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[The partnership between Siemens and Process Systems Enterprise \(PSE\)](#)



Siemens

...extends the integrated digitalization portfolio for the process industry with the global cutting-edge software

Provider Process

provide Process Systems Enterprise (PSE). Model-based approaches, which play a central role in the digitalization of your plant operation increase your efficiency and profitability over the entire lifecycle of your plant.



Consistent, end-to-end data models for the entire lifecycle

After acquiring PSE in October 2019, Siemens extends its integrated digitalization portfolio for the process industry with the global cutting-edge software provider PSE for advanced process modelling.

” Experiences to date and, above all, success show that model-based technologies are the key to simulations, process optimization and even

to reliable predictions. Equation-oriented process modeling is the specialty of gPROMS ProcessBuilder, a modeling and solution environment from Process Systems Enterprise (PSE, London), a Siemens business since October 2019. The consistent application of the three digital twins for product, production and performance over the entire life cycle of a process plant maximizes the economic benefit.

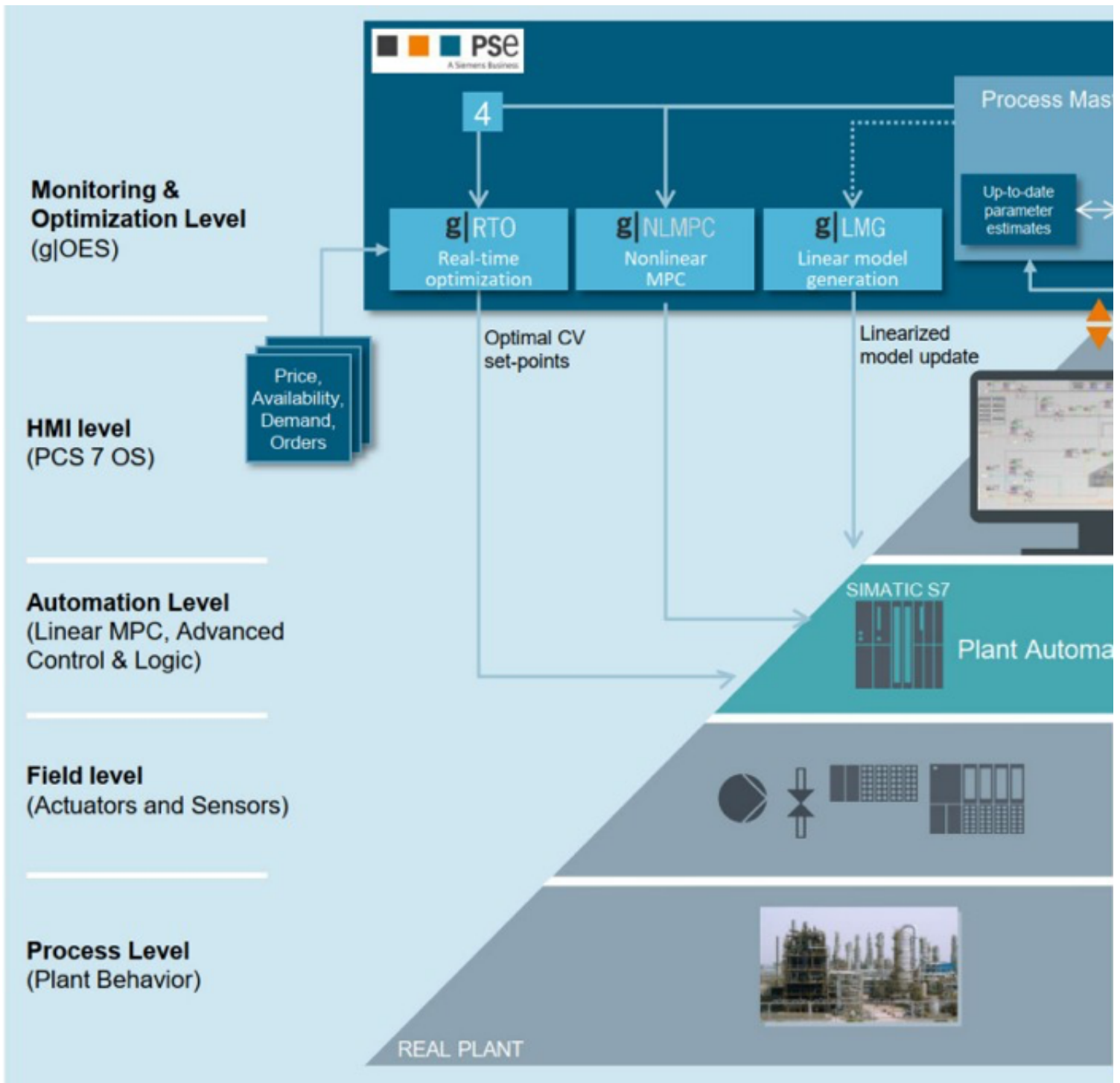
These benefits can be increased even further if the simulation models are not created new for every step but are coupled or transferred to each other.

