

PM-QUALITY What is new in V11.4

Process Management System WinCC Add-ons



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Event-controlled archiving periods



Trigger based on PM-SERVER Event-Datasets



Web-based access to PM products via PM-WEB



New PM-SERVER Function Blocks



Support of WinCC Unified/Professional V19



New Web-Control: StyleSelector



Manual Input Values Server in PM-API



Separation of Event Datasets and their Triggers



Triggering Event Datasets with Alarms





Trend Configuration Editor



Automatic Backups



Temporary Archiving of Tags



New PM-SERVER Calculation Blocks (REST API)



Support for new SCADA system and operating system versions



Improvements in the Report Editor



Performance optimizations in the Data Center



Support for new SCADA system and operating system versions



New functions in Batch Trend Controls for WinCC Unified



New Rest API Invoke Control for WinCC Unified



Product batch and batch reports in PDF format





Controls for WinCC Unified



Checksum for all batch records



New Excel add-in





New VB Script Editor



New Text Editor



New report blocks for header and footer



Dependency on Internet Explorer removed





MQTT Station



New Function Blocks for Calculations and Aggregations



Drag & Drop



Search & Replace

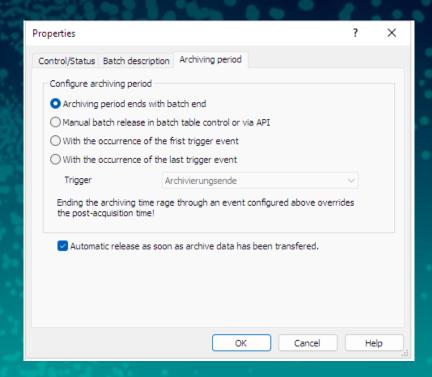
New in Version 11.4 **Event-controlled archiving periods**



For each production unit, the archiving period after the batch end can be configured. By default, the transfer of batch data ends with the BatchActive bit ->'0'. Post load times and load delays can be configured at group level for data from the PM-SERVER archives. This post load time can now be ended event-controlled.

The following options are available:

- 1. Archiving period ends with batch end
- 2. Termination of the archiving period through manual batch release
- 3. End of the archiving period with the **first** trigger event after batch end
- 4. End of the archiving period the **last** trigger event after batch end



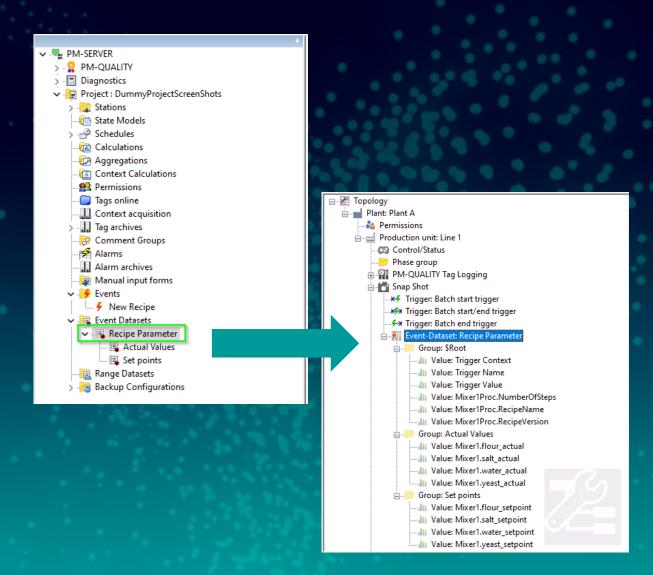


New in Version 11.4 Trigger based on PM-SERVER Event-Datasets

In the topology manager, PM-SERVER event datasets can now also be configured as a data source for trigger data.

Only the PM-SERVER event dataset is referenced. The configuration for the event and the parameters takes place exclusively in the PM-SERVER.

At runtime, the event dataset data is treated as archive data. This means that the data is transferred cyclically in the background, as with process value archives and message archives.



New in Version 11.4 Integration of SVG graphics



Integration of SVG graphics from the Industry Graphic Library.

E.g. to display values in a bar chart





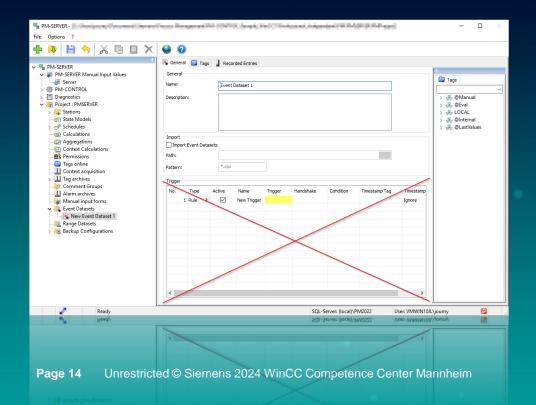


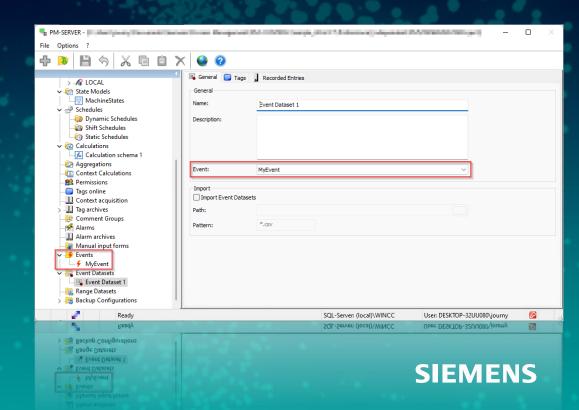
New in Version 11.4 Separation of Event Datasets and their Triggers



Triggers are not defined within the Event Datasets anymore, but under the new node "Events".

An instance under "Events" can be used with any number of Event Datasets.





