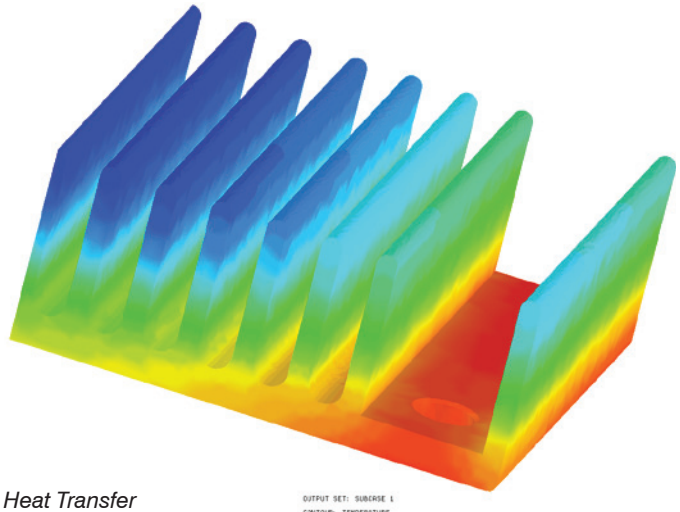
NEi Fusion™ 2.1 New Features

NEi Fusion™
3D CAD Modeler + Nastran FEA

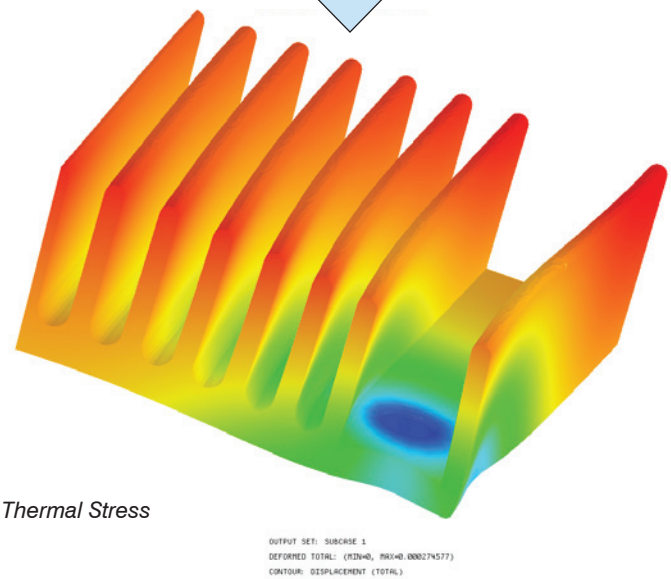
2.1

1. Thermal Stress

- Nodal temperatures can be found in a thermal analysis and used in a structural analysis to determine stress and deflection



