

TIA Portal V17

Webinar Launch

Your gateway to automation
In the Digital Enterprise





SIMATIC WinCC Unified V17

Highlights & Innovations

Unrestricted© Siemens 2021

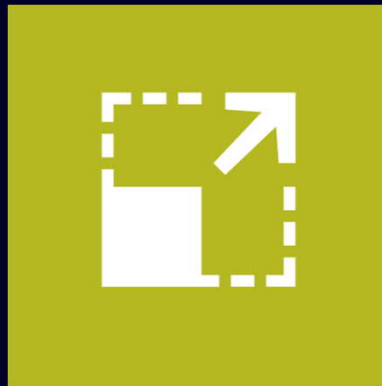
[siemens.com/wincc-unified-system](https://www.siemens.com/wincc-unified-system)

SIMATIC WinCC Unified System

The DNA for the future of visualization



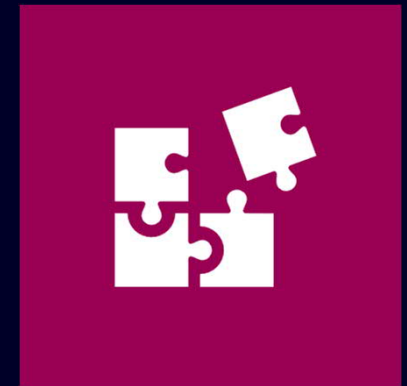
Technology



Scalability



Everywhere



Integration

SIMATIC WinCC Unified System Platforms



SIMATIC WinCC Unified
View of Things



SIMATIC HMI
**Unified Comfort
Panels**



SIMATIC WinCC Unified
PC

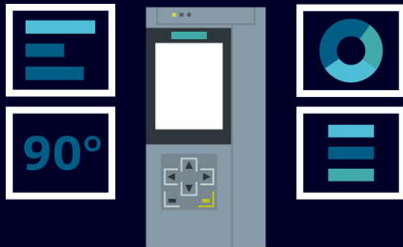


SIMATIC WinCC Unified
**for Industrial
Edge**

Preview

SIMATIC WinCC Unified System

Now even more flexible!



Web based visualization for basic use cases

- View of Things – Hosted on the S7-1500 (ET200SP CPU, F-CPU FW 2.9)
- Graphical editor – no need for programming skills

Remote operation independent from the operator on site

- Fully featured web client (HTML5) for Unified Comfort Panels
- One panel can host several operator stations



SIMATIC WinCC Unified System

Now even more flexible!



Track user actions for when changing process values

- Audit Basis functionality and detection of manipulation for PC systems
- Evaluation using Audit Trail reports

Collaboration of WinCC Unified devices

- Establish distributed configurations by linking screens
- Integrated operation of one or more devices without extra tools



Runs in different environments WinCC Unified Runtime for Industrial Edge



Preview

WinCC Unified Runtime (for Industrial Edge)

The power of WinCC
Unified on the Edge

Integrate HMI solutions into the
open ecosystem and extend
functionality on demand

Maximum security
due to Edge platform and
container virtualisation

SIMATIC WinCC Unified System – News with TIA Portal V17 at a glance

Engineering in TIA Portal

Extension for screen editor, faceplates, Management of Objects in Libraries (incl. Versioning).



OPC UA Connectivity

Support OPC UA DA Client and Server, OPC UA A&C Server.



Extensions for Parameter control

e.g., UDT in UDT or multilanguage support.



**Available with
TIA Portal V17**

Modern User Interface enhancements

Custom fonts, new flat styles (day/night switch) and 2-Hand operation.



SIMATIC Connectivity

Easy access to diagnostic information (diagnose buffer) of SIMATIC PLCs and support of Software Controller.



Enhancements for User Management

Configure individual function rights and integration to central user management (UMC).



TIA Portal options

Support automated engineering with SiVArc as well as simulation with PLCSim or PLCSim Advanced.



SIMATIC HMI Unified Comfort Panels – News with TIA Portal V17 at a glance

Distributed Systems

Setup of distributed configurations by sharing screens between WinCC Unified devices via Collaboration.



Unified Comfort Panel Web Client (HTML5)

Independent remote access via web browser for additional operator stations.



Modern User Interface enhancements

New F(x) Control, custom fonts, new flat styles (day/ night switch) and 2-Hand operation.



**Available with
TIA Portal V17**

Extensions for Parameter control

e.g. UDT in UDT or multilanguage support.



Enhancements for communication

Integration of OPC UA Client and Modbus RTU.



Enhancements for user management

Configure individual function rights and integration to central user management (UMC).

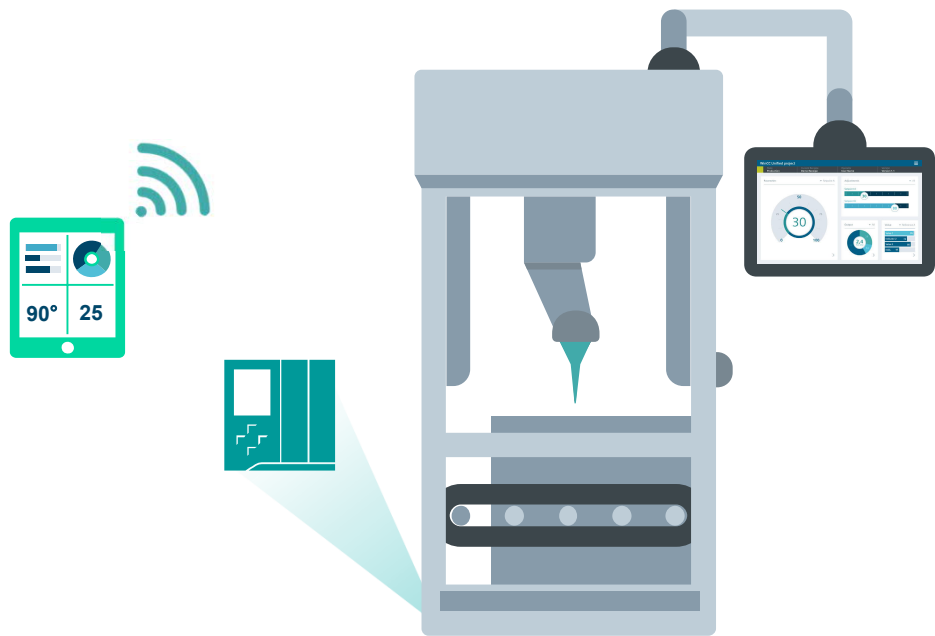


Enhancements for system diagnostics

Easy access to diagnostic information (diagnose buffer) of SIMATIC PLCs.



Basic visualisation for maintenance and service without the need for programming



HMI Panel

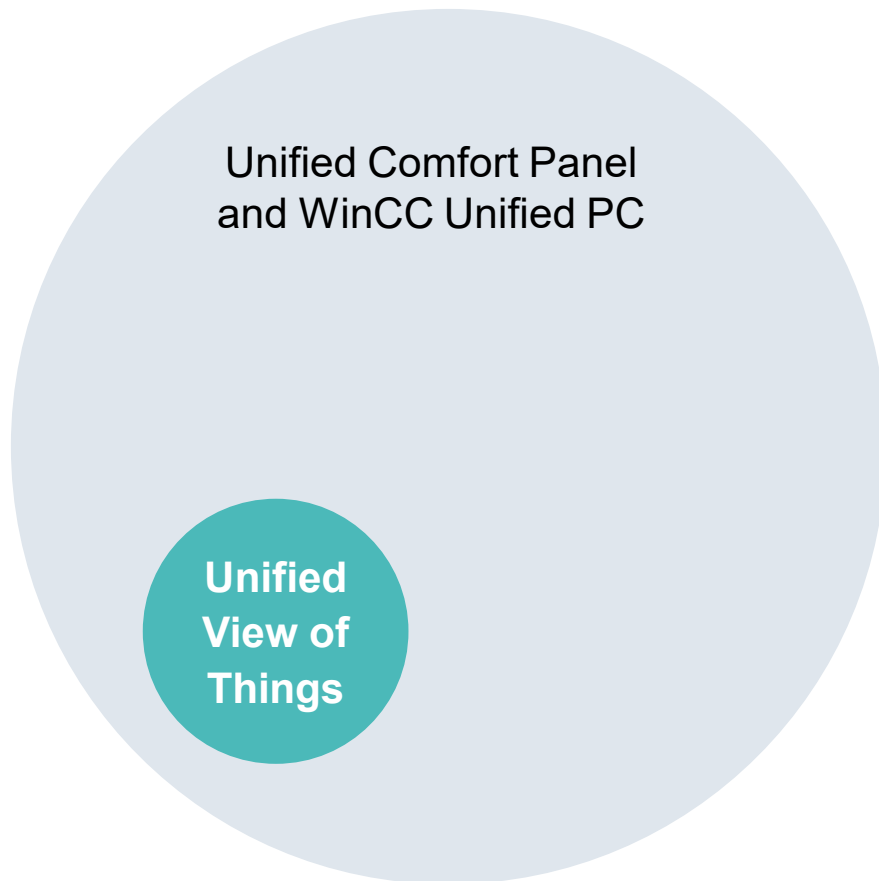
Regular visualization for the operation of the machine by the end user. Includes everything that is required for 24/7 operation (e.g. Alarming and Archiving).

View of Things (VoT)

Allows to implement a basic visualization (e.g. for maintenance and service use cases) that is completely separated from the end user visualisation.

WinCC Unified View of Things

Supported Screen Elements and Functionality



Consistency

- No runtime on device – VoT as full “web application”
- Subset of functionality and screen elements compared to a WinCC Unified Panel / PC
- Supported elements are identical to Panel and PC system
- Using same WinCC Unified screen editor

WinCC Unified View of Things – V17

Functionality

Unified View of Things

Basis / Screen Elements

- Basic objects” (Line, circle, ...)
- “Elements” (I/O field, button, gauge, ...)
- “Graphics”/“Dyn. widgets” (pictures, icons, svg, ...)
- Using screen windows
- Maximum number of 10 screens
- Maximum number of 100 tags

Data Connection / Dynamics

- Direct tag connection
- Screen change
- System Function (limited set)
- Scripting in screens (basic functionality)

