



DIGITAL INDUSTRIES SOFTWARE

Process Simulate Human

Using digital human modeling throughout the product lifecycle to achieve continual improvement

Benefits

- Use digital human modeling throughout the product lifecycle to achieve continual improvement
- Optimize your designs for friction-free human interaction
- Use a comprehensive suite of analysis tools to identify potential risk factors
- Effectively communicate issues and visualize potential solutions
- Leverage virtual reality and motion tracking technologies for even deeper design analysis

Product overview

Siemens Digital Industries Software's Process Simulate Human in the Tecnomatix® portfolio facilitates precise sizing of human models to match workforce anthropometry and provides a comprehensive suite of analysis tools to assess the ergonomics of your designs. These include accommodation of reach, vision and hand clearances, as well as performance evaluations for low back injury risk, strength, posture demands, energy expenditure and fatigue. Using Process Simulate Human streamlines the design process of manual tasks, helping you to create friction-free workplaces with reduced risk of injury and enhanced consistency. Organizations adopting this software gain a competitive edge by combining traditional ergonomics and human factors assessment methods with cutting-edge visualization and simulation technologies.



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[siemens.com/tecnomatix](https://www.siemens.com/tecnomatix)

Features

- Global anthropometric databases to accurately model your populations
- State-of-the-art task simulation engine to generate simulations using high-level commands
- One of the most comprehensive set of human performance tools available on the market today
- Extensive virtual reality and motion capture support

Ergonomic analysis tools

- Posture assessment (OWAS, RULA)
- Lifting guide (NIOSH)
- Posture monitor (customizable values)
- Eye views
- Whole body and arm strength (SSP, AFF)
- Metabolic energy and fatigue accumulation
- Static and cumulative low back demands

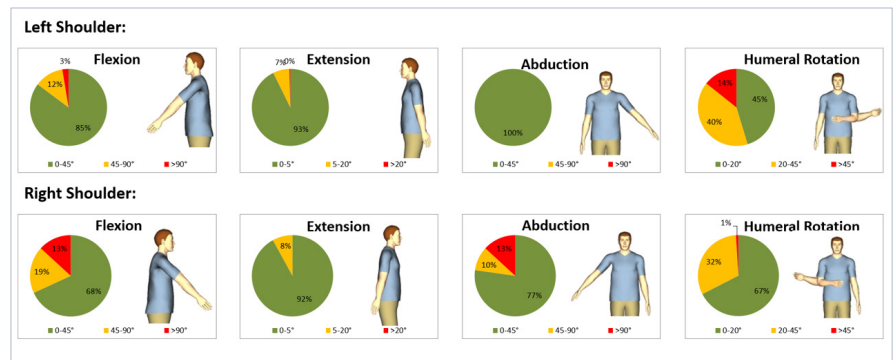
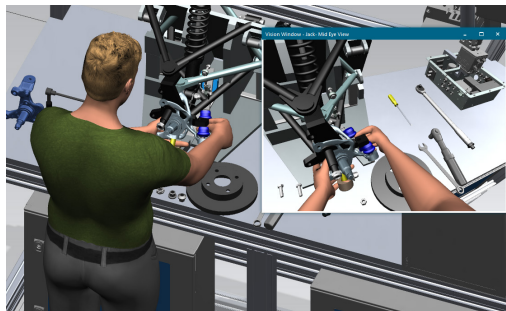
Other add-ons available

- Motion tracking adds support for the most popular optical and inertial-based tracking systems
- Using Process Simulate Virtual Reality enables you to perform engineering work in a fully immersive and interactive environment

Creating simulation and ergonomic analysis

The task simulation builder accepts high-level commands to instruct a human model in your 3D virtual environment. This capability facilitates quick animation and scenario development. Once a task sequence has been defined for the human model, you can test what-if scenarios by swapping in human figures of different sizes, changing the position of objects, or modifying the forces associated with tasks. Human postures and motions are automatically recomputed in response to the updated configuration. The task simulation builder provides extensive ergonomic reporting and estimates based on standard timetables.

The fully scalable human forms feature customizable clothing colors and ethnic appearances.



Digital human modeling to plan, simulate and validate human tasks

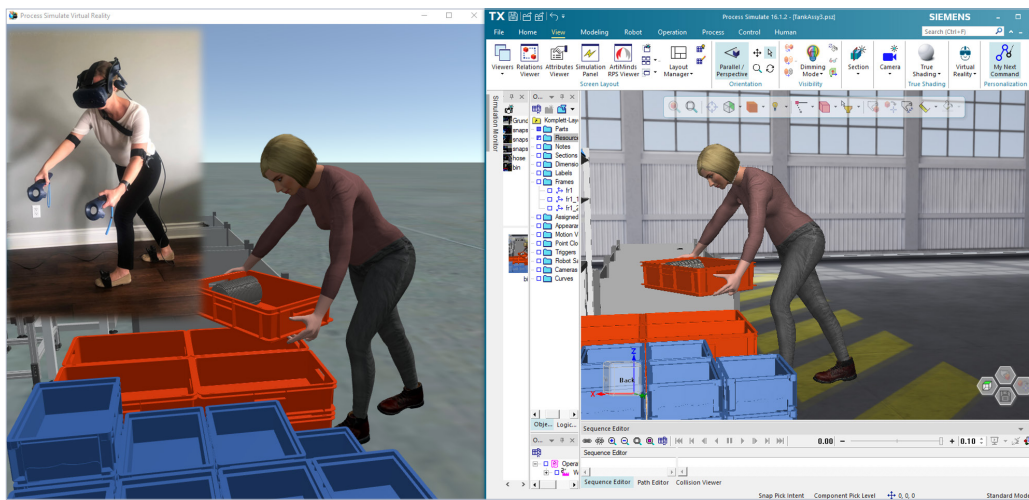
Motion tracking and virtual reality

Process Simulate Human, which is part of the Siemens Xcelerator business platform of software, hardware and services, supports additional add-on products that expand the software value using motion tracking and virtual reality (VR). The motion tracking add-on allows you to use your own movements to animate the Jack and Jill avatars.

Complex motions can be analyzed in real time or captured for later in-depth analysis. Similarly, with the VR add-on, you can immerse yourself in your designs and experience the 3D concepts in one-to-one scale. With this innovative tool, you can author layouts and simulations, test assembly processes, consider human performance and train for various tasks.



With real time joint highlighting, study the postural requirements of a task while immersed in VR.



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For additional numbers,
 click [here](#).