




Product Update: What's New in ADAMS 9




**Product Update:
What's New in
ADAMS 9**

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Support



AGENDA

- ADAMS 9.1 Update
 - ◆ Overview of key components
- Dynamic Designer Update
- Customer Support Improvements
- MDI Product Life Cycle Process
 - ◆ Customer input mechanism
- Product Concepts In Process
- Q & A



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ADAMS 9.1 Release

- Volume Shipment:
 - ◆ July, 1998 for UNIX platforms
 - ◆ August, 1998 for Windows/NT platform
- Key Components:
 - ◆ ADAMS/Controls
 - MATLAB; MATRIX_x; EASY5
 - ◆ Basic Part Contact
 - ◆ Update of ADAMS/Flex
 - ◆ Update of ADAMS/Car
 - Flex bodies
 - ◆ New release of ADAMS/Rail
 - ◆ Dynamic solver in CAT/ADAMS
- Documentation in HTML and PDF format



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ADAMS/Controls

Mechanical System Simulation

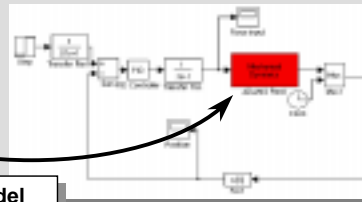
- Create ADAMS model
- Define control inputs and sensor outputs



- Export model
- Create info file

Control System Design

- Build system block diagram
- Include ADAMS block



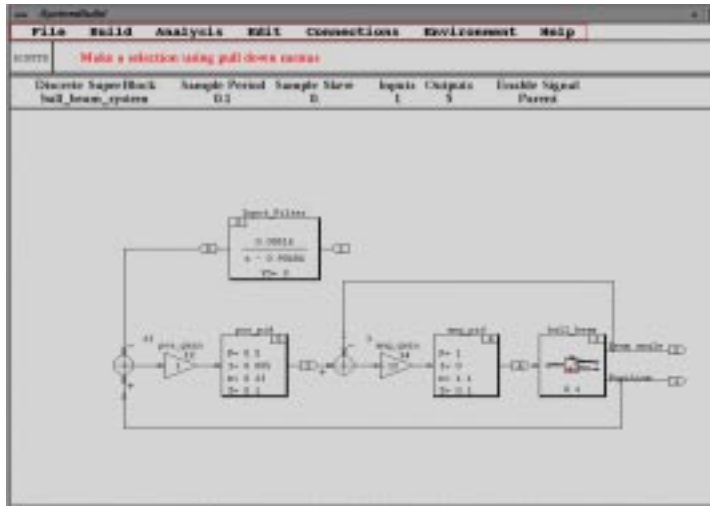
Gives a very accurate model of the system without having to develop equations by hand



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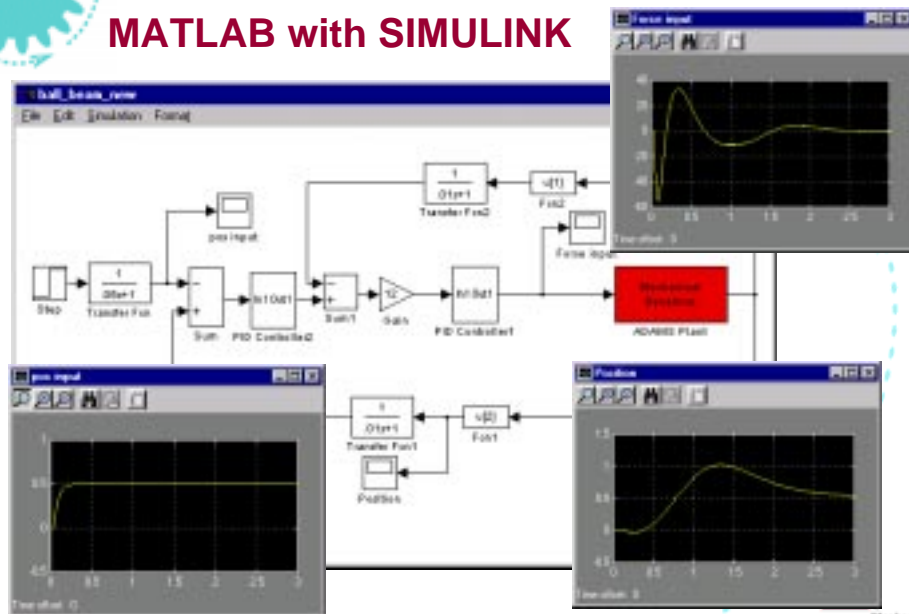
MATRIX_x with SystemBuild



Mechanical Dynamics

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MATLAB with SIMULINK



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Basic Part Contact

- Support of three geometries:
 - ◆ Sphere to Sphere
 - ◆ Sphere to Plane
 - ◆ Circle to Plane
- Accessed via collision icons in ADAMS/View
- Geared toward solution of common part contact requirements



