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# Siemens Opcenter Execution Process 3.0

- Electronic signatures in tasks
- Enhanced work-in-progress visibility
- Full-fledged operator cockpit
- Restyled user experience (UX)

## Delivering project integration with full traceability and quality

### Benefits

- Provides visibility into and synchronization with all manufacturing operations
- Facilitates native orchestration of heterogeneous activities
- Delivers full traceability of operations and materials
- Integrates manufacturing and quality
- Supports multiple versions of SIMATIC BATCH
- Offers a scalable, modular and extensible solution

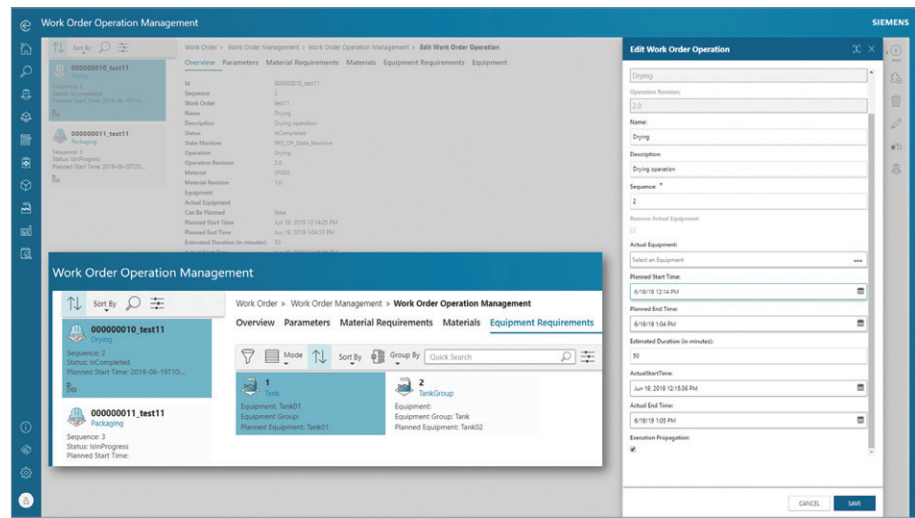
### Summary

Siemens Opcenter Execution Process (formerly known as SIMATIC IT Unified Architecture Process Industries) is Siemens' manufacturing execution system (MES) for the personal and home care, food and beverage and chemical specialties industries. Version 3.0 has six major new features:

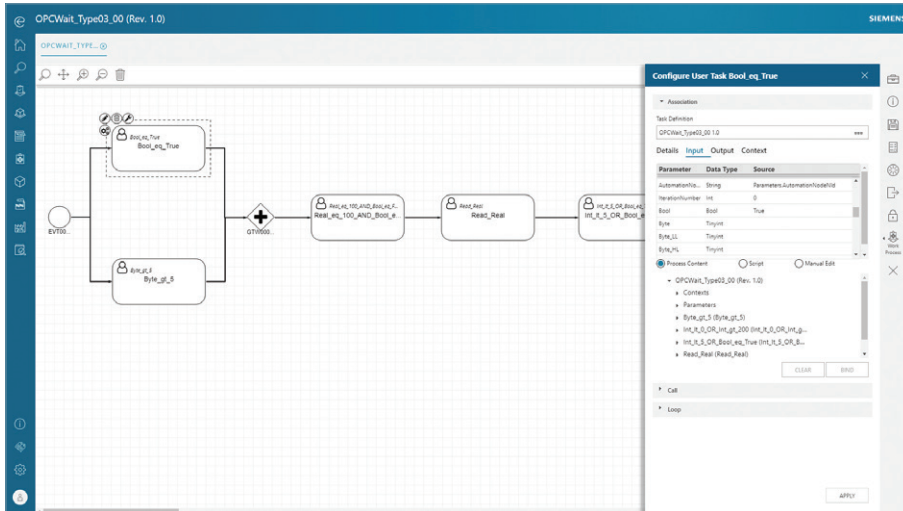
- Equipment- and task-driven automation connectivity
- Advanced planning and scheduling integration

### Features

- Equipment-driven automation connectivity
  - Template-based data binding
  - Automation write task
  - Automation read task
  - Automation await task
- Preactor APS integration
  - Operation level scheduling
  - Planned and actual equipment
  - Estimated duration
  - Schedule and order exchange using Siemens Opcenter Connect
- Execution visibility
  - Work order process values
  - Enhanced operator cockpit



# Siemens Opcenter Execution Process 3.0



- New UX
- User profiling extensions
- Electronic signature in electronic work instructions (EWI)

## Enhancements to Siemens Opcenter Execution Process 3.0

Shop floor connectivity and orchestration is essential in process industries. In Siemens Opcenter Execution Process 3.0 you can configure data communication to the shop floor based on equipment templates. During execution of the manufacturing process these equipment templates are replaced by the actual used equipment instances. This mechanism provides easy process configuration and dynamic runtime execution.

The main drivers for shop floor communication are the automation tasks. Siemens Opcenter Execution Process 3.0 includes a read, write and await automation task that enables you to manage all shop floor communication and handshaking mechanisms.

The read automation task provides you the ability to configure an automation task linked to an equipment template that is replaced by the actual equipment at runtime. At runtime the equipment tags are read into an equipment object variable.

