Assembly Feasibility Studies through 3D Simulation

DELMIA Assembly Process Simulation provides a 3D environment to interactively create and manage assembly trajectories and determine feasibility of the assembly process.

DELMIA Assembly Process Simulation (APS) enables assembly process planners to perform product assembly feasibility studies through simulation. Users can discover design for assembly issues and communicate this information directly to product designers or other stakeholders early, when the ability to implement product or process changes is less complicated and the cost of such changes is low.

DELMIA Assembly Process Simulation provides a virtual 3D environment, including shop floor resources and layout. Planners are able to create, optimize and validate the assembly process in the context of the manufacturing setting where the plan will be executed.

Interactively create assembly trajectories

Users of DELMIA Assembly Process Simulation can view the product in its assembled state in the V6 immersive environment. Through simple and intuitive commands, the user is able to create interference-free product disassembly trajectories. A part’s trajectory can easily be edited by adding, removing or reordering points along the part’s trajectory path.

Define probe points for analysis during simulation

Planners are able to define probes for checking part interferences by measuring between parts or by sectioning parts and applying these probes to specific steps in the manufacturing simulation.
Define assembly simulation scenarios
DELMIA Assembly Process Simulation provides the ability to define and store assembly scenarios. Desired trajectories and analysis probes can then be selected and used during the simulation. Multiple assembly simulation scenarios can be defined and saved, aiding the user in performing feasibility studies and evaluating the impact of product and assembly process changes.

Generate animations of assembly simulations
With the Compile Animation command, the user is able to generate animations of the simulation. This allows others throughout the extended enterprise to easily review and collaborate without requiring access to, or knowledge of, DELMIA Live Assembly Process Simulation.

Product Highlights
- Quickly reverse assembly trajectories
- Detect interference during simulation
- Create choreographed simulations
- Perform swept volume analysis during simulation replay
- Automatically generate an exploded assembly state

About Dassault Systèmes
As a world leader in 3D and Product Lifecycle Management (PLM) solutions, Dassault Systèmes brings value to more than 130,000 customers in 80 countries. A pioneer in the 3D software market since 1981, Dassault Systèmes applications provide a 3D vision of the entire lifecycle of products from conception to maintenance to recycling. The Dassault Systèmes portfolio consists of CATIA for designing the virtual product - DELMIA for virtual production - SIMULIA for virtual testing - ENOVIA for global collaborative lifecycle management - EXALEAD for search-based applications - SolidWorks for 3D mechanical design and 3DVIA for online 3D lifelike experiences.

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