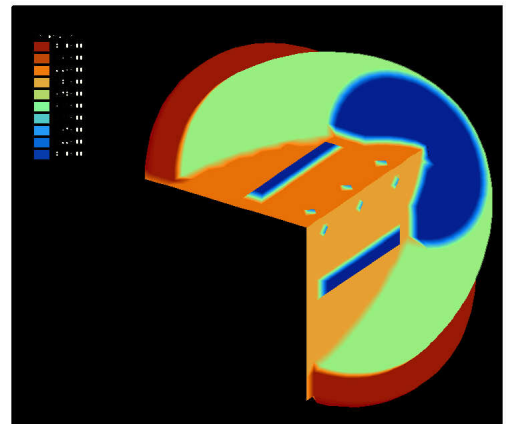


## *Thermal Analysis Engine*

Understanding the effects of temperature change on a structure are especially critical for objects that perform under severe temperature environments. The after-effects of temperature change can lead to residual stress loading that can further combine with other physical external loading to introduce subsequent damage and stress on a product.

The thermal Analysis Engine in JL Analyzer is designed to help you solve and forecast such problems. It accurately detects the highest temperature area within the product and plots the temperature distribution, allowing you to identify and perform redesign before even building the prototype. With the available wide range of thermal boundary loads and constraints and radiation under both steady and transient state. You can assign various thermal boundary conditions such as nodal heat, temperature and heat flow, define convection or radiation boundary conditions, and specify areas of heat generation. For the advance user, we provide additional fine tuning tools such as specific accuracy flags for convergence, these include both time step and time increment, and switch flag between steady state thermal analysis and transient thermal analysis. The thermal Analysis Engine can also combine and import voltage loads from the Electro-Conductivity Analysis Engine by turning on the combination flag.

There is one major advantage of owning an All-In-One package software such as the JL Analyzer. That is, all the analysis engines you purchased, whether they are



standard or optional, can be seamlessly integrated together into one complete system. Furthermore, each of the different analysis result can be transferred within the database, or to another engine for additional analysis. This means that, depending on the actual application of the object, you can model the object to the very detail of its real world working environment, and observe the combine effects of each loading, together on the structure of the object. Result will be an accurate prototype tested under a well-simulated surroundings, all completed through your mouse, and all done on your desk.