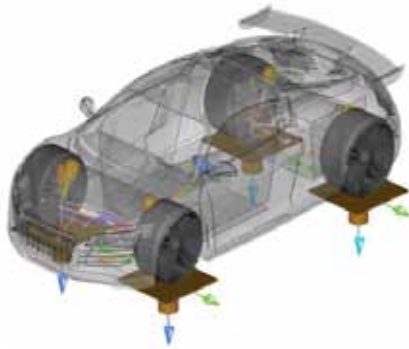


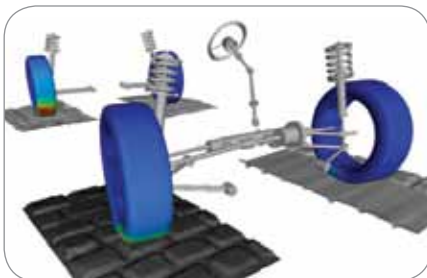
Altair® MotionView®

The Premier Modeling Environment for Innovative Mechanical System Designs

Altair® MotionView® is a user-friendly and intuitive multibody systems modeling environment. Its built-in parametric modeling capability and open architecture allows users to quickly build, analyze, and improve mechanical system designs even before physical prototypes are available. Coupled with a next generation solver in MotionSolve, MotionView provides a perfect solution for your multibody dynamics simulation needs.



Load Extraction For Fatigue Analysis



Comprehensive Built-in Automotive Suspension Libraries for Half and Full Vehicle Analysis

Benefits

Accelerate Product Innovation

Increased global competition is forcing manufacturers across the world to find intrinsically better ways to design and manufacture products. MotionView allows you to create innovative products by allowing you to easily construct alternative designs, assess product performance and optimize designs to meet the product objectives.

Reduce Product Design Time and Cost

MotionView's physics-based simulation capabilities allow you to evaluate products early in the development cycle.

- Automate standard model assembly and save time on getting to the initial configuration.
- Build a model once, validate it and reuse it in different contexts with domain-specific solvers for multidisciplinary studies.
- Use the automation capabilities to reduce repetitive procedural tasks.

Improve Product Quality

Use MotionView to improve product quality by evaluating its performance in realistic scenarios. Easily perform what-if analyses and stochastic simulations to understand and mitigate the effects of manufacturing variations on product performance.

Ensure Corporate Quality Standards

Capture your company know-how in repeatable processes to ensure consistency.

- Customize the interface to enable consistent processes.

- Standardize and share subsystems and system models amongst the user community.

Comprehensive & Open Environment

An open architecture that supports a variety of methods for:

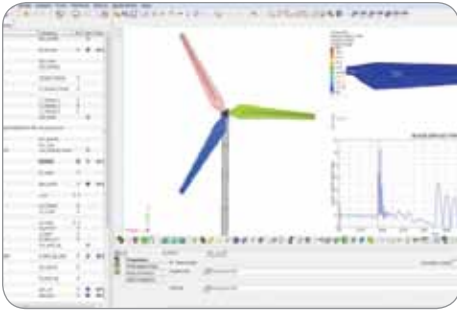
- Construction
- Data input
- Performance evaluation
- Design improvement
- Report generation

Capabilities

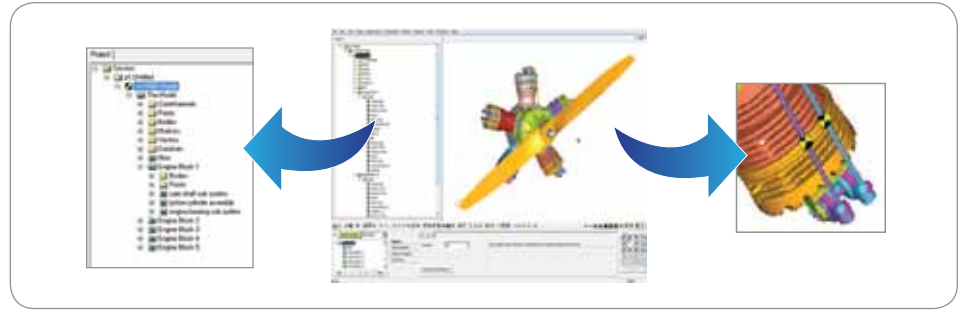
Powerful and Effective Modeling Environment

A typical mechanical system tends to have several subsystems. A modular approach to model building lets users have more control over the modeling. MotionView's powerful environment contains many core capabilities designed to simplify and streamline the creation of complex mechanical models that are required to solve the most challenging problems.

- A hierarchical modeling structure lets users build system level models as a combination of reusable sub-systems and components
- MotionView's modeling language supports symmetry and conditional logic, enabling multiple model topology configurations within a single model and tremendous control over modeling entities and properties
- Parametric model definitions provide easy analysis studies of model variations



Complete Multi-body System Environment



Parametric Modeling with Unlimited Hierarchy

- Automated modeling is available via a "wizard" linked to a comprehensive, and extensible, library of systems and analysis tasks. This facilitates assembling complex models in just a few "mouse clicks"

Easy Flexbody Generation and Usage

Flexible-body modeling within a mechanical system can be a complex and challenging task, since it typically requires familiarity with finite element modeling and knowledge of finite elements solvers. MotionView's flexbody modeling processes were developed to overcome these challenges by providing easy-to-use tools for flexbody creation, system integration and post-processing.

- Smooth and simplified processes for flexbody generation
- One-step conversion between rigid and flexible components
- Comprehensive array of utilities to minimize flexbody pre-processing errors

Modern Easy to Use GUI

MotionView's intuitive layout and logical work flow enhance its very user-friendly interface. This allows both experienced and novice engineers to get started quickly to build and analyze multibody systems rapidly.

- Efficient and intuitive workflows simplify and standardize mechanical systems modeling
- Modern user interface with context menus directly in the graphics area

- Advanced context sensitive model browser helps easily navigate through the model elements with less mouse travel and fewer "mouse clicks"

Automation and Customization

MotionView is completely customizable and automation ready giving users control over the both the "automation-ready", giving graphical user interface and the modeling processes. This allows MotionView to seamlessly fit within any simulation environment.

- Fully customizable user interface providing users with the flexibility to modify the existing environment, turn panels on and off, and build custom panels
- Build custom utilities that fit seamlessly into the interface to support unique requirements
- Powerful scripting enabling users to automate repetitive modeling tasks and streamline intricate processes
- Integration with HyperMath provides live debugging capabilities for automations

End to End Solution

MotionView delivers a complete solution for the entire mechanical systems simulation process through its powerful functionality, open architecture, direct interfaces to many CAD packages and CAE solvers, and direct integration with HyperWorks®.

- Modeling: Highly efficient and intuitive solution for the generation of mechanical system models

- Results Analysis: Analyze and correlate simulation results and test data with state of the art visualization and data plotting capabilities
- Flexbodies: Prepare flexible bodies for accurate MBD analysis using OptiStruct®
- Load Export Utility: Export component load channels, supporting several different FE & fatigue formats
- Optimization: Execute DOE, optimization and stochastic studies through HyperStudy® and OptiStruct®
- Solver Interfacing: Take advantage of MotionView's multiple solver support including MotionSolve®, OptiStruct®, ADAMS and Abaqus (experimental)



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