



# CREO DESIGN ESSENTIALS



design the way it should be



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