About MSC Software

MSC Software is one of the ten original software companies and a global leader in helping product manufacturers to advance their engineering methods with simulation software and services. As a trusted partner, MSC Software helps companies improve quality, save time and reduce costs associated with design and test of manufactured products. Academic institutions, researchers, and students employ MSC technology to expand individual knowledge as well as expand the horizon of simulation.

Solutions

MSC Software makes products that enable engineers to validate and optimize their designs using virtual prototypes. Customers in almost every part of manufacturing use our software to complement, and in some cases even replace the physical prototype “build and test” process that has traditionally been used in product design.
MSC Products

Integrated Solutions

**Adams** is the world's most widely used multibody dynamics simulation software. It lets you build and test functional virtual prototypes, realistically simulating on your computer, both visually and mathematically, the full-motion behavior of your complex mechanical system designs.

**Actran** is a premier acoustics software solution for simulating acoustics, vibro-acoustics, and aero-acoustics quickly, easily, and accurately. Under a common technological umbrella provided by the finite and infinite element method, Actran has a rich library of elements, material properties, boundary conditions, solution schemes and solvers.

**Digimat** uses micromechanical approaches to compute the mechanical, thermal and electrical properties of multi-phase materials like composites, and bridges the gap between manufacturing process, material design and FEA. With Digimat as part of your CAE suite, product development becomes more predictive, enabling you to optimize composite structure design with confidence.

**Easy5** provides accurate, reliable multi-domain modeling and simulation of dynamic physical systems. Using Easy5, some of the most respected companies in the world are evaluating system level performance with CAE to reduce physical prototypes, cut cost, and accelerate their product development process.

**Marc** is a powerful, general-purpose, implicit nonlinear finite element analysis (FEA) software program that accurately simulates static, dynamic and coupled physics problems for a wide range of design and manufacturing applications.

**SimXpert** is a fully integrated simulation user environment for product simulation. It brings together end-to-end multidiscipline simulation capabilities and best practice methodology capture and deployment technologies in a single unified environment.

**Simufact** is a leading FEA based simulation solution for metal forming, welding and heat treatment, helping manufacturing engineers optimize the manufacturing processes, while improving product quality.

Solver Solutions

**MSC Nastran** is a multidisciplinary FEA solver relied upon by manufacturers around the global to bring new products to market faster by analyzing designs ranging from simple components to complex structures and assemblies.

**Dytran** is an explicit finite element analysis (FEA) software program for simulating and analyzing complex, short-duration events involving severe deformation of structural materials and the interaction of fluids and structures.

**MSC Fatigue** is a Finite Element (FE) based durability and damage tolerance solver that enables users with minimal knowledge of fatigue to perform comprehensive durability analysis. High-cycle fatigue, low-cycle fatigue and crack growth problems can all be addressed.

**Sinda** is a world class advanced thermal solution with a proven track record in the aerospace and high tech markets. Sinda technology is well suited to solve large thermal problems that may include various material and boundary condition nonlinearities.

Modeling Solutions

**Patran** is a comprehensive pre- and post-processing environment for FEA analysis and helps engineers to virtually conceptualize, develop and test product designs. Used by the world’s leading manufacturing companies as their standard tool for the creation and analysis of simulation models, Patran links design, analysis, and results evaluation in a single environment.

Mid-Sized Business Solutions

**MSC Nastran Desktop** makes MSC Nastran, the leading structural FEA solution, accessible on the desktop for engineers with diverse high-end simulation technology needs and increasing cost pressure challenges.

**SimDesigner** makes linear and nonlinear FEA, thermal analysis, and motion analysis capabilities from MSC Nastran, Marc, and Adams available within the CATIA V5 CAD environment.

Engineering Lifecycle Management

**SimManager** increases CAE throughput for companies who use simulation within different engineering departments and across the enterprise. SimManager manages and automates all aspects of the simulation process, providing an open environment that supports 3rd party analysis tools and customized simulation methods.

**MaterialCenter** is a Materials Lifecycle Management System designed to link material specialists to mechanical simulation. A process and data management system, MaterialCenter automatically captures the data from integrated processes ensuring full traceability across the enterprise and throughout the product lifecycle and addresses the unique requirements of exponential growth of complex materials in driving product innovation (plastics, composites).