The Creo Design Advanced package builds on Creo Design Essentials. Turn to Creo Design Advanced when you want industry-leading capabilities in concurrent design and development, and in prismatic machining. Each Creo package offers more capabilities in every seat right out of the box. That’s design the way it should be.
The most robust set of 3D CAD capabilities:

- 3D Part & Assembly Design
- Automatic 2D Drawing Creation
- Parametric & Freestyle Surfacing
- Assembly Management & Performance
- Sheet Metal Design

- Mechanism Design
- Plastic Part Design
- Direct Modeling (Flexible Modeling)
- Additive Manufacturing
- Augmented Reality
Multi-CAD Collaboration  
*Seamlessly integrate and work with data from SolidWorks and Autodesk Inventor:*

- Collaboration for SolidWorks (Open, Update and Save As native SolidWorks files)
- Collaboration for Autodesk Inventor (automatically detect and update Inventor data)

Piping & Cabling Design  
*Create and optimize routings for cost, manufacturability and service:*

- Automated routing referencing 2D Schematic logic
- Easily visualize and edit using drag handles and on-the-fly editing
- Ability to compare(validate) 3D data against 2D schematic logic

Rendering (powered by Luxion’s Keyshot)  
*Produce photorealistic images for design review, marketing collateral, and product packaging:*

- Real-time Raytracing powered by Luxion Keyshot
- Enhanced lighting with High Dynamic Range Image (HDR) support
- Standard library of over 200 predefined materials types

Design Exploration  
*Rapidly create and explore concepts and modeling alternatives:*

- Explore design changes safely without risking original designs or committing to any change
- Simultaneously develop different ideas and evaluate all options before making decisions
- Eliminate manual data duplication and session clean-up for loading and reloading different versions
Fastener Design

Automate fastener geometry creation and hardware assembly:
- Automate the creation of holes and assembly fasteners
- Access to standard libraries (ANSI, DIN, JIS)

Advanced Framework Design

Speed design and improve the accuracy of structural framework assemblies:
- Fully integrated modeling, framework design and analysis
- Comprehensive and customizable libraries of profiles, joints, connections and equipment
- Automated beam placement and creation of framework geometry (e.g., joints, connections)

Legacy Data Migration

Support legacy data migration and CAD consolidation efforts:
- Legacy Drawing Associator (LDA) – automatically connects parametric models to imported legacy data
- Relink model and drawing to provide associativity (update) and association when checked into Windchill PDMLink
- Annotation Convertor (AC) – Automatically convert drawing dimensions and notes to 3D annotations

PTC Mathcad

Perform, analyze, and share your most vital calculations:
- Conduct complex engineering calculations to validate your designs
- Comprehensive unit support for numeric and symbolic calculations, functions, solve blocks, tables, vectors/matrices, and plots
- Lock content to prevent viewing and hide proprietary information
Human Factors Design
*Validate and optimize products for human interaction:*
- Quickly insert and customize digital human models to prevent ergonomic mismatches and reduce prototype costs
- Easily manipulate manikins
- Visualize human reach and vision

Core Simulation Capabilities
*Enhance your product design with Simulation & Analysis:*
- Static Structural Analysis
- Simulate Parts and Assemblies
- Simulate Solid, Beams, Shells, Masses, Springs

Advanced Assembly
*Facilitate and support your concurrent design and development:*
- Data Sharing and Distribution
- Reference Control
- Change Propagation

Prismatic and Multi-Surface Milling
*Achieve the highest quality, highest precision machining in the fastest time possible:*
- Multi-Surface 3-axis milling with 4- and 5-axis positioning
- High speed machining (for rapid prototyping and manufacturing)
- Automatic change propagation and associative update of NC toolpaths
THE CREO ADVANTAGE

Creo is the 3D CAD solution that helps you accelerate product innovation so you can build better products faster. Easy-to-learn Creo seamlessly takes you from the earliest phases of product design to manufacturing and beyond. You can combine powerful, proven functionality with new technologies such as generative design, augmented reality, real-time simulation, additive manufacturing and the IoT, to iterate faster, reduce costs and improve product quality. The world of product development moves quickly, and only Creo delivers the transformative tools you need to build competitive advantage and gain market share.

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