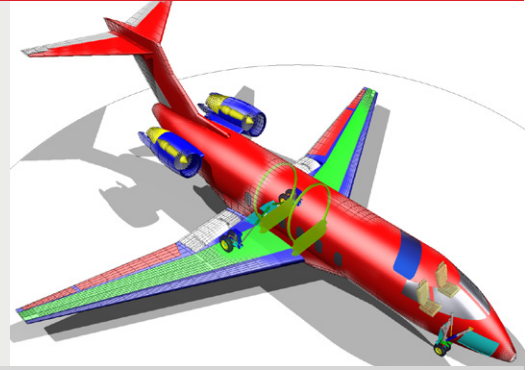


# Academic Software Bundle

## For Motion & 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 & plots.

### Targeted Users & Goals

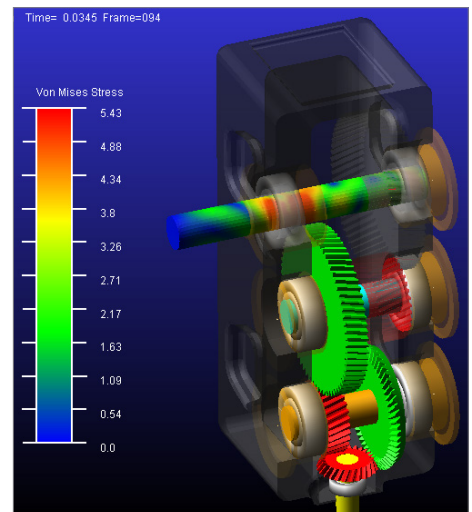
- Professors striving to bring engineering principles to life and teach courses that are more dynamic, fun, and effective
- Researchers seeking innovative engineering solutions
- Students taking courses, doing research, or working on projects or competitions in search of the best possible engineering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

**Product Families & Modules\***

This bundle contains software that allows engineers to perform functional virtual prototyping, multibody dynamics analysis, and systems simulations to assess the functional performance of mechanical components, mechanisms, assemblies & systems. The list below identifies which MSC products are currently included with this bundle.

Adams Studio Package		Easy 5
<ul style="list-style-type: none"> <li>• Adams Solver Shared Memory Parallel (SMP)</li> <li>• Adams Linear</li> <li>• Adams Insight</li> <li>• Adams Structures Bundle</li> <li>• Adams Controls Bundle</li> <li>• Adams ViewFlex</li> <li>• Adams Car Studio</li> <li>• Adams Chassis Studio</li> </ul>	<ul style="list-style-type: none"> <li>• Adams Car Ride Plug-In</li> <li>• Adams Driveline Package</li> <li>• Adams Machinery Plug-In</li> <li>• Adams Geometry Translators</li> <li>• Adams Co-Simulation Interface</li> <li>• Adams MaxFlex</li> <li>• Adams Solver Fixed Step</li> <li>• Adams Solver Real-Time OS</li> </ul>	<ul style="list-style-type: none"> <li>• Easy5 Basic Analysis Only Package</li> <li>• Easy5 Advanced Analysis Only Package</li> <li>• Easy5 Gas Dynamics Package</li> <li>• Easy5 Fluid Power Package</li> </ul>

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