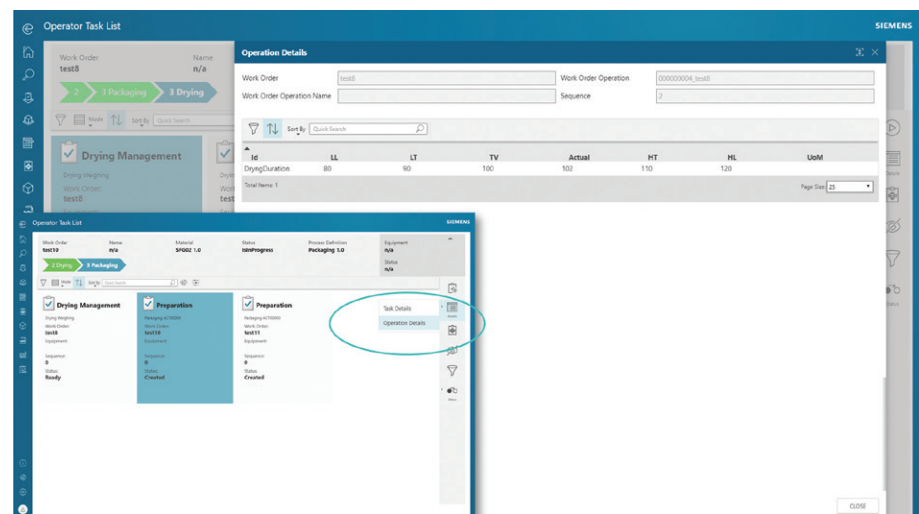
The write automation task does the opposite of the read automation task. At process configuration the equipment template tags are mapped to the equipment variables. These variables are then written to the appropriate equipment during process runtime.

The await automation task enables you to close the loop from write to read. It allows you to wait for a tag to reach a specified value and to react accordingly. You can model proper handshaking mechanisms with automation.

Siemens Opcenter Execution Process 3.0 focuses on the integration of

planning and scheduling, leveraging Siemens Opcenter Connect, which offers the functionalities of a manufacturing service bus to facilitate connectivity and integration between products and solutions. The latest release provides the integration with Preactor Advanced Planning and Scheduling (APS) and also enhances scheduling capabilities. Siemens Opcenter Execution Process 3.0 enables you to schedule not only on the work order level but also on the operation level where you can propose a planned equipment to a certain operation. The planned equipment can also be proposed by the Preactor APS system, based on specified scheduling rules that are communicated to Siemens Opcenter Execution Process via an out-of-the-box Business to Manufacturing Markup Language (B2MML) interface. Preactor APS can propose a full production schedule using the equipment model and work orders coming from Siemens Opcenter Execution Process. Based on this information, Preactor APS will propose equipment and estimated durations, start and end times for all orders and their operations.

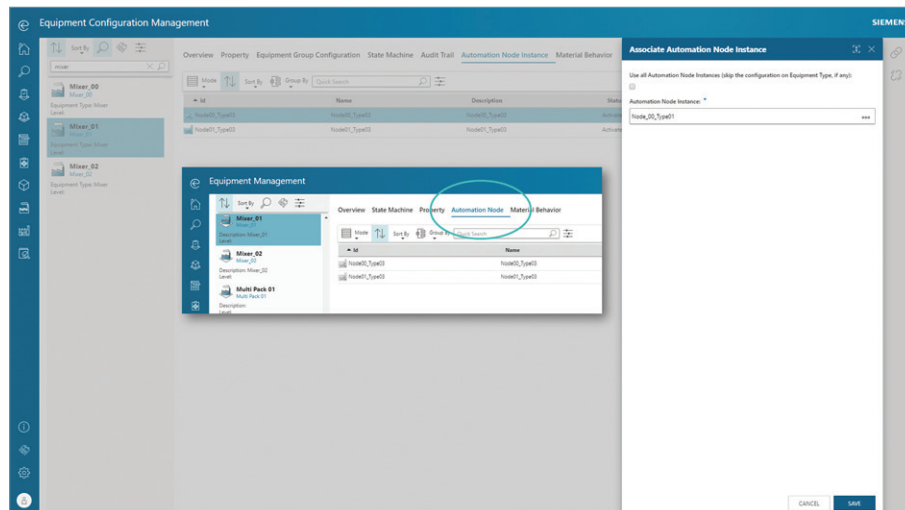
Visibility to the work in progress is important to customers, and new functionality has been added to improve the visibility to work order execution. The main enhancements are



provided in the operator cockpit, where process values can be retrieved in an aggregated way. The process values shown at operation level in the operator cockpit are the result of the aggregation of the task output parameters that come from the activities of the workflow related to the operation. The parameters can be easily added via a catalog of predefined parameters. When added into an operation, they can be used in tasks of a workflow and the actuals are automatically provided.

Siemens Opcenter Execution Process 3.0 is delivered with a fully revised user interface that provides a state-of-the-art user experience. The new user experience also provides more user profiling enhancements so that the user can tailor the software to specific needs.

Siemens Opcenter Execution Process also provides electronic signatures in electronic work instructions. A quality supervisor can choose an existing electronic signature (ES) scenario and assign it to any step in a work instruction definition. Different steps can be linked to different ES scenarios.



Signature collection is available only after:

- Data collection step: all required data is entered and confirmed
- Acknowledge step: the step is acknowledged by the user

In a data collection step, as soon as signature collection is enabled, the user

cannot modify the collected data, which becomes read-only. The user can either approve or reject the signature. In case of rejection, data collection items become editable again and any previously collected signature is discarded.

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