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ADAMS/Flex

Move from component-level FEA to system-level motion simulation to improve the accuracy of your design



FE modes



ADAMS simulation makes it faster to build a prototype than FEA alone

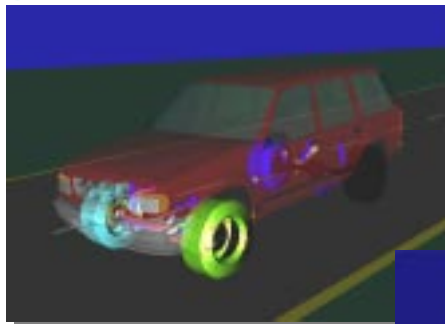


Stress distribution



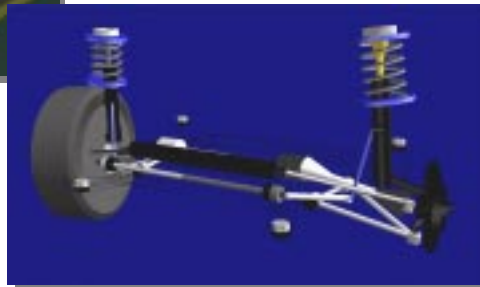
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Commercial ADAMS/Car Product Line



Vehicle Dynamics

Suspension Design

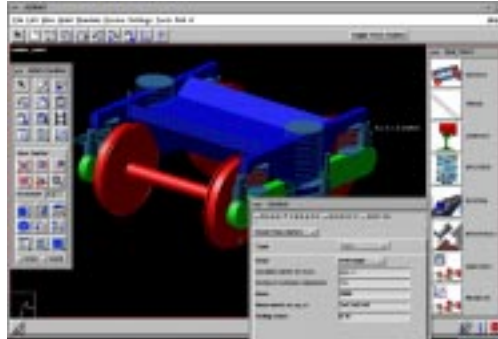


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ADAMS/Rail

- Improved ease-of-use
 - ◆ Calculation of Kalker parameters and contact table
 - ◆ Automatic generation of contact parameter plots
- Additional modeling elements
 - ◆ Airspring: Nishimura model
 - ◆ Suspension elements
 - ◆ Spring-damper in series
- Automatic calculation of preloads
- Stability maps per UIC standard
- Comfort indices



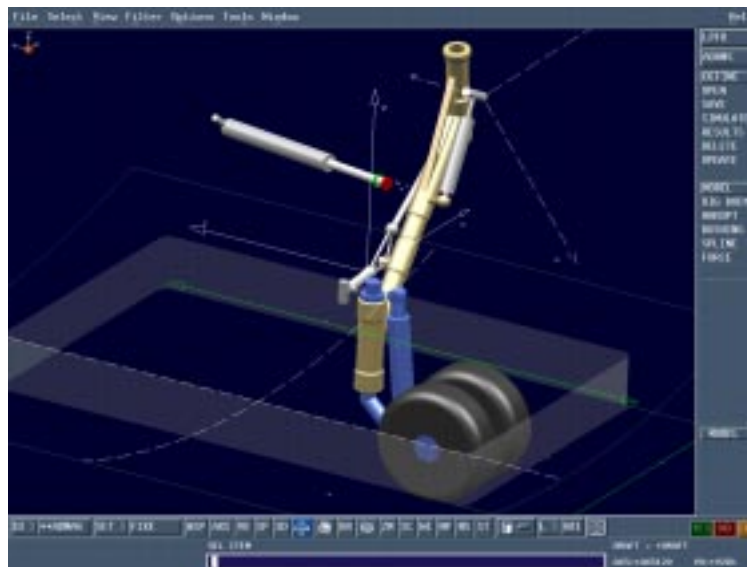
Mechanical
Dynamics

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CAT/ADAMS embedded within CATIA

Ready to use as a follow-on to CATIA Kinematics

Enhanced in ADAMS 9.1 with Dynamics



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ADAMS/View

- Motif and Windows interface
- Interactive Simulation
- Coordinated Plotting and Simulation via Measures
- Assemblies (customer elements)
- Solid modeling (Parasolid)
- Design Points and Improved parameterization
- Function Builder
- Table Editor
- Simulation Debugger
- Plotting interface



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ADAMS/Solver

- Generalized motions
- Joint friction with stiction
- Robust numerical integrators for dynamics
- Improved handling of systems with redundant constraints
- Improved PTCV constraint

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Product Plans

- Bentley Assembly Modeler
 - ◆ Beta Test: June 1998
- Dynamic Designer Motion, SolidWorks V.2.0
 - ◆ August 1998
- Dynamic Designer Motion, AutoDesk
 - ◆ September 1998