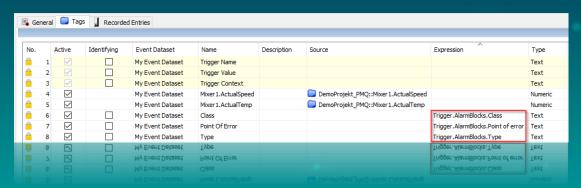
New in Version 11.4 Triggering Event Datasets with Online Alarms

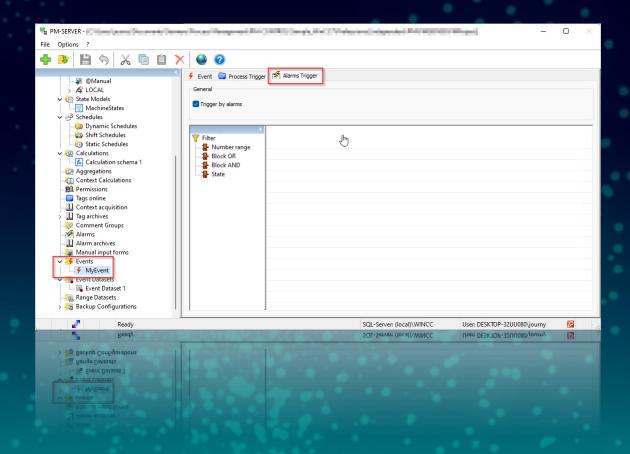


Events that can trigger Event Datasets, were extended: Event Datasets can be created when an Online Alarm occurs.

With an Alarm Filter this can be limited to specific alarms.

Message blocks from the alarms can be transferred to the Event Dataset using placeholders.

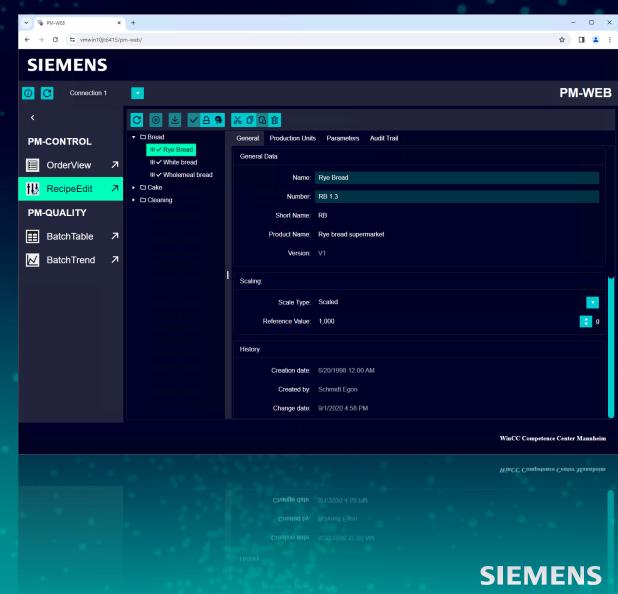




New in Version 11.4 Web-based access to PM products via PM-WEB



- PM-WEB Server enables web-based access to PM products, independent of the SCADA system.
- The access to the data of the PM products is provided in the PM-WEB landing page by embedding the existing PM web controls into a single web application.
- PM-WEB can be accessed installation-free via browser - whether on a PC, tablet or mobile.

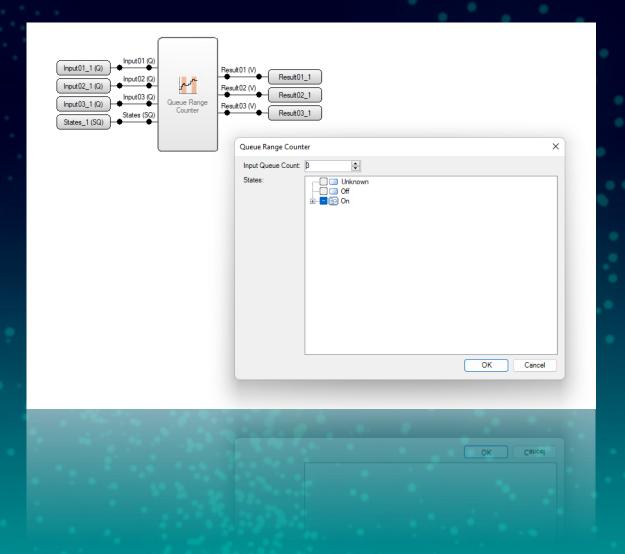


New in Version 11.4 New Function Blocks(1): Queue Range Counter



The new "Queue Range Counter" function block can be used in aggregations and calculates the counter for time periods in which a certain state was active.

Up to 10 counter sources can be connected, whose counter values are summarized for to the selected states over the query range. A separate output is provided for each counter.



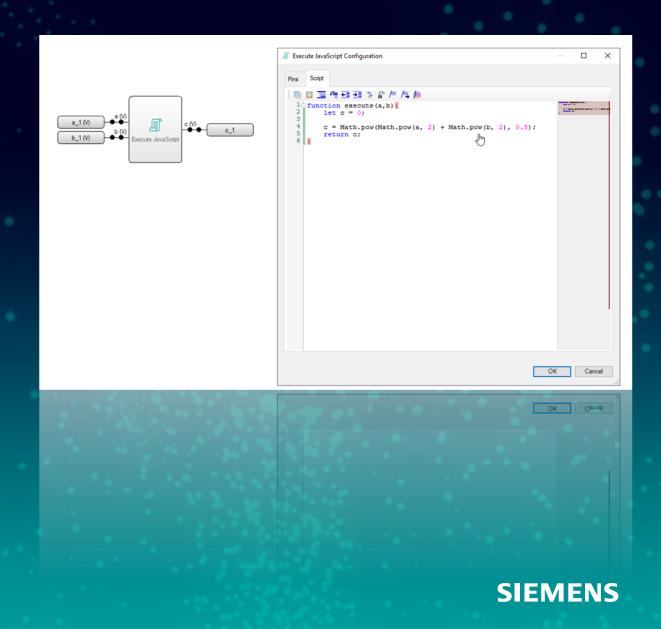
New in Version 11.4 New Function Blocks (2): Execute JavaScript

The new function block "Execute JavaScript" allows the execution of JavaScript code. This enables the implementation of complex calculations.

The code can be easily entered in the function block's own editor.

The JavaScript function can be supplied with parameters via configurable pins. The output of the function is written to output pins of the function block.

Scalar values as well as value series (e.g. archived values) can be connected as inputs and outputs.

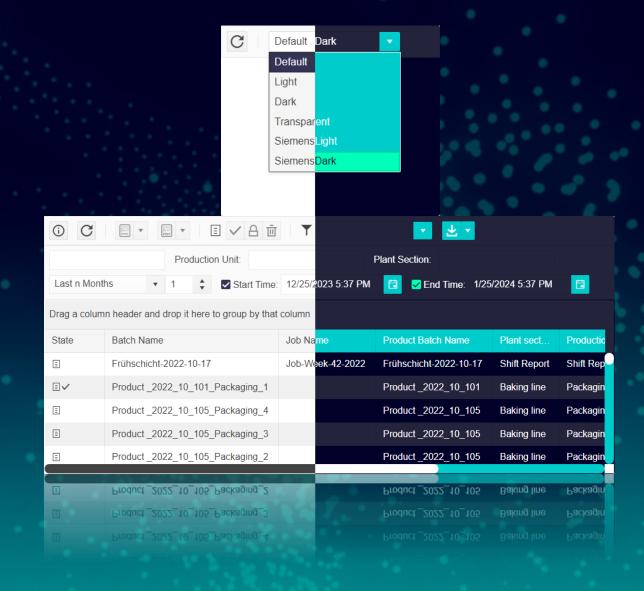


New in Version 11.4 New Web-Control: StyleSelector

The StyleSelector Web-Control for WinCC Unified and WinCC V8 allows the selection of StyleSets, which are queried via the PM-API.