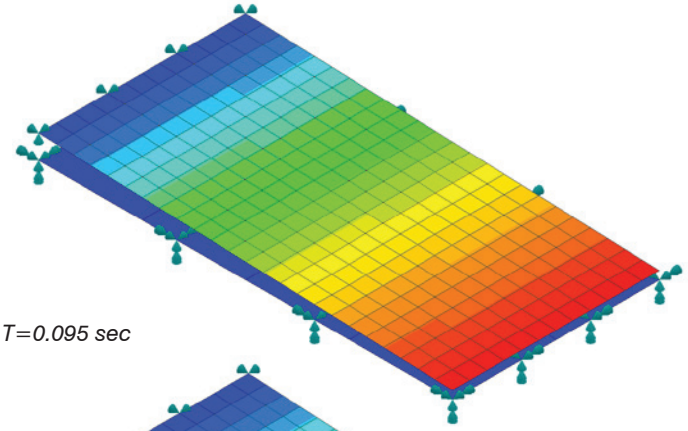
Heat Transfer



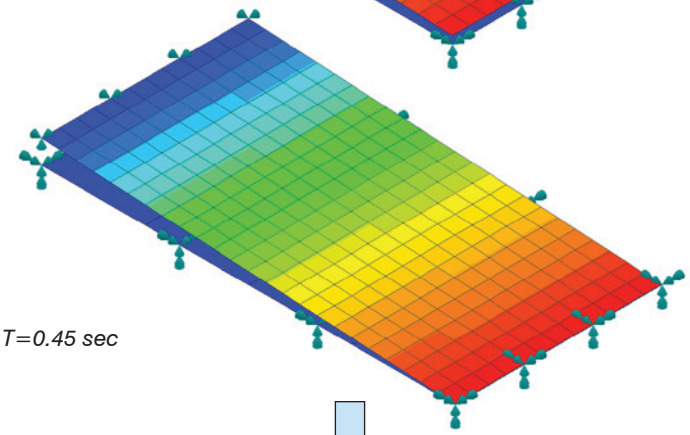
Thermal Stress

2. Nonlinear Transient Response

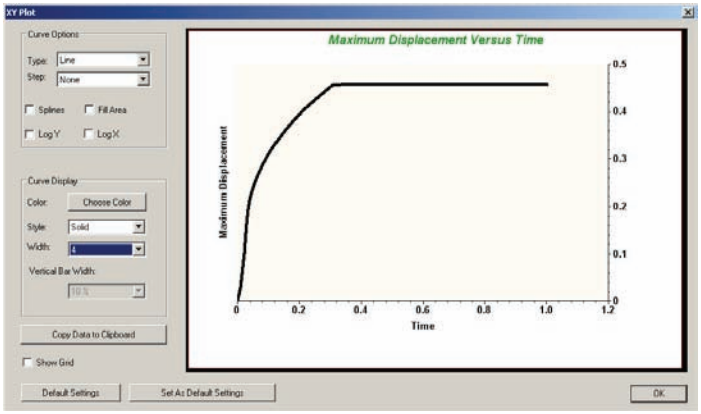
- Nonlinearities (contact, material, large displacement) can all be captured in the time domain
- Enhanced user control of nonlinear parameters



