Press release

IMMEDIATE RELEASE
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PSE releases major update of gSOLIDS for solids process design and operation

Second generation of leading advanced process modelling software

LONDON, 4 May 2012 --- Process Systems Enterprise (PSE), the Advanced Process Modelling company and provider of the world-leading gPROMS modelling platform and ModelCare services, today announced the release of gSOLIDS 2.0, a second-generation integrated drag & drop graphical flowsheeting environment for model-based engineering and optimisation of solids processes.

Developed in conjunction with Procter & Gamble, Pfizer and Novozymes, gSOLIDS is aimed at process engineers and scientists in industries where particulate processes play an integral part, such as pharmaceuticals, fine chemicals, agrochemicals, food processing, consumer goods and minerals and mining.

Ben Weinstein, section head of Corporate Function R&D Modeling & Simulation at Procter & Gamble, says: “a key advantage of gSOLIDS is that it allows our modellers to develop dynamic models of complex processes and apply them to analyse process dynamics.” The ability to exploit optimisation-based capabilities such as parameter estimation and dynamic optimisation using accurate models means that it is possible, for example, to determine optimal operating procedures. “This ultimately gives us a better likelihood that when we start up a new product line it will work as planned” says Weinstein.

Sean Bermingham, VP of PSE’s Solids strategic business, says “This second-generation tool establishes PSE firmly at the forefront of advanced process modelling for solids processing, an area where significant scientific and economic benefits can be achieved by combining modelling and experimental approaches.”

New in gSOLIDS 2.0 is the ability to handle multiple solid phases, each with its own particle size distribution and size dependent composition, plus numerous new unit operation models. In addition there are enhancements to a number of gSOLIDS’ unique capabilities, such as the use of dynamic modelling to handle batch, continuous and hybrid processes; advanced parameter estimation and optimisation capabilities; and integration with PSE’s leading gCRYSTAL advanced process modelling software and gas-liquid process models to enable simultaneous whole-process design and optimisation.

Bermingham says “Our Advisory Board and close collaboration with leading research consortia such as C-SOPS enable us to incorporate the latest developments rapidly and facilitate knowledge transfer between academia and industry. The advances in usability brought by gSOLIDS 2.0 now make these game-changing benefits accessible to a growing community of engineers and scientists.”

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Editors: www.psenterprise.com/news/pr120504.html

About gSOLIDS

gSOLIDS is a second-generation integrated drag & drop graphical flowsheeting environment for model-based engineering and optimisation of solids processes. Developed in conjunction with Procter & Gamble, Pfizer and Novozymes, it is aimed at process engineers and scientists in industries where particulate processes play an integral part, such as pharmaceuticals, fine chemicals, agrochemicals, food processing, consumer goods and minerals and mining.

A key advantage of gSOLIDS is that it is built on the gPROMS advanced process modelling platform, which provides the ability to perform full steady-state and dynamic modelling, handle large numbers of recycles robustly, model complex operating procedures for batch and semi-continuous processes, and easily add custom models to reflect users' actual unit operations. It can also handle multiple solid phases, each with its own particle size distribution and size dependent composition.

gSOLIDS uniquely includes a wide range of advanced features including parameter estimation for fitting process parameters from laboratory or operational data, rigorous mathematical optimisation of design and operation, and sensitivity analyses for risk management. It also integrates with PSE's gCRYSTAL and gas-liquid process models to enable simultaneous whole-process design and optimisation.

gSOLIDS helps engineers to optimise the operation of units such as high shear wet granulators, fluidised bed dryers, mills, screens, spray dryers, hoppers and conveyors in order to ensure product quality, size recycles and surge bins for new plants and achieve the required throughput. A key use is to determine the optimal trade-off between capital and operating cost and make informed purchasing decisions.

Typical benefits include reduced capital investment, reduced operating costs, improved product quality, increased throughput, more flexible process design, reduced CO_2 footprint, and a better process understanding. gSOLIDS also provides a flexible and powerful platform for integrating companies' internal R&D and third party research.

PSE works closely with leading research consortia such as the US NSF Engineering Research Center for Structured Organic Particulate Systems (C-SOPS), which is developing science and engineering methods for designing, scaling, optimising and controlling manufacturing processes for the life sciences industries, to maintain the technology at the forefront of innovation and enable knowledge transfer between academia and industry.

About Process Systems Enterprise Ltd

PSE (www.psenterprise.com) is the world's foremost provider of Advanced Process Modelling software and services to the process industries. Process companies apply advanced process models to make better, faster and safer design and operating decisions by reducing uncertainty.

Use of PSE's technology and services results in faster innovation, improved designs of processes and products, enhancement of existing operations and more effective R&D and experimental campaigns. Results are achieved with relatively low investment compared to alternative approaches, with rapid return on investment.

PSE's global customer base of process manufacturing companies is served by operations in the UK, USA, Germany, Japan and Korea, and agencies in Saudi Arabia, China, Thailand, Malaysia and Abu Dhabi. PSE is a spin-out of Imperial College London, and its software is used in over 200 universities around the world.

The company's own ability to innovate was recognised with the award of the prestigious Royal Academy of Engineering MacRobert Award for Engineering Innovation, the highest UK engineering prize.