The selected StyleSet can then be assigned to other PM Web-Controls through an event or a property of the Web-Control.

With the StyleSelector Web-Control, the visualization of all PM Web-Controls can be centrally managed and easily customized.



New in Version 11.4 Manual Input Values Server in PM-API

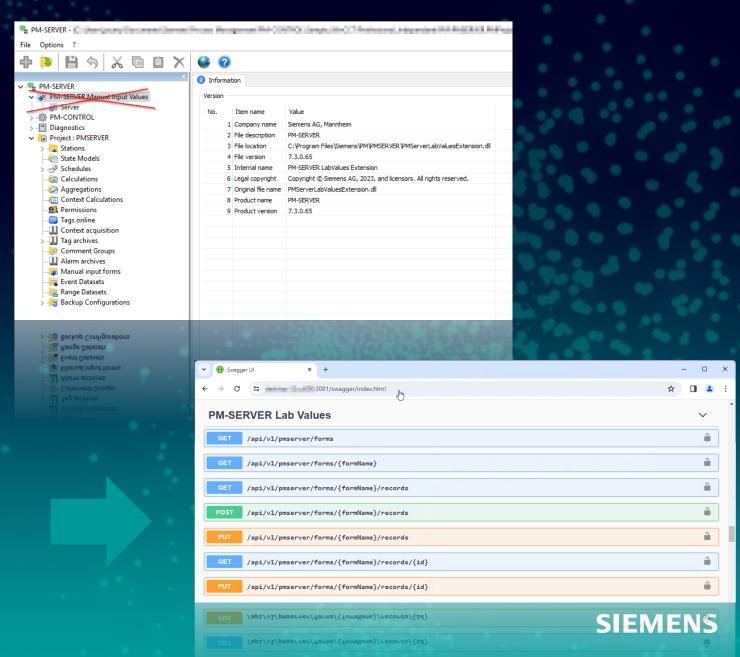
PM-SERVER V7.4 does not provide a separate server for Manual Input Values anymore.

→ The functionality is contained in the PM-API!

The new version of "PM_SERVER.PMLabValuesControl" uses the endpoints of PM-API.

Please note:

For remote access, it must be ensured that a suitable PM-IDP user is created and used.



New in Version 11.4 Support of WinCC Unified/Professional V19



The following SCADA system versions are supported:

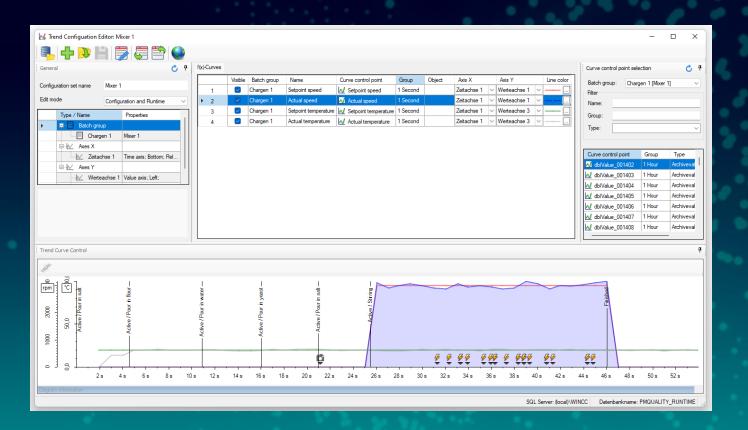
- WinCC V7.5 (Update 1 or higher, SP1, SP2)
- WinCC V8
- WinCC Unified/Professional/Advanced V16
- WinCC Unified/Professional/Advanced V17
- WinCC Unified/Professional V18
- WinCC Unified/Professional V19



New in Version 11.3 Trend Configuration Editor



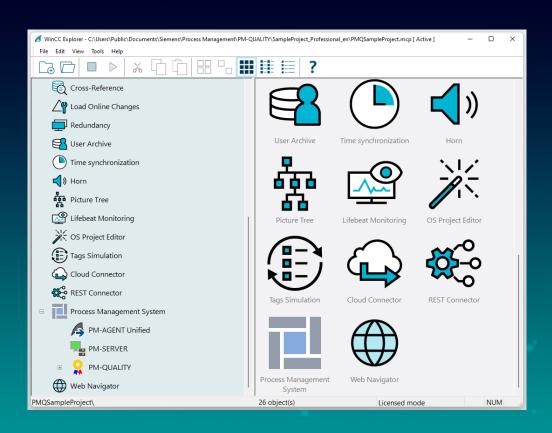
- Configuration of Trend templates
- Add trends via Drag & Drop
- Preview of the current configuration

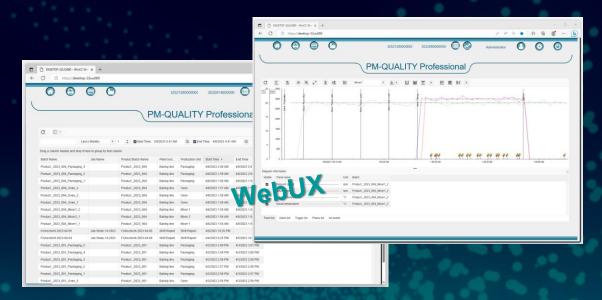


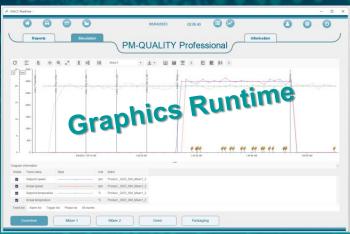
New in Version 11.3 Release of the PM-QUALITY Web Controls in WinCC V8

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- Integration in WinCC screens
- Integration in WinCC WebUX screens