T=0.095 sec



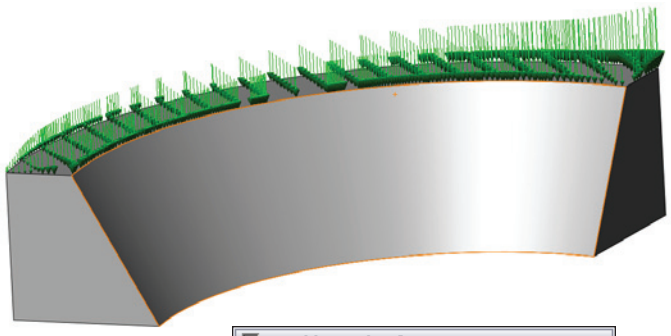
T=0.45 sec

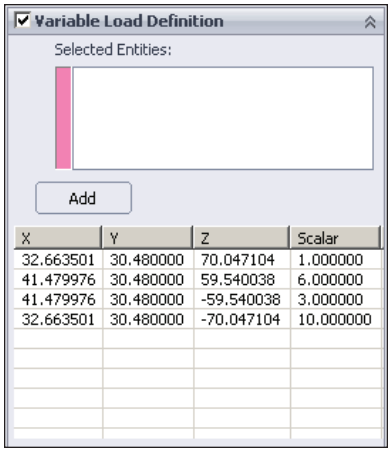


NEi Fusion™ 2.1 New Features

3. Variable Loading

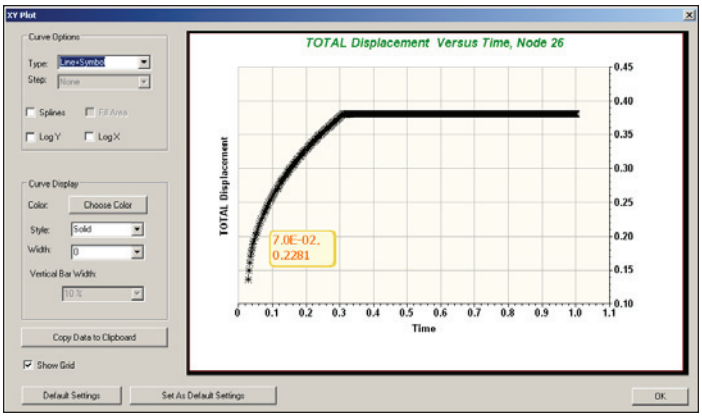
- Loads can now be varied using a surface definition detailing how the surface is scaled in space





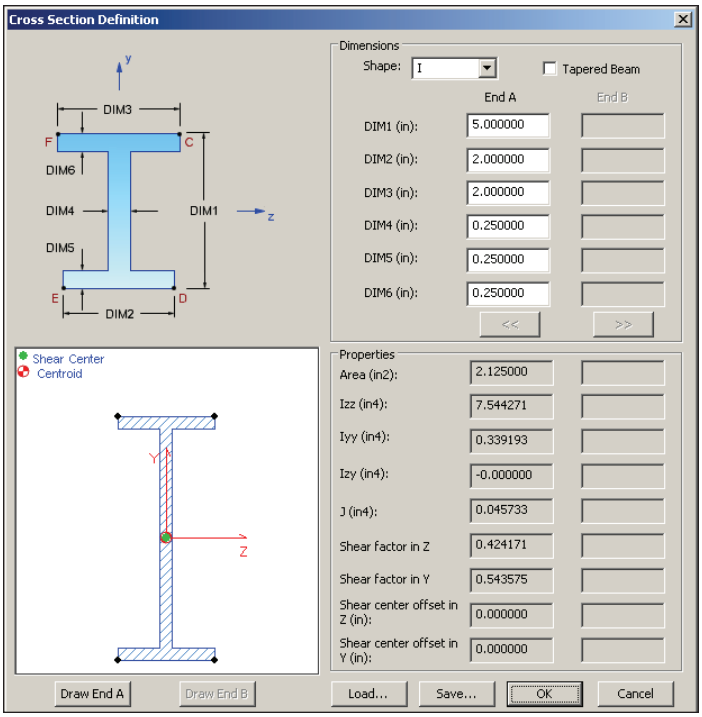
4. XY Plot Enhancements

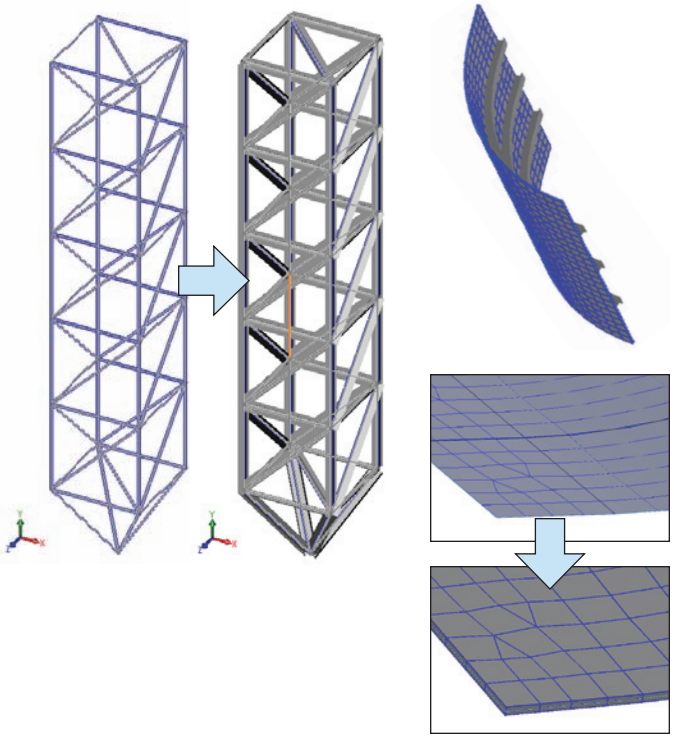
- Logarithmic axis options (x and y)
- Hover over data point display



