

Lifecycle Visualization Jack

Enhance lifecycle visualization with realistic human modeling in a digital visualization environment

Benefits

- Quickly check for fit, reach and vision issues before they can cause costly problems
- Enable engineering teams to clearly communicate human factors issues, thereby facilitating rapid issue resolution
- Enable engineers to quickly test their designs for human interaction concerns that could result in production or serviceability problems
- Support human-centered design approaches to deliver higher quality products

Summary

Teamcenter® software's lifecycle visualization Jack™ add-on enables engineering teams to evaluate product designs for human fit, reach, clearance and vision. Provided as an extension to Teamcenter's lifecycle visualization mockup capabilities, lifecycle visualization Jack (Visualization Jack) can be leveraged to quickly and easily identify potential ergonomic issues early in the product development cycle. Visualization Jack is especially valuable for improving the ergonomics of product designs and refining their industrial-related tasks.

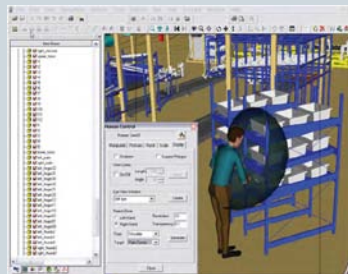
Visualization Jack's advantages

Visualization Jack enables engineering teams to seamlessly review the human issues associated with product design in a true multi-CAD environment driven by Teamcenter's lifecycle visualization mockup capabilities. Teamcenter's digital mockup capabilities enable engineering teams to perform large-scale virtual spatial analysis and high-performance collaboration in a single environment.

Visualization Jack extends this environment with human simulation capabilities that facilitate easy and effective ergonomic evaluation.

Visualization Jack's feature-rich and easy-to-use capabilities make it possible for both casual and power users to assess ergonomic issues early enough in the product development cycle to avoid costly errors and rework.

By using Visualization Jack's easy-to-use interface, engineering teams can virtually evaluate a digital prototype from a human reach, clearance and visibility perspective. Visualization Jack provides digital human figures of all sizes (from the smallest female to the largest male) to enable designers to match physical characteristics of the target population that will be using, assembling or servicing the product in real life.



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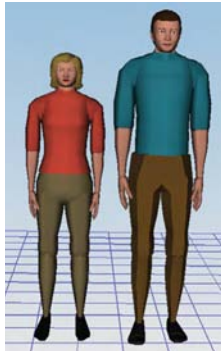
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Lifecycle Visualization Jack

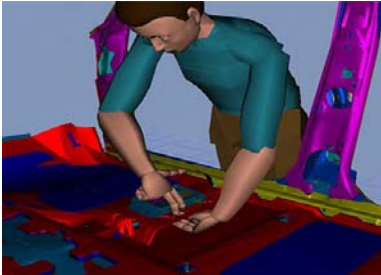
Use case for conceptual product design evaluation

Create a digital human Select the type and size of human that you want to use from Visualization Jack's human library. You can modify figure sizes at any point during the work session.



Pose the figure to interact with your product geometry

Use Visualization Jack's predefined posture libraries, its powerful yet simple human manipulated interfaces or simply pose the figure by dragging particular body parts into a given location. For more complex spaces, you can manipulate the joints individually to accurately represent the human postures you require.



Features

Add-on to Teamcenter's lifecycle visualization mockup service level



Simulation capabilities:

- Biomechanically accurate human figures
- Ability to easily scale figures to represent specific user/worker populations
- Easy-to-use human manipulation tools, including inverse kinematics to quickly pose the figure
- Extensive full body and hand posture libraries that can be customized by the user, if needed



Ergonomic analysis capabilities:

- Line-of-sight analysis using view cones
- Eye-view windows for first person perspective analysis
- Reach zones to analyze workspace designs and layouts
- Hand clearance and interference studies to determine accessibility



Related products

Tecnomatix® Jack software (available through Siemens PLM Software's Tecnomatix system)

Tecnomatix Process Simulate Human (available through Siemens PLM Software's Tecnomatix system)

NX™ Human software (available through Siemens PLM Software's NX system)

Analyze the figure's performance Using Visualization Jack's reach, vision and clearance capabilities, you can determine whether your target human population will be able to safely interact with the concept design in question.

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