

# NEiNastran *for Windows*

## NEiThermal Advanced (Advanced Thermal and Fluid Flow Analysis)

### Overview

NEiThermal Advanced (TMG) by Maya adds many advanced thermal and fluid flow modeling capabilities to the NEiThermal Basic package, such as duct flow modeling, including coupled convection and fluid flow analysis. The software also provides an extensive set of tools for advanced radiation and spacecraft modeling, including solar and orbital heating, orbit modeling and display, specular reflections with ray tracing, and articulating structures. These tools are complemented by more advanced solver features such as custom user subroutines, model simplification, sub-structuring, and interfaces to industry thermal codes.

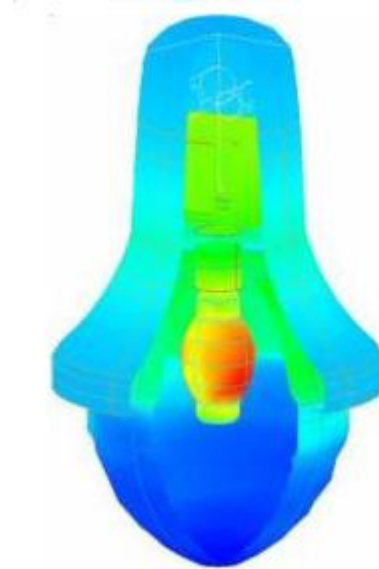
### Solution Types:

- Transient
- Steady-State
- Linear
- Nonlinear

### Capabilities:

#### Solution Features:

- Duct fluid flow network modeling with coupled forced and free convection simulation for multiple fluids and modeling both incompressible and compressible flows
- Solar and orbital (spacecraft), diurnal and radiative heating including orbit modeling and interactive orbit display
- Specular and hemicube radiation modeling with ray tracing and modeling of transmissive surfaces
- Articulating structures for radiation modeling including translating and rotating joints and spinning spacecraft
- Joule heating simulating electric resistance circuits
- Temperature mapping across meshes



- Interfaces to industry thermal codes including Sinda, Esatan, Trasys, and Nevada
- Advanced solver features including model simplification, substructuring, and user-written subroutines, batch solutions and editable input files

#### Unparalleled support:

- Leader in outstanding customer support
- Onsite and offsite training courses taught by experienced professional engineers
- Phone and email support staffed by a team of FEA specialists
- Optional consulting services available

**Noran Engineering, Inc** is aggressively focused on commitment to the customer. Detailed documentation, customized on-site training, and comprehensive technical support ensures that you will see immediate return on your investment.

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