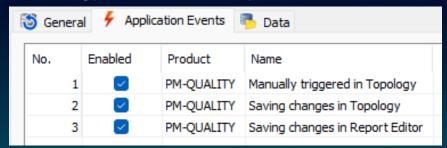


New in Version 11.3 Automatic Backups

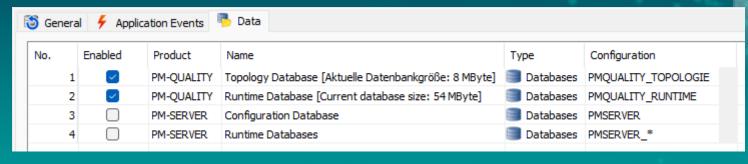


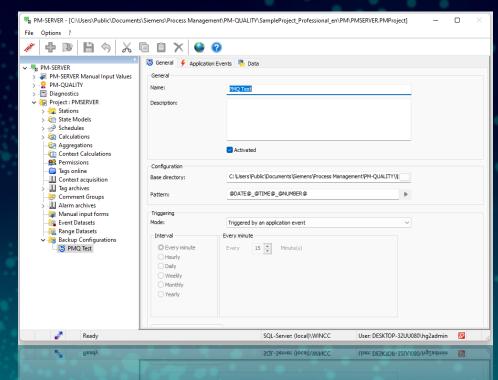
In PM-SERVER you can define backups.

These can be triggered by time or by an event – e.g. when the Topology or a report layout is saved.



The backup can contain databases, files and folders. Custom targets can be defined if required.





New in Version 11.3 Temporary Archiving of Tags

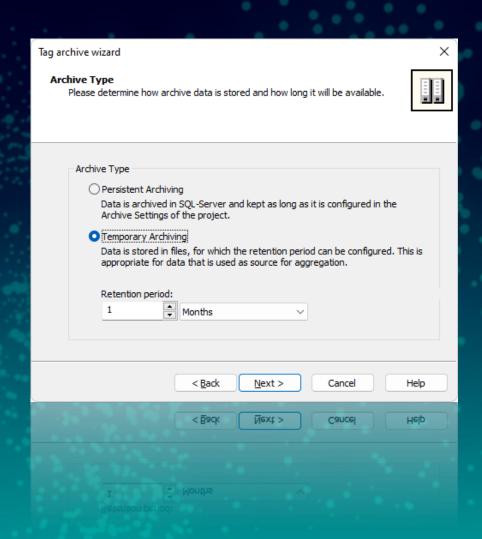


Tags can be temporarily archived using a new archive type. The retention period can be configured independently of the project.

This is suitable for source data of aggregations that are no longer relevant after successful aggregation.

Advantages:

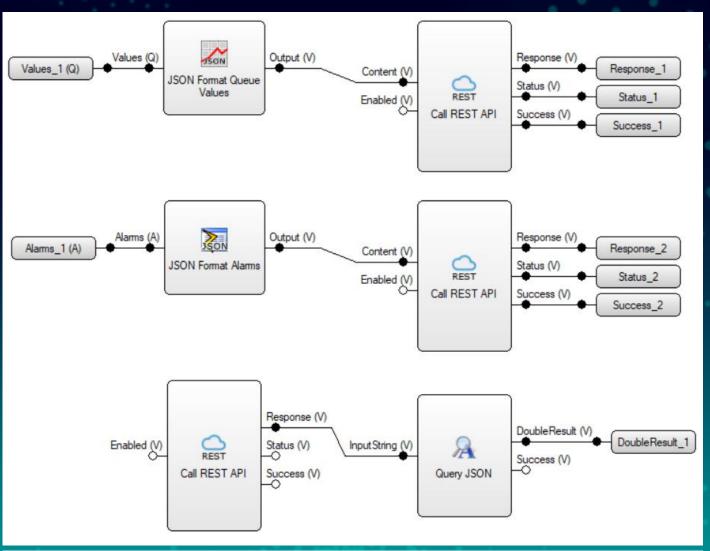
- Smaller project segments since source data is not archived there.
- Therefore: Faster querying of data in project segments and reduced storage requirements.
- Faster aggregation of source data of temporary archiving.





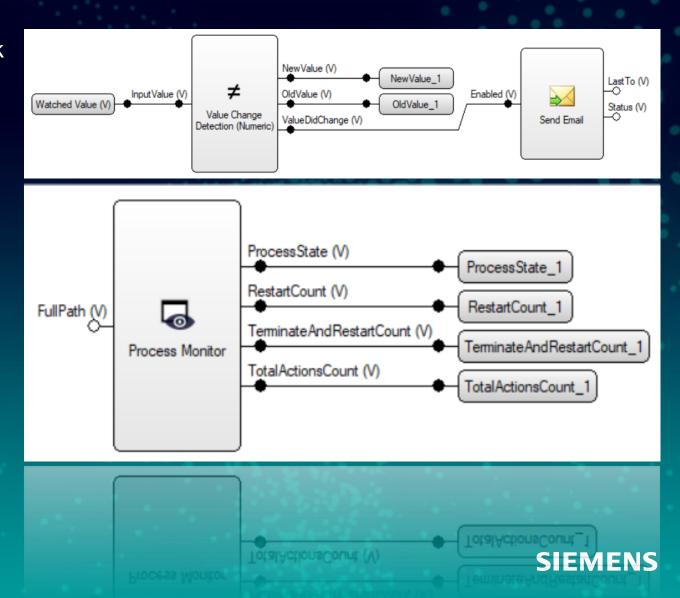
New in Version 11.3 New PM-SERVER Calculation Blocks (1)

- The new function block "Call REST API" enables access to web based REST APIs supporting a variety of authentication methods.
- Used together with the new function blocks "JSON Format Alarms" and "JSON Format Queue" this allows e.g. to transmit alarms or process values from PM-SERVER.
- The function block "Query JSON" enables extraction of certain values from content returned by REST API calls.



New in Version 11.3 New PM-SERVER Calculation Blocks (2)

- New function blocks have been added to check for value changes of typed input values like number, bits and text, allowing for example to perform certain actions when a change is detected.
- New outputs have been added to the "Process Monitor" function block which expose information about the number of actions taken by the block.



