Press release

IMMEDIATE RELEASE
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gPROMS FormulatedProducts 2.0 – new application areas and key usability enhancements

Siemens advanced process modelling software includes new bioprocessing and product performance model libraries

LONDON, 27 April 2021 --- Process Systems Enterprise (PSE), A Siemens Business, today announced the full release of gPROMS FormulatedProducts 2.0, the mechanistic model-based environment for integrated digital design of robust formulated products and their manufacturing processes, and related digital process operation.

The release at the 2021 Advanced Process Modelling Forum follows an early release to key customers, and reflects the substantial investment Siemens is making into PSE's product development to provide the process industries with a new generation of digital tools.

The release introduces major enhancements to both the gPROMS FormulatedProducts model libraries and the underlying gPROMS platform 7.0, such as surrogate modelling. Additions include new mechanistic model libraries for developing bioprocess digital twins of bioreactor, membrane filtration and chromatography processes, and a new mechanistic canine model for the design, virtual formulation prototyping and risk analysis of clinical and pre-clinical drug product formulations.

Version 2.0 also introduces key library enhancements in active ingredient manufacture, formulation manufacture and product performance. Workflows when specifying buffers and media compositions of in vitro vessel, solution and suspension dosage forms have been streamlined, and equilibrium limited reactions added to the chemical synthesis libraries. Additionally, this release includes many usability and robustness enhancements to provide an improved user experience, such as a new case file structure, streamlined data import workflows using a new experiment data manager, parallel multi-start optimization and parameter estimation, and new cross-disciplinary examples and templates that can directly be customised to users' projects.

Sean Bermingham, VP Formulated Products at PSE, says: "We are working closely with our major users in pharma, F&B, FMCG, specialty chemicals and mining, with their requirements driving our extensive development programme. Our focus is now in extending usability and the ability to embed gPROMS FormulatedProducts in organisations' workflows to open the application of sophisticated digital design approaches to a wider range of users, and the Siemens investments are allowing us to move forward rapidly."

PSE continues to lead innovation in advanced process modelling capabilities for the pharmaceuticals, food & beverage, consumer goods and specialty chemicals sectors through the support of industrial & academic partners, funded development projects such as NextGen DDaMM, D-DAP, DIDCOM-FP, and the Systems-based Pharmaceutics Alliance.

For editors

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About Process Systems Enterprise (PSE), A Siemens Business

PSE (www.psenterprise.com), A Siemens Business, is the world's foremost provider of Advanced Process Modelling software and services to the process industries. Companies apply advanced process models within digital design and digital operations initiatives to explore the process decision space rapidly and effectively. This helps them to reduce uncertainty and make better, faster and safer formulation, process and product design and operating decisions based on deep scientific and process knowledge.

PSE provides gPROMS family products built on its gPROMS® advanced modelling platform. These include the gPROMS FormulatedProducts modelling suite, which provides mechanistic models for active ingredient manufacture, formulation and product performance as well as specific capabilities for optimising solids and crystallization process design and operation. PSE is committed to defining, developing and driving the adoption of next-generation process modelling software and workflows, and works in close collaboration with its major customers and selected R&D organisations to achieve this.

PSE's global customer base of Fortune 500 process industry companies and some 200 universities is served by operations in the UK, USA, UAE, Japan and Korea, and agencies in China and Taiwan.

About gPROMS FormulatedProducts

Built on PSE's gPROMS® advanced process modelling platform, the gPROMS FormulatedProducts modelling suite for optimising the formulation and manufacture of formulated products using mechanistic process and material models of unit operations – such as crystallization, spray drying and granulation – combined with in-vitro/vivo product performance models.

Use of PSE's technology and services results in faster innovation, more rapid formulation screening, 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.

Since 2013, the company has been pioneering the emerging science of Systems-based Pharmaceutics with Bayer, Eli Lilly, GSK, Pfizer, Roche and Sanofi. PSE was also the leader of the £20.4m AMSCI funded digital design ADDoPT project.