PolymerOhio, Ohio Supercomputer Center partnership provides economic benefits

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Groups co-sponsor September industry forum on improving profitability through productivity: The Ohio Supercomputer Center and PolymerOhio announced a partnership that will make Ohio's polymer companies more productive and profitable through high performance computing applications.

Through the agreement, the Ohio Supercomputer Center will develop web-based applications targeted toward helping polymer companies, including companies from the plastics, rubber and advanced materials segments, increase productivity. The applications will transparently access the Center's supercomputing systems and software. These tools will accelerate product and process development, as well as problem solving, by allowing engineers to quickly do "what if scenario" calculations.

This tremendous cost-saving resource is available as part of the Ohio Supercomputer Center's Blue Collar Computing initiative, a cooperative effort to help small- and medium-sized companies gain access to supercomputing technology at a more affordable cost.
To showcase how this partnership will benefit Ohio polymer companies and improve productivity, the Ohio Supercomputer Center and PolymerOhio are hosting an "Emerging Technology Forum" on Tuesday, Sept. 11, 2007, from 8 a.m. to 5 p.m. at the University of Akron, with a live telecast to the University of Dayton.

"This partnership will provide many of our clients with the means to incorporate computational science into their day-to-day operations," said Wayne Earley, President and CEO, PolymerOhio. "By establishing a 'Polymer Portal,' this important collaboration will make available to Ohio's polymer companies a variety of computational methods that will cost-effectively help increase their competitiveness in the global market. Through Blue Collar Computing initiatives such as the web portal, almost all aspects of a polymer company can become more efficient."

The polymer industry is Ohio's largest manufacturing cluster, employing more than 140,000 people at more than 2,800 polymer-related facilities across the state. The Polymer Portal and its tools will be available to all Ohio polymer companies.

"Computational methods reduce the time and labor required to obtain and apply new information," said Stan Ahalt, executive director of OSC. "With the improved software development, training, outreach and partnerships provided through Blue Collar Computing, supercomputing can become a reality on a smaller scale for small- and mid-sized industrial clients."

Large companies have long seen competitive advantages from high performance computing applications. For example, General Motors uses parallel computing to simulate crash testing automobiles and claims that it can reduce the number of full-size crash vehicle tests by more than 85 percent, at a cost savings of $500,000 per test. Similarly, supercomputing simulations have reduced the cost that Goodyear spends on physical tire prototypes from 40 percent to 15 percent, while dramatically reducing time to get a new tire on the market.

The program for the Emerging Technology Forum includes case studies from all aspects of the industry, including research and development, product design, product development, and manufacturing. Representatives from several Ohio companies, including Applied Sciences, Inc., MACA Plastics, Procter & Gamble, and Honda of America, will describe how they identified an approach and carried out a cost-effective project to improve productivity with a significant return on investment. The Ohio Supercomputer Center also will demonstrate the Polymer Portal being developed for the partnership with PolymerOhio.

The Forum will originate in the Goodyear Auditorium, Goodyear Polymer Center, 170 University Ave., Akron. Simultaneous two-way video conferencing will connect to the University of Dayton, Roesch Library, 300 College Park, Dayton.

For more information on the Forum or to register, visit www.polymerohio.org.