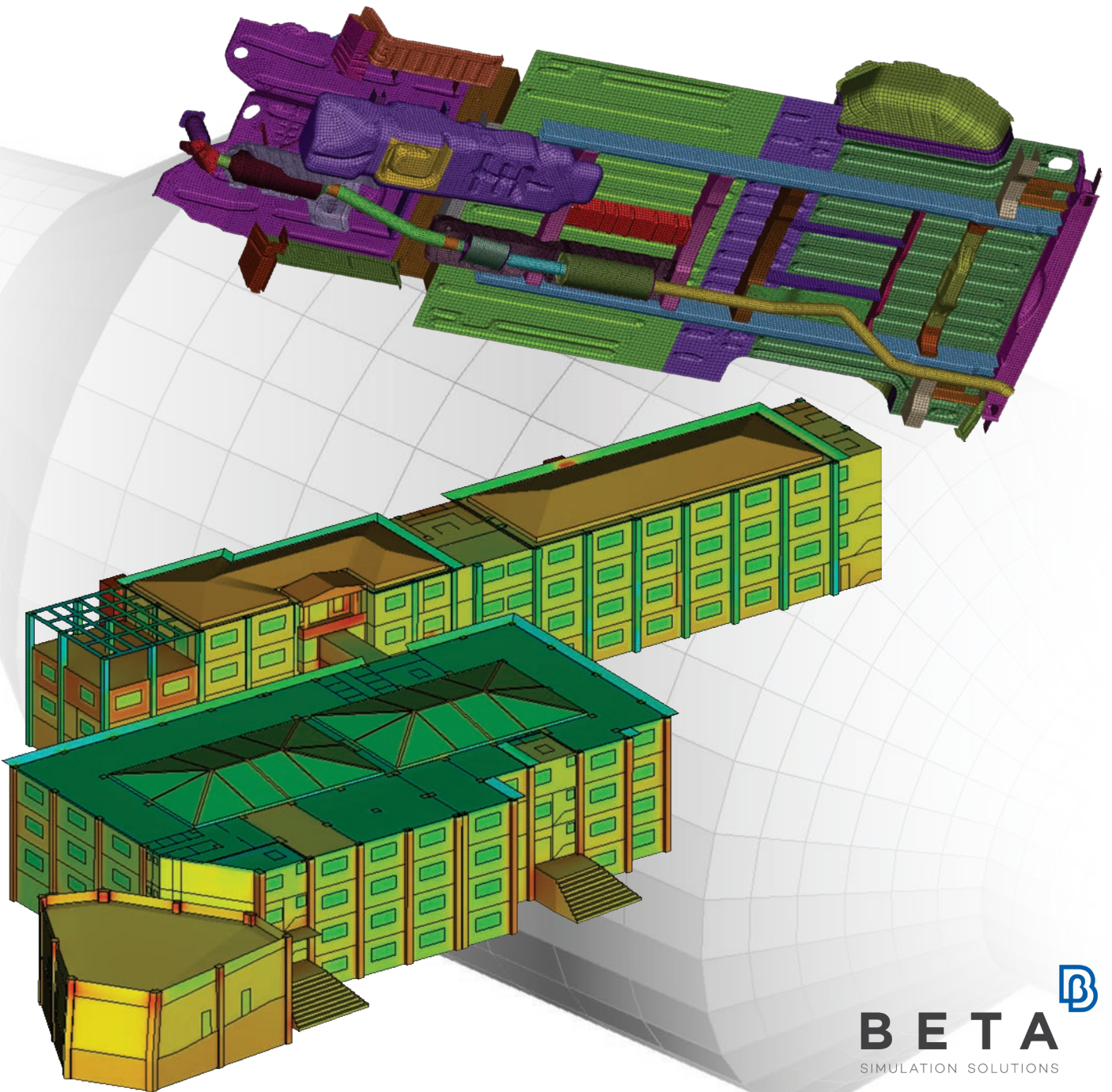


ANSA
PRE PROCESSOR



a d v a n c e d
pre- & post- processing for
T h e r m a l A n a l y s i s

META
POST PROCESSOR



BETA
SIMULATION SOLUTIONS

www.beta-cae.com



ANSA & META offer pre- & post-processing functionality for Thermal Analyses with TAItherm & THESEUS-FE, addressing industries such as automotive, motorsport, architecture, aerospace, defense & electronics.
 ANSA offers high quality meshing and modeling capabilities in dedicated interfaces.
 META is an advanced post-processor capable of handling and processing extremely large and complex models.

ANSA major features:

- Multi-core, 64-bit, double-precision for maximum speed, memory access and accuracy
- Customized GUI for Thermal Management cases
- Direct I/O of native TAItherm and THESEUS-FE files
- Interface for TAItherm and THESEUS-FE solvers
- Geometry cleanup and watertight preparation tools
- Generation of high quality meshes, (tria & quad elements)
- Batch Mesh tool for meshing automation
- Surface wrapping for complex geometries
- Mesh morphing functionalities

TAItherm Deck notable features

- Materials definition (Fluid, Solid, Anisotropic, Transparent, etc.)
- Thickness and material definition for multi-layer parts
- Thermal Links (Generic and Face to Face)
- Fluid Stream boundary conditions
- Assigned and Calculated temperature BCs
- Environment definition (Natural and Bounding Box options)
- Solver settings (Solution Parameters, Convergence Criteria, Weather files)

THESEUS-FE Deck notable features

- Thermal material properties definition for isotropic and anisotropic materials in NASTRAN format (MAT4, MAT5)
- Thickness and material definition for single layer and multi-layer shell elements (PSHELL, PCOMP)
- Material properties definition for groups of bar elements (PBAR, PBEAM, PCOMP)
- Boundary Conditions for convection radiation & sun position
- Main solver settings
- Support of AIRZONE and VOLUME keywords
- Definition of functions as curves

META major features

- Support of all result types and also the calculated normal heat conduction, thermal conductivity, resistance on shells.
- Plot data loading of any solver output, thermal properties on elements and parts, and convergence data.
- Linked manipulation of unsteady element data and all correlating time dependent plots.
- Per layer result handling and reporting of material properties and thicknesses.
- Grouped handling of elements and parts according to Thermal Link connections.
- Comparison between solvers, meshes, models and setups.
- Report capabilities (.html, .pptx or .pdf reports).
- Full automation through session files and scripting.

