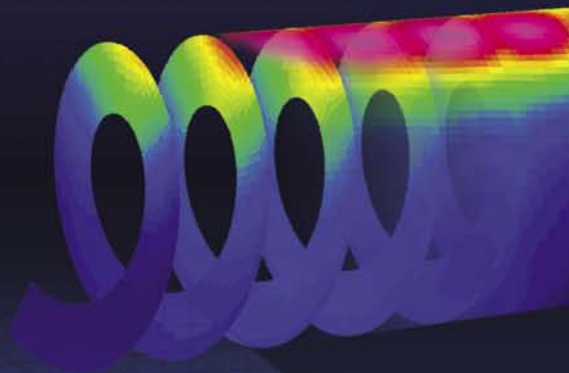
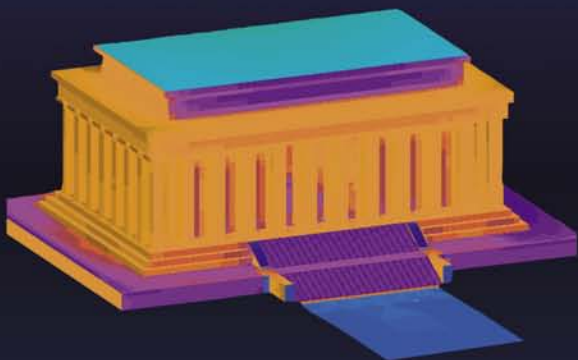




