The Creo® Options Modeler Extension (OMX) is a fully integrated add-on product to Creo Parametric™, created for design engineers who need all the power of a parametric 3D CAD solution, along with the ability to create and validate product platforms.

Design engineers need to respond to many challenges when developing products, especially as they rethink design strategies to take advantage of IoT technologies. By using a modular product approach to design, engineers can reduce complexity while still providing a broad range of product offerings without significant increases in cost.

With Creo OMX, designers can quickly create and validate any customer-specific product by generating modular product architecture and defining how product modules interface and assemble. When combined with Windchill®, PTC’s product lifecycle management software, Creo OMX enables manufacturers to generate and validate precise 3D representations of product configurations defined by an individual bill of materials (BOM).

The combination of Creo OMX and Creo Parametric enables designers to validate the resulting product by checking properties (e.g., the precise mass and center of gravity) and even checking and resolving critical areas, such as interference.

Key benefits

- Achieve faster design cycles by creating and validating product modules in 3D early in the design phase
- Reduce process errors and engineering rework by directly reusing available 3D models from PTC Creo, as well as BOM and business logic for product configurations from Windchill
- Automate the creation of any product by defining common architecture and product modules, and help manage how they interface and assemble
- Optimize products earlier by automating manually intensive, error-prone tasks
- Communicate precisely by sharing product designs earlier and receive feedback from other internal teams, suppliers, and customers

Couple allowable product options, parts structure, and 3D models
Capabilities and specifications

- Fully visualize and validate the modular product architecture
- View and interact with all relevant information in one integrated environment:
  - Modular product architecture
  - 3D models
- Select from available product modules and precisely visualize the resulting product in 3D
- Flexibly create and change the modular product architecture
  - Create the modular product architecture through a top-down or bottom-up design approach:
    - **Top-Down:** Ideal for creating new products. Create the top-level modular product architecture independent of individual modules and models*
    - **Bottom-Up:** Ideal for adding new product modules to existing products. Create individual modules independent of the top-level product architecture
- Create new modular product architectures by reusing existing products:
  - From CAD, directly use existing parts and assemblies from Creo
  - From PLM, directly use individual BOM*
- Change, add, or remove module variants from the modular product architecture
- Accelerate assembly in 3D
- Define interfaces and assembly tags to make module variants interchangeably
- Create configurable modules to easily manage multiple options

Create configurable modules to easily manage multiple options

- Generate any modular product as a precise 3D representation; in Creo Parametric, validate mass, center of gravity, interference, and other critical areas
- Use the resulting 3D model for downstream activities such as simulation and manufacturing
- Leverage existing BOM

* Requires Windchill

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

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

For more information, visit: www.PTC.com/product/creo