



Press release

IMMEDIATE RELEASE

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PSE releases significant gPROMS ProcessBuilder update

Unified modelling environment for high-value process design and operational applications

LONDON, 28 June 2017 --- Process Systems Enterprise (PSE), the Advanced Process Modelling company, today released a significant update to gPROMS ProcessBuilder, its leading advanced process modelling platform for optimising design and operation of process plants.

gPROMS ProcessBuilder is a unified equation-oriented process modelling environment for applications across the plant, from complex catalytic reaction and separation to wastewater treatment and utilities. The new version 1.2 updates ProcessBuilder's steady-state and dynamic process modelling capabilities, and adds a new high-fidelity rate-based separation model library as well as new libraries for wastewater treatment plant design and design and operational analysis of site utilities systems. A new Olefins library enables detailed modelling and optimisation of ethylene plant cracking furnaces.

ProcessBuilder 1.2 also brings a step change in the ability to include detailed reactor models within process flowsheets for simultaneous design and economic optimisation of reactor and separation sections. PSE's industry-leading Fixed-Bed Catalytic Reactor library has been significantly upgraded, and a new Trickle-Bed Reactor library now allows design of wetted-surface catalytic reactions such as benzene hydrogenation, hydrotreating and Fischer-Tropsch synthesis.

Built on PSE's state-of-the-art gPROMS® 5.0 modelling platform, ProcessBuilder 1.2 also includes powerful new features such as global system analysis (GSA) and high-performance computing (HPC). GSA enables easy, systematic exploration of the complex process decision space using high-fidelity models, making it possible to rapidly assess risks under uncertainty and screen and rank process design and operation alternatives.

HPC brings new power for computationally-intensive calculations, allowing users fully to exploit multi-processor/multi-core machines in order to accelerate large-scale optimisation and GSA applications. A new dynamic solver accelerates execution of dynamic simulation, optimisation and parameter estimation activities by factors of up to 5.

Costas Pantelides, PSE CEO, says "Our mission is to put powerful tools in the hands of sophisticated users who want to move beyond the heat-and-material balance capabilities of traditional process simulators. A major thrust of current developments is the support of high-value applications capable of significantly improving process economics. Next generation large-scale optimisation and analysis techniques mean that it is now possible to revisit many processes that were considered already optimised, and generate substantial new value."

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About Process Systems Enterprise Ltd (PSE)

PSE (www.psenderprise.com) is the world's foremost provider of Advanced Process Modelling software and services to the process industries. Companies apply advanced process models to explore the process decision space rapidly and effectively, in order to reduce uncertainty and make better, faster and safer design and operating decisions.

PSE provides gPROMS advanced process modelling products built on the company's gPROMS® equation-oriented platform. The two core environments for engineers and scientists are the gPROMS ProcessBuilder® flowsheeting environment for optimising fluid process design and operation and the gPROMS FormulatedProducts® environment for integrated design and optimisation of formulated products and their manufacturing processes. The company also provides a number of gPROMS Process Operations Solutions for operational monitoring, optimisation and planning.

The unique advantages that PSE tools bring are the combination of high-fidelity models, powerful mathematical optimisation and global system analysis capabilities, and an equation-oriented framework capable of rapid and robust solution of complex problems. Use of PSE's technology and services results in faster innovation, improved process and product designs, enhanced operations, reduced risk, more effective R&D and experimental campaigns and better capture and transfer of corporate knowledge across the organisation.

PSE's global customer base of Fortune 500 process industry companies is served by operations in the UK, USA, Japan and Korea, and agencies in China, Taiwan and Thailand. PSE is a spin-out of Imperial College London, and its software is used for teaching and research in some 200 universities around the world.

PSE is committed to defining, developing and driving the adoption of next-generation process modelling software and workflows. 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 UK's highest engineering prize.