Process Simulate Human

Test design and operational aspects of a wide variety of human factors

Manufacturing companies operating in a variety of industries recognize the need to address the ergonomic aspects of manual operations while still in the early stages of product design and manufacturing planning. Process Simulate Human is based on the use of digital human models to assist the manufacturer in improving the safety, efficiency, and comfort of their workplace operations. The program allows users to analyze their own plants with virtual people that they can scale to match the characteristics of varying populations. Designs and operations can be tested for a wide variety of human factors, such as injury risks, timing, user comfort, reachability, lines-of-sight, energy expenditure, fatigue limits, and other important parameters.

Capabilities

- Provides anthropometrically and biomechanically accurate scalable, virtual human figures.
- Uses country-specific population databases and advanced anthropometric scaling in support of ergonomic analyses of global workforces.
- Provides a comprehensive set of ergonomic analysis tools.
- Uses an advanced posture algorithm to analyze human body reactions to force exerted in specific directions.

- Manages a wide range of workplace scenarios, including tasks carried out at different levels of elevation, and on stairs and ramps.
- Provides eye-view windows and field-of-vision analyses.
- Provides opportunities to quickly create workplace configurations.
- Includes the support of a broad virtual reality motion capture hardware, including Microsoft Kinect® for Windows.

Solution Benefits

Process Simulate Human enables you to size your human figures to match worker populations, as well as test your designs for multiple factors, including injury risk, user comfort, reachability, line of sight, energy expenditure, fatigue limits and other important human parameters. Using Process Simulate Human facilitates significant cost and time savings by enabling you to improve product quality and process feasibility early in the product lifecycle. In addition, you can seamlessly integrate human factors and ergonomics into the planning, design and validation stages of your product lifecycle. Businesses that use Process Simulate Human gain a significant competitive advantage thanks to classic ergonomics and human factors assessment techniques coupled with the latest visualization and simulation technologies.

Benefits

- Enables ergonomic standard compliance as early as product design and manufacturing engineering stages.
- Avoids reworking costs by revealing human performance and feasibility issues prior to real time operations.
- Strengthens communications of engineering issues related to workplace safety violations.
- Visually captures and archives best practices for future ventures.
- Enhances workplace safety and efficiency.

Contact Geometric Solutions, a Siemens Digital Industries Software Solution Partner, to schedule a demo.

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