Users

- User management of PLC web server

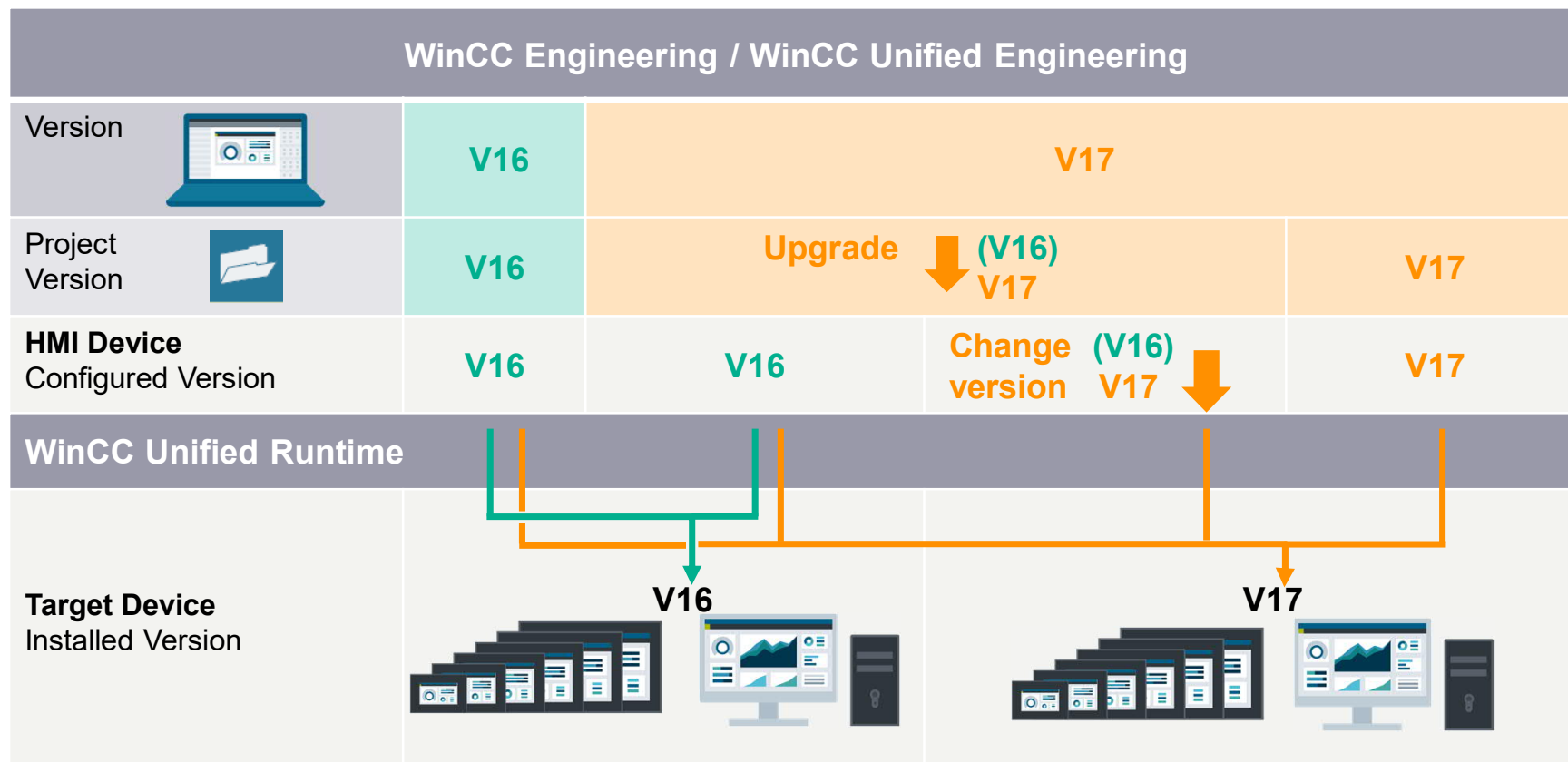
Unified RT (Unified Comfort Panel or Unified PC)

- Runtime functionality (Alarming, Logging, ...)
- Faceplates
- “Controls” (Alarm-, TrendControl, ...)
- “My controls” (e.g. Custom web control)
- Resource lists (Text & graphic lists), symbolic I/O field
- WinCC Unified options (PaCo, Audit, ...)

- Full / Global scripting
- Full set of system functions

- Screen item access rights
- Local or central user management for WinCC Unified

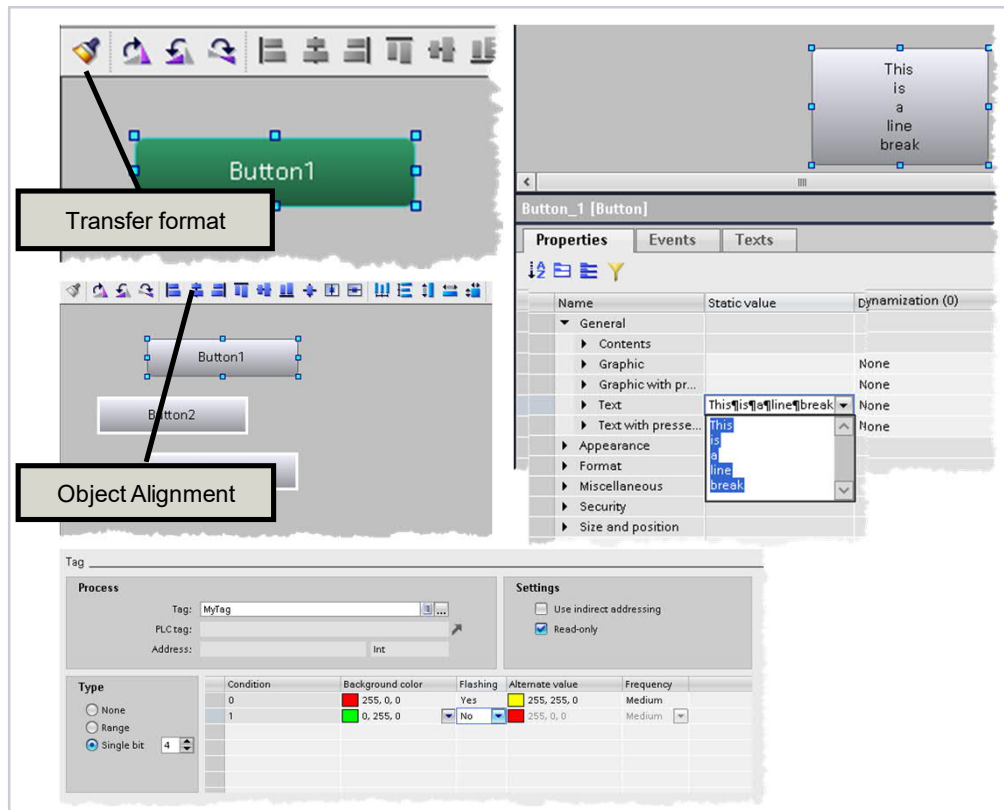
Version compatibility SIMATIC WinCC Unified



Please note: No version compatibility if Plant Intelligence Options are used.

WinCC Unified V17

Efficient engineering - Screen editor improvements



Transfer Format

- Copying format

Object handling

- Align objects (left, right, top, bottom)
- set select objects to the same height and/or width
- Distribute objects evenly vertically/horizontally

Layer handling

- Move objects one layer up or down

Multi-line text

e.g. for all relevant screen items like

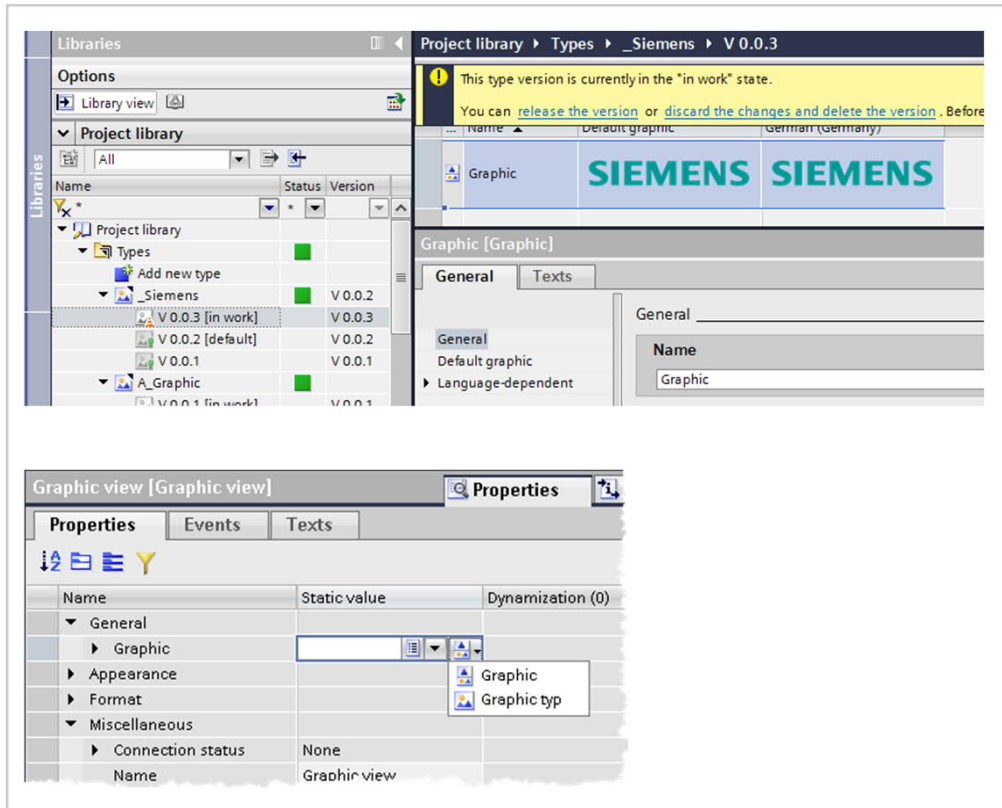
- Text field, button and switch
- Check- and Radio-boxes
- Bar, Pager and Gauge

Extended animation dialog

- Change color of objects and their flashing behavior upon process values

WinCC Unified V17

Efficient engineering - Graphics in TIA Portal Library



Versioning of graphics

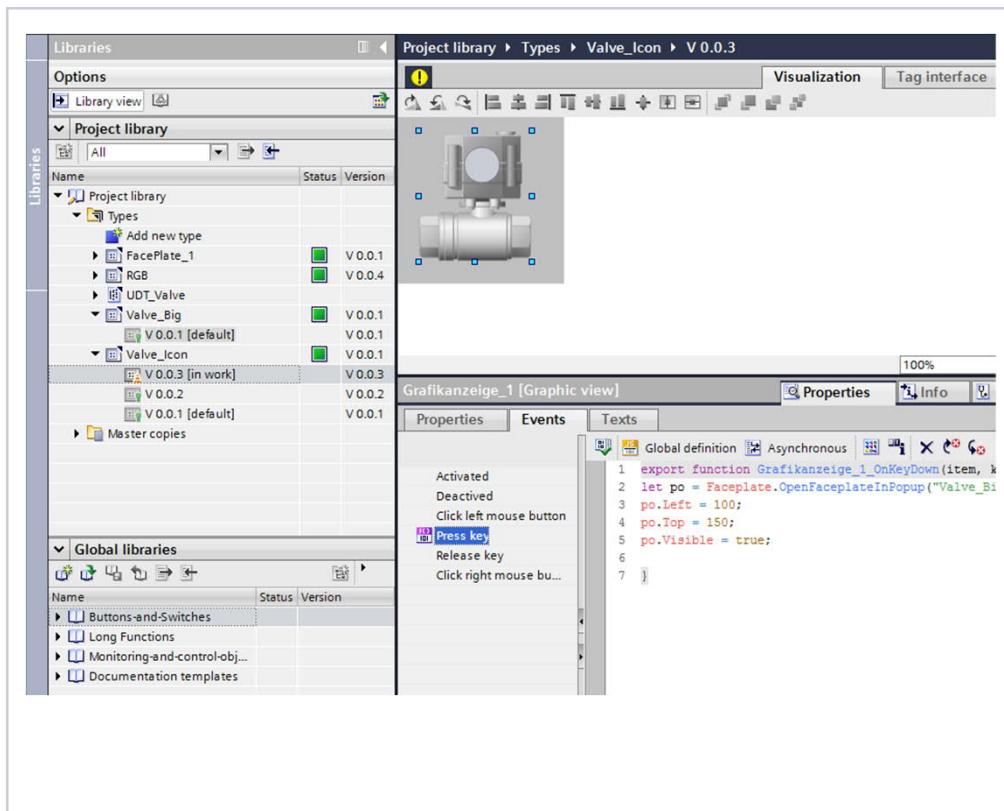
- Create graphic types in TIA Portal Library
- Graphics can be versioned in the library
- Definition of a „default version“ to be used
- Bitmap and SVG files can be used as versioned graphics

