

Virtual Prototyping & Engineering Simulation Provider to Aerospace & Defense Industries

MSC Software: A Partner for Fast-Growing Aerospace & Defense Markets

Strengthening the Aerospace Industry through Engineering, Innovation, & Collaboration

MSC Software (MSC) is the leading virtual product development solution partner to the Aerospace & Defense Industry.

Through delivery of enhanced computer-aided virtual prototyping and test methods, simulation software, services, training, and support; product manufacturers and research institutes are developing the most innovative, high performing, and safe products in the world.

Together We Strengthen the Economy and Improve Local Competitiveness

Delivering on time and in budget are the greatest challenges the Aerospace and Defense industry faces when developing products of increasing sophistication and complexity. Because development requires a broad and intricate conglomeration of private and government owned entities working together, including an extensive supplier network, efficiency is imperative.

MSC Software helps Aerospace & defense companies stay innovative and competitive by partnering with and providing specialized simulation technology and expertise aimed at reducing costs and saving valuable time and effort throughout the life of critical projects and programs.



How MSC Helps Local Economy Meet Growth Objectives for the Aerospace Industry

Partnering with MSC Software helps strengthen the Aerospace Industry in the following ways:

- Improves industry competitiveness through use of proven simulation technology
- Increases engineering knowledge of virtual prototyping methods
- Improves engineering know-how through online eLearning courses and custom training
- Enables faster project completion through quick deployment of engineering software



Software Deployment Offerings:

• Simulation Components for R&D

- Domain technology transfer for R&D
 - Fatigue & Fracture Mechanics Simulation: Marc
 - Aero elasticity: MSC Nastran and toolkits
 - Doublet Lattice method
 - Hybrid Static Aero elasticity coupling
 - Acoustics: Actran
 - Rotor Dynamics: Nastran
 - Materials idealization: Digimat
 - Multi Body Dynamics Simulation: Adams
- Advanced Simulation Training and eLearning
- Comprehensive Support Offerings

• Simulation Lifecycle Platform for Engineering Data Management

- Hosting of Simulation Data associated with Multi Domain Simulation Disciplines:
 - Structural
 - Thermal
 - Acoustics
 - Multi Body & Kinematics
 - Systems & Controls
- Engineering Lifecycle Management platform Enrichment
 - Materials from Test to Engineering Domains
 - Materials Virtualization

• Simulation Lifecycle Platform for Aircraft

- Configuration Simulation Data Management (SDM) backbone into Simulation Data & Process Management (SDPM)
 - Structural Sizing
 - Thermal Sizing
 - Landing Gear Simulation and Test Correlation
 - Flaps Simulation and Test Correlation
 - Engine Noise & transmittance to Cabin
- SDPM extension to A/C Architect Trade Off
 - Integration of Requirements and Functional Model Management
 - Trade off process interface deployment
- Kick off MoSSEC platform from SDPM
 - Modeling Simulation information in collaborative Systems Engineering Context (sponsored by Airbus & Boeing along their ASD strategic standardization group engagement)

How to Engage with MSC Software:

We provide a phased, easy, and quick approach to getting started on any project. It begins with a needs assessment and then transitions to training, software deployment, services and consulting, and support.

Depending on the goals of the project or program, we will work with you to customize an approach for working together. The phases below can be customized in any order to meet the unique needs of the client.

Project Phases

• Needs/Process Assessment

- Review client internal development process from concept to production
- Initial assessment of virtual prototyping and test capabilities and needs
- Return on Investment (ROI) Model development

• Training / Theory & Practical Applications

- eLearning / virtual training
- Custom On-site courses

• Implementation & Deployment

- Computer Aided Engineering (CAE) Software for Research & Development
- Simulation Lifecycle for Engineering Data Management
- Simulation Lifecycle Platform for Aircraft Development and Virtual Test
- Technology Transfer

• Services

- Simulation projects
- Methods development
- Automation
- Validation and Verification
- Materials Testing

• Support (type of support)

- Mentoring
- On-site support
- Phone support
- Online support

For more information, visit www.mscsoftware.com, or call your local MSC representative.