Eckard Eberle, CEO of the Process Automation Business Unit, Siemens AG

Model-based plant operation

Ensuring a consistent data flow in the plant

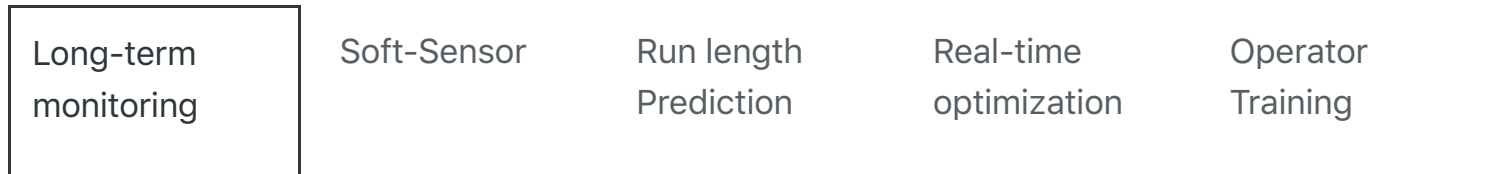
Working with PSE, Siemens makes a new series of model-based solutions available. This technology covers the entire lifecycle of your plant. This means: long-term device and status monitoring, soft-sensing, prediction of future performance as well as real-time optimization and operator training based on predictive models using real-time and historical plant data. As the plant operator, you benefit from optimized production processes based on real-time information and an improved foundation for decision-making, for example, by being able to calculate the remaining service life.



Seamless transition between process cycles

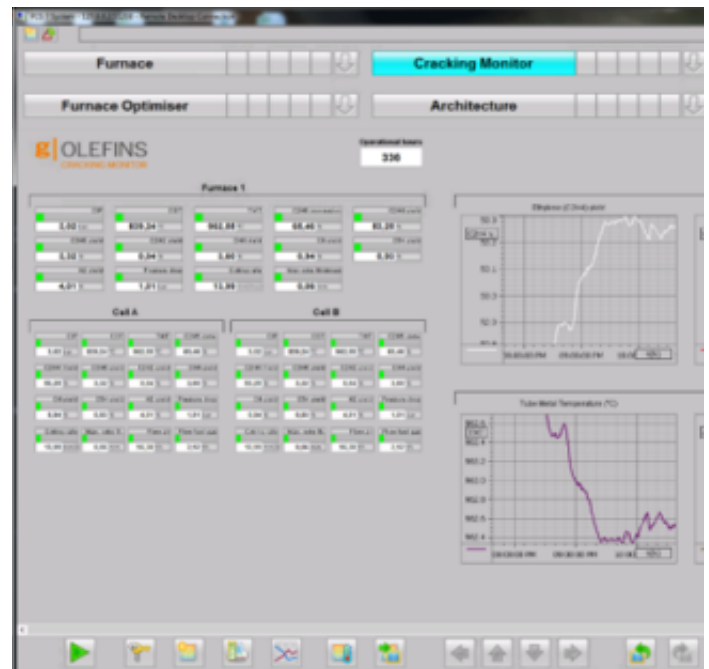
Make the most of your plant's full potential.