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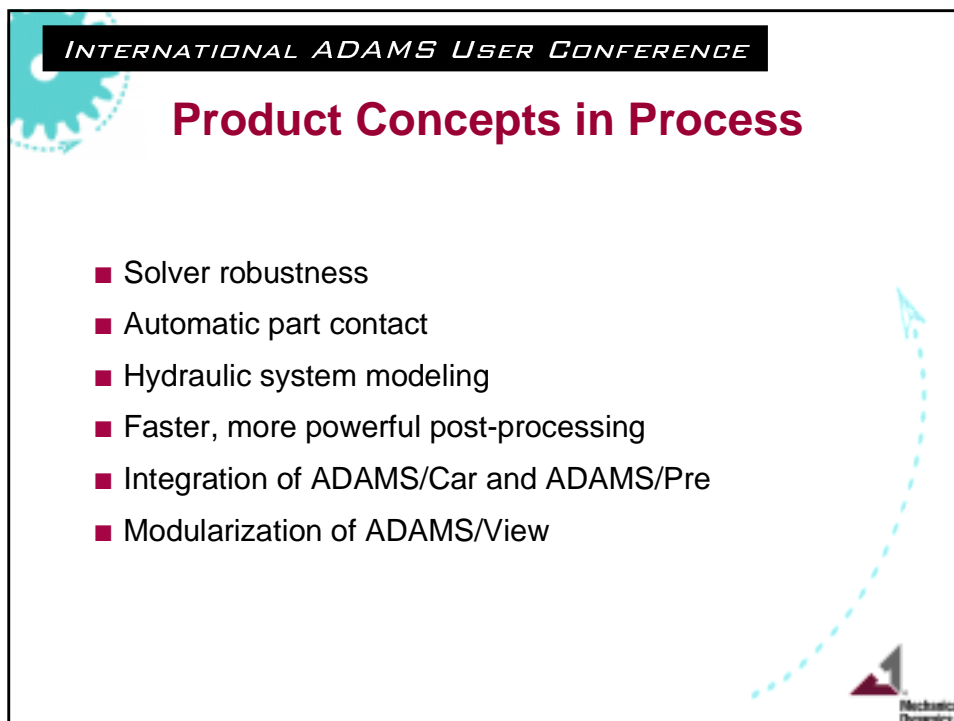
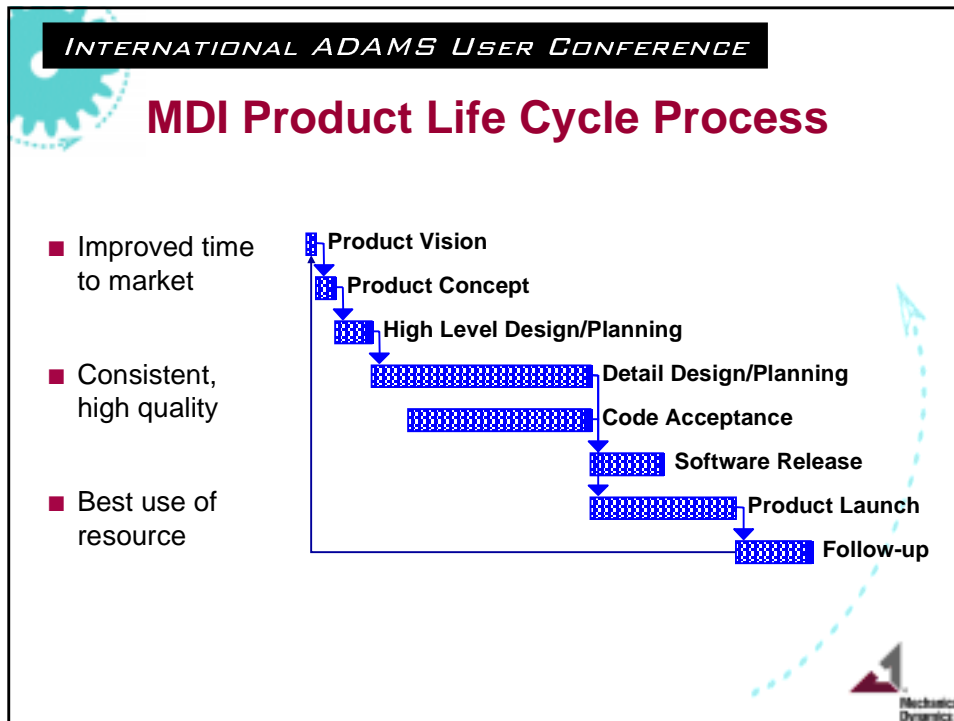
Customer Support and Feedback

- Hotline Support Features and Improvements:
 - ◆ Internet site: <http://www.adams.com>
 - Customer Services / Technical Support:
 - ADAMS Knowledge Base
 - ASK list
 - ◆ Hotline Phone Dispatch improvements
 - ◆ Web-based Patch Creation/Distribution
 - ◆ Improved Escalation process
- Product Feedback via the Internet:
 - ◆ <http://www.adams.com>
 - ◆ Use the Product Feedback page to submit your comments
 - ◆ Feedback desired on both existing products and new product concepts



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