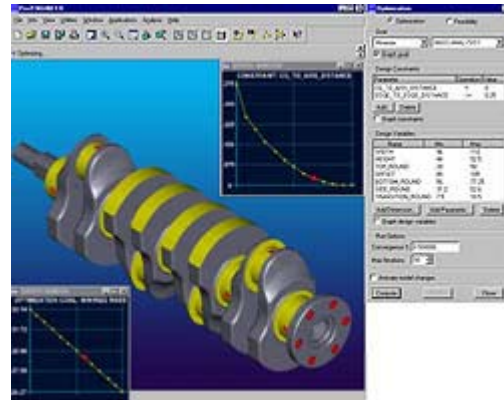


Pro/ENGINEER Behavioral Modeling

Pro/ENGINEER Behavioral Modeling moves solving real engineering problems to the next level. This extension to Pro/ENGINEER-Foundation captures engineering know-how and knowledge as specifications and product-intent inside the design, and automatically prepares as many virtual prototypes that are needed to satisfy multiple objectives. The engineer can then simply pick the best design and get on with solving the next problem.



Because the problem has now been solved and captured in the model, the design can be intelligently reused and changed with the confidence the solution is always honored. Only PTC's innovative and patent-pending Pro/ENGINEER Behavioral Modeling allows this type of flexible and intelligent solving of real engineering problems. Behavioral Modeling also won prestigious awards in 1999 from IndustryWeek and Computer Graphics World.

Capabilities

Defines problems with behavioral features

Behavioral Modeling uses standard Pro/ENGINEER features to capture problems and desired product-intent in the model. Design information, measurements, and requirements are easily created and applied right into these features.

- Capture, group and store comprehensive design measurements as features that can be later used as specifications to drive the design
- Apply a wide selection of connection and mechanism features as a natural part of the design process or simply click and apply connection features to existing assemblies
- Check for interference with other parts in an assembly by capturing the range of motion of a sub-assembly within a motion envelope

Provides ability to assess model sensitivity and understand the effects of change on design objectives

Behavioral Modeling expands design behavior assessment through sensitivity studies of virtual prototypes and mechanism animation. This comprehensive view of design behavior helps produce products that are more functional and higher performing.

- Read easy to understand graphs to gain feedback on how proposed changes would impact designs
- Create and replay mechanisms and kinematic sequences to clearly see design motion
- Use simple 'click and drag' capability to functionally test assembly mechanisms
- Detect interference and clashes during motion playback with generation of interference volumes

Solves problems with Multi-objective Driven Design

Behavioral Modeling provides engineers with the ability to solve real problems and meet multiple design goals.

- Apply multiple objectives to a design scenario, and then let Behavioral Modeling automatically undertake feasibility studies by creating as many virtual prototypes as needed to match the requirements.
- Review virtual prototype behavior results from easy to read graphs
- Select the optimal design from any of the virtual prototypes

Integrates results with external applications in an open extensible environment

Many companies have their own knowledge applications to solve particular design problems. Behavioral Modeling can integrate these solutions right into the mainstream product development process by incorporating results right into the design.

- Use Behavioral Modeling external analysis features to pass parameters to an external applications for solving
- Intelligently retrieve and capture the results of external analysis in the Pro/ENGINEER model-tree
- Build logic into the Pro/ENGINEER model based on the returned results
- Update external analysis and results on and Pro/ENGINEER model regeneration