ThermoAnalytics®

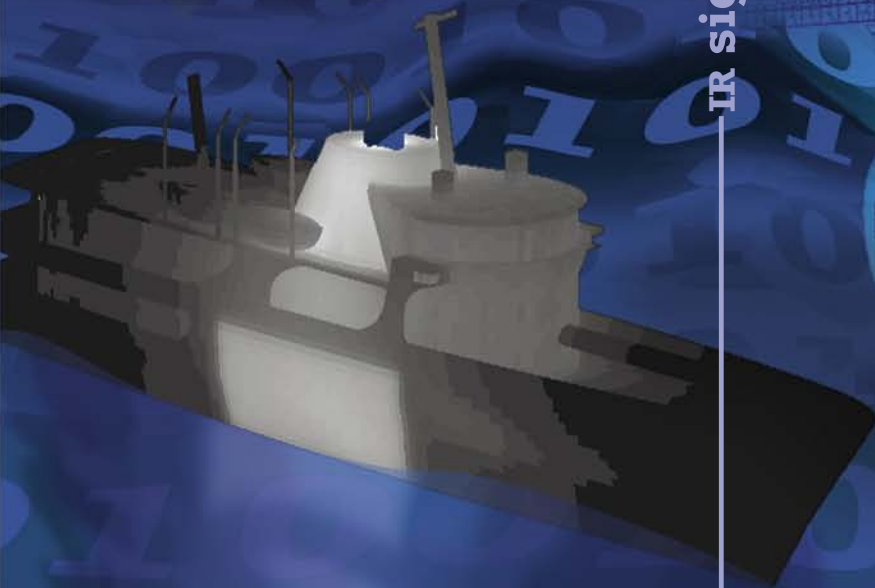


services

thermal

software

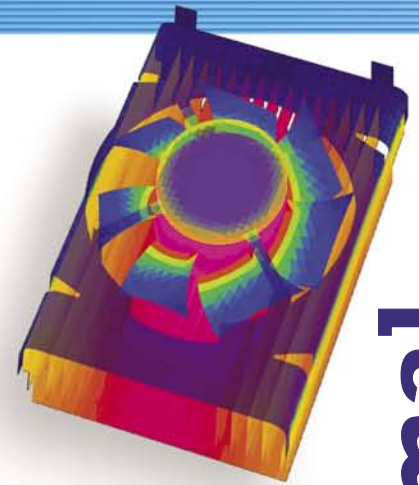
IR signature



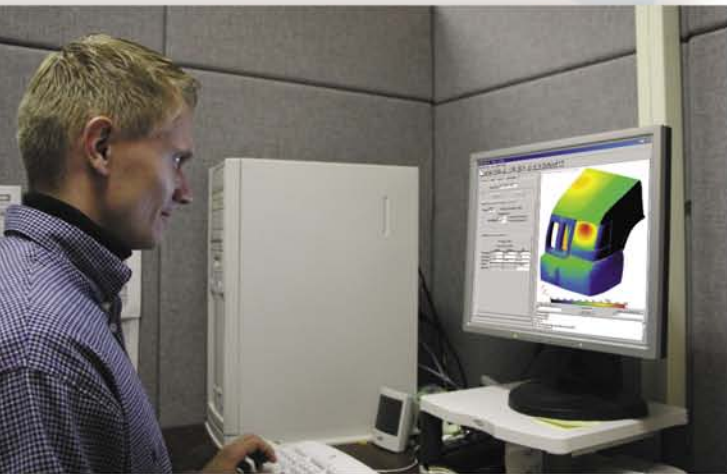
ThermoAnalytics is a team of industry-leading engineers and scientists with many advanced degrees and decades of experience in the following fields:

- ▶ Computational heat transfer
- ▶ Infrared signature prediction
- ▶ Thermal-fluid systems modeling
- ▶ Graphical user interface design

delivering IR signature and thermal solutions



Our core focus is the modeling and simulation of thermal systems and their related infrared signatures. Our team of experienced thermal engineers delivers precision simulation and prototype thermal models to military and commercial organizations. Customers rely on the accuracy of our predictions and decades of experience to solve their thermal design problems.



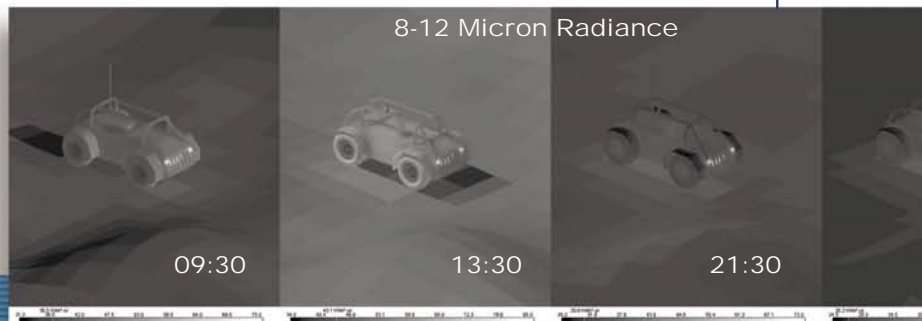
services

Our team has performed analysis for all areas of industry - from architecture to aerospace. Our engineering customers receive models and detailed reports providing accurate predictions of thermal behavior, including internal heat sources and sophisticated, real-world environmental conditions. Because we apply the most advanced software tools on high-end workstations, our simulations and solutions are delivered quickly and efficiently.

As the global leaders in radiation analysis, our team delivers not only heat management solutions, but also infrared signature predictions using our

MuSES™ software. Defense agencies and contractors rely on ThermoAnalytics' comprehensive understanding of the physical phenomena that drive IR signatures. From low observables design to advanced heat management techniques, the ThermoAnalytics team provides valuable signature control recommendations.

In addition to engineering services, ThermoAnalytics develops cross platform software on both a contractual basis for other firms and for our own product line. We integrate advanced thermal management tools into other analysis codes and employ innovative uses of our technology, such as developing 3D human thermal regulation prediction software. We establish partnerships with CAD and CFD developers to deliver integrated solutions and maximum value to end users. Our RadTherm software exchanges data with leading CFD and CAD programs, shortening run times by orders of magnitude and improving simulation accuracy.