Instantiating of graphics

- Use graphic types in a screen of a Unified device

WinCC Unified V17

Efficient engineering - Unified Faceplate in TIA Portal Library



Standardisation

- Create Unified Faceplate Types in TIA Portal Library
- Use Faceplates from Library in Unified Devices
- Faceplates type can be used as instances or popups
- Instances and popups get a reference to a type and specific version of the type
- Support of UDTs

Versioning

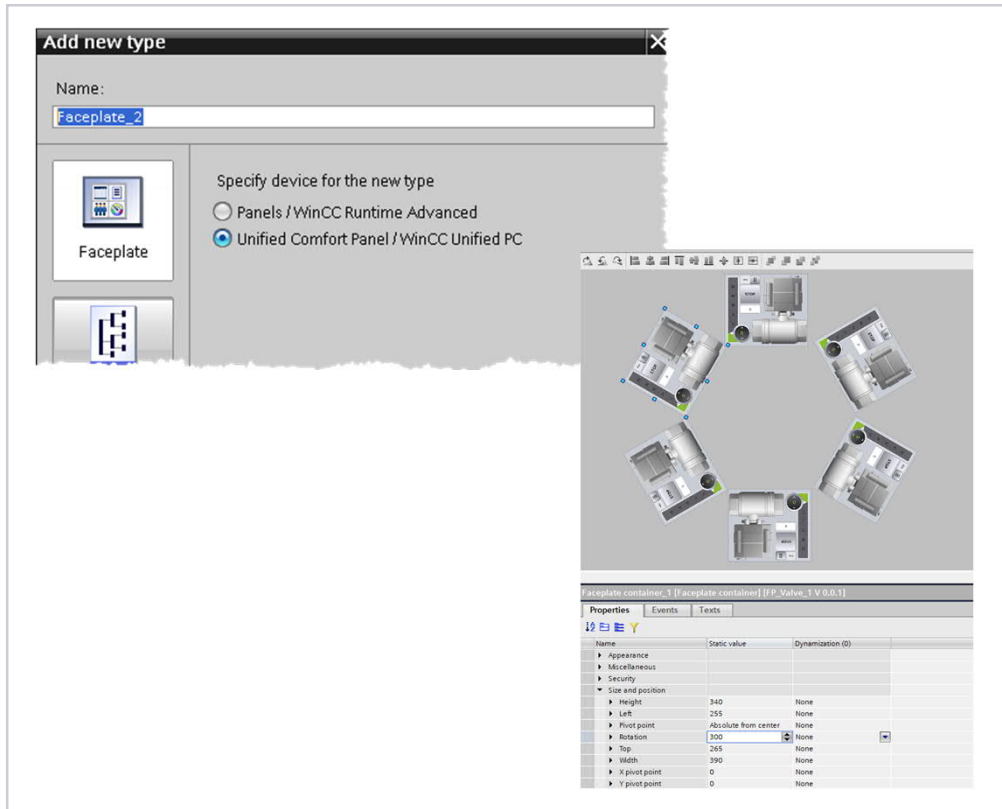
- Unified Faceplates are handled like simple type versions
- Instances can be rewired to higher or lower version
- Instances can be rewired to other type
- Unified Device can use different versions of one type
- Definition of a „default version“ to be used

Conversion from Common Data

- V16 Unified Faceplates will be moved and converted to TIA Portal Library automatically
- To reuse also an UDT on the interface, put the PLC UDT In V16 as type in the library!

WinCC Unified V17

Efficient Engineering – Unified Faceplate



Rotating faceplate instances

- Faceplate Instances can be rotated like standard screen items
- Rotation and Pivot Point can be dynamized via Script or tag

Interface Extensions

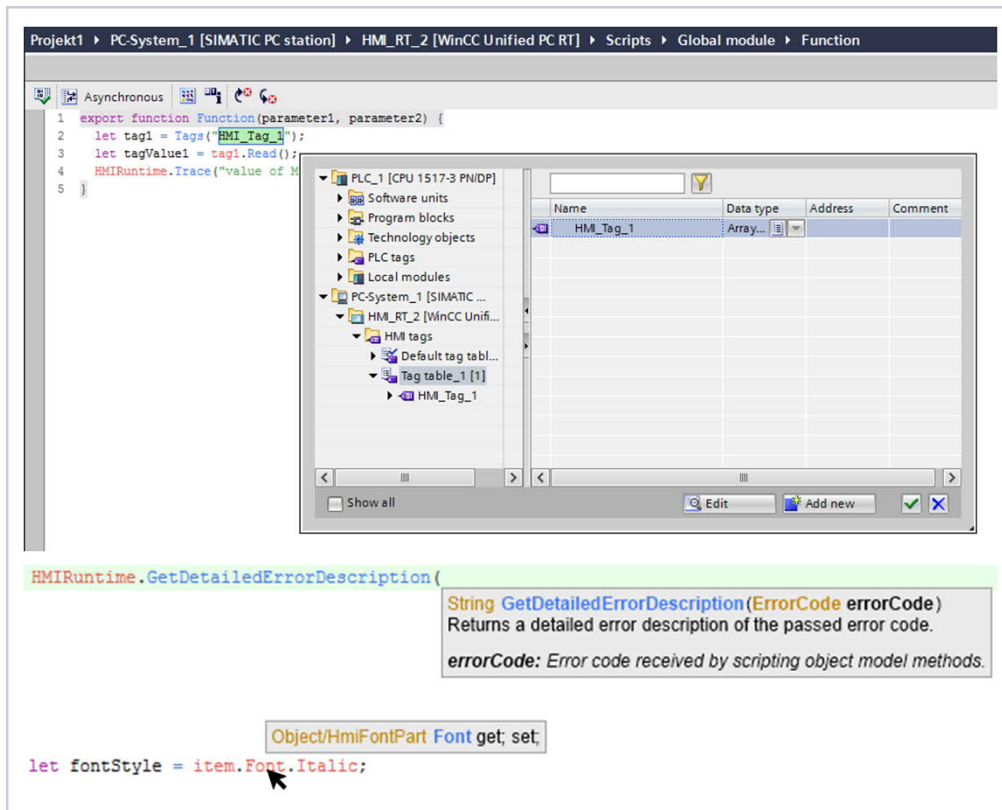
- Additional interface properties
 - Configuration String
 - 64 bit integer
 - Boolean
 - unsigned 64 bit integer
 - Real
- Access from type to instance container via Script (e.g. for positions or visibility)

Resource list

- Extension for graphic list

WinCC Unified V17

Efficient Engineering – Script editor improvements



Insert object references via ObjectPicker

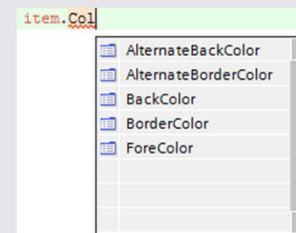
Select objects from a list of available objects in the ObjectPicker dialog (opened via keyboard shortcut Ctrl+J) instead of typing the object names manually

Supported object types:

- Tags
- Connections
- Screen Object Model (V17 Update 1)

Improved IntelliSense & Auto Completion

- Function return value shown in Info Tip
- Property Info Tips available on mouse over
- Filtering of auto completion list (contains filter like in VS)



WinCC Unified V17

Efficient Engineering – Parameter Control

Project1 > PLC_1 [CPU 1517-3 PN/DP] > PLC data types > Cookies

The editor is write-protected because it is connected to a type in the library.
To make changes, you must [edit the type](#).

Name	Data type	Default value	Accessible f...	Write...	Visible in ...	Setpoint	Super...
Element_1	"Ingredients"						
Ingredients	Array[0..1] of Int						
Ingredients[0]	Int	0					
Ingredients[1]	Int	0					
Element_2	"MixerParameter"						
MixerParameter	Array[0..1] of Int						
MixerParameter[0]	Int	0					
MixerParameter[1]	Int	0					

... PC-System_1 [SIMATIC PC station] > HMI_RT_1 [WinCC Unified PC RT] > Parameter set types > Parameter set type_2

ID	Name	Display name	Data type	Tag	Unit of measurement
2	Parameter set type_2	Cookies	Cookies_1 V 0.0.1	Data_block_4_Static_1	
	Element_1	Element_1	Ingredients		
	Ingredients	Ingredients	Array [0..1] of Int		
	Ingredients[0]	Flour	Int		kg
	Ingredients[1]	Sugar	Int		kg
	Element_2	Element_2	MixerParameter		
	MixerParameter	MixerParameter	Array [0..1] of Int		
	MixerParameter[0]	Duration	Int		min
	MixerParameter[1]	Speed	Int		rmp

Parameter set type Number Parameter set Number

No elements available No elements available

Icons: [New] [Open] [Save] [Print] [Copy] [Paste] [Delete] [Undo] [Redo] [Refresh] [Help]

Reuse of User Data Types

Efficiency due to reuse of structural definition of "User Data Types" (PLC/HMI UDT) for parameter sets

Use of complex UDTs

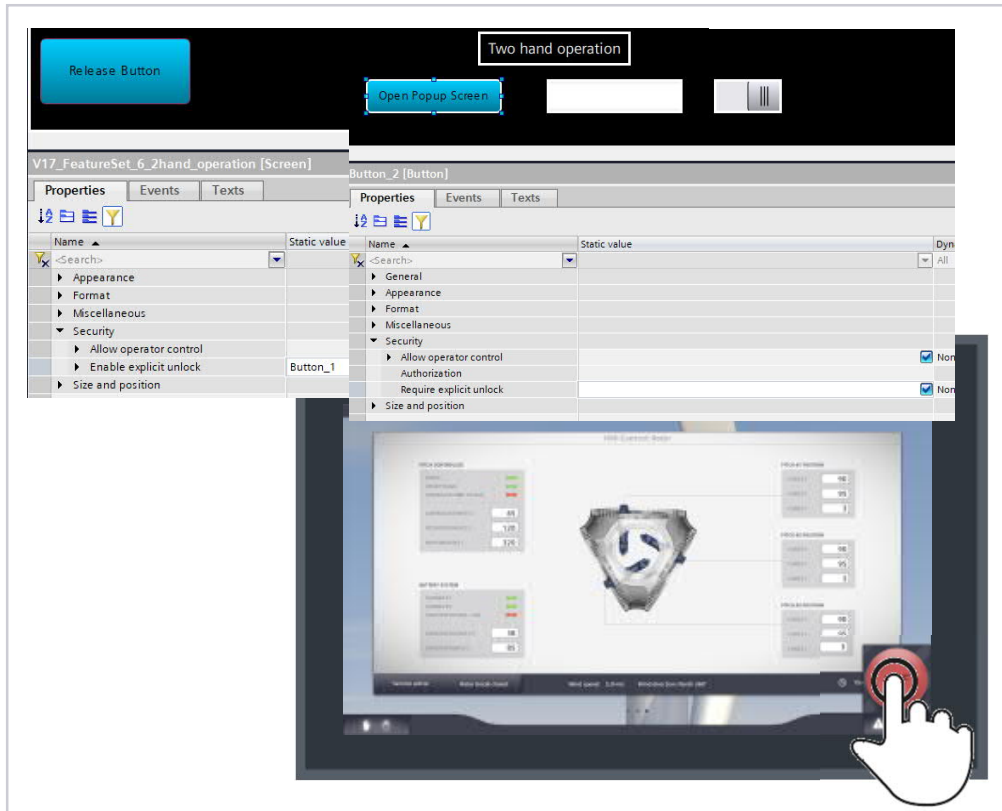
Support of complex UDTs for parameter set types e.g. UDT in UDT, array
Restriction: no UDT of Array, only "flat" array

Extended configuration possibilities

Adjust parameter to set control to operator's needs by hiding parameter details for a simplified view

WinCC Unified V17

Adaptability – Multitouch - 2 Hand Operation



Fast and easy Engineering

- Set Release button „Explicit unlock“ for HMI screen and select screen items which are relevant for secure operation

Protection against unintended operations

- Secure operation as the operator has to press the “Release” Button for critical tasks e.g. via IO-Field, Pager,..

