



# CREO DESIGN ESSENTIALS



You deserve more in your 3D CAD package and Creo Design Essentials delivers. Welcome to the new industry standard, with more capabilities in every seat, out of the box. With Creo Design Essentials, you'll be able to stay ahead of the competition by building more innovative products faster and at less cost. Design the products of the future, today with Creo Design Essentials.





# CORE 3D CAD



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



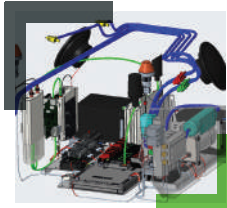
## ADDITIONAL CAPABILITIES >>>



### 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 (HDRI) support
- Standard library of over 200 predefined materials types

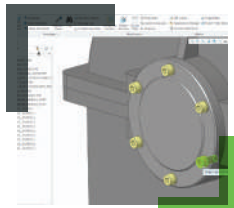




## Design Exploration

*Rapidly create and explore concepts and modeling alternatives:*

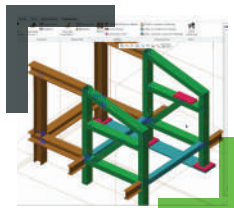
- Explore design changes safely without risking original designs or committing to any change
- Simultaneously develop different ideas and evaluate all options before making decisions
- Eliminate manual data duplication and session clean-up for loading and reloading different versions



## 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:*

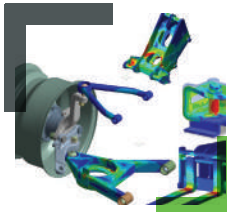
- Legacy Drawing Associator (LDA) – automatically connects parametric models to imported legacy data
- Relink model and drawing to provide associativity (update) and association when checked into Windchill PDMLink
- Annotation Converter (AC) – Automatically convert drawing dimensions and notes to 3D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



### 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

## BENEFITS OF SUBSCRIPTION

(Included in every Creo Design Essentials Package):

#### **ACCESS TO LEARNING CONNECTOR:**

Learning Connector gives you access to a comprehensive set of tutorials and playlists, for in-context, bite-size training. Tutorials and playlists are self-paced and available on-demand.

#### **EXTENDED LICENSE BORROWING:**

Working remotely just got easier. Borrow floating licenses for up to 180 days - 150 days more than perpetual.

#### **HOME USE LICENSE:**

Leave the laptop at work. Every package now includes a home use license of the Creo Design Essentials package.

#### **PERFORMANCE ADVISOR:**

The Creo Performance Advisor provides a dashboard for your entire Creo installation, allowing you to understand and optimize the performance of your entire Creo environment.

# CAD BENEFITS OF SAAS - EXPANDING THE BENEFITS OF DIGITAL TRANSFORMATION

## **ACCELERATE INNOVATION WITH REAL-TIME COLLABORATION:**

Multiple contributors can work concurrently in real-time for improved communication and enhanced innovation throughout the product design lifecycle.

## **EFFICIENT LICENSE MANAGEMENT:**

Reduce time and effort of license management and deployment, using cloud-based desktop tools. Deliver required licenses to groups and users efficiently and at scale.

## **BETTER USER EXPERIENCE:**

Automatic updates ensure all users have access to the latest improvements.

## **DATA SECURITY:**

Intellectual property is protected through better access control. Avoid sending files through email and unsecured servers.

## >>> THE CREO ADVANTAGE

Creo is the 3D CAD solution that helps you accelerate product innovation to build better products faster. Easy-to-learn Creo uses a model-based approach to seamlessly take you from the earliest phases of product design to manufacturing and beyond. Combining powerful, proven functionality with new technologies including generative design, real-time simulation, advanced manufacturing, IIoT and augmented reality, Creo helps you iterate faster, reduce costs and improve product quality. Creo is also available as a SaaS product, providing innovative cloud-based tools for real-time collaboration and streamlined license management and deployment. 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.

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