

Creo® Advanced Assembly Extension

TAKE THE COMPLEXITY OUT OF DESIGNING, MANAGING, AND SHARING LARGE ASSEMBLIES

Creo Advanced Assembly (AAX) helps users simplify complex designs and allows for the development of advanced content with better control, design intent propagation, and system integration.

With its advanced tools for top-down assembly design, Creo AAX streamlines the flow of information from design to manufacturing, helping you reach the optimal design, including customized designs, in far less time.

Plan and manage large assemblies

Using top-down design tools, it's easy to plan out the skeleton of the assembly so that individual components can be designed in the context of the overall structure. As a result, the complexity of managing various relationships between components is simplified. Creo AAX also makes it easy to simultaneously share key geometry features among multiple design teams, and simplifies very large assemblies using tools like Default Envelopes. A design assembly containing many objects can easily be represented by a solid part with less detail in order to reduce the number of objects retrieved and to decrease load times.

Design automation with ease

The ability to quickly customize product designs can give you a powerful competitive advantage. The customization process can, however, be time-consuming and error-prone. With Creo AAX, you can automate the design by driving designs based on specific custom criteria with minimal effort. Even better, all downstream deliverables, such as production drawings and manufacturing information, are updated automatically with each change making customization simple, fast, and error-free.



Creo AAX offers advanced assembly capabilities, such as skeleton models and data-sharing features, to support top-down design. Design criteria related to the assembly can easily be communicated to teams working concurrently on designs.

Key benefits

- Improve performance by simplifying large assemblies. Use top-down design tools to build the skeleton model and share down-stream design intent, giving you greater flexibility and control over the entire structure
- Make changes with confidence, knowing that all modifications are automatically propagated from the design to the manufacturing information
- Effectively manipulate models, enabling you to create higher-quality designs faster, and reuse your product designs in the future
- Quickly and efficiently customize products according to a customer's unique requirements
- Support your company's design or build-to-order initiatives and provide better-quality, customized products to customers faster and at less cost than your competition
- Concurrently develop product by efficiently collaborate design intent with multiple designers
- Efficiently create process instructions while detecting manufacturing errors as soon as possible
- Manage and control references and dependencies

Capabilities and specifications

Top-down design tools: Products evolve 'naturally'

- Plan the framework of an assembly using skeleton models and data-sharing features to enable true top-down design
- Publish and control design interfaces between sub-assemblies and components
- Create one-way associative models, allowing you to inherit the changes from the parent model and then make changes to the new model

Simplify large assemblies

- Create simplified envelope parts to substitute for detailed design assemblies and to improve

assembly performance

Smart design intent

- Programmatically automate the customization of your product lines based on input parameters
- Deliver accurate and updated drawings as well as manufacturing deliverables in record time for a customized product
- Capture design requirements from customers in spreadsheets, layout tables, or other programming applications, which can drive



The reference viewer in Creo AAX lets you see and manage your design assembly references.

product configuration

Reference viewer and reference control

- Investigate references and dependencies to understand design intent and flow
- View a graphical representation of interdependencies for a clear understanding of how changes will be propagated throughout the model
- Quickly identify circular reference paths

Plan the assembly process

- Have collaboration and communication between engineering and manufacturing stakeholders to reduce cost

The Creo Advantage

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

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/advanced-assembly-extension](https://www.ptc.com/product/creo/advanced-assembly-extension)



Easily create and document the complete assembly process, including an associative bill-of-materials, for each assembly step.

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