WinCC Unified V17

Adaptability – New designs and improved behavior



Select style for each Unified device

- Out of 3 predefined styles

New flat style

- Flat design in bright and in dark
- Responsive behavior depends of the item size
- Improved behavior, e.g.
 - Knob of the Pager no more over the scale
 - Inverse text color in case of selection

Improve readability e.g. Day/Night

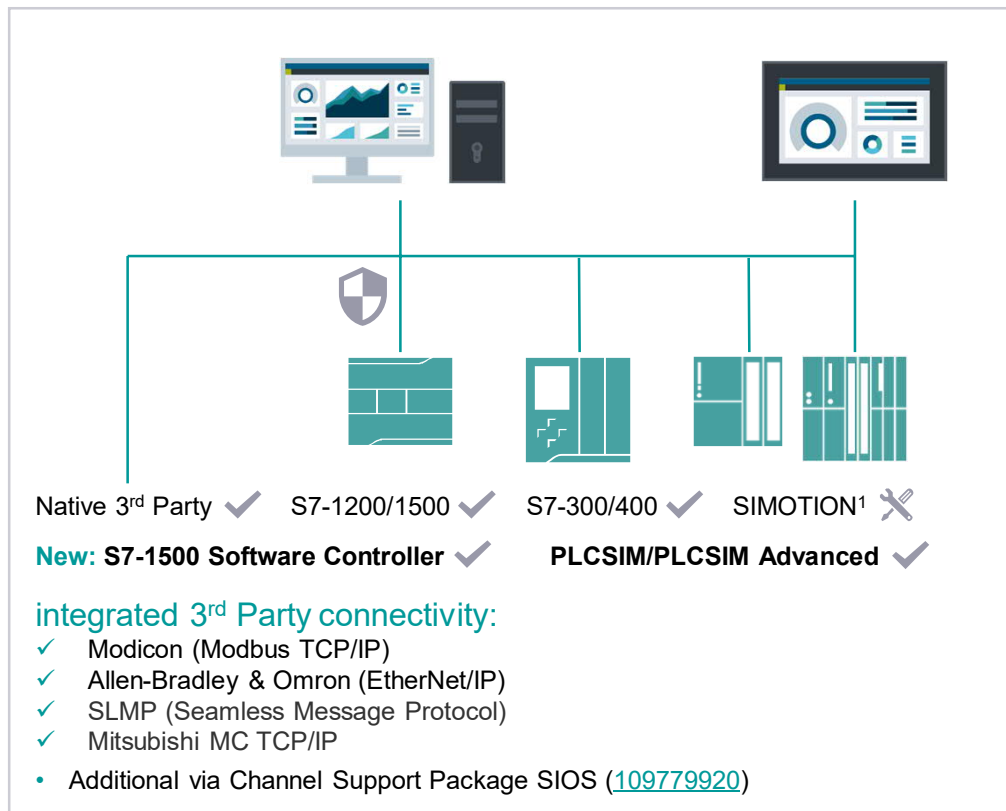
- Change style at Runtime
 - Bright style during daylight
 - Dark style during night

E.g.

HMIRuntime.UI.Styles = "FlatStyle_Dark"

WinCC Unified V17

Connectivity to automation systems



¹ only tags (OPC UA DA)

Perfect integration
of SIMATIC PLCs (TIA Portal)

High number of connections

- for Panels up to 16 PLCs
- for PC-Systems up to 128 PLCs (>10 with extra SIMATIC NET license)

Support of S7-1500 Software Controller

- WinCC Unified PC RT on the same PC
- WinCC Unified PC RT on the OpenController (see SIOS)

WinCC Unified V17

Connectivity – System diagnostics



▼ Schnittstelle			
ColorState1Good		46; 183; 46	Keine
ColorState2Maintenance		255; 236; 0	Keine
ColorState3Error		212; 9; 28	Keine
ColorStateXUncertain		180; 180; 180	Keine
State	0		Variable

Variable: @DiagnosticsIndicatorTag

Event number		Date & Time	Event text
1		1/25/21 12:26:25	Communication initiated request: WARM RESTART - CPU changes from STARTUP to RUN mode
2		1/25/21 12:26:25	Communication initiated request: WARM RESTART - CPU changes from STOP to STARTUP mode
3		1/25/21 12:26:14	Communication initiated request: STOP - CPU changes from RUN to STOP mode
4		1/25/21 12:20:12	Follow-on operating mode change - CPU changes from STARTUP to RUN mode
5		1/25/21 12:20:12	Follow-on operating mode change - CPU changes from STOP to STARTUP mode

PLC_1

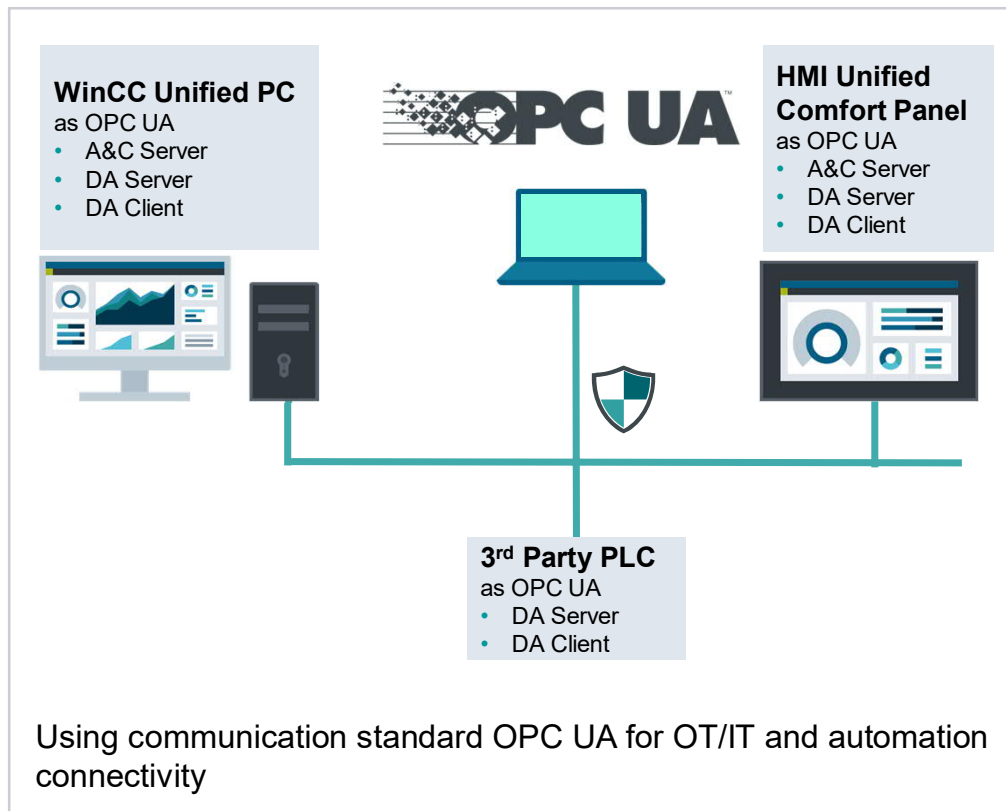
System Diagnosis Indicator

Introduction of a system variable @DiagnosticsIndicatorTag indicating the state of the system

Device Diagnostic Buffer

During maintenance of a machine or in the event of a fault, the diagnostics buffer of a SIMATIC S7 PLC can be scanned on an HMI system without the need for a programming tool.

WinCC Unified V17 Connectivity – Standard Interface OPC UA



Standard Connectivity

- via OPC UA (DA Server & DA Client)
- as A&C Server

Secured OT/IT Connectivity

via OPC UA to forward data to 3rd party applications

Automation Connectivity

via OPC UA to integrated 3rd party PLCs

WinCC Unified V17 Connectivity – Tags

General

Name:

PLC tag:

Connection:

PLC name:

Address:

Access mode:

Synchronization of the name of the PLC tag in the engineering station

Replacement of the character '.' if the sublevel-separator of the HMI tag was created from the connected PLC tag name:

- ☒ Use '_' as the replacement character
- ☐ Use ':' as the replacement character

Replacement of the characters '[' and ']' if the name of the HMI tag was created from the connected PLC tag name:

- ☒ Use '{' and '}' as replacement characters
- ☐ Use '(' and ')' as replacement characters

☒ Replace invalid characters, if the name of the HMI tag was created from the connected PLC tag name:

Use as replacement character

Settings for the prefix 'PLC' in the HMI tag name

Connection	PLC name as prefix in the HMI tag name
HMI_Connection_1	<input checked="" type="checkbox"/>

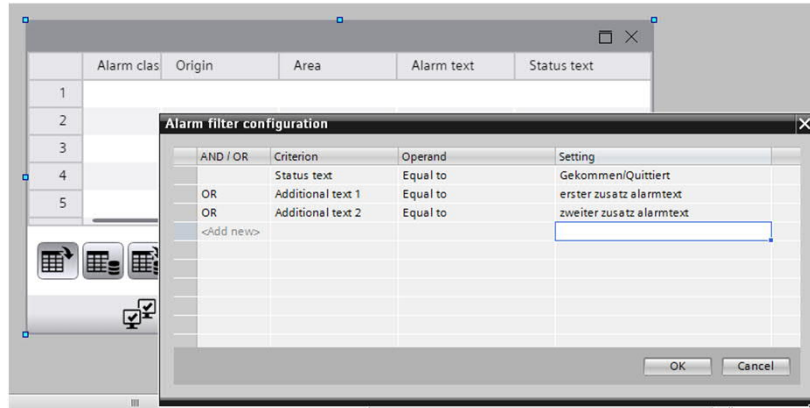
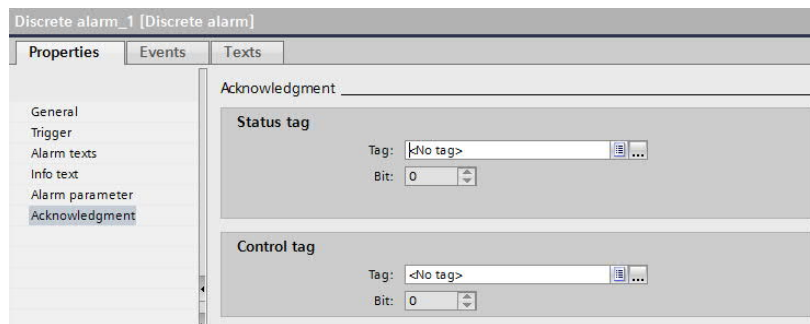
Indirect addressing of absolute address

