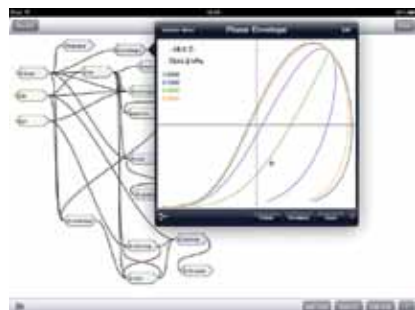




Software & Information Technology

Updated iPad/iPhone Software Adds Compounds and NRTL



The latest version of Alph 1.5, a fluid property and process calculator for the Apple iPad, iPhone, and iPod Touch, now includes an option to increase the library of compounds to over 5,600 and add VMGThermo's non-random two-liquid (NRTL) model to the existing Advanced Peng-Robinson and steam packages. This greatly extends the range of process simulation tasks that can be addressed and is a cost-effective approach for users whose needs or budgets do not require a full process simulator. Alph uses the same VMGThermo engine that powers the VMGSim process

simulator. In addition to two- and three-phase flash calculations, fluid property predictions, phase envelopes, and hydrate predictions, the software has built-in tools for performing distillation calculations and solving multiple equations. The Alph Information Flow Diagram (IFD), which is based on a diagram that resembles a mind map, clearly shows where each entity in the problem obtains its inputs and where its calculated values are used in other objects. This version also brings compatibility with the fast-switching and iTunes file-sharing of iOS 4 and the ability to export phase envelope results to a spreadsheet.

RedTree Development Inc.

www.redtree.com

Free Online Tool Helps Reduce Energy Use

The Rockwell Automation Energy Evaluator is a free online tool for evaluating energy management behavior and identifying opportunities for improvements. It provides a complete analysis of current

water, air, gas, electric, and steam (WAGES) management performance, and enables a company to compare its operating strategies with those of peers in the same industry and across other sectors. After the user completes a 20-min online assessment, the software generates a real-time report outlining the plant's WAGES management baseline. This allows employees to identify and implement strategic changes, and to set improvement goals both for single facilities and across the entire organization. The report can be exported into Excel, PDF, or printable HTML formats so users can easily share and manipulate data to visualize the impacts of operational and behavioral improvements. Users can also continuously access the report and update information to track the facility's progress. Rockwell Automation Industrial GreenPrint consultants are available to help analyze results and identify customized, holistic strategies for implementing improvements.

Rockwell Automation

www.rockwellenergyevaluator.com

Software Predicts Erosion in Chemical Plants

Barracuda v14.4, the latest computational fluid dynamics (CFD) software specialized for modeling fluid-particle flow problems in industrial applications, provides the ability to predict erosion in chemical plant equipment caused by particle-wall impacts. Based on the Computational Particle Fluid Dynamics (CPFD) numerical method, which combines a Eulerian approach for the fluid with a Lagrangian formulation for the particles, Barracuda is a specialized form of CFD designed specifically for modeling of fluidized systems. Because the solids are treated as discrete particles with a full particle-size distribution, Barracuda is able to calculate an erosion index based on the individual particle mass, velocity, and impact angle with solid surfaces. High-wear locations may be identified, whether the surface is metallic or refractory-lined, and the software may be used to predict the impact on erosion rates of changes to the design or operating conditions. Barracuda is widely used for modeling of circulating fluidized beds (CFBs), fluidized-bed reactors (FBRs), fluid catalytic cracking (FCC) units, and other gas-solid or liquid-solid processing equipment. Detailed chemical reactions may also be modeled.

CPFD Software

www.cpf-software.com

