



# TOP ENHANCEMENTS CREO 9

## DELIVER YOUR BEST DESIGNS IN LESS TIME

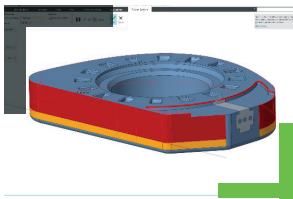
Our best Creo. Ever. You'll find a wide variety of customer-driven improvements to help make every day more productive. These include new tools for managing, manipulating, and understanding CAD models, as well as enhancements to capabilities in design-for-ergonomics, model-based definition (MBD), simulation, generative design, and both additive and subtractive manufacturing.



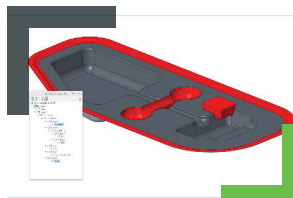
[REQUEST A DEMO >>](#)

## »»» USABILITY AND PRODUCTIVITY

Every year, PTC and Creo make it easier and faster to do your job. Creo 9 is no exception. Model tree management has never been easier, and a new divided surfaces function allows for even better analysis and definition. Sketcher, multibody, Freestyle and ECAD are all better than ever.



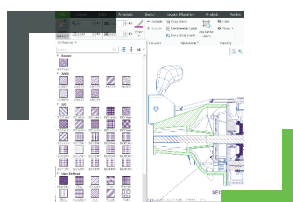
- With the new divide surfaces capability, you can create new regions and then isolate constraints and loads to specific locations on the model. This gives you greater control of PMI and enables new workflows for MBD, simulation, geometry creation and appearance assignment.



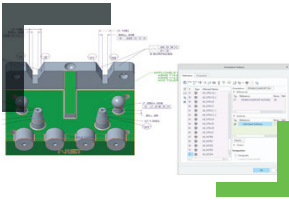
- Improvements to the model tree help to clarify design intent and give you better understanding of how geometry is incrementally built. You'll find a new quilt tree, new design items tree, and a toolbar in the model tree itself.
- Sketcher improvements include enhanced project command and enriched inspection tools.
- Simple and powerful Freestyle brushes allow unrivaled sculpting of organic geometric shapes as well as greater control of curve definition and connection.
- ECAD enhancements allow you to import silk screen layers and solder mask layers as ECAD data from the EDA (electric design automation) files.

## »»» MODEL BASED DEFINITION (MBD) AND DETAILING

It's all about surfaces and detailing as Creo gives you powerful MBD tools to provide greater clarity with less effort:



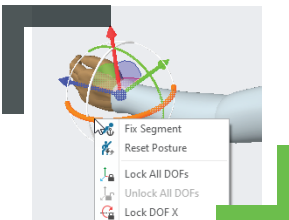
- Intuitive workflows for the creation, placement and editing of surface finish symbols
- Onscreen transformation of surface finish symbols using modern draggers
- Semantic surface finish annotations that are compliant with the latest ASME and ISO standards, with information for downstream users
- Modernized hatching tools to make components, bodies, or areas more easily identifiable in drawing.



- Broader set of symbol modifiers in Geometric Dimensioning & Tolerance (GD&T) Advisor to support detailing standards and to improve productivity when working with annotations.
- Save time and enjoy easier annotation by creating missing dimensions on-demand within GD&T through a "Create Selected" tab in the dashboard. Capability available for simple holes, shafts, slots, slabs and slotted holes.

## ERGONOMICS DESIGN

Customers must be able to use your products safely and efficiently. Since human beings don't come in one shape or size, enhancements to Creo allow you to account for the range of movement, the field of vision, and uniqueness of users.



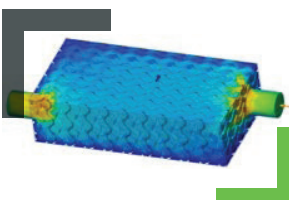
- Create custom manikin populations and add customer-specific attributes. You can choose to replace manikins or to save your own custom manikin as a single embedded assembly. 3D dragger control allows for forward and inverse kinematics. We've also improved manikin manipulation and constraint handling.



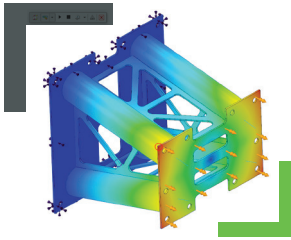
- The innovative Visual Field feature shows you the impact of design choices on users' field of view. Select obstructing objects and the visibility cone shows you the field of view that results. Now you easily can understand this facet of your design or design to a specific standard.

## SIMULATION AND GENERATIVE DESIGN

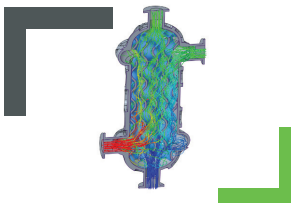
Improve your products with enhanced simulation and generative design tools. From real-time simulation for Creo Simulation Live to giving you options you might never have considered, we have you and your product covered.



- Creo Simulation Live introduces Multiphysics capabilities for simultaneous structural and thermal analysis, and now allows you to include gyroids and lattices features in fluid studies.



- With Creo Ansys Simulation, a higher-fidelity tool, you can automatically create mid-surface geometry for shell meshes; apply loads to create a pin and hole connection; and simulate unconstrained structures.



- Use Creo Flow Analysis to carry out multiple computational fluid dynamics projects in more than one model, enjoy more robust meshing and support for lattice geometry, and take advantage of an integration with Creo Behavioral Modeling extension for optimization and sensitivity studies.

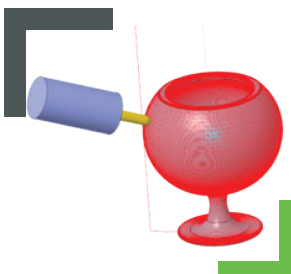


- Improvements to generative design include the ability to design products to a specified safety factor. You can also conduct modal optimization to achieve the desired frequency response of the specified material.

## »»» ADDITIVE AND SUBTRACTIVE MANUFACTURING

Creo 9 brings improvements for both additive and traditional manufacturing, making it easy for you to deliver high-quality manufacturable products.

## »»» HIGH SPEED MACHINING (HSM) ENHANCEMENTS



- Geodesic 5 axis finish toolpath
- Adaptive feed for HSM Rough and Rest-Rough
- Tool motions tab in all HSM sequences
- Geodesic 5 axis finish toolpath for better surface finish and additional flexibility for 5 Axis finishing
- Tool motions tab in all HSM sequences for increased tool life
- Fully associative in-process stock models, now on the model tree
- Added flexibility to define the NC Toolpaths and toolpath color setting

## ADDITIVE MANUFACTURING ENHANCEMENTS



- Support for open quilts on stochastic lattices enables the creation of skin lattices
- Variable wall offset for formula-based lattices
- User defined support structures



**Creo is a 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 IIoT, 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.

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