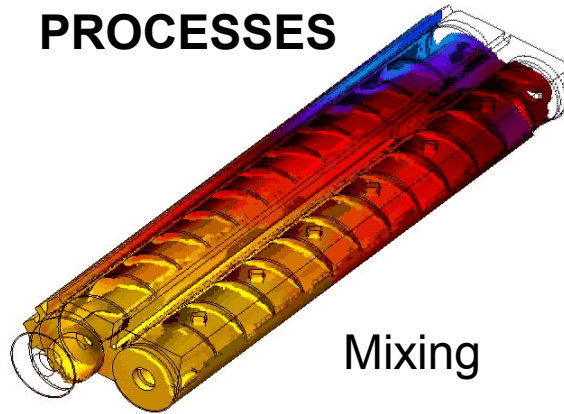


Filling

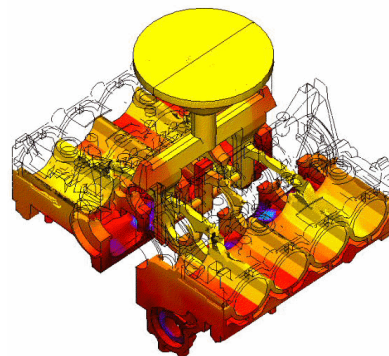
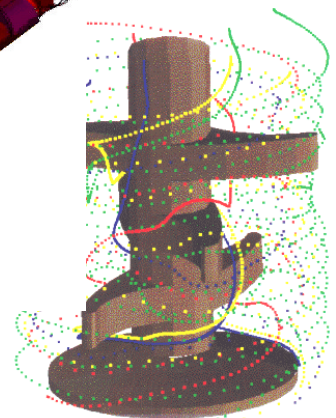


Agitation

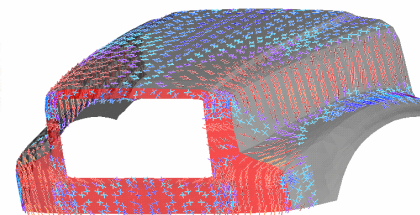
PROCESSES



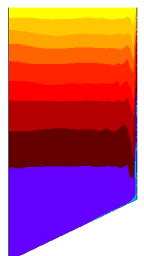
Mixing



Casting

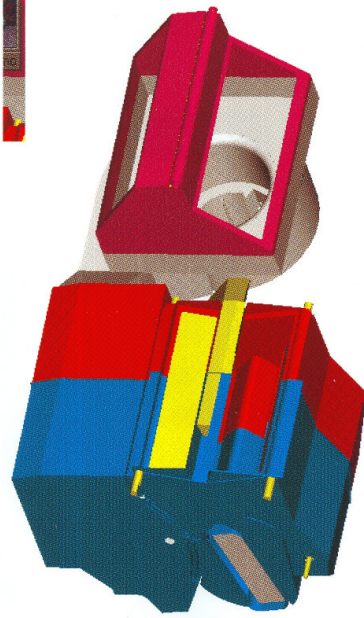


Molding

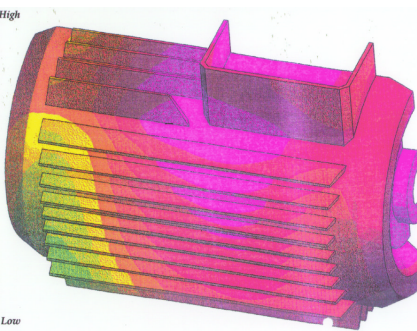
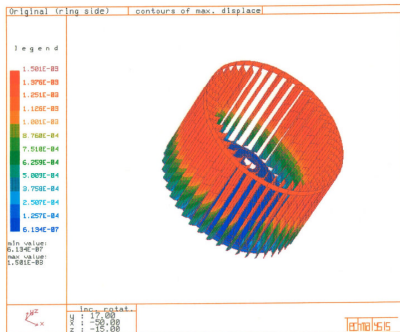


Fermentation

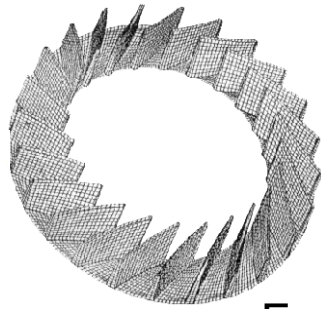
PRODUCTS



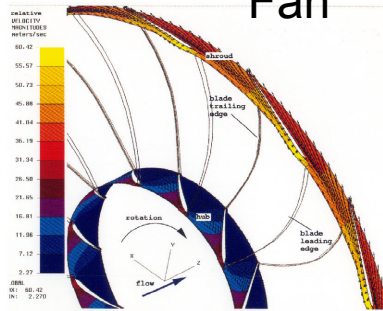
Airconditioner



Electric Motor



Fan



Refrigerator

FEATURES

- Coupled equations of motions are solved for flow and heat transfer equations with a variety of nonlinear material properties.
- A user friendly pre- and post-processor is provided for the input of geometry and material properties, as well as displaying a variety of results in time.
- Graphical user interface enables review of complex unsteady flow fields in detail.
- **PASSAGE®/FLOW** runs on PC based workstations,
- Software has been validated and utilized for the design of many real world problems. It is supported by numerous case studies.
- Technalysis provides design experience complementing the software. •
- **PASSAGE®/FLOW** software was developed and is offered exclusively by Technalysis, Inc..

BENEFITS

- **PASSAGE®/FLOW** software can minimize the cost and time of traditional prototype building and testing, thus shortening product/process design cycles.
 - Designs can be analyzed and modified on the computer before prototypes are built or decisions are finalized when design changes become costly and time consuming,
 - Technalysis offers software customization of **PASSAGE®/FLOW** software to meet specific customer needs for complex product/process designs,
- Technalysis has extensive experience since 1985 for incorporating simulation to design process.