- Multiplex of absolute address for S7-300/S7-400 and for S7-1200/S7-1500

Settings for the synchronization of PLC Tag Name with HMI Tag Name

- Replacement of invalid characters in resulting HMI Tag Name
- Adding of the PLC Name as Prefix to the HMI Tag Name

WinCC Unified V17 Connectivity – HMI Alarms



Acknowledge discrete HMI Alarm via PLC Tag

- PLC Tag (Control Tag) for acknowledgement
- PLC Tag (Status Tag) for acknowledgement state

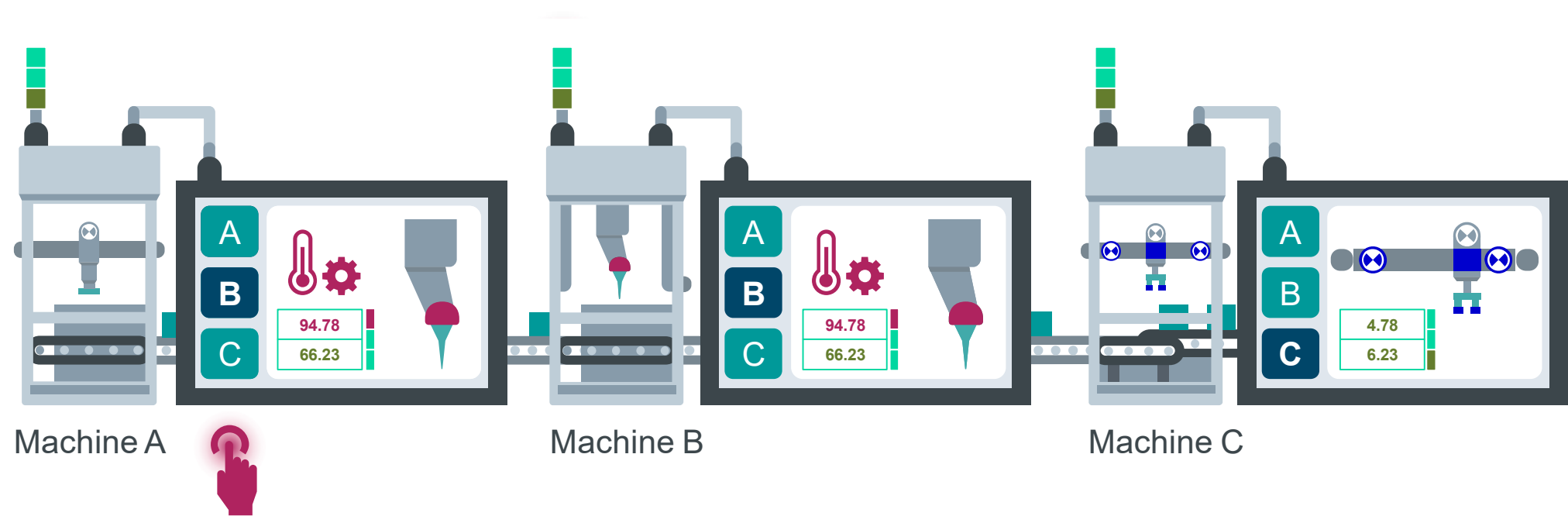
Additional alarm filter in engineering

Filter that was only configurable at Runtime are now also available for pre-configuration in ES.

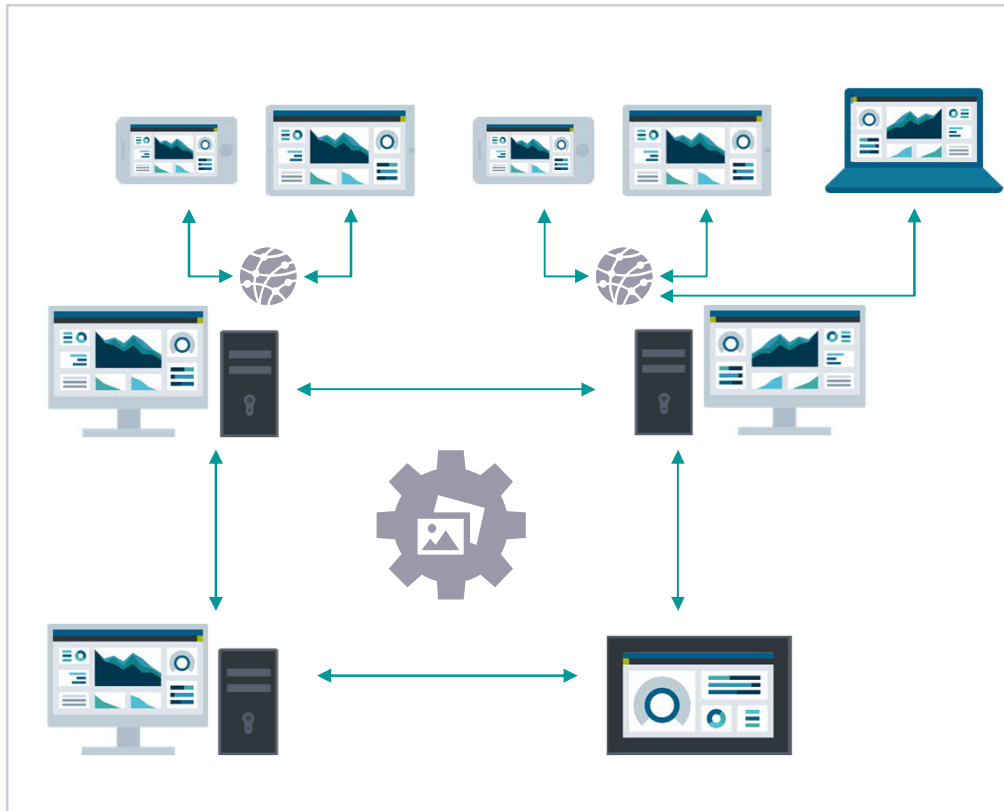
- Additional alarm texts 1..9
- Alarm Status Text (= translatable Alarm State)

Collaboration Use Case – Machines in lines

Animated slide



WinCC Unified V17 Distributed Systems – Collaboration



Enabler for distributed system architectures
for WinCC Unified Systems

Modular and decentralized

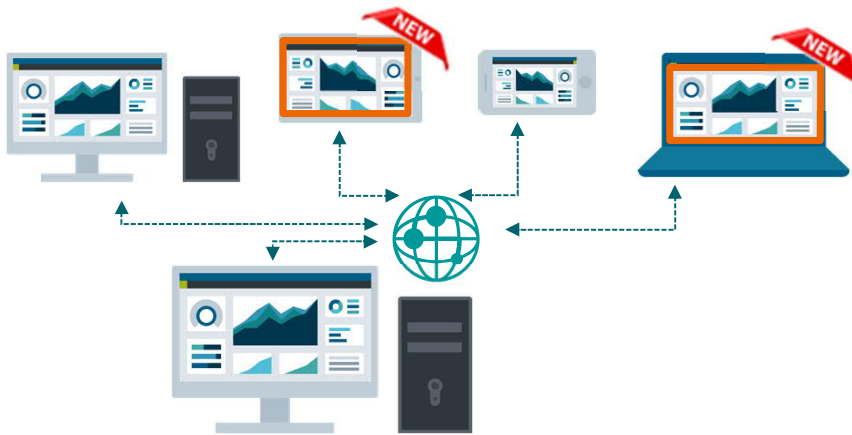
production units collaborate by sharing information between Unified stations

Direct access

to screens of different units e.g. for line supervision

Changes without notice possible

WinCC Unified V17 Distributed Systems – Remote Control of PC RT stations via Clients



Every WinCC Unified PC Runtime system includes:

- The local visualization Client (via browser)
- ONE "Operate" Client
- ONE "Monitor" Client

The number of clients can be extended till max permitted (optional).

Local Operation on the PC station

Realized via browser with further settings are used for typical use cases like auto start or encapsulated HMI Runtime (Kiosk mode)

Different types of Clients

- "Operate", for a full remote operation
- **New:** "Monitor" as view-only mode (PC)

Simultaneous independent access of users via Web Clients

- For PC: to access more than 5 clients a Windows Server system is required

WinCC Unified V17 Distributed Systems – Monitor client

machine ▶ Security settings ▶ Users and roles

Users

	User name	Password	Authentication ..	Maximum sessi...	Comment
<input checked="" type="checkbox"/>	User	*****	Password	30	Min
<input checked="" type="checkbox"/>	Holger	*****	Password	30	Min
<input checked="" type="checkbox"/>	Holoet	*****	Password	30	Min
<input checked="" type="checkbox"/>	Siemens	*****	Password	30	Min
<input checked="" type="checkbox"/>	Monitor	*****	▼ Password ▼	30	Min
<Add new user>					

Assigned roles

Assigned to	Name	Description	Maximum sessi...	Comment
<input type="checkbox"/>	HMI Administrator	System-defined role "HMI Administr...	30	Min
<input type="checkbox"/>	HMI Operator	System-defined role "HMI Operator"	30	Min
<input type="checkbox"/>	HMI Monitor	System-defined role "HMI Monitor"	30	Min
<input checked="" type="checkbox"/>	HMI Monitor Client	System-defined role "HMI Monitor ...	30	Min
<input checked="" type="checkbox"/>	Runtime rights Line Operator	User-defined role	30	Min

User dependent configuration

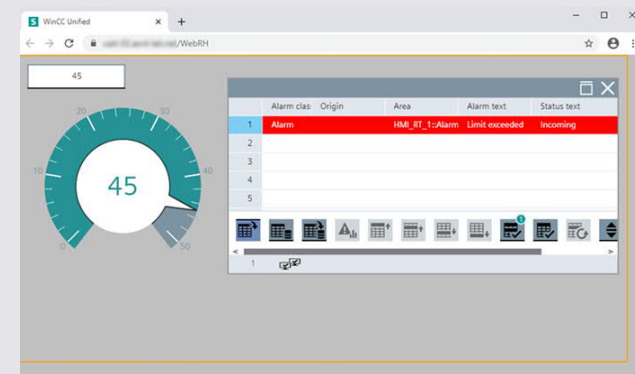
- New right and role “HMI Monitor only”
- Standard visualization is possible

Blocked “write operation” to the field

- External tag connections via UI e.g. IO/Field, Bar,..
- Internal Tags are writeable

