



DESIGN FOR ERGONOMICS

HUMAN BEINGS DON'T COME IN ONE SHAPE OR SIZE AND NEITHER SHOULD FORM, FIT, OR FUNCTION.

With Creo 9, you can easily account for the uniqueness of users as you design your products for them. After all, what good is a vehicle dashboard if the steering wheel blocks it? Or you find out too late that your design isn't compliant with safety standards or failed to take into account the needs of your specific user population? With Creo 9, you can put your users at the center of your design process from the first moment through sophisticated, easy-to-use manikin functionalities and vision analysis.



DIGITAL TRANSFORMS PHYSICAL

What if the people for whom your product is intended can't use it or service it?

With Creo you can use virtual manikins to simulate these all-important human-product interactions. Discover a product-user mismatch too late, and you'll find yourself with longer time-to-market and increased product development costs.



Quickly insert and customize digital human models, using manikin libraries to speed the selection and reuse of manikin data. Beginning with Creo 9 you can go into greater detail, choosing gender, height, weight, arm length, shoe size, waist circumference, and age among others.

- *Take more control over your Manikin's dimensions.*



Easily manipulate manikin posture using standard Creo Parametric functionality and a comprehensive library of macro (stand, pull, push, reach) and micro postures (arm, hand, finger and feet positioning). Create custom postures and take advantage of a simplified and enhanced UX for manikin manipulation.



Work with reach envelopes and vision cones to validate design considerations and field of view, respectively.

- *Create multiple reach constraints and identify when target is out of reach.*



Use 'look at' command to create vision windows to "see" what the manikin can see.

You can rely on **Creo** when you need to validate your designs and demonstrate compliance with safety, health and workplace standards including:



How much your user can see outside your product matters, as any driver of an unfamiliar car knows. Now, using the new Vision Field Analysis capability, you can analyze manikin line of sight and field of view. You can also evaluate sightlines with incorporated obstructed object definitions, and ensure quality, safety and adherence to visibility standards. This applies to analysis of cameras and displays as well.



When something can be seen, it's easier to find, know about, and use. With the new Vision Field Analysis capability, you can confirm intended visibility and identify potential gaps in coverage that might affect your design.



Validate Material Handling (Rapid Upper Limb Assessment or RULA), Pushing/Pulling (Snook Tables or Snook), Lifting/Lowering (Snook), Carrying (Snook) and Lifting/Lowering (National Institute for Occupational Safety and Health or NIOSH) standards.

- *Define and save manikin postures associated with the analysis, and reuse and apply saved positions for target populations.*
- *Create custom manikin populations, editing a given set of dimensions of a new custom manikin.*
- *Identify and validate acceptable limits for the desired population. Reuse and repeat the analysis for different populations and criteria.*



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 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 a 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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