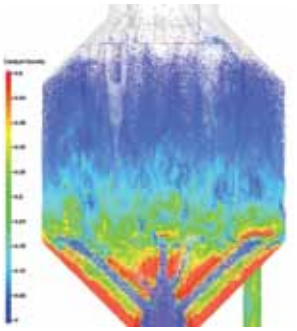
Software & Information Technology

Software Optimizes Fluid-Bed Reactor Productivity



The newest version of the Barracuda Virtual Reactor software, Series 16-GPU, offers a 650% increase in computational speed via an updated graphics-processing unit (GPU). Based on the company's proprietary Computational Particle Fluid Dynamics (CPFD) method, the software speeds computational fluid dynamics (CFD) modeling of fluidized-bed reactors. These reactors are notoriously difficult to model accurately and present a range of challenges for engineers and plant managers, and downtime is particularly costly. Barracuda Virtual Reactor allows engineers to model a wide range of chemically reacting gas-particle systems in 3D and at full scale. It is suitable for optimizing operations in refineries, chemical plants, and power plants by increasing yields, improving reliability, reducing catalyst and product losses, and controlling emissions.

CPFD Software
www.cpfd-software.com

Process Automation System Improves Operational Insight

The Foxboro Evo is a process automation system that delivers advanced tools and applications across a high-speed hardware platform. It provides visibility into historical, real-time, and predictive operating information to help drive production efficiency. It protects plant operational integrity, enhances operational insight, and easily adapts to process changes — it can undergo major upgrades without halting operations. The Foxboro Evo system includes a high-speed controller, field-device management tools, a maintenance response center, and cyber security hardening. The system features the company's Triconex safety system, which protects complex process facilities with layered architecture. Safety and security personnel will benefit from an innovative coupling of control and safety, while engineers can reduce risk via the intuitive design and troubleshooting features.

Invensys
www.invensys.com

Software Collects and Presents Analytical Data

The ChemAnalytical Workbook is an all-in-one experiment, workflow, and data-management tool that allows scientists to document analytical information. Designed for organic chemists and analysts working with formulated products, ChemAnalytical Workbook offers multi-technique analytical data processing, with support for more than 150 instrument file formats. Users can build analytical databases and attach structural information, which eases data interpretation and reuse. The software is a viable replacement for paper notebooks and has a searchable repository that captures live experimental data. It can track samples and projects, and automate routine analytical tasks.

ACD/Labs
www.acdlabs.com

Tool Expands Access to Regulatory Information on Chemicals

The ChemView web-based system improves access to chemical-specific regulatory information developed by the U.S. Environmental Protection Agency (EPA) and data submitted under the Toxic Substances Control Act (TSCA). The free tool displays key health and safety data in a format that allows comparison of chemicals by use and by health or environmental effects. It provides access to EPA assessments, hazard characterizations, and information on safer chemical ingredients. Users can search based on chemical name, Chemical Abstracts Service (CAS) number, use, hazard effect, or regulatory action. By increasing health and safety information, as well as identifying safer chemical ingredients, manufacturers and retailers can better differentiate their products by choosing safer ingredients.

U.S. EPA
www.epa.gov

System Enables Remote Control of Solids-Handling Equipment

Remote monitoring and control is now available on this company's line of vibrating fluid-bed dryers, coolers, pellet classifiers, conveyors, and other equipment through remote desktop software. This capability allows process engineers to start and stop batch and continuous operations, adjust parameters, and check process conditions such as temperature, airstream velocity, and retention time. Real-time remote control is offered with a dedicated programmable logic controller (PLC) human-machine interface (HMI). The remote access, monitoring, and control capability may be retrofitted onto the company's process equipment in the field.

Witte Co.
www.witte.com