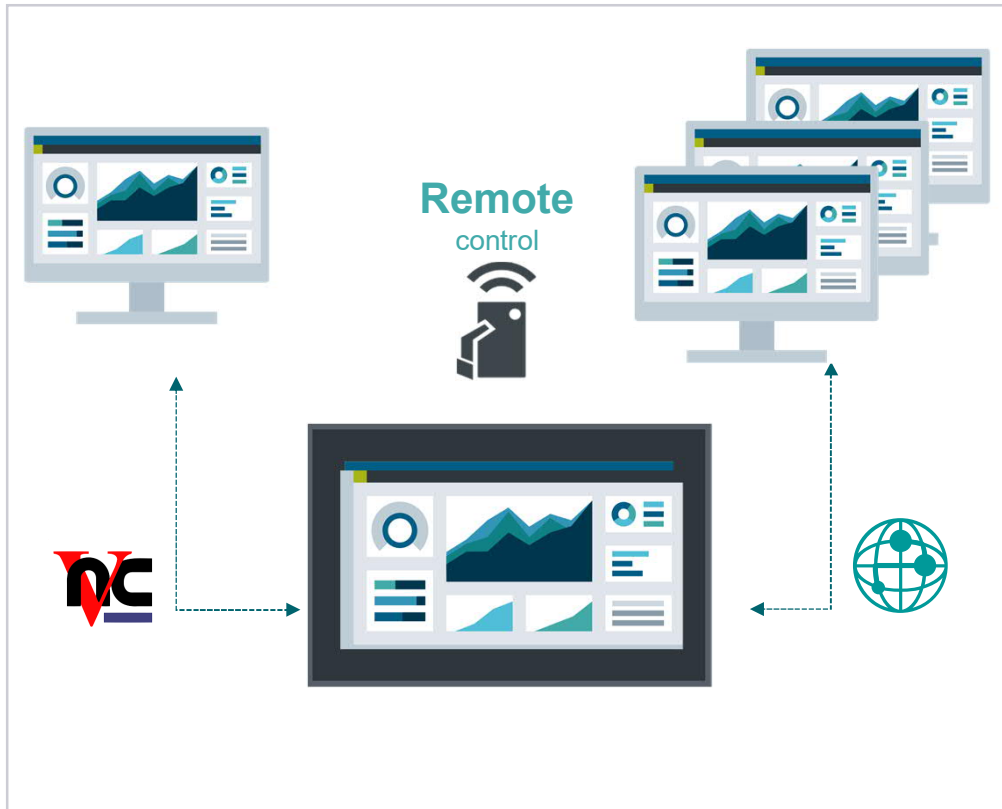
HMI Monitor Client

HMI Monitor client can be combined with Runtime rights and User defined runtime rights



WinCC Unified V17

Distributed Systems PC – Remote Control of Panels via Clients



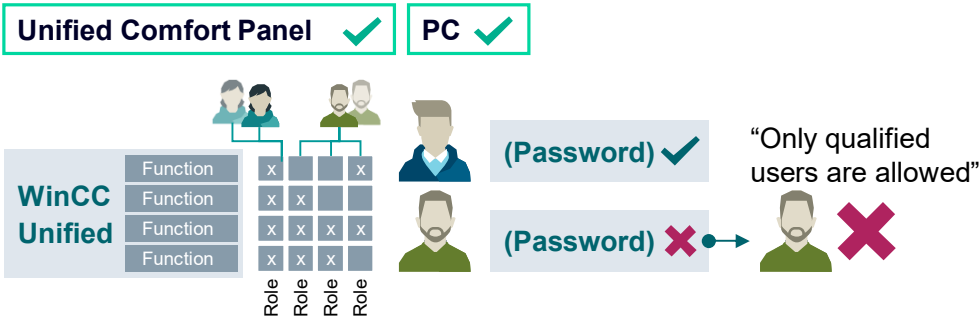
Asynchronous access

- of up to 3 clients for independent operation
- Remote access via Web Browser
- One "Client Operate" included

Synchronous access

via app (VNC) for parallel operation (all users see the same screen)

General Information – Local User Management SIMATIC WinCC Unified



Add, remove users, assign roles in TIA Portal engineering and change passwords during runtime

Define user roles and function rights in TIA Portal engineering to your demand for privacy and integrity in terms of authentication and authorization

Protection against unauthorized access of single objects or entire production units

Project4 > Security settings > Users and roles

Users					
	User name	Password	Authentication ..	Maximum sess...	Comment
<input checked="" type="checkbox"/>	Admin	*****	Password	30	Min
<input checked="" type="checkbox"/>	Operator1	*****	Password	30	Min
<input checked="" type="checkbox"/>	Operator2	*****	Password	30	Min
<input checked="" type="checkbox"/>	Monitor1	*****	Password	30	Min
<input checked="" type="checkbox"/>	Monitor2	*****	Password	30	Min
<input checked="" type="checkbox"/>	supervisor	*****	Password	30	Min
<Add new user>					

Assigned roles					
Assigned to	Name	Description	Maximum sess...	Comment	
<input type="checkbox"/>	HMI Administrator	System-defined role "HMI Adminis...	30	Min	User Administration, Remote Acc...
<input checked="" type="checkbox"/>	HMI Operator	System-defined role "HMI Operator"	30	Min	Web Access, Operator
<input checked="" type="checkbox"/>	HMI Monitor	System-defined role "HMI Monitor"	30	Min	Web Access, monitor
<input type="checkbox"/>	HMI Monitor Client	System-defined role "HMI Monitor ...	30	Min	Monitor only, License required
<input checked="" type="checkbox"/>	MyCreatedRole1	User-defined role	30	Min	Role for supervisor

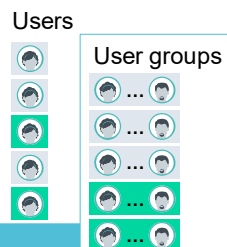
Local user management: definition of users and function rights during engineering

General Information – Central User Management SIMATIC WinCC Unified

Unified Comfort Panel ✓

PC ✓

User/Group Engineering

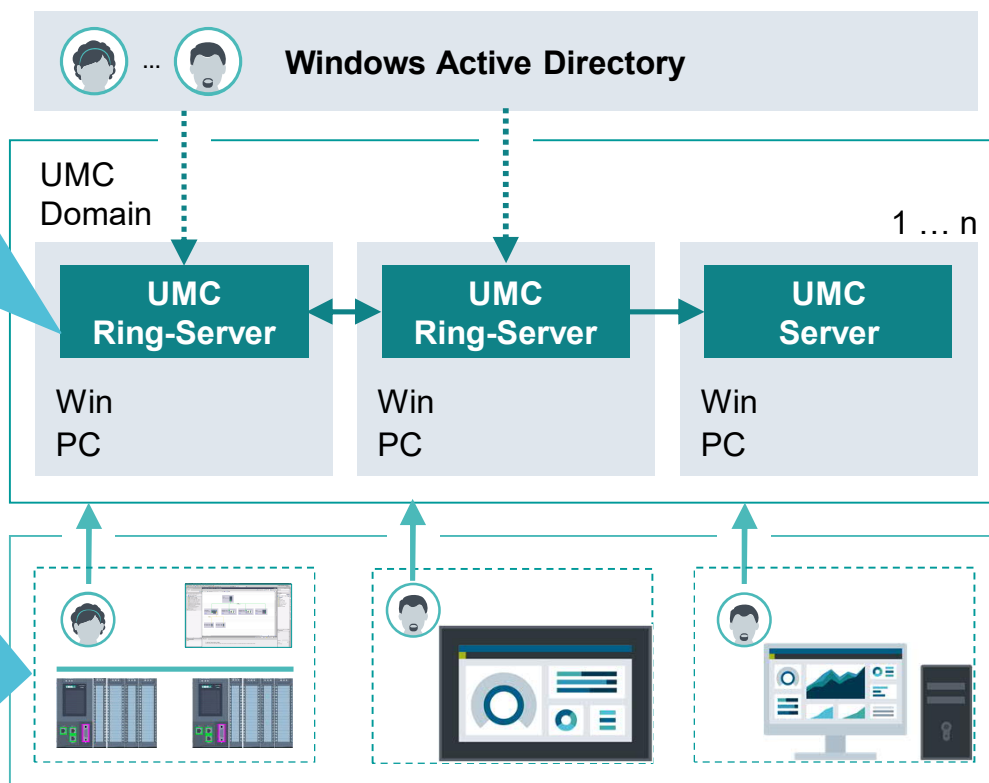


User Authentication

Login

User

Password



Connect to your **UMC domain** either the **WinCC Unified PC station** or an **Unified Comfort panel**

Central management of users and user groups via UMC domain during runtime

Connect 'Windows Active Directory' to your UMC domain to login with windows users to the runtime

WinCC Unified V17

Distributed systems – User Management

Local User Management (Panel/PC)

Configuration in TIAP ES

- Configure user
- Configure rights
- Assign users and rights to roles

Configuration in WinCC Unified RT

- Configure user
- Assign users to roles

Central User Management (Panel/PC)

- Configure connection to central user management in ES or RT
- Import groups from central user management (UMC)
- Assign roles to imported groups
- Download configuration to WinCC Unified runtime
- Use users defined in central user management
- Several WinCC unified RT access the same User management server
- Precondition for Central User Management: TIA Portal User Management Component (UMC)

Predefined Engineering rights for TIA Portal

- | | |
|---------------|----------------------------------|
| • HMImodify | WinCC Unified engineering |
| • HMIdownload | Download to WinCC Unified Device |
| • HMImaintain | maintain WinCC Unified Device |

Central user administration

- [See TIA Portal Options](#)
- Central cross-project user management in the system
- Managing user groups
- Import of Windows users and user groups
- Administration of users / user groups in a system
- Fault tolerance through redundant design of a UMC domain

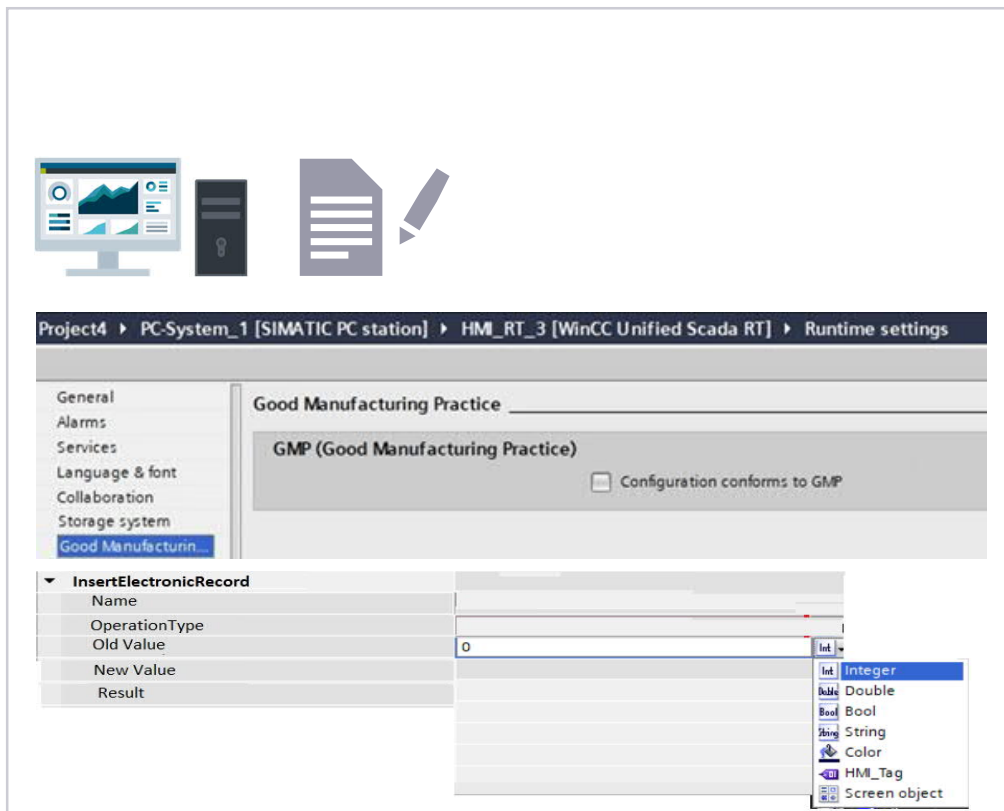
Licensing

- The software is already included in the scope of delivery of your TIA Portal product (STEP 7, WinCC).
- 10 Users or less free, no license needed
- Rental License 100 user und 365 days (6ES7823-1UE30-0YA0)
- Rental License 4000 user und 365 days (6ES7823-1UE10-0YA0)