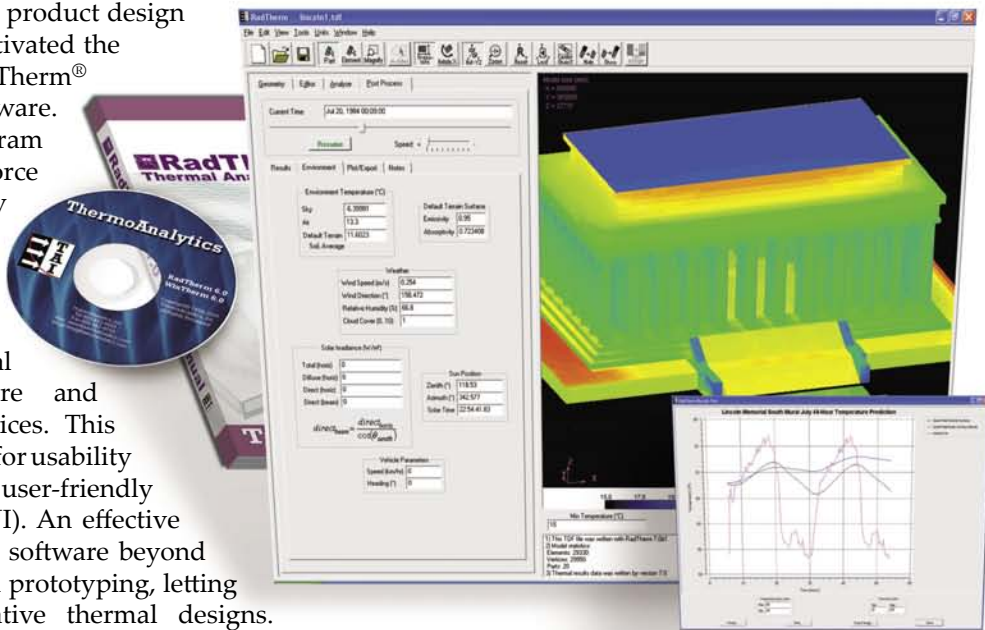


thermal signature services

es thermal IR signature software

Industry demand for shorter product design cycles in the early 1990's motivated the development of our RadTherm® heat transfer analysis software. This award-winning program demonstrates our creative force in both analysis technology and user interaction.

We maintain a complete perspective on software design because of our dual focus: developing software and delivering engineering services. This internal balance and concern for usability results in a streamlined, user-friendly graphical user interface (GUI). An effective GUI expands the use of our software beyond precision simulation to rapid prototyping, letting your team explore innovative thermal designs.



With thousands of users active around the globe, ThermoAnalytics' software is a powerful force in global product innovation.

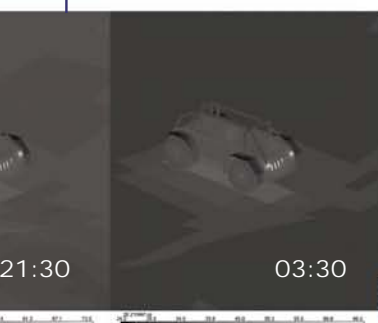
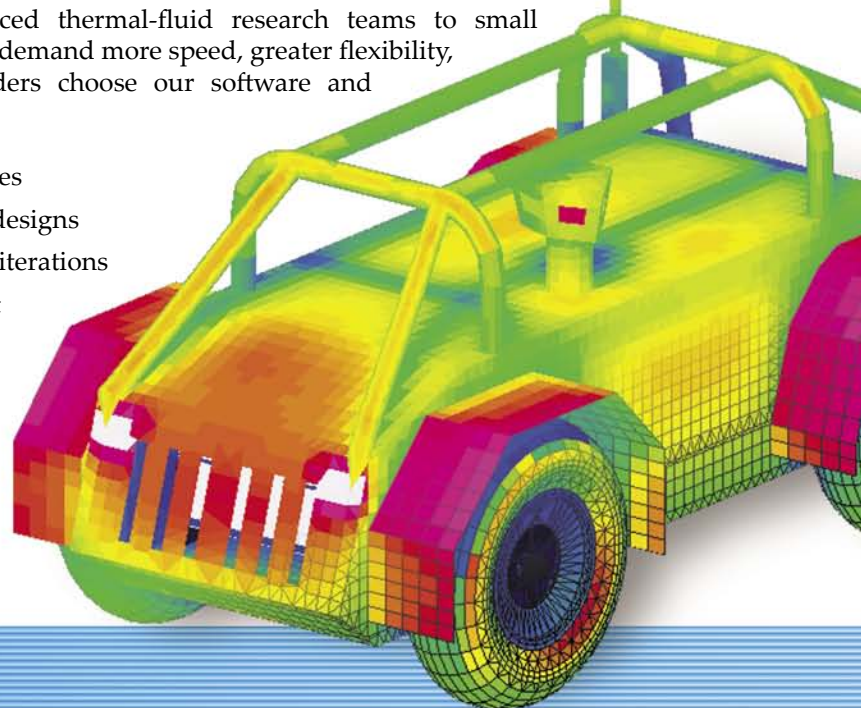
*developing
the future of
simulation*

