EnDuraSim's Femap with NX Nastran Course

Also see our Femap Tech Tips, Preferences and free Femap APIs.

24 years of industrial FEA project & training experience guarantee this course saves weeks or months of self-learning time. This is the most cost-effective way to become productive in FEA with Femap & Nastran.

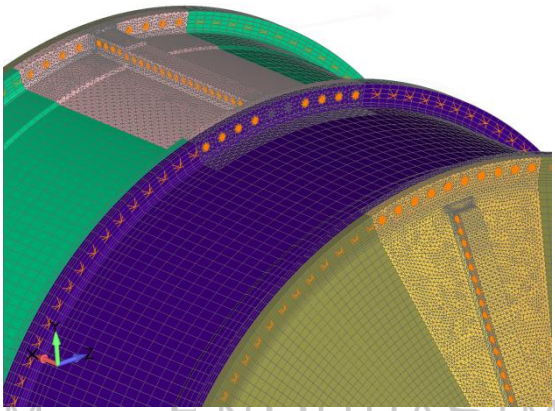
Prospective attendees:

Femap users, at any level, who need to accelerate their Femap and NX Nastran productivity.

Femap users who need to upgrade or refresh their skills to current best-practice for modelling, analysis and results interpretation.

Engineering managers who wish to understand the most effective ways to review and assess Femap/FEA models.

Rotating stress-range fatigue model with pre-loaded bolts, contact and friction.



FEA users who want expert insights into model and analysis diagnostics, with plain English explanation of FEA theory - and its relevance to producing useful FEA models, efficiently.

Key value:

- This course is the shortest path to Femap and NX Nastran productivity (only equalled by our on-the-project Analyst Mentoring).
- The return on investment for the course is clear - attendees will learn the best ways to perform effective FEA in a small fraction of time compared to self-learning from 5000 pages of docs, googling for advice, or ad-hoc support.
- The course is a practical combination of hands-on workshops and theoretical content - focused purely on the tools and techniques used for completing production-standard FEA in Femap.
- The course mixes formal structured content, hands-on workshop problems - and a half-day of user requests to cover any areas of particular interest.
- There is no other resource in Asia Pacific which can match EnDuraSim's industrial Femap / Nastran project and training experience.
- The selection of hands-on material is chosen to illustrate practical FEA generally and *Femap with NX Nastran* specifically.
- Attendees completing the course achieve a thorough grounding in how to perform quality FEA with Femap, and acquire substantial best-practice techniques and wisdom.
- The course draws on decades of industry experience, to help users and managers understand key principles of successful FEA in a real engineering environment.
- The course helps users minimise the likelihood of costly FEA errors.

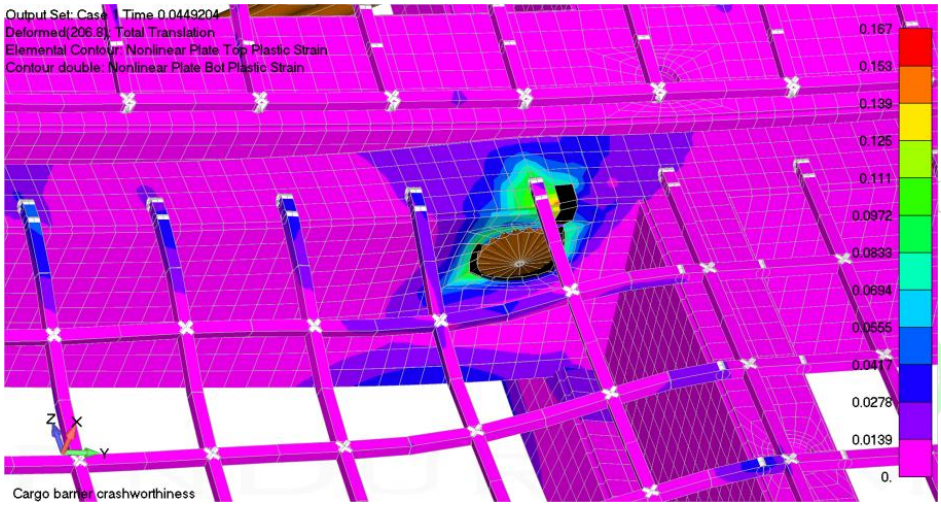
Key content:

The course uses examples derived from real projects to illustrate core concepts, and includes the following:

- Commonly used elements/properties/materials and their practical uses.
- Translating FEA mathematics into plain language.
- Modelling assumptions such as linear vs non-linear.
- Effective use of CAD geometry to create quality FEA geometry / mesh.
- Midsurfacing of "thin solids", geometry construction and editing.
- Model units; consistent units.
- Constraints - their numerous uses and how to get them right.
- Effective meshing, connectivity and mesh checking.
- Common loading types in Femap.
- Model checking prior to analysis.
- Efficient analysis techniques (eg multiple simultaneous cases, symmetry).
- Results verification, result types, "precision", "accuracy" and results algebra.
- Diagnosing / resolving common modelling and analysis errors.
- Output formats, reporting and using results from / in other sources.
- Contact modelling and assemblies.
- Results as loads.
- Quick reference tips for construction; editing; re-meshing; filtering; reporting; viewing; grouping; selecting.
- Introduction to buckling, natural frequency, inertia relief and non-linear.
- Introduction to macros and API automation.
- Introduction to the Nastran format.
- Hands-on workshop problems illustrating all of the above.
- Attendee requests (minimum = half-day).

Every course benefits from a degree of tailoring based on the specific interests of the attendees, with no specific limitations other than time available. EnDuraSim also runs separate advanced training courses on specific analysis disciplines such as Non-Linear, Dynamics and Thermal Analysis.

The course can be configured in 3 or 4 day format, depending on depth of interest in the three "Introduction" topics and preference for additional attendee requests.



About the course leader:

The course is conducted by Vernon McKenzie, who has 25 years industry experience in the application of FEA to real engineering problems.
Vernon has conducted dozens of specialist FEA courses over decades, to engineers in many of Australia's most significant engineering organisations. He draws on experience with numerous industrial FEA projects where the physics or model complexity is at the challenging end of the mechanical/structural FEA spectrum.

Feedback from previous courses:

"Excellent depth & commitment to providing all answers to our questions." (JMD Eng)

"I greatly appreciated the flexibility of the course - ie. could look at our own examples and have any questions answered." (Aurizon / QR)

"Excellent course - the most stimulating and valuable course I have attended." (RPC)

"Very useful. A lot learned for the amount of time spent on the course." (Bluescope)

"It was very informative & lecturer was very competent to provide the knowledge we need." (Weir Minerals)

"Because of the small group, we were able to address everything I was interested in quite specifically." (BMT - WBM)

"Excellent presentation." (Qld Rail)

Contact:

Contact EnDuraSim for further details including course timing, locations and cost, via email info@endurasim.com or phone 1800 367 332 in Australia, or +61 2 9484 7837.