PTC®

Pro/ENGINEER® Expert Framework

Go From Design to Fabrication in Record Time

With the new Pro/ENGINEER Expert Framework module from PTC, engineers and designers can create structural framework much faster using powerful, simple-to-use features that are tailored to specific framework design tasks.

As an integral part of the Pro/ENGINEER product family, Expert Framework provides designers and engineers with a means to dramatically improve the accuracy and productivity of defining structural framework assemblies. Because this module is native to Pro/ENGINEER, you can quickly and easily share this intelligent 3D model throughout all phases of the project—design, detailing, analysis, fabrication, and erection. Now you can enjoy faster structural framework definition, and meet or beat even the most aggressive project deadlines.

Add Expert Framework to your cache of design tools and dramatically reduce the time to create accurate structures, frames, or assembly lines compared to 2D CAD and traditional 3D CAD solid modeling methods.
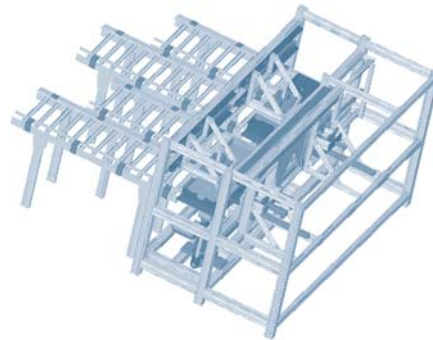
Key Features and Benefits

Unified, integral design environment
- Fully associative modeling ensures that design changes are reflected throughout the design process

- Single digital definition–incorporating all manufacturing information–eliminates management of additional files

- Eliminate time-consuming data translation between software applications

- Enjoy global support from one supplier

Simple
- Easy to learn and use

- Automates many functions—significantly reducing design time

- 100% parametric definition speeds design of a wide variety of framework sections

Putting together structures using Pro/ENGINEER Expert Framework eliminates fit up errors, saves valuable engineering time, and reduces the cost of development.

Powerful
- Quickly define corner joins and nodes between virtually any section

- Eliminate costly changes due to fit up problems or rework

- Fully associative definition adapts instantly to any design change no matter how difficult

Convenient
- Extensive library of sections and joints speeds framework creation

- Choose from a wide variety of steel and aluminum profiles, angles, endplates, screws, and more

- Create a library of your own unique components

Productive
- User interface reflects the structural framework design process

- Reduce scrap by using appropriate connections, joints, and assembly methods

- Save on material costs through exact 'as-built' representation of the structural framework

- Incorporate manufacturing and fabrication data into the framework definition to speed assembly

- Precise 3D structural framework definition ensures fabrication of assembly is right the first time by detecting design and production problems before structures are built

Features and Specifications

Supports Pro/ENGINEER top-down design process
- Start with conceptual design to create the framework skeleton using datum curves or imported geometry

- Assemble beams from a library of standard types and sizes

- Design joins between beams by selecting different corner types

- Design connector elements by selecting from a library of brackets, endplates, screws, etc.

- Easily make modifications to the structure with simple mouse clicks to modify or replace beams

- Create BOM information and beam drawings automatically

Wide Variety of Uses

Steel structures
- Industrial machinery

- Cranes and elevators

- Marine structures

- Buildings

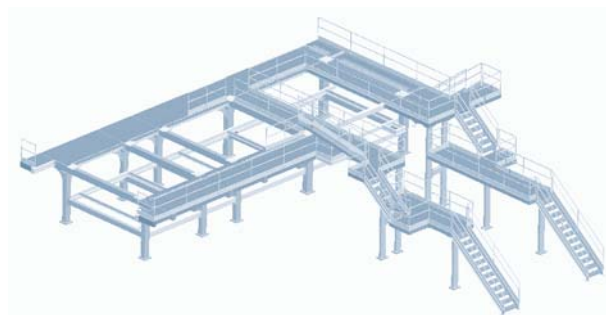### Structures with standard aluminum extrusions
- Handling and packaging machines

- Conveyor systems

- Assembly lines

Structures with custom beams
- Windows and doors

- Facades

- Roofs

Functions for designing with beams
- Easy and fast assembly of beams on curves or between points

- Easy definition of beam joints including corner, mitered, and T-joints

- Quickly move, rotate and replace beams

- Includes a library with standard steel sections and aluminum extrusions

- Add company-specific sections to the library

Pro/ENGINEER Expert Framework has a wide variety of applications, including building structures, machine framework, and assembly lines.

Functions for designing connections between beams
- Quick and easy assembly of connector elements

- All necessary features and modifications are made inside the beam parts – not assembly features

- Includes a library with connector elements including endplates, angles, brackets and screws

- Add company-specific connectors to the library

Other useful functions
- Automatic BOM creation

- Restructuring subassemblies such as weld subassemblies

Language support
- English, German, French, Italian, Spanish, Japanese, Chinese (Simplified and Traditional), Korean

Specifications
- Microsoft Windows (XP, 2000, NT 4.0)

- UNIX platforms (Solaris, HP-UX, IRIX)

- See www.ptc.com for specific OS levels