



MedeA *Materials Modeling Environment*

At-a-Glance

With MedeA^{®1} use simulation and correlation methods to:

- Predict the physical and chemical properties of materials, and
- Study the mechanism(s) that govern micro and macroscopic phenomena

The MedeA Environment is designed for:

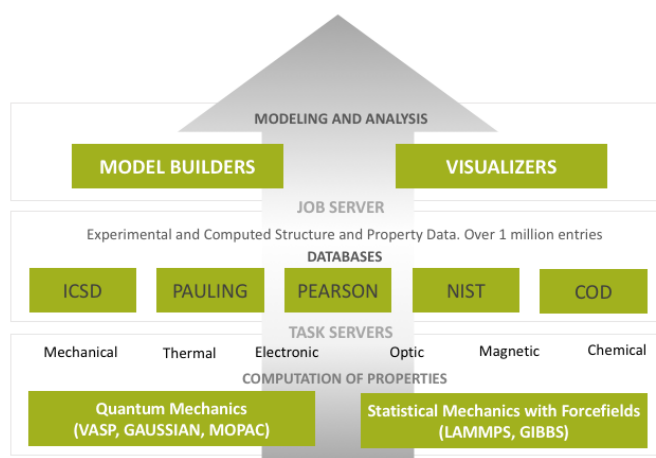
- High Performance, with high productivity integrated tools
- Property Prediction using application-specific property modules in conjunction with state-of-the-art simulation engines
- Use of Reproducible Workflows as graphical flowcharts for multi-stage protocols that can be stored and re-applied
- Efficient use of computational resources
- High Throughput flowcharts for automated mapping and screening
- Customization for diverse applications

Key Benefits

- Accelerate materials design, scientific discovery, and productivity through the use of High Throughput tools within reproducible Workflows
- Unlimited job submission and management with no core counting, at no additional cost

Academic researchers rely on MedeA as a basis for research in computational materials science, and for interpretation of experimental data, providing understanding of materials' properties. MedeA is an invaluable tool for education and educators.

Created for high productivity, MedeA helps you focus your materials research and development, using graphical workflows, automated analysis, and high throughput computation tools. Team interaction and collaboration are facilitated through the use of Flowcharts, as well as open access to simulation input and output through the JobServer MedeA architecture.



'Created for high productivity, MedeA helps you to boost your materials research and development'

Architecture

MedeA embeds modules in a core framework with components that can be installed on a single machine or distributed over a network of computers, including large scale supercomputers.

MedeA has a unique 3-tier architecture that offers flexibility, and optimizes the use of available computing resources, while reducing the human time and effort involved in simulation deployment. This 3-tier architecture comprises the following key elements:

Designed to Perform

MedeA is designed for materials engineers and scientists requiring rapid and reliable solutions for a range of materials issues related to application areas, such as power generation, automotive applications, energy storage, alloy design and optimization, micro-electronics, chemicals, and petrochemicals.

¹ MedeA and Materials Design are registered trademarks of Materials Design, Inc.

