



## AspenTech Wins Prestigious R&D 100 Award for Software Innovation

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*Breakthrough Collaboration with National Institute of Standards and Technology (NIST) Enables Process Engineers to Save Months of Time and Improve Engineering Accuracy When Developing Chemical Process Models*

BURLINGTON, Mass.--(BUSINESS WIRE)--Aug. 12, 2009-- Aspen Technology, Inc. (OTC: AZPN.PK), a leading provider of software and services to the process industries, today announced that AspenTech and the National Institute of Standards and Technology (NIST) have received an R&D 100 Award for innovation in software from *R&D Magazine*. The breakthrough collaboration gives process engineers out of the box modelling capabilities for a wide-range of chemical processes, saving months of time when estimating and evaluating thermophysical properties of chemical compounds for the design and optimization of process industry plants.

- Previously, collecting, reviewing and fitting physical property data required weeks or months of effort and substantial expertise for engineers in the chemical, polymer, specialty chemical, pharmaceutical, biofuel, and synthetic fuel production process industries.
- Now, with the collaboration of aspenONE® Engineering software tools and the NIST ThermoData Engine (TDE), process engineers have easy, on-demand access to physical property data for over 15,000 compounds, including millions of critically-evaluated experimental measurements, and the ability to estimate properties for any compound given its structural information.
- For process industry companies, this broad-based property data access greatly simplifies the workflow to develop and calibrate simulation models, brings unparalleled property modelling capabilities to process engineers and extends the benefits of simulation to new processes and less experienced simulation users.
- The Aspen Plus® and Aspen HYSYS® tools in the aspenONE Engineering suite are industry-leading modelling tools for process design and operations optimization in the process industries. The R&D 100 Award in particular recognizes Aspen Plus, a leading simulation tool for the chemical, polymer, specialty chemical, metals and mining, and coal power industries.
- Winning an R&D 100 Award demonstrates a mark of excellence known to industry, government and academia that the product is one of the most innovative ideas of the year. Since 1963, the R&D 100 Awards have honored such revolutionary technologies as the fax machine (1975), the liquid crystal display (1980) and HDTV (1998).

### Supporting Quotes

*Michael Frenklach, Department of Mechanical Engineering Professor, University of California - Berkeley*

"For the first time, engineers worldwide now have a tool that not only assures strict quality control of data delivery, but provides critically evaluated data on demand for state-of-the art chemical process and product design. Combining the NIST ThermoData Engine with AspenTech's engineering software solutions will undoubtedly lead to the development of highly efficient and environmentally friendly new materials and industrial manufacturing processes within a broad range of industries. This product provides unique opportunities for frontier engineering research in materials science, biotechnology, and in the establishment of new industrial-scale processes using renewable sources of energy."

*Dr. Frederick Dryer, Mechanical and Aerospace Engineering Professor, Princeton University*

"Incorporating NIST's ThermoData Engine into AspenTech's engineering software is changing the core nature of chemical process and product development. For the first time, this jointly developed software provides the opportunity for process design on-demand. This software represents the first and only chemical process design product currently available that supports the development and modification of products and processes on the basis of an "entire body of knowledge" that is updated continuously. Also of great significance is chemical design and development can now be performed with critically evaluated thermophysical and thermochemical properties characterized by the most comprehensive measure of reliability."

*Dr. Navin Patel, Senior Engineer/Program Manager - Technology Solutions Group, QinetiQ North America Operations LLC*

"The combination of the NIST ThermoData Engine with AspenTech's engineering software represents a giant leap forward in the direction of achieving successful process simulation. For years engineers relied on very limited databanks containing few thousand compounds, leaving them to crude, labor and time-intensive techniques to build the required thermophysical and thermochemical data. With the availability of over 15,000 compounds, process design work can now be done with greater confidence with improved simulation results that cut down the time it takes to bring a new product to market. Through continuous updates of all relevant thermophysical and thermochemical properties, design engineers will be able to spend more time solving problems rather than worrying about the quality of the thermophysical properties data used in the simulation."

*Willie Chan, Senior Vice President of Research & Development, AspenTech*

"AspenTech is honored to be recognized by such a prestigious awards program. It is the result of a combination of factors unique to AspenTech – a commitment to R&D investment that is unmatched in engineering and optimization software for the process industries; our long-standing recognition of

the importance of properties and thermodynamics in process engineering; our long-term cooperation with NIST, and the deep domain knowledge of our industry-leading experts in process modeling and optimization.”

#### **Supporting Resources**

- [Link to Paper on Integration of NIST TDE with aspenONE Engineering](#)
- [Link to 2009 R&D 100 winners](#)
- [Link to aspenONE Engineering, Aspen Plus & Aspen HYSYS](#)
- [Link to NIST ThermoData Engine](#)

#### **About AspenTech**

AspenTech is a leading supplier of software that optimizes process manufacturing – for energy, chemicals, pharmaceuticals, engineering and construction, and other industries that manufacture and produce products from a chemical process. With integrated aspenONE solutions, process manufacturers can implement best practices for optimizing their engineering, manufacturing and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs and become more energy efficient. To see how the world's leading process manufacturers rely on AspenTech to achieve their operational excellence goals, visit [www.aspentech.com](http://www.aspentech.com).

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