5. Beam / Bar Enhancements

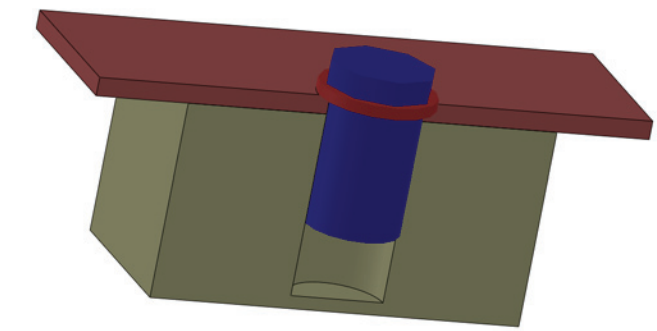
- Beam element cross-section visualization
- Interactive cross-section definition
- Combined shell and beam meshing
- Cross-section display for shell elements

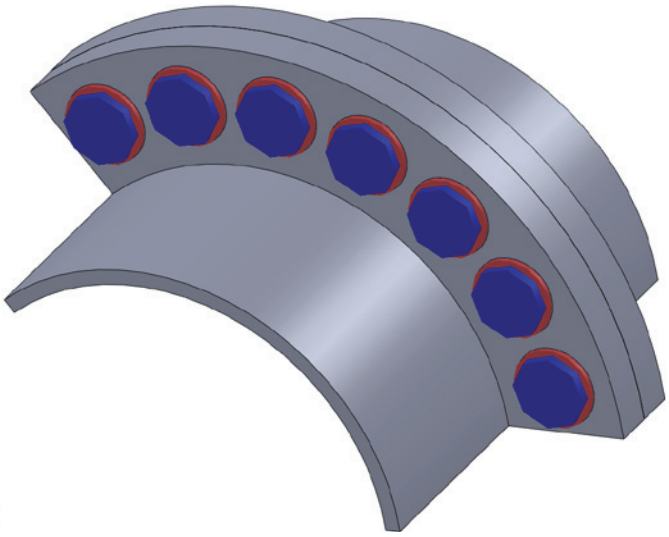


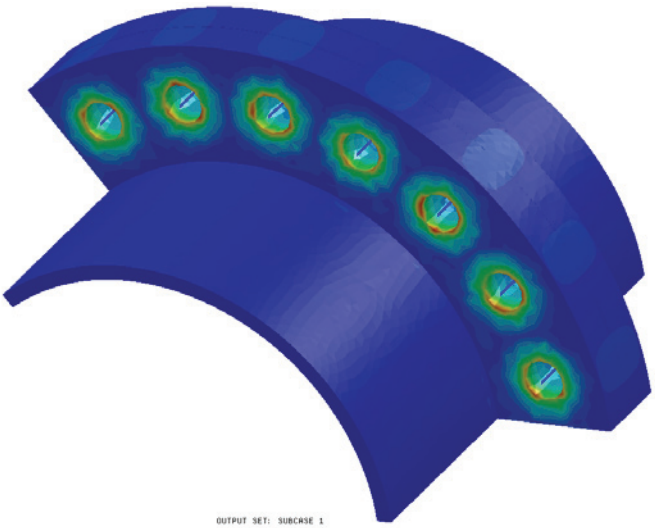


6. Automated Bolted Joints

- Bolts and cap screw joints can be automatically created by selecting appropriate geometry
- Washers, custom materials, and preload can all be added