New in Version 11.3 Support of new SCADA system versions



The following SCADA system versions are supported:

- WinCC TIA V15
- WinCC TIA V16
- WinCC TIA V17
- WinCC TIA V18

- WinCC V7.4 SP1
- WinCC V7.5 (as of Update 1)
- WinCC V7.5 SP1
- WinCC V7.5 SP2
- WinCC V8.0



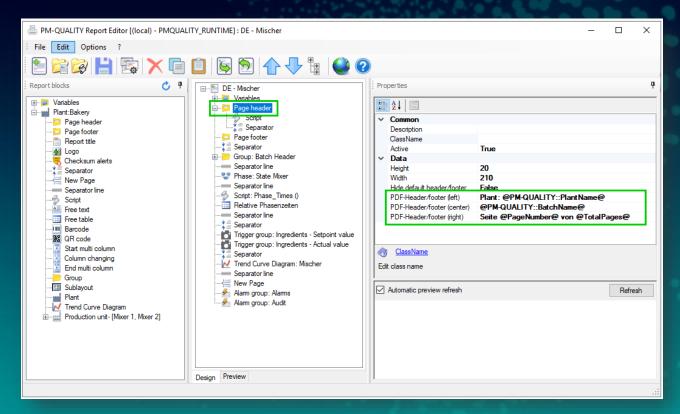
New in Version 11.2 Improvements in the Report Editor



Configurable header/footer for PDF format

You can configure your own texts in the layout for exporting to PDF format and

for printing PM-QUALITY logs.



New in Version 11.2 Performance optimizations in the Data Center

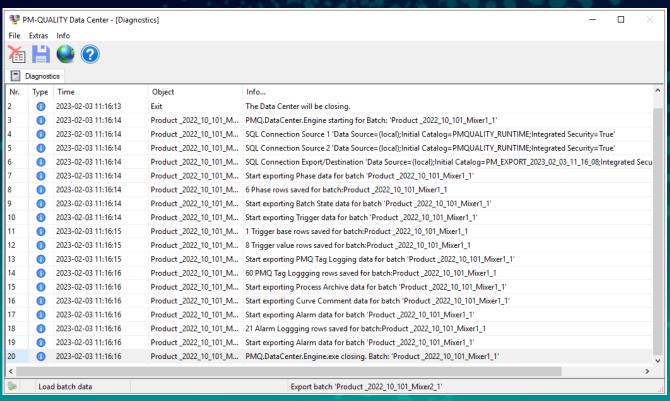


Exporting in database format has been optimized in the Data Center.

The database export now takes place in a 64-bit component, which leads to a

significant acceleration.

 No changes have been made to the user interface.



New in Version 11.2 Support of new operating system versions



Support of the following operation system versions:

- Windows 10 Professional, Enterprise
- Windows 11 Professional, Enterprise

- Windows Server 2016
- Windows Server 2019
- Windows Server 2022



New in Version 11.2 Support of new SCADA system versions



The following SCADA system versions are supported:

- WinCC TIA V15
- WinCC TIA V16
- WinCC TIA V17
- WinCC TIA V18

- WinCC V7.4 SP1
- WinCC V7.5 (as of Update 1)
- WinCC V7.5 SP1
- WinCC V7.5 SP2



New in Version 11.1 PM-QUALITY Export of logs in PDF format

PDF

- Export of PM-QUALITY product batch reports in PDF format without an additional PDF printer.
 - Automatic export in PDF format
 - Manual export in PDF format from the batch table controls

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Batch state:

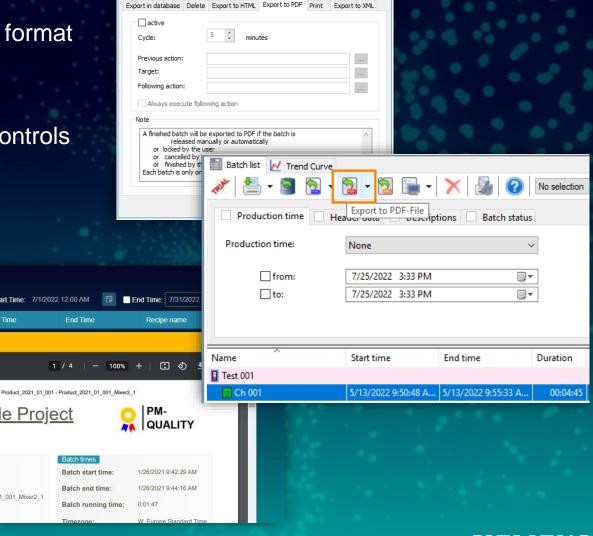
PMQ Sample Project

Product_2021_01_001_Mixer2_1

Process state

Prod

Prod



Export/Print

New in Version 11.1 PM-QUALITY Batch Trend for WinCC Unified



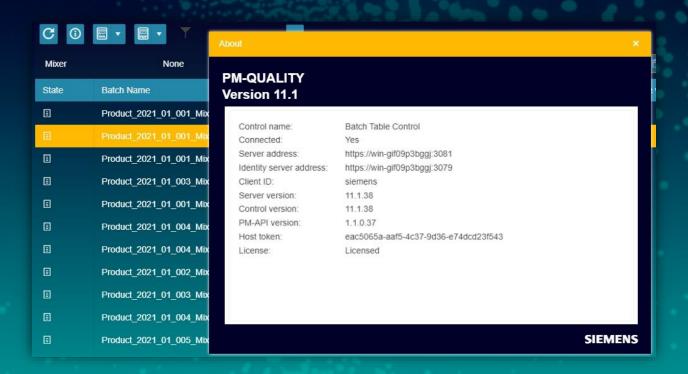
- New functions in Batch Trend Controls for WinCC Unified
 - Relative time axis
 - Free axis positioning (↑ ↓ and ← →)
 - Display of grid lines for each axis
 - Movable display area
 - Tooltips for measuring points and other diagram objects for displaying detailed data
 - Rulers including display of statistical data
 - Selection of Diagram objects
 - Language switching
 - About box with information about the version and the state of the control



New in Version 11.1 PM-QUALITY Batch Table for WinCC Unified



- New functions in Batch Table Controls for WinCC Unified
 - Additional columns for displaying start and end times in UTC format
 - Export of PM-QUALITY batch reports in PDF format
 - About box with information about the version and the status of the control

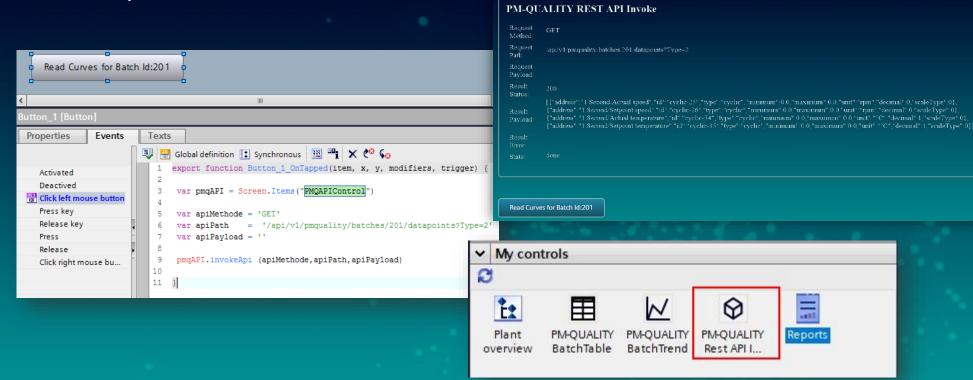




New in Version 11.1 PM-QUALITY Rest API Invoke for WinCC Unified



- Querying data from PM-QUALITY via REST API in WinCC Unified:
 - Easy data access with the "PM-QUALITY Rest API Invoke" control
 - Access from JavaScript