WinCC Unified V17

Archiving & traceability – Audit



WinCC Unified Audit Base

for validation in order to fulfill the Compliance responses regarding documentation and traceability

GMP for Device and Tags

- Audit Trail storage
- Detection of manipulation
- Electronic Record
- Set GMP for device & Tags
- System & Script Function
- Audit confirmation



System & script functions

- Global scripts
- Scheduler
- Graphic objects incl. faceplates
- Create a Audit record by script

Report Audit Trail

- Support WinCC Unified Report
- Audit Trail Report
- Manipulation detection (detailed, overall)

Report status:		
TIME START	VERIFICATION	CHECK DESL
2020.04.27.10:10	CREATED: START	Reason: integrated count
1 2020.04.27.10:10	EVENT11	
2 2020.04.27.10:11	EVENT12	
3 2020.04.27.10:10	EVENT13	
4 2020.04.27.10:14	EVENT14	
5 2020.04.27.10:19	EVENT15	
2020.04.27.10:20	CREATED: END	Reason: integrated count

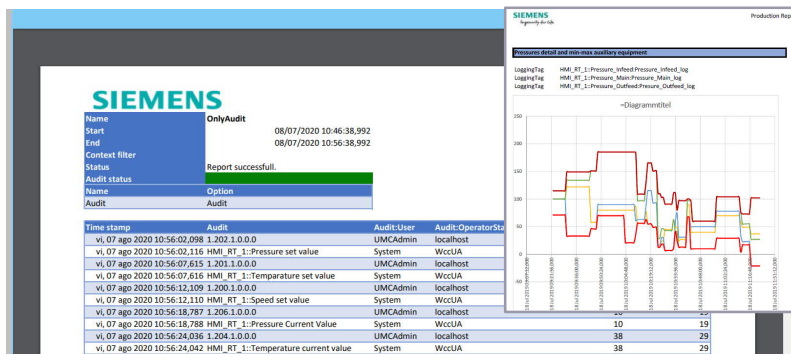
WinCC Unified V17

Archiving & traceability – Reporting

Create Report templates in Excel upload, and schedule it in Report Control RT

Name	Job name	Creation time	Files	Status
<input type="checkbox"/> Only_Audit_Report	Only Audit Report Job	8/7/2020, 10:56:40 AM	Size- 30 KB Size- 107 KB	
<input type="checkbox"/> Only_Audit_Report	Only Audit Report Job	8/7/2020, 10:43:33 AM	Size- 23 KB Size- 104 KB	
<input type="checkbox"/> Only_Audit_Report	Only Audit Report Job	8/7/2020, 10:40:52 AM	Size- 23 KB Size- 102 KB	

Manage, execute report manual, time & event driven in runtime with report control



E-Mail-distribution

- Own or public Email server
- Authentication: Unsecured, certificate, username / password



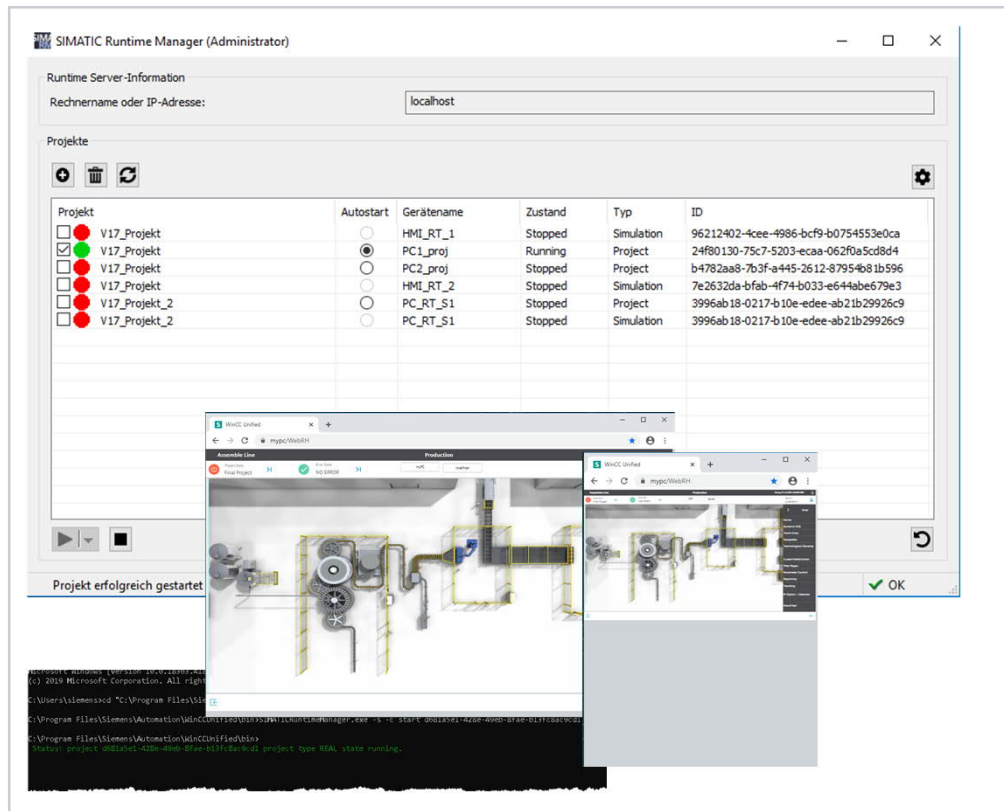
Storage of reports

- Project or configurable local directory
- Matrix view for report storage locations

Report sources

- Audit Trail report & Manipulation detection
- Support Context, value list, execution, set time frame
- Hitlist of Alarms
- Performance Insight
- Line Coordination

WinCC Unified V17 Distributed Systems – Runtime Manager



Manage WinCC Unified projects

- Run, stop or switch projects
- Activate / Deactivate Debugging
- Deletion of RT projects on the RT station
- Enable proportional scaling of WinCC screens with the size of the web browser **New**
- Restore or delete database segments **New**
- Overview on 3rd party certificates (e.g. OPC UA client certificates) **New**
- Different starting modes: "normal", "with reset of runtime data", "with reset of logging data" **New**
- Exposed interface to control via command line **New**

WinCC Unified V17 Plant Intelligence Options



Calendar



Performance
Insight



Plant Intelligence
Options



Sequence



Line
Coordination

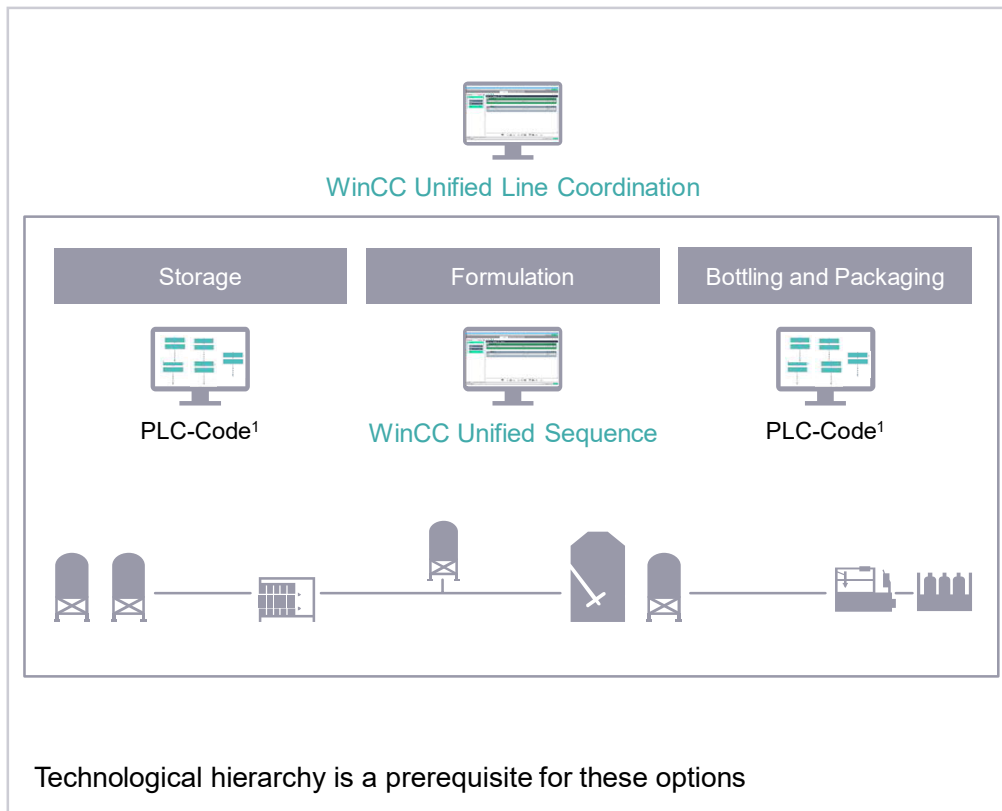
- **Define working time** of machines or lines
- **Planning** the execution of activities relative to a timeline

- **Calculation of the performance** of machines/lines/ plants
- **Downtime analysis**

- Fast and simple changeability of **procedures**
- Clear overview of the **manufacturing steps and current status**

- **Orchestration** of production procedures
- Overall definition of **complete procedure and recipe at line level**

WinCC Unified V17 – Plant Intelligence Options Overview – Sequence & Line Coordination



¹ Individual PLC code for control and connection of the units to WinCC Unified Line Coordination

Sequence (SES)

Option for sequence control of step-based operations for separate units or machines

