

Academic Software Bundle

For motion and systems simulation

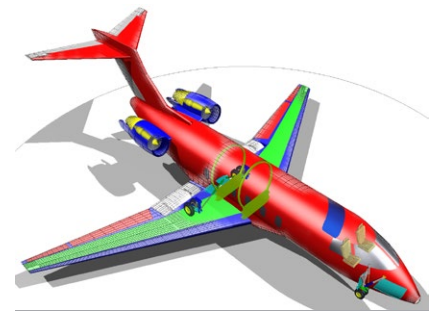
The Academic Software Bundle for Motion & System Simulation (or Academic Motion Bundle, for short) provides several related software products focused on kinematics, rigid & flexible multibody dynamics, and schematic (block-diagram) simulations. Representative systems to simulate with this bundle include rotating & translating linkages; gear sets; cams; cables, belts & pulleys; as well as various actuators as found in machinery, latches & closures, mechatronic devices, robots, ground vehicles, aircraft landing gear & flaps, etc.

Build: Create simple graphical representations of systems using block diagrams, primitive geometries, or sophisticated geometries imported from CAD.

Test: Perform single simulations manually or parameterize your virtual prototypes and perform automated design sensitivity & optimization studies. **Review:** Calculate displacements, velocities, & accelerations of parts & points in your system; motor forces & torques; hydraulic or pneumatic pressures; momentum; energy; frequencies; even dynamic stresses & fatigue hot spots. Visualize system behavior using animations and plots.

Targeted users and goals

- Professors striving to bring engineering principles to life and teach courses that are more dynamic, fun, and effective
- Researchers seeking innovative engineering solutions
- Students taking courses, doing research, or working on projects or competitions in search of the best possible engineering education... through motion & systems simulation!

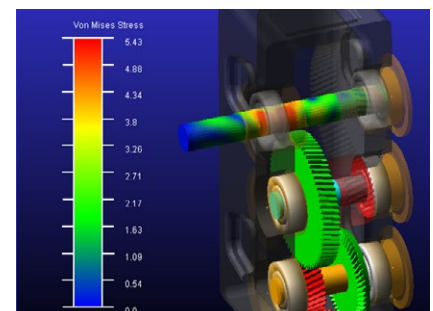


Benefits

- Affordable - schools can obtain numerous licenses on a reasonable budget
- Conveniently accessible - run this software in a computer lab at school or on your own computer
- Easily scalable to industrial-strength - start with small models and progressively increase complexity and realism without hitting walls based on model size (Crawl-Walk-Run); do the same scale of simulations done by commercial companies.
- Unrestricted simulation capability - our academic licenses provide the same capabilities as commercial licenses for the software products in this bundle
- Tailored licensing - “academic user packs” are available based on your intended usage scenario
- Complement engineering theory & textbooks for a richer education



Understand the motion behavior of mechanical systems



Visualize stresses due to motion-induced loads

Applications in engineering coursework, research, and student projects

- Dynamics
- Mechanism Analysis
- Vibrations
- Robotics
- Computer-aided Engineering
- Mechanics of Machinery
- Capstone Design
- Vehicle Engineering
- Mechatronics & Controls
- Advanced Dynamics
- Hydraulics & Pneumatics
- Wind Turbines
- Biomechanics
- Flexible-body Dynamics
- Formula SAE, Baja, Solar Car, Human Powered Vehicle, autonomous vehicles, etc.

Adams studio package		Easy 5
Adams Solver Shared Memory Parallel (SMP)	Adams Car Ride Plug-In	Easy 5
Adams Linear	Adams Driveline Package	Easy5 Basic Analysis Only Package
Adams Insight	Adams Machinery Plug-In	Easy5 Advanced Analysis Only Package
Adams Structures Bundle	Adams Geometry Translators	Easy5 Gas Dynamics Package
Adams Controls Bundle	Adams Co-Simulation Interface	Easy5 Fluid Power Package
Adams ViewFlex	Adams MaxFlex	
Adams Car Studio	Adams Solver Fixed Step	
Adams Chassis Studio	Adams Solver Real-Time OS	

Product families and modules

This bundle contains software targeted at finite-element analysis (FEA) to assess the structural, thermal, crash- or impact-related characteristics of mechanical components & systems. The lists below identify which MSC products are currently included with this bundle and which optional 3rd-party products are currently available for an additional fee.

*To learn more about the detailed analysis capabilities of any of these products, see the associated datasheets.

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Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

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