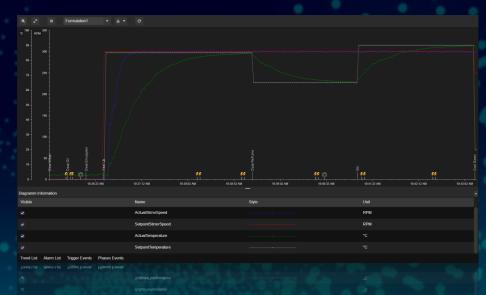


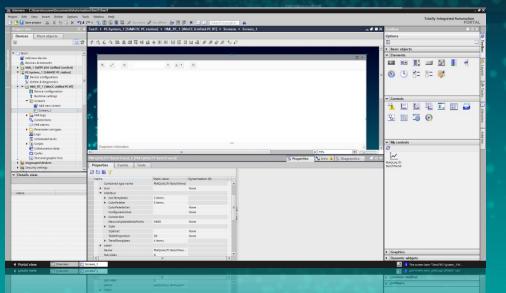
New in Version 11.0 PM-QUALITY BatchTrend for WinCC Unified



Display of batch data in a curve picture with the *PM-QUALITY BatchTrend Control*:

- Integration in WinCC Unified screens (PC runtime and panels)
- Display of process values and snapshot values in trend form
- Display of snapshot values, phase data, alarms and operator messages as events
- Free assignment of the curves to the axes
- Easy configuration through reusable curve templates
- Dynamization by linking variables or scripts to the control properties





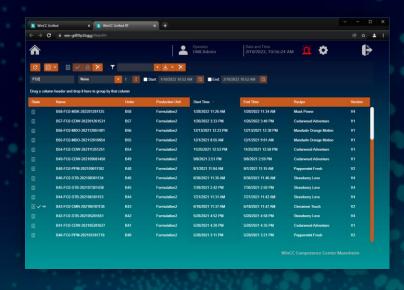


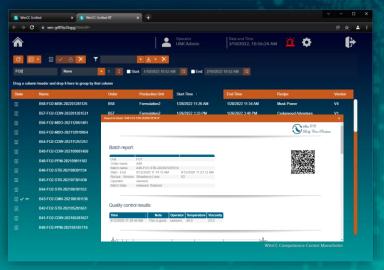
New in Version 11.0 PM-QUALITY BatchTable for WinCC Unified



Display of batch data in tabular form with the *PM-QUALITY BatchTable Control*:

- Display of the relevant batch data product/order/batch designation, start/end of product batch/batch
- Creation and display of batch reports
- Filtering and sorting
- Release/lock batches



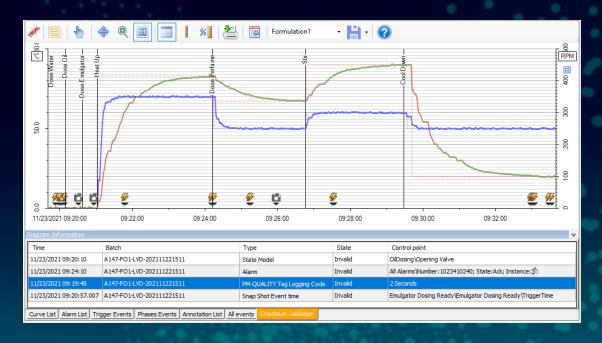




New in Version 11.0 Checksums for runtime data



- All batch data are provided with a checksum when they are saved in the PM-QUALITY runtime database
- The checksums are checked when loading the batch data
- Occurring checksum errors are displayed in the Client Controls / Report Engine



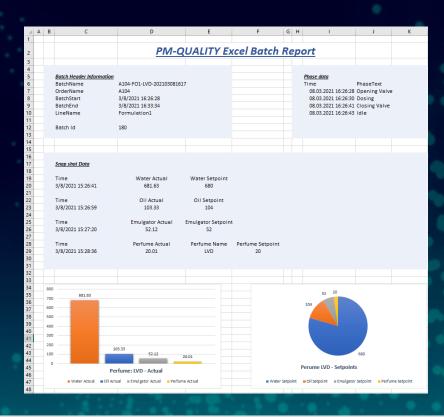
Checksum alerts:				
State	Туре	Time	Group	Object
Invalid	Batch Data	28.10.2021 15:59:38.786		Product_2021_CheckSum_046_Mixer2_1XX
Invalid	State Model	28.10.2021 16:00:07.802	State Mixer	Active / Pour in flour
Invalid	Alarm	28.10.2021 16:00:45.639	Alarms	Number:206; State:Ack
Invalid	PM-QUALITY Tag Logging Cycle	28.10.2021 15:59:41.996	1 Second	
Invalid	Snap Shot value	28.10.2021 15:00:30.203	Ingredients\Setpoint value	Yeast
Invalid	Comment	28.10.2021 16:00:08.501	CKS Test:User 2	
	Comment	28.10.2021 16:00:08.501		