The infrared signature module in MuSES serves military research labs and defense contractors with predictions of IR vulnerability for air, ground, and naval vehicles. The dual-use nature of our software provides maximum benefit to both industrial and defense customers.

Our software users range from advanced thermal-fluid research teams to small engineering and manufacturing firms. All demand more speed, greater flexibility, and ever-higher accuracy. Industry leaders choose our software and services for many reasons, including:

- ▶ Accelerated engineering procedures
- ▶ Improved, more reliable product designs
- ▶ Fewer engineering and prototype iterations
- ▶ Shorter time-to-market, lower cost

These benefits form the cornerstone of ThermoAnalytics' steadily growing services and software development.

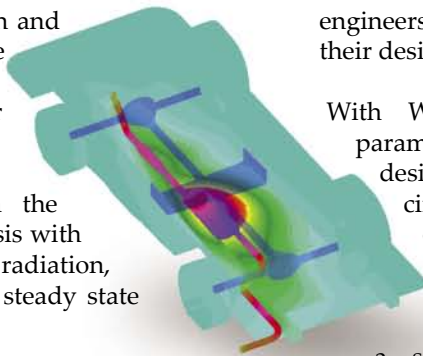


RadTherm®

RadTherm is a professional thermal modeling program that predicts the full temperature distribution of your product or system. From these results you can modify your design and test the thermal performance of the change. For example, active and passive cooling can be tested for cost-benefit analysis.

Your team will benefit at both the concept level and in the final analysis with complete results for conduction, radiation, and convection under transient or steady state conditions.

RadTherm is the industry benchmark for speed, accuracy, and flexibility. Faster setup and thermal analysis save you time and money, which translates into improved customer focus and time-to-market.



WinTherm®

WinTherm brings powerful thermal analysis within reach of smaller firms. Based on our RadTherm technology, WinTherm allows engineers from any background to analyze their designs quickly and accurately.

With WinTherm you can perform full parametric sweeps of component level design (e.g., exhaust components, circuit board) much faster than any other thermal management tool. All functions are integrated into a carefully designed graphical user interface, giving your team a streamlined workflow with cross-platform file sharing. WinTherm, RadTherm and MuSES have been extensively validated by independent academic, government and industrial organizations.

software

MuSES™

MuSES is the world's leading tool for infrared modeling of ground vehicles, ships, and aircraft. Providing both thermal simulation and IR signature results, MuSES lets your team generate high accuracy diffuse and BRDF IR signature predictions including target-background interaction.

The IR signature post-processor displays physical temperatures, in-band radiances, and apparent temperatures. MuSES projects the temperature and radiance data onto the geometry for rapid graphical analysis. MuSES can also be easily integrated into your scene simulation program to provide real-time, high resolution IR predictions for targets.



Contact Us

Our web site provides many examples of our software applications and services, tips for meshing, and free downloads of Radtherm and WinTherm software. Our team is ready to discuss your thermal simulation or IR signature prediction needs. Contact us to obtain:

- ▶ Answers to modeling questions
- ▶ Guidance on selecting software
- ▶ Price quotations for services

We look forward to working with your team.

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