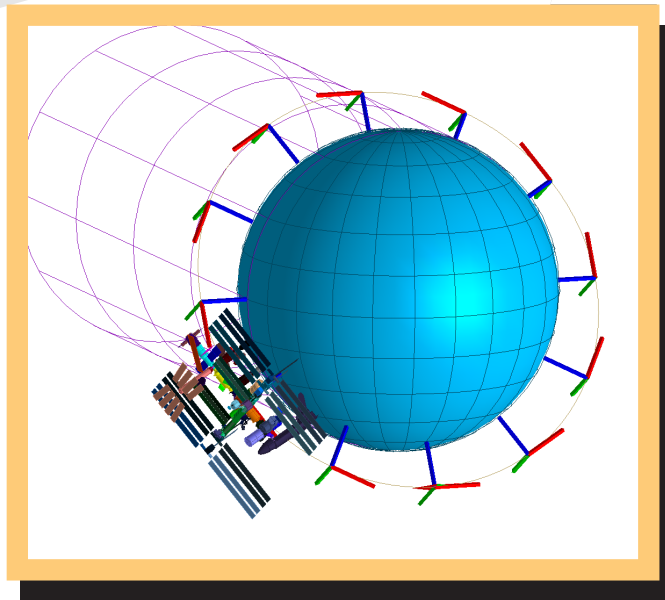


RadCAD® custom surfaces stretch with the mouse, accurately represent the true geometry, snap on to CAD drawings, and are rapidly solved



Full orbit definition and viewing

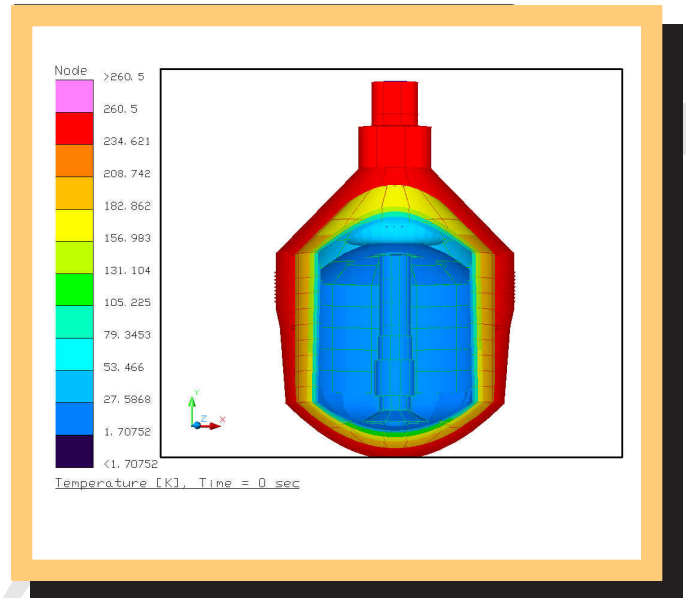
RadCAD® is an optional module of CRTech's Thermal Desktop®. RadCAD® calculates form factors or thermal radiation exchange factors ("RADKs"). It also calculates absorbed direct and indirect environment fluxes.

FEATURES

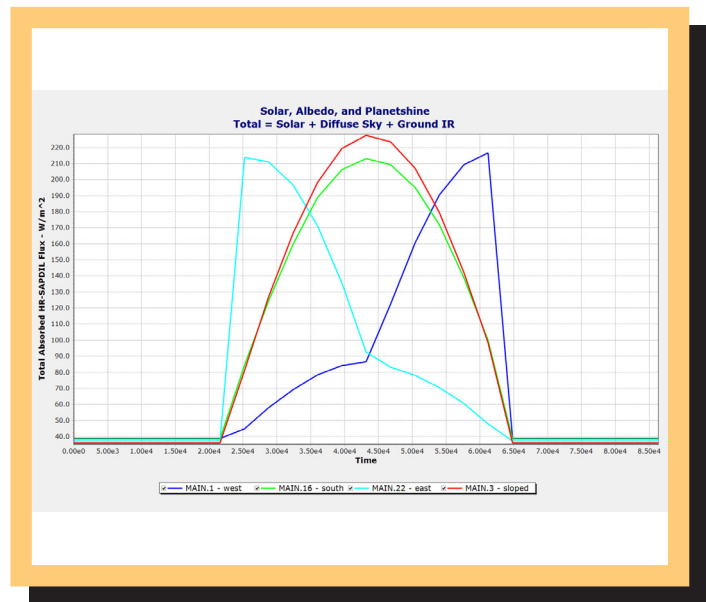
- Performs calculations using either Monte Carlo raytracing or advanced radiosity methods with extensive customization of control parameters.
- Fast calculations due to advanced ray-tracing methods and parallel processing.
- Enables concurrent engineering for thermal analysts by providing full access to CAD-based geometry and CAD model building without sacrificing good thermal modeling practices.
- Imports and exports IGES and STEP CAD geometry.
- Meshes CAD geometry directly, or snap primitive geometric objects to CAD surfaces.
- Stretch and reshape surfaces directly on the screen in addition to traditional form-based inputs.
- Facilitates model verification by graphically displaying active side and surface property information.
- Provides true curved geometric surfaces for speed and accuracy: spheres, cones, curved finite elements, and others, avoiding thousands of tiny facets.
- Handles specular and diffuse transmissive and reflective surfaces.
- Supports both grey and non-grey radiation calculations.
- Accepts angle-dependent and wavelength-optical properties.



- Easy incorporation of variable model geometry and rotating parts via the use of programmable articulators and trackers.
- Fast techniques for spinning surfaces.
- Arbitrary symmetries using mirrors.
- Full orbit plotting package includes definition and visualization of: basic (beta orientation)
 - Keplerian orbit
 - vector-based trajectory.
- Planetary surface environment with direct solar, diffuse solar, and sky IR heating.
- Parallel Processing and Batch Mode without requiring additional licenses.
- Automatic restart determination.
- Postprocesses RADKs, heat rates and fluxes, and temperatures for fast interpretation and impressive presentations including animations.
- Innovative analysis groups offer speed savings and easy model manipulation.
- Optical property aliases help in database management and design comparisons.
- User-defined symbols and expressions for spreadsheet-like parametric modeling.
- Dynamic link to SINDA/FLUINT for on-the-fly recalculations and access to logic, parametrics, optimization, statistical design.
- Extensive CAD functions make model building fast and effective:
 - Boolean, revolved, extruded surfaces
 - layer management
 - multiple port views with store/recall
 - snap-on entity building
 - drag and drop model editing
 - user-defined light sources
 - wireframe, hidden, and rendered views.
- Also available: FloCAD® for convection and flow network models.



Easily model thermal radiation-dominated systems



Planetary surface heating for ground based systems and solar energy applications.