Flexible production that is easy on resources as well as shorter times-to-market coupled with increased efficiency and consistently high quality are key demands in the process industry. The foundation for this is consistent data, which not only improves engineering workflows but also creates a foundation for accurate plant models. These support operators when it comes to planning and commissioning, from the process to the field and automation level, and monitoring.



Collate data and resolve any deviations

Mathematical estimation processes are combined with current and historical data to provide long-term status monitoring. This will record any anomalies in the core components and process parameters (catalyst activity, coke build-up in furnaces, heat transfer coefficients in heat exchangers, etc.) – and form the basis for optimized maintenance planning.



Long-term status monitoring

Use Cases

See how simulation models can control and improve your processes.

Model-based solutions shorten the time between the development and introduction of new products, and help improve plant performance across all sectors of industry.

Optimizing an ethylene cracking plant

Portfolio

From integrated engineering to

integrated operations

Building up a store of consistent data is an important precondition for a model-based process plant. Integrating gPROMS, SIMIT, COMOS and SIMATIC PCS 7 throughout will permit a consistent data flow for the entire lifecycle of your plant.



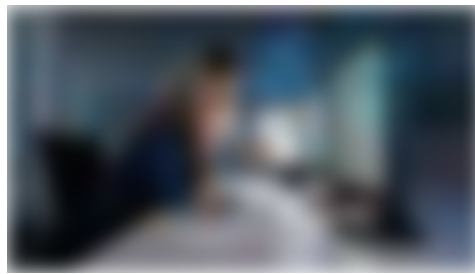
SIMATIC PCS 7

The SIMATIC PCS 7 integrated process control system helps plant operators ensure uninterrupted operation, ensuring consistent product



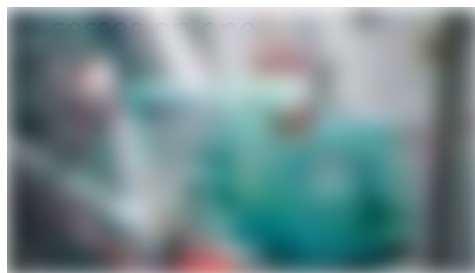
gPROMS

The gPROMS platform provides drag & drop flowsheeting, first-principle custom mod-



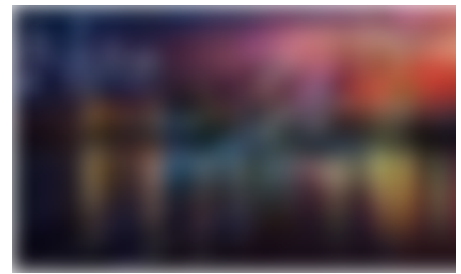
SIMIT

With the SIMIT simulation platform, you can comprehensively test automation projects as well as virtually commission systems, machines, and pro-



SIMATIC SIPAT

With our knowledge of Process Analytical Technology (PAT) and Good Manufacturing



COMOS

The uniform data platform of the COMOS integrated software solution combines all participating disciplines on a central database and ensures an uninterrupted flow of information.



eling, parameter estimation, integration of physical properties, powerful optimization capabilities that allow the direct calculation >

Practice (GMP) and our SIMATIC SIPAT software, we can help turn quality into an integral part of your production process >

Creating added value:

An important feature of Industry 4.0 is the goal of providing consistent, end-to-end data models. Both for the supply chain and the entire lifecycle of a plant. Dealing with the process industry requires an in-depth understanding of both processes and procedures as well as extensive engineering know-how.

The partnership between Siemens and Process Systems Enterprise (PSE) is therefore a logical step towards the future, enabling you to optimize your plant's productivity and

performance using predictive models that faithfully reflect the real thing.

Contact

Improve efficiency and cost-

effectiveness using simulation models

We can help you tap your plant’s full potential by improving productivity, reducing maintenance intervals, and cutting your power consumption at the same time – all thanks to model-based technologies for plant operation.

Our experts answer you

✉ Contact us

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