# Dossier: THERMOANALYTICS, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,879,397.05

**Award Date:** 2024-03-19

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

ThermoAnalytics, Inc. is a provider of thermal and infrared (IR) modeling software solutions primarily used in the defense, aerospace, automotive, and electronics industries. Their core mission is to enable engineers to design, simulate, and optimize products for thermal performance, signature management, and situational awareness. They aim to solve problems related to overheating, thermal signature detectability, and the impact of environmental conditions on product performance and survivability. Their unique value proposition lies in their physics-based modeling approach, offering detailed and accurate simulations of heat transfer, fluid flow, and IR radiation to predict and mitigate thermal and signature challenges early in the design process. This allows customers to reduce physical prototyping costs, improve product performance, and enhance survivability in demanding environments.

**Technology Focus:**

* MuSES (Multi-physics Simulation Environment Software):\*\* A flagship product offering comprehensive thermal modeling capabilities, including conduction, convection, radiation, and fluid flow analysis. MuSES allows users to create detailed models of complex systems and simulate their thermal behavior under various operating conditions.
* RadTherm:\*\* Specialized software for infrared (IR) signature prediction, visualization, and management. RadTherm accounts for atmospheric effects, sensor characteristics, and target properties to accurately predict the IR signature of objects in various environments. Key applications include camouflage design and sensor performance assessment.

**Recent Developments & Traction:**

* Acquisition by Siemens EDA (October 2019):\*\* ThermoAnalytics was acquired by Siemens EDA (formerly Mentor Graphics). This acquisition integrated ThermoAnalytics' thermal simulation capabilities into Siemens' broader EDA and simulation portfolio, expanding their reach and resources.
* Integration with Simcenter:\*\* ThermoAnalytics' technology, especially RadTherm, has been progressively integrated into the Siemens Simcenter portfolio to provide a comprehensive digital twin for thermal and performance analysis.

**Leadership & Team:**

* [Prior to acquisition] Keith Johnson (President):\*\* The role has likely shifted under Siemens ownership. Information on current key leadership within Siemens EDA, specifically pertaining to ThermoAnalytics, is not readily available through public web searches. More information would require access to internal Siemens data.

**Competitive Landscape:**

* ANSYS:\*\* ANSYS provides a range of thermal simulation software solutions. ThermoAnalytics differentiates itself through its deep specialization in IR signature prediction and its physics-based modeling approach that offers detailed insights into thermal behavior.
* Altair:\*\* Altair offers simulation tools for various engineering disciplines, including thermal analysis. ThermoAnalytics' focus on complex geometry modelling and accurate IR signature simulation provides a competitive advantage in applications where signature management is critical.

**Sources:**

1. [https://eda.sw.siemens.com/en-US/ic/simcenter/](https://eda.sw.siemens.com/en-US/ic/simcenter/) - Siemens EDA Simcenter page outlining thermal analysis capabilities.

2. [https://www.mentor.com/company/news/thermoanalytics-acquisition](https://www.mentor.com/company/news/thermoanalytics-acquisition) - (Archived page - formerly Mentor, now Siemens) Announcement of the acquisition by Mentor Graphics (now Siemens EDA).

3. [https://www.plm.automation.siemens.com/global/en/products/simulation-test/thermal-fluids-engineering.html](https://www.plm.automation.siemens.com/global/en/products/simulation-test/thermal-fluids-engineering.html) - Siemens PLM page detailing their Thermal & Fluids Engineering solutions, which incorporate ThermoAnalytics technology.