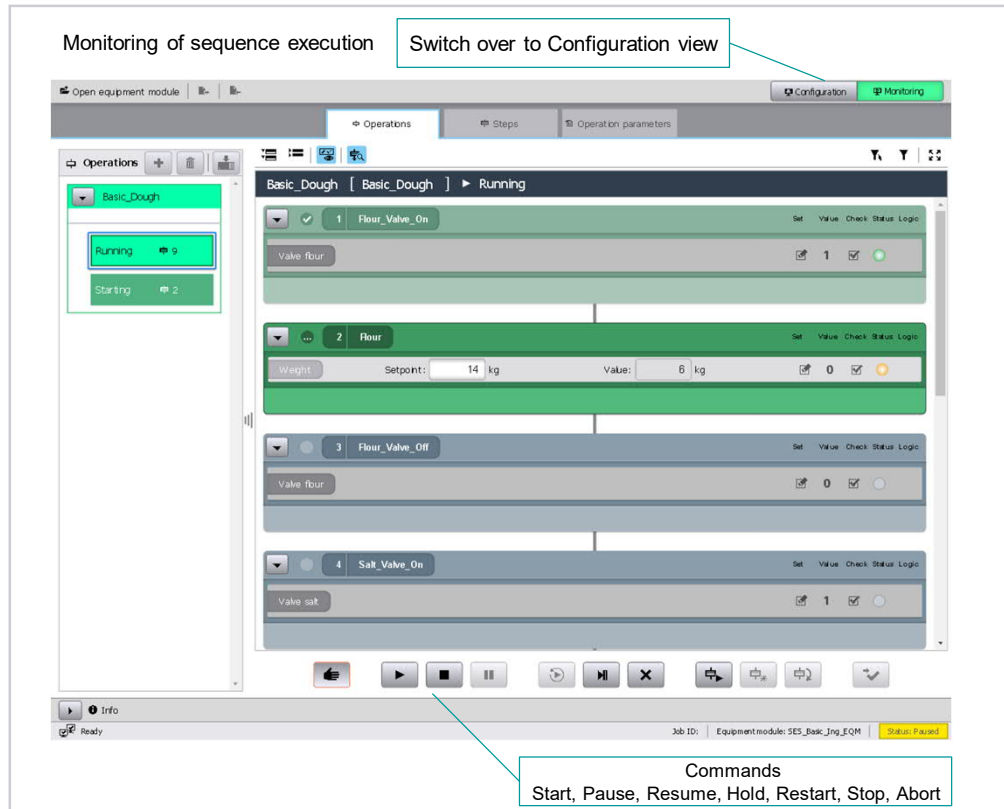
- **Fast changeability**
of procedures in the production process
- **Clear overview**
of the manufacturing steps and current status

Line Coordination (LCS)

Option for recipe-controlled production processes based on units and operations (SES or own function modules)

- **Coordination and monitoring**
of complex processes in the production line
- **Overall definition**
of complete procedures and recipes at line level

WinCC Unified V17 – Plant Intelligence Options Sequence



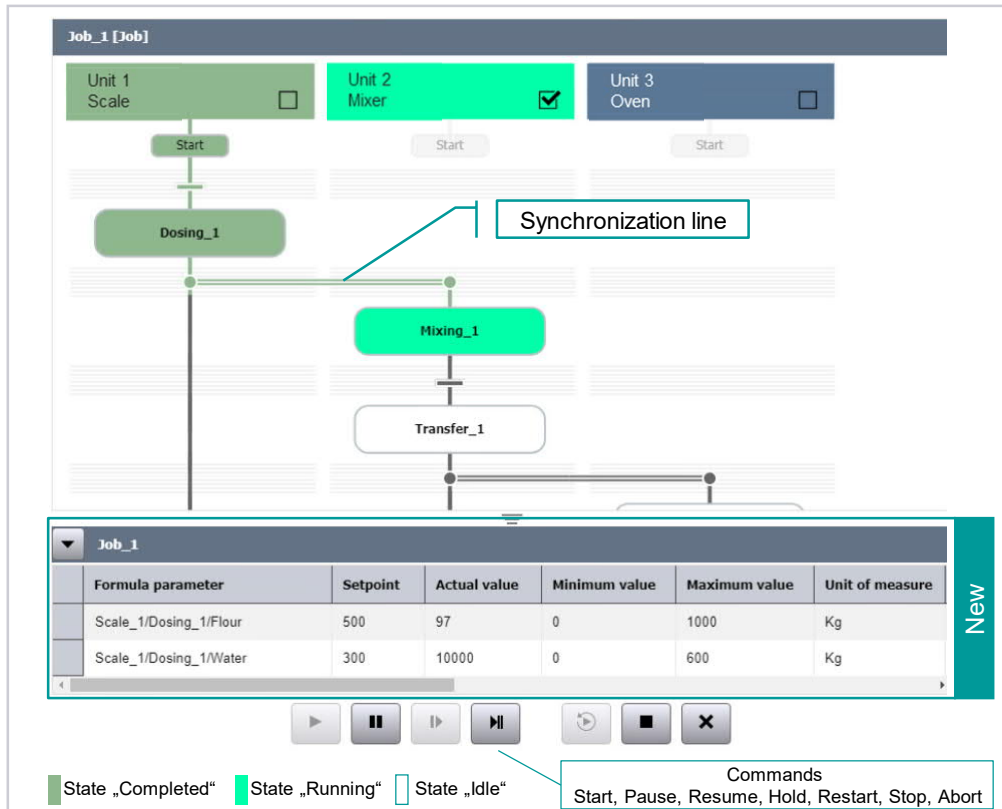
General

- Adaption of procedures in the production process w/out PLC program changes
- Creation and administration of procedures (sequences) based on operations and steps to interact with Control Modules related to Equipment Modules
- Monitor sequence of manufacturing steps and current status
- Manual interaction within automatic sequence execution possible
- Support of ISA-88 lifecycle and state model

Improvements V17

- Specific access protection by assigning user rights to separate user actions (Operate/Read/Write)
- Import & Export of complete operations incl. steps and set points (e.g. for system backup, move from test environment to production)
- Performance & usability improvements

WinCC Unified V17 – Plant Intelligence Options Line Coordination



General

Recipe Management

- Creation and administration of recipes and procedures based on units and operations (SES or own function modules)
- Coordination of units via synchronization lines (blocking and non-blocking) according to ISA-88 lifecycle and state model

Job Management

- Creation and scheduling of several jobs for production

Job Execution and Monitoring

- Graphical representation of job details and states with interaction possibilities according to ISA-88 from individual units to operations
- Monitor actual values and change set points of parameters

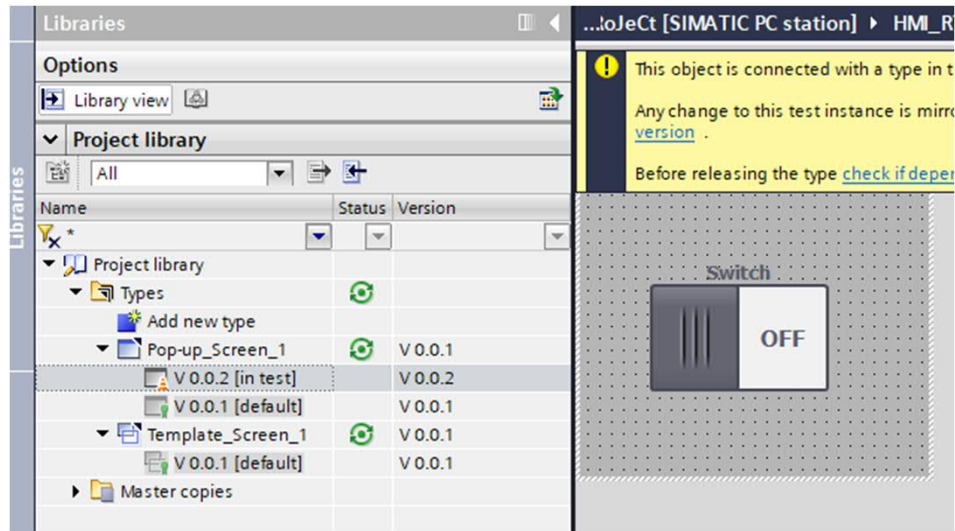
Reporting

- Job summary reports with details like Job ID, recipe, start/end time based on WinCC Unified Reporting (Excel Add-in)

Improvements V17

- Scaling of formula parameters for different production quantities
- Define "job parameters" to set specific values at job creation only
- Specific access protection by assigning user rights to separate user actions (Operate/Read/Write)
- Hierarchical representation of Reports

WinCC – Innovations WinCC Advanced V17



New functions for WinCC RT Advanced

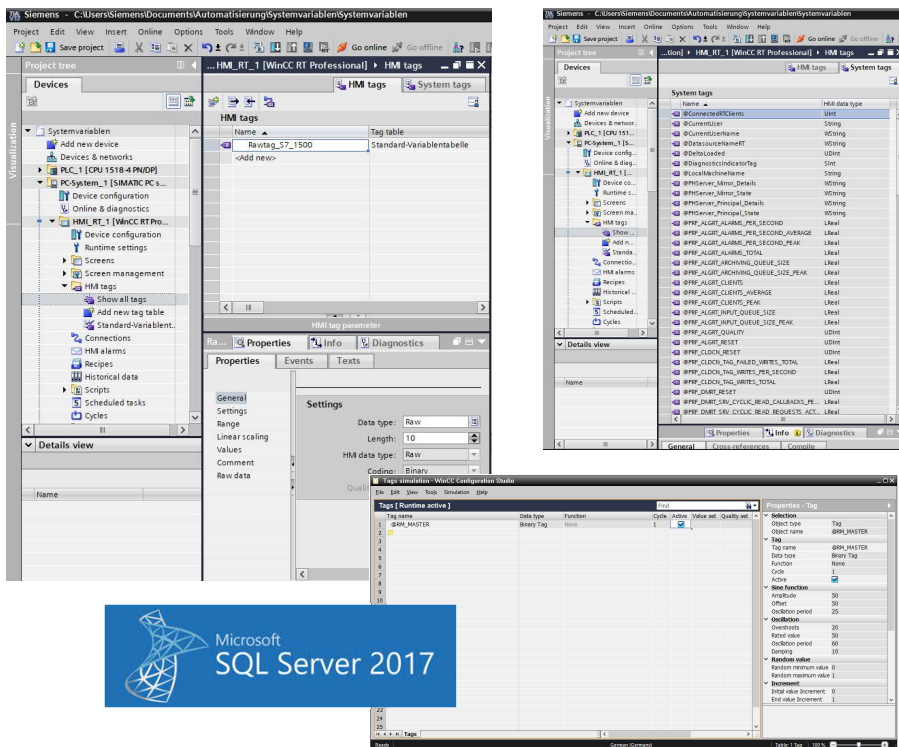
Screen objects

- Template and Popup screens included into library
A versioning of template and popup screens and the managing of these screens in the TIA library is possible.
- Extension of the size limits for Popups screen
The limits of the dimension for Popup screens is extended. The larger popup screen may contain more information, which is accessible via scrolling.

Communication

The combination of PLC connection drivers of S7-1500, Modbus TCP and SIMOTION are possible in TIA and in operation.

WinCC – Innovations WinCC Professional V17



New functions for WinCC RT Professional

Communication

- Raw Data for S7-1500
- New system tags

Additional

- New SQL Server 2017
- Stop runtime via command line
- TIA Design for tag simulation

Central UMC setup – Step by Step (15 min)



<https://support.industry.siemens.com/cs/au/en/view/109780337>

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