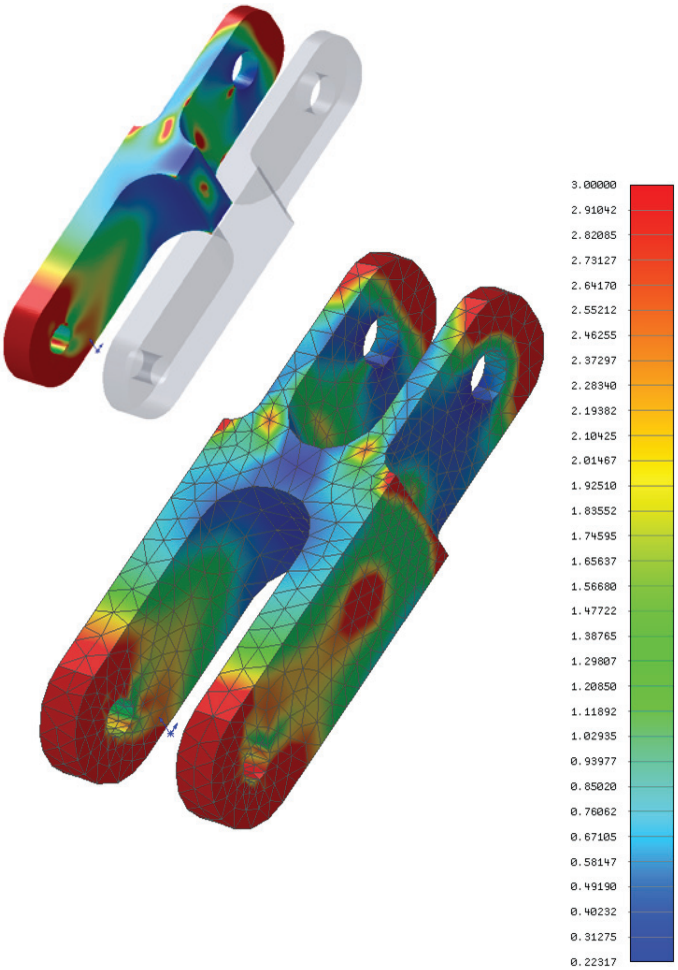






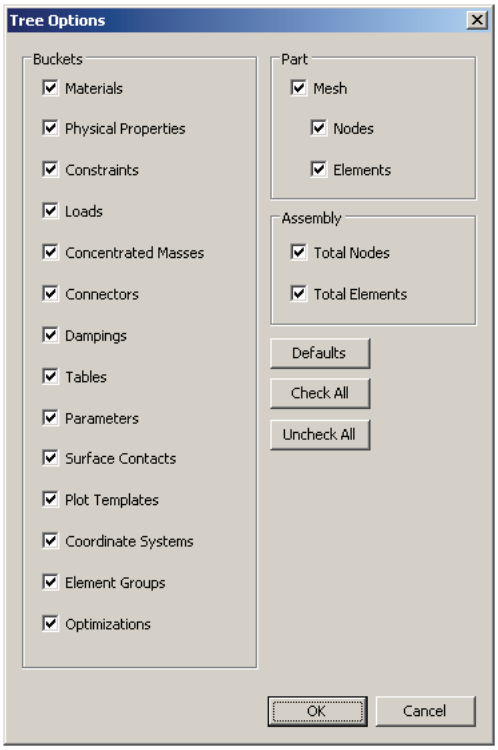
7. Failure Theories

- Factor of safety contour plots based upon **Von Mises** and **Maximum Principal** stress theories can be created



8. Tree Simplification Enhancement

- Items can be removed from the analysis tree that may not be used, or to simplify the tree view for maneuverability



9. Multi-Surface Contact Surface Selection

- Multiple surfaces can now be selected for easy surface contact definition across multiple surfaces

NEi Software
5555 Garden Grove Blvd., Ste 300
Westminster, CA 92683-1886
United States

Phone: +1 (714) 899-1220
Fax: +1 (714) 899-1369
E-mail: info@neisoftware.com
Website: www.NEiSoftware.com

NEi Software®

BRNEWFUS20100203