

DIGITAL INDUSTRIES SOFTWARE

What's new in Opcenter Execution Process 2207?

Providing a state-of-the-art platform to deploy predefined industry templates

Benefits

- Provide a state-of-the-art platform to deploy predefined industry templates
- Synchronize business practices and integrate automation and batch execution
- Deliver just-in-time and intuitive execution support for complex shop floor operations and seamless user experience for production operators
- Integrate quality tests in lot quality control and information exchange with laboratory personnel
- Facilitate advanced planning and scheduling of operations and resources to optimize equipment use and increase efficiency

Summary

Opcenter[™] Execution Process (EX PR) software is the Siemens manufacturing execution system (MES) for the consumer-packaged goods, food and beverage and chemical industries. Using Opcenter Execution Process can help you increase traceability, manage orders more efficiently and monitor production in real time – all based on a state-of-the-art platform and application approach.

Opcenter Execution Process 2207, which is part of the Siemens Xcelerator portfolio, the comprehensive and integrated portfolio of software, hardware and services, is equipped with a new multi-plant architecture that allows the system to manage multiple factories from a unique central installation. In a multi-plant scenario, users can configure the manufacturing solution with common settings and options for plant-specific tuning and runtime operations to adopt a multitenancy approach.

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There are many benefits when running a multi-plant scenario, including:

- Reducing costs due to the limited number of servers, updates and patches
- Simplifying the overall architecture to reduce any human error during the system alignment
- Reducing the rollout time for a new plant
- Enabling standardization and harmonization that imply lower configuration effort

The new multi-plant architecture also provides great value for:

- Business continuity A plant has no downtime during updates on the other plants that require a stop and during the rollout of new plants
- Security and usability You have visibility to modify only the data related to your plant
- Robustness The performance and behavior of one plant is not affected by workload peaks or eventual issues on other plants

Opcenter Execution Process Plant/Solution Configuration and Deployment in Multiplant



- Multiple plants from a unique central installation
- Manufacturing Solution configured with common and plant-specific settings
- Limited number of servers
- Lower configuration effort
- Ensured:
 - Business continuity
 - Security and Usability
 - Robustness

Opcenter Execution Process New integration with BRAUMAT/SISTAR



Seamless integration with the Siemens PCS for your industry



Easily orchestrate batch and manufacturing activities including synchronized quality execution

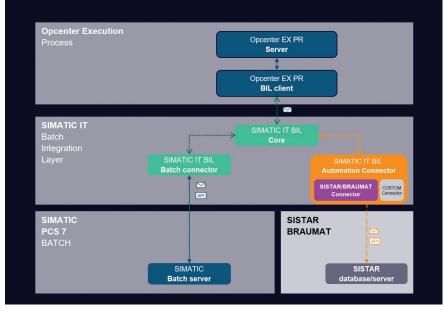
Total transparency, traceability and genealogy provided by the integration of the PCS and the MES

Enabling the design and rollout of global manufacturing templates including the batch system

Using Opcenter Execution Process provides you with native integration into several other products from the Siemens portfolio. The improved interfaces enable you to support multi-plant scenarios. You can now use Opcenter Execution Process to connect multiple plants to the same enterprise systems such as Opcenter Advanced Planning and Scheduling (APS) and Opcenter Research, Development and Laboratory (RD&L). Users at each plant in Opcenter EX PR can also connect to their individual and local batch systems such as the SIMATIC® suite including the SIMATIC PCS7 BATCH and BRAUMAT/SISTAR.

This release provides a new native integration with BRAUMAT and SISTAR process control systems (PCS) for the food and beverage industry. You can leverage the workflow capabilities and tasks already available in Opcenter EX PR to consistently orchestrate the manufacturing operations with the batch execution activities. You can use Opcenter EX PR to monitor the batch execution. Once the batch is completed, the operator executes the

Opcenter Execution Process & BRAUMAT/SISTAR New integration architecture



subsequent tasks in the workflow. The user experience remains consistent. The shop floor operators work with the operator task list and are guided by the system using the execution of all manufacturing and quality activities.

