CATIA PLM Express

CATIA - Animated Product Review

Validating and Accelerating the Release of Complex Product Designs

Manufacturers must overcome unique technical and strategic challenges to keep pace in today's virtual global marketplace. As global demand and breakthrough technologies increase the complexity of product designs, engineers need more advanced desktop tools to quickly validate and release designs into production.

Overview

CATIA - Animated Product Review provides a comprehensive set of tools to simulate complex product behavior in one unified environment. This enables more decisions in the virtual stage of development - before investing in expensive prototypes, production resources, and product launch activities.

Customer Benefits

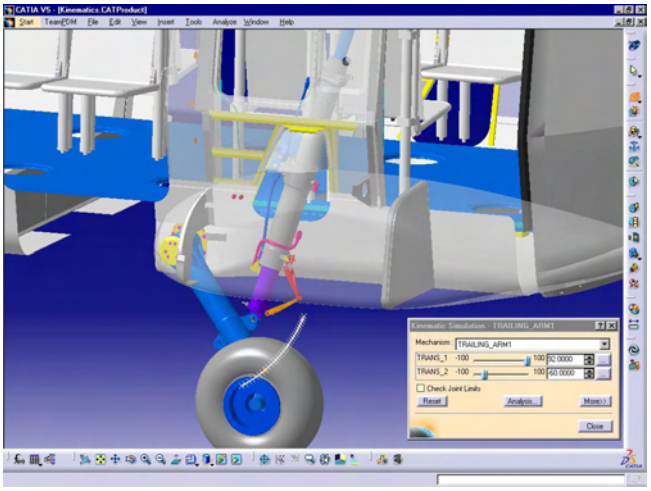
- Reduce drastically the need for physical prototypes
- In-context simulation of large and complex assembly structures
- Seamless design, simulation and analysis of product mechanisms
- Early assessment of serviceability requirements

Key Capabilities

Promote advanced design in context
To promote efficient collaboration and review, V5 facilitates the creation of alternate product shapes and light-weight representations, enabling data size reduction, while ensuring accuracy and confidentiality. For instance, using V5 DMU, users can transform the different positions taken by vibrating parts into a single volume that will support further mock-up synthesis activities. Others examples include: Generation of a swept volume from a displaced part or moving parts for space reservation; Measure of a volume capacity and creation of the resulting shape; Creation of a security zone on volumes and surfaces

Simulate and analyze mechanisms
CATIA - Animated Product Review allows engineers to define complex mechanisms either by using a wide variety of joint types, or by generating them automatically from mechanical assembly constraints defined in CATIA V5. They can use their mouse to simulate complex mechanisms in motion, and then view the dynamic visual feedback to check limits and interferences and compute minimal distances. For instance, engineers are able to analyze the kinematics of a wheel and its suspension to be sure it will function correctly when in operation. With V5, users gain rapid and accurate product insight to help them optimize product behavior.

Access serviceability requirements
CATIA - Animated Product Review enables the definition, simulation and analysis of assembly-disassembly procedures early in the product development process. V5 simulates maintenance trajectories involving parts, sub-assemblies and tooling, and supports the analysis of these trajectories with real-time interference checking, including contact management and distance analysis. Advanced V5 features allow users to execute very complex scenarios to ensure product quality, such as automatically generating a trajectory that will avoid collisions, or assessing serviceability in conjunction with human ergonomics analysis.



Screen capture of CATIA - Animated Product Review

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