

# kelvin•celsius•elasto\*

Complete solutions...made simple

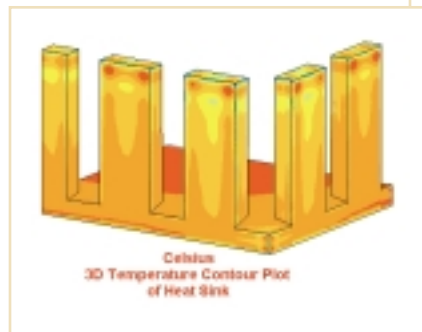
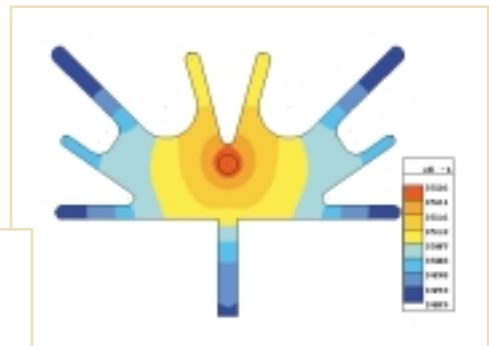
Explore the **full possibilities** of time saving, cost-effective product design optimization with Integrated Engineering Software's thermal and structural analysis tools. KELVIN (2D/RS) and CELSIUS (3D) are stand-alone thermal packages and ELASTO (2D/RS) is a fully functional structural package, all using the same innovative Boundary Element Method as Integrated's electromagnetic tools.

**Coupled Analysis** – The complete electromagnetic/mechanical solution of a device is obtained by coupling the tools, using the electromagnetic power loss or force output as input for the thermal and structural analysis.

Design engineers depend on KELVIN, CELSIUS and ELASTO for coupled thermal/mechanical and electromagnetic applications including:

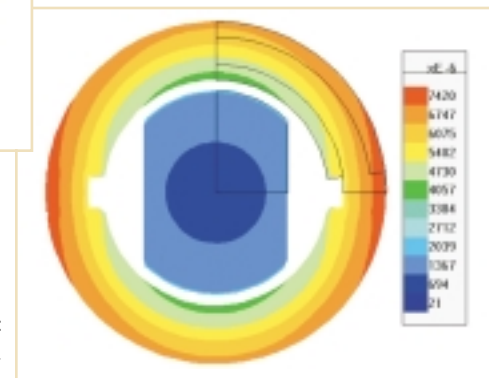
- electronic packaging
- appliances
- automotive components
- aerospace components
- electromagnetic devices
- electromechanical devices

KELVIN :  
Heat sink temperature contour plot.



CELSIUS:  
Heat sink 3D temperature contour plot.

ELASTO:  
Actuator stress contour plot.



Speed, accuracy...  
**plus reduced costs**

KELVIN, CELSIUS and ELASTO maximize productivity by allowing for the simulation of virtual prototypes on the computer. These tools significantly reduce design and prototype costs and provide engineers far greater insight into design optimization and verification.

**kelvin, celsius  
& elasto**  
at a glance

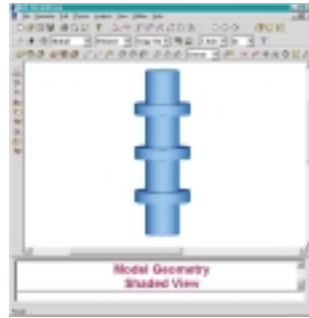
- 2D/RS static and transient & 3D static thermal field solver for a diverse range of applications
- 2D/RS static structural field solver for a diverse range of applications
- Powerful Windows® native toolbar interface for easy data and geometry manipulation
- Wide array of post processing options for design evaluation and optimization
- Industry standard CAD import/export utilities offering time saving convenience for model design creation
- Comprehensive technical support services from the best in the industry

As easy as  
**one, two, three**

KELVIN, CELSIUS and ELASTO provide fast, accurate results, easy model setup and exact modeling of boundaries. KELVIN, CELSIUS and ELASTO delivers easy to use, standalone or coupled analysis tools right to your desktop.

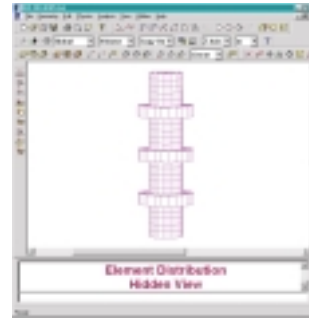
KELVIN, CELSIUS and ELASTO go to work in just three easy steps.

**Step 1**



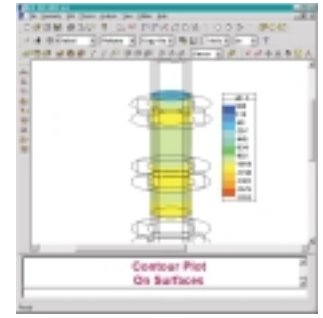
Create your design through our geometric modeler or import from your CAD program.

**Step 2**



Assign the physical attributes of the model.

**Step 3**



Analyze the model, display the results and optimize for performance.

**Advanced  
technical features**

**KELVIN and CELSIUS**

- Temperature, temperature gradient and heat flux values can be displayed using contour plots, profile plots, arrow plots and graphs
- Boundary conditions such as temperature, heat flux, temperature gradient, convective and radiative heat exchange are easily assigned
- Heat sources can be assigned in the form of volume heat and surface heat
- Material table stores thermal conductivity, specific heat, mass density or absorption and scattering coefficients
- Display temperature, heat flux and temperature gradients in the form of contour plots, surface representations and graphs

**ELASTO**

- Boundary conditions such as traction, displacement and symmetry
- Displacement and stress field values
- Displacement components displayed in the form of contour plots, surface representations, arrow plots and graphs
- Stress components displayed in the form of contour plots, surface representations and graphs
- Elastic modulus, Poisson ratio and thermal expansion coefficient are stored in the material table

Try **KELVIN, CELSIUS and ELASTO**  
for 30 days!

Discover how easy KELVIN, CELSIUS and ELASTO are to learn and use. All full version software is available for a 30-day evaluation. Verify and compare the results. Call for a KELVIN, CELSIUS or ELASTO evaluation and start improving productivity today.

( K E L V I N )\*

( C E L S I U S )\*

( E L A S T O )\*



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