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In addition, the improvements in the batch integration layer component enable system integrators to plug in their own batch connectors for third-party systems to further integrate the MES and the automation layer.

Additional capabilities and new features involving the integration with BRAUMAT/ SISTAR will be coming soon in the next releases of Opcenter EX PR.

The combination of the new multi-plant architecture and the native integration of Opcenter EX PR with Siemens batch execution systems enables the design and rollout of comprehensive global manufacturing templates, including enterprise and control systems.

Additionally, this release allows users to manage inspection master plans to establish continuous quality control processes integrated into the manufacturing operations. Operators can perform quality inspections specified by product or raw materials based on produced or received quantities, produced pieces or recurrent timers. You are able to design a workflow to manage the sampling and testing activities using the out-of-the-box (OOTB) tasks that integrate natively with Opcenter RD&L or using the new inspection tasks tailored for specific testing activities such as at-line testing and in-line testing. The semiautomatic data acquisition allows you to retrieve the parameter values from sensors mounted on the production line.

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While executing the inspection order, the system will automatically start the quality control process at the right moment, respecting the predefined inspection frequency. For example, when the operator performs a production declaration, the produced quantity may reach a threshold that activates a particular quality inspection that requires them to verify the characteristics of the produced batch or take a sample to be analyzed by the quality personnel at the laboratory. In both cases, the data produced by the quality test results will be stored alongside the manufacturing history of the batch, associated with the production entities such as work orders, material lots, material tracking units and equipment involved in the inspections.

Using Opcenter Execution Process 2207 provides you with a new and robust multiplant deployment architecture that decreases the total cost of ownership of the MES. The native integration with BRAUMAT and SISTAR provides consistent orchestration of manual activities and automated batch execution. The advanced quality control functionalities provide failsafe quality execution integrated with the manufacturing activities.

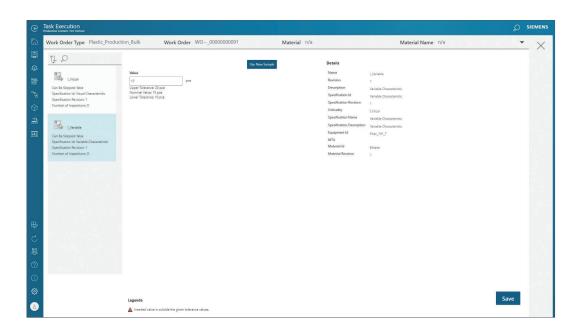
Features

Configure plant solutions and deploy in multi-plant

- Manage multiple plants from a unique central installation
- Configure manufacturing solutions with common and plant-specific settings
- Work with a limited number of servers
- Use lower configuration effort

Integrate with process control systems for food and beverage – BRAUMAT/SISTAR

- Easily orchestrate batch and manufacturing activities including synchronized quality execution
- Integrate between the MES and the PCS to improve transparency and traceability
- Enable the design and rollout of global manufacturing templates including the batch system



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Execute failsafe quality with inspection orders

- Define inspection master plans to perform continuous quality control activities
- Use quality inspections that are triggered by the system at the right time, for the right product, at the right production line
- Enable multiple testing methods to support off-line testing, at-line testing and in-line testing with semi-automatic data acquisition

Improve support and sustainability

- Conduct data space allocation
 improvements
- Deploy a new option to classify specific data as temporary, which allows it to be excluded from the archiving process
- Use recurrent automatic cleaning of technical system data

Use a new licensing model

The new licensing model no longer depends on the number of machines or hardware size and guarantees:

- Reduced complexity allows fewer modules so users can evaluate license needs with ease
- Sustainability that includes no restrictions on hardware sizing to unlock the scalability potential of the product and ensure optimal runtime performances

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