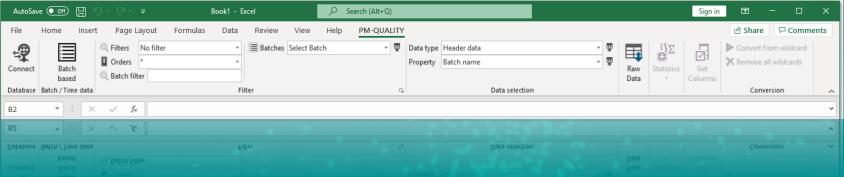


New in Version 11.0 Excel Add-In

X

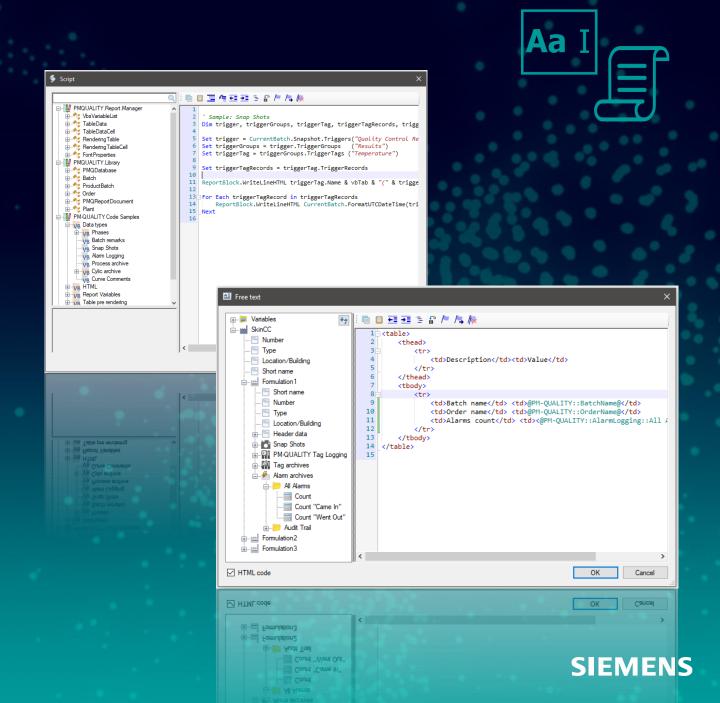
- Available for 32/64-bit Excel versions
- Excel evaluations based on a special batch
- Excel evaluations of all batches in a specific period





New in Version 11.0 VB Script and Text Editors

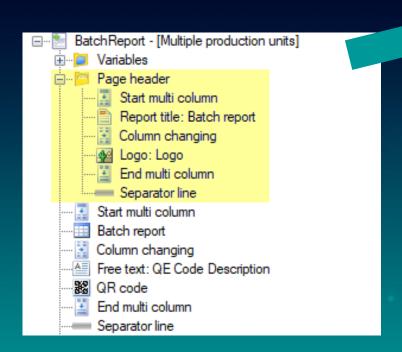
- Auto completion menu for Source code / HTML code
- Search & replace
- Easy source code formatting
- Using Bookmarks



New in Version 11.0 Report block for header and footer



 Easily insert batch data in header and footer areas

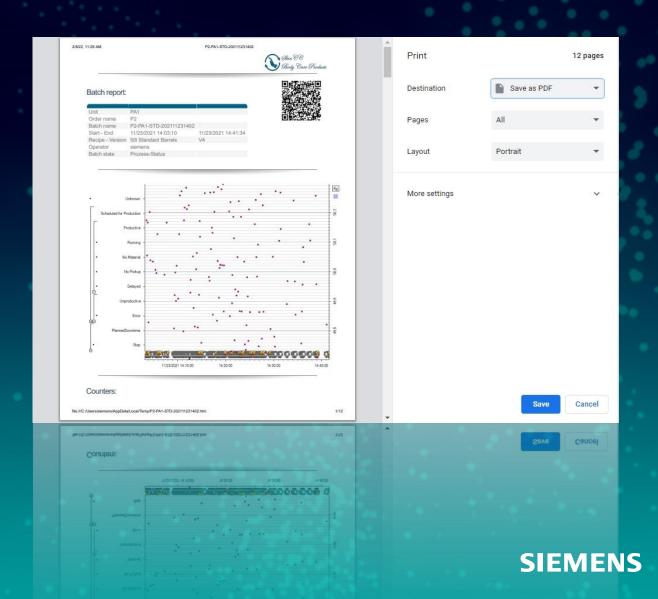




New in Version 11.0 Dependency on Internet Explorer

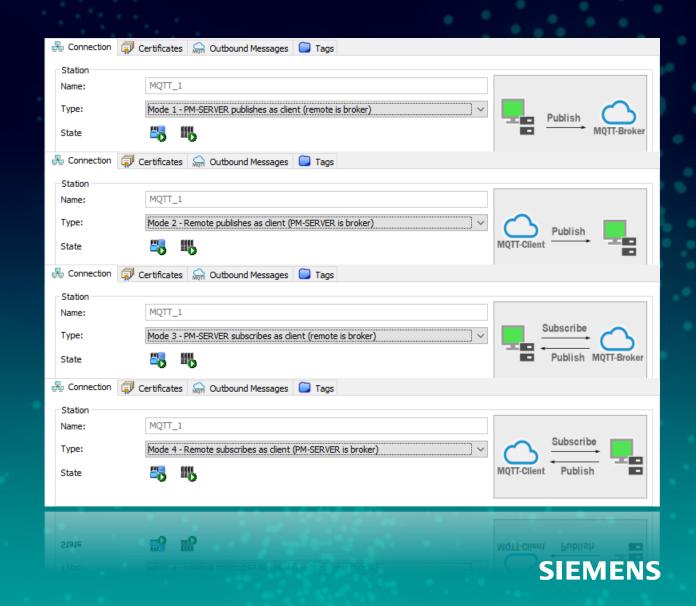


- HTML batch/product batch reports are displayed and output using a separate browser instance
- No longer dependent on Internet Explorer

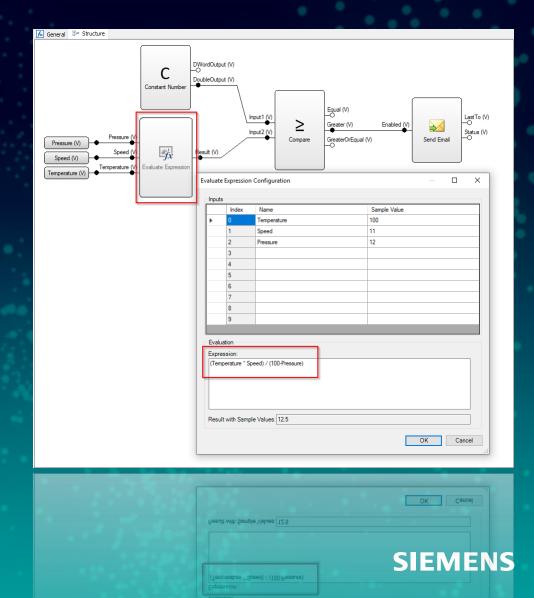


New in Version 11.0 MQTT Station

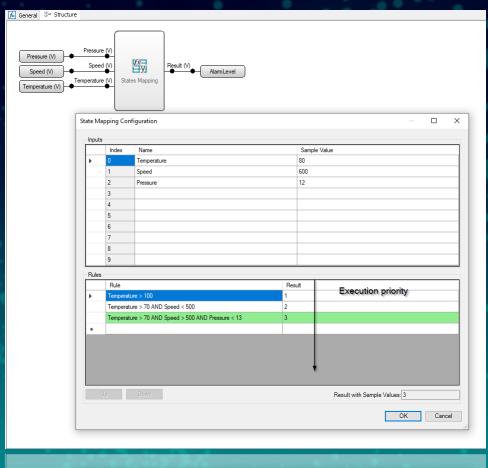
- New MQTT Station type with support for
 - MQTT 3.1, MQTT 3.1.1 and MQTT 5
 - SSL 2 and 3
 - TLS 1.0, 1.1 and 1.2
- All four possible operating modes supported
 - PM-SERVER publishes as client (remote is broker)
 - Remote publishes as Client (PM-SERVER is broker)
 - PM-SERVER subscribes as client (remote is broker)
 - Remote subscribes as client (PM-SERVER is broker)



