

## Pro/ENGINEER® Manikin Analysis Extension

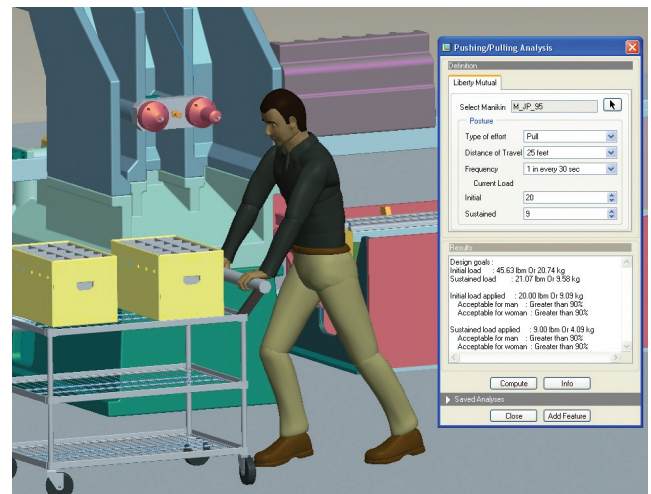
SIMULATE ADVANCED HUMAN-PRODUCT INTERACTIONS

Designers are often challenged with ensuring that their latest product innovations and workplace designs meet demanding customer requirements for form, fit and function. Conforming to product and workplace health and safety standards is also becoming increasingly paramount.

To address these critical design issues, designers, ergonomists and Human Factors specialists in a variety of industries can now take advantage of a new solution that provides a deeper understanding of how products and workplaces will be manufactured, used and maintained.

Pro/ENGINEER Manikin Analysis Extension enables you to visualize, simulate and communicate highly complex human-product-workplace interactions – particularly repetitive manual tasks – earlier in the design process. The result: you can design more innovative products and workplaces that are optimized for people – and deliver them to market faster, with lower product development costs.

Pro/ENGINEER Manikin Analysis Extension is an easy-to-use, powerful add-on to Pro/ENGINEER Manikin Extension that enables you to test your designs against a number of quantitative Human Factors and workplace standards and guidelines – early in the product development process. By determining how much force it takes to push, pull, carry or lift your product, you can ensure the task is optimized for the intended target human population. This advanced understanding of human-product interactions will help improve your product development processes.



Pro/ENGINEER Manikin Analysis Extension helps you analyze human movements such as pushing and pulling.

### Key Benefits

- Simulate human-product interactions such as pushing, pulling, lifting, lowering and more
- Reduce time, budget and obsolescence associated with physical prototypes
- Communicate and share complex human-product interaction issues using advanced reporting capabilities
- Optimize designs for more complex human-product interactions earlier in the design cycle
- Ensure conformance with safety, health, ergonomics and workplace standards and guidelines

# 3D Digital Human Modeling Analysis

## Capabilities & Specifications

Pro/ENGINEER Manikin Analysis Extension enables you to easily analyze and optimize human-product-workplace interactions using a dedicated set of analysis algorithms that leverage an intuitive user interface. This easy-to-use solution is fully integrated into the Pro/ENGINEER design environment, thereby allowing you to leverage existing Pro/ENGINEER simulation and analysis capabilities.

For advanced assessments of human-product-workplace interactions, such as manual handling, workplace layout and repetitive movements, Pro/ENGINEER Manikin Analysis Extension provides designers and Human Factors experts with the ability to validate their designs against a number of quantitative Human Factors and workplace standards and guidelines such as:

- Material Handling (RULA)
- Pushing/Pulling (Snook)
- Lifting/Lowering (Snook)
- Carrying (Snook)
- Lifting/Lowering (NIOSH)

### Repeatable Analyses for Target Audience Accommodation

- Position a manikin in the correct posture as determined by the design scenario. Capture the position as a “snapshot,” so you can save and reuse the posture and associated analysis settings
- Perform the desired analysis by applying the necessary algorithms for pushing, pulling, lifting or other design-related manual tasks
- Replace the initial manikin with another relevant manikin and repeat the analysis to assess the impact of the design on the entire target population
- Update the saved analysis for the desired task

### Language Support

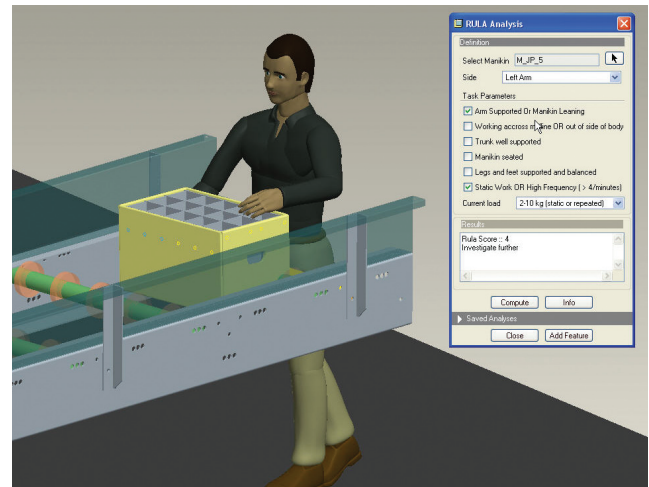
- English, French, German, Italian, Korean, Japanese, Spanish and Chinese (Simplified and Traditional)

### Platform Requirements

- Microsoft Windows (Vista and XP)
- UNIX platforms (Solaris)

For the most up-to-date platform support information, please visit [www.ptc.com/partners/hardware/current/support.htm](http://www.ptc.com/partners/hardware/current/support.htm)

For more information on the Pro/ENGINEER Manikin Analysis Extension or the base manikin capabilities available in the Pro/ENGINEER Manikin Extension, visit [www.ptc.com/products/proengineer/manikin-extension](http://www.ptc.com/products/proengineer/manikin-extension)



Pro/ENGINEER Manikin Analysis Extension helps validate designs using standard ergonomic assessments such as RULA.

## The Pro/ENGINEER Advantage

Pro/ENGINEER is simple to learn and use, and is available in a variety of packages designed to meet your company's specific needs. Whether you need a cost-effective 3D CAD system that contains all the basic design capabilities, or a comprehensive Product Development System that seamlessly connects your extended supply chain, you'll find exactly what you need in a single, fully scalable solution. Choose the package that fits your needs today. As your needs change and grow, you can easily upgrade to the package that is right for you tomorrow which leverages the same powerful platform – this means no data translation and a consistent user experience.

Pro/ENGINEER Manikin Analysis Extension lets you view, analyze and optimize human-product interactions earlier in the product development process. As part of the Pro/ENGINEER family of integrated 3D CAD/CAM/CAE solutions, it delivers a distinct advantage for engineers and designers because it is seamlessly integrated into the Pro/ENGINEER design environment. This seamless integration helps you save time, reduce data translation errors, and decrease costs. Pro/ENGINEER gives you everything you need to create high-quality, winning designs.

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