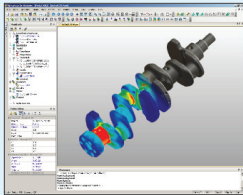


Engineering FEA Software Products

NEi Nastran Finite Element Analysis (FEA) stress simulation software improves product designs and reduces product development costs and time-to-market. It simulates real world structural, heat transfer, fluid flow, and aeroelastic behavior of both simple and complex 3D product designs, including composites. Model generation and analysis time is reduced by combining powerful and easy-to-use finite element modelers such as Femap with extremely fast analysis solvers that have a proven record of accurate results.

Nastran Solver



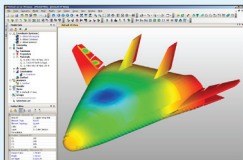
NEi Nastran

NEi Nastran is a powerful, professional level, Finite Element Analysis tool used in all industries to simulate and analyze linear and nonlinear stress, dynamics, and heat transfer characteristics of structures, mechanical components, and fluids. Integrated tightly with Femap it offer unparalleled ease-of-use and productivity features such as:

- Automated Impact Analysis (AIA™)
- Automated Surface Contact Generation (ASCG™)
- Automated Edge Contact Generation (AECG™)
- Automated Inertial Relief (AIR™)
- Progressive Ply Failure Analysis (PPFA™)
- NEi Editor

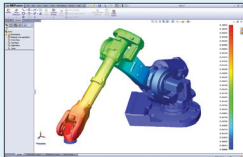
These features automate model setup and results analysis when performing complex simulations. Support is provided for most materials such as metals, rubber, composites, acrylics, and plastics. Emphasis is placed on accurate results regardless of FEA mesh density and element selection. High performance 32-bit and 64-bit technology and large model capability allow the analysis of extremely complex and detailed structures.

Pre- and Post-Processors



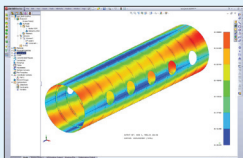
Femap®

Femap by Siemens PLM Software is a professional level modeler and results processor used for preparing models and viewing the results of engineering analyses for structural, heat transfer, and fluid flow problems. Femap is tightly integrated with NEi Nastran.



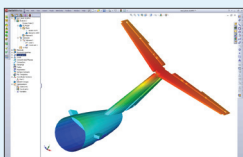
NEi Fusion™

NEi Fusion is the perfect package for getting started in Finite Element Analysis because it includes the most widely used and needed analysis capabilities — linear statics, steady state heat transfer, normal modes, buckling, and prestress, plus additional capabilities for handling composite material analysis, assemblies with contact, and design optimization analysis.



NEi Works™ Basic

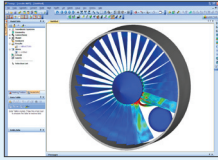
NEi Works Basic provides NEi Nastran Finite Element Analysis tools to SolidWorks® users. NEi Works is completely embedded within SolidWorks to maintain the look, feel, and ease-of-use of the CAD environment, while providing analyst level capabilities with NEi Nastran performance and accuracy.



NEi Works™ Expert

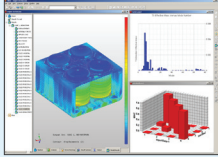
NEi Works Expert has all the capabilities in NEi Works Basic plus advanced capabilities such as: nonlinear statics, advanced dynamics, impact analysis, and more. NEi Works Expert is perfect for taking your simulations to the next level with its advanced dynamics and nonlinear capabilities such as Automated Impact Analysis (AIA™), ideal for performing virtual drop tests.

Additional Products



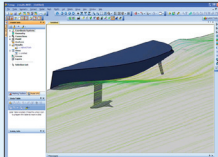
NEi Explicit™

The NEi Explicit add-on is a parallel explicit solver that is completely integrated within the NEi Nastran environment. NEi Explicit solves complex large strain material nonlinear problems such as large deformation plasticity, high speed impact and penetration, material rupture, and explosions. Model setup for NEi Explicit is virtually the same as for NEi Nastran and models can be interchanged between solvers.



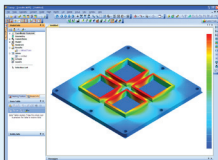
NEi Editor

The NEi Nastran Editor is a unique, fully integrated and customizable model editor which controls program operation and provides results summary data through an easy to use graphical user interface. Special real time controls allow viewing results and changing solution parameters while running analysis. Simulations can be analyzed in real time, increasing productivity and reducing model development time.



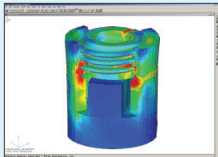
TMG-Flow

The TMG-Flow add-on for Femap provides advanced fluid dynamics analysis capabilities including laminar or turbulent incompressible and compressible flow, natural convection and general boundary conditions for fluid flow, and heat transfer in ducts and enclosures.



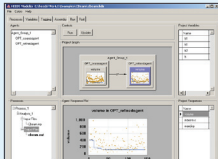
TMG-Thermal

The TMG-Thermal add-on provides advanced heat transfer capabilities in addition to those found in NEi Nastran including forced convection, duct flow, and phase change. An extensive set of modeling tools is provided for advanced radiation and spacecraft modeling, including solar and orbital heating, orbit modeling and display, specular reflections with ray tracing, and articulating structures.



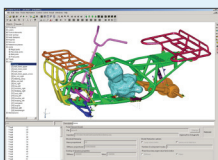
NEi Advanced Fatigue

NEi Advanced Fatigue for Femap builds upon the fatigue capabilities of NEi Nastran. The add-on includes nominal and elastic stress methods along with local strain approach; nonlinear material using Neuber's rule; Haigh diagram, Woehler and hysteresis curve generation; failure probability and multiple material hypotheses for creating cyclic material properties, as well as a fatigue properties material database.



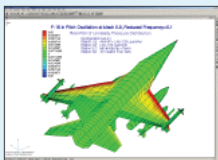
NEi Advanced Optimization

The NEi Advanced Optimization add-on provides design optimization capabilities beyond those found in NEi Editor and NEi Fusion. A powerful and intuitive graphical user interface along with state-of-the-art gradient-based and response surface optimization algorithms allow the software to improve any engineering system (structural, thermal, fluid, acoustic, electrical).



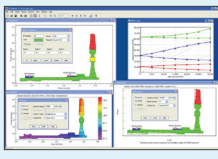
NEi Motion

NEi Motion by Fedem Technology AS, is a comprehensive modern CAE tool for virtual testing and verification of mechanical systems. The integrated dynamics and structural solving in NEi Motion is the most efficient way to evaluate your mechanism's function, strength and life. The software is founded on the integration of finite element technology and nonlinear dynamics, utilizing super-element methods.



NEi Aeroelasticity

The NEi Aeroelasticity add-on is a powerful engineering tool that integrates all essential disciplines required for advanced aeroelastic design and analysis. It has extensive capabilities in the areas of aeroelasticity, aeroservoelasticity, unsteady aerodynamics and structural dynamics.



NEi Rotor Dynamics

NEi Rotor Dynamics by DynaTech is a comprehensive finite element computer code for the mechanical design and analysis of rotor-bearing systems. It is a unique combination of statics, dynamics, and heat transfer specifically targeted for rotating machinery.