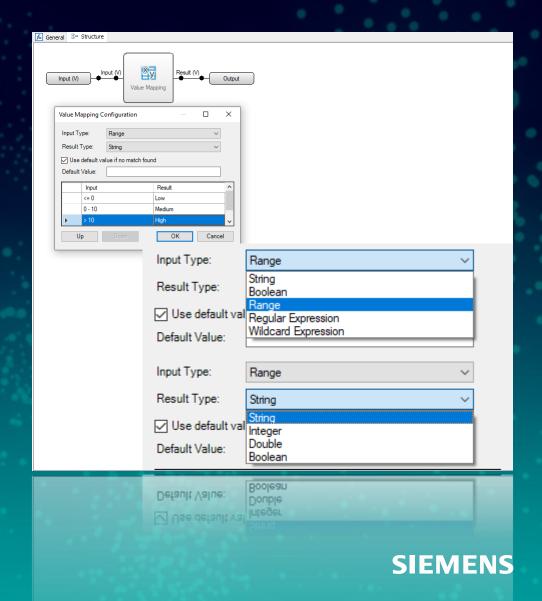
- "Evaluate Expression" function block
 - Evaluates arbitrary numerical expression for up 10 inputs
 - In place evaluation with sample values



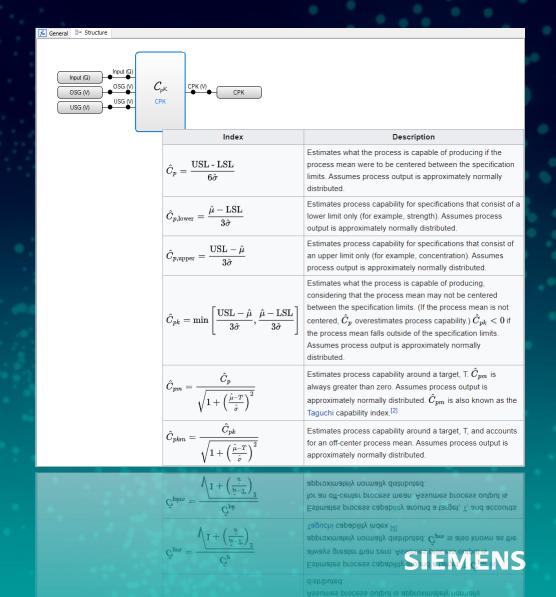
 "State Mapping" function block allows prioritized evaluation of an arbitrary number of test expressions build from up to 10 inputs



 "Value Mapping" function block to "map" arbitrary input values to dedicated output value

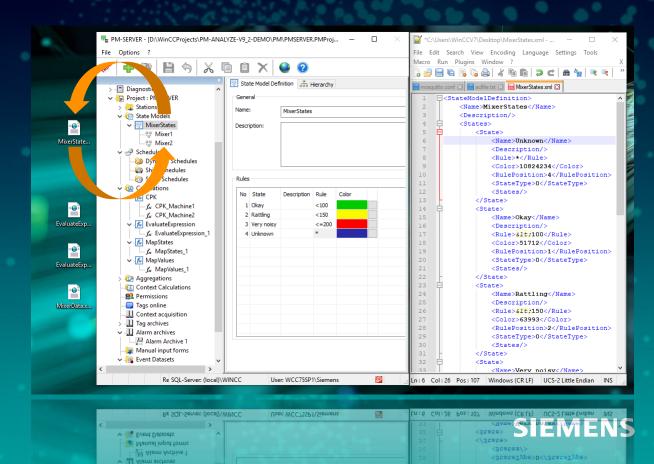


 CPK (Process capability index) function block (*Formula source Wikipedia.com)



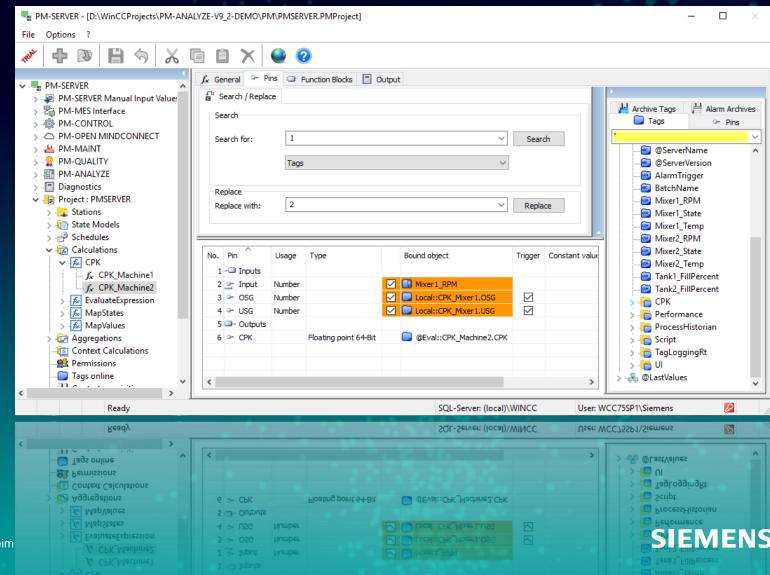
New in Version 11.0 Drag & Drop / Copy & Paste

- Drag and drop between PM-SERVER and Windows desktop/explorer and text editors
 - PM-SERVER to Windows desktop/explorer => generates xml export file
 - Windows desktop/explorer to PM-SERVER => imports xml file
 - PM-SERVER to PM-SERVER => copy
- Available for
 - State model definitions & instances
 - Calculation schemas & instances
 - Event dataset definitions
 - Range dataset definitions



New in Version 11.0 Search & Replace

- Search & replace function to "rewire" tag bindings or change object names in:
 - Calculations
 - Tag archives
 - Event datasets
 - Range datasets



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