

## WinCC Unified System **V17**

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Bienvenidos Comenzamos a las 9:30

Ingenuity for life

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#### **Próximos Webinars**





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| 2  | 2/06/21 - Webinar - Motorreductores          |
|----|--|
| S  | IMOGEAR: Versátiles y Robustos. Novedades    |
| d  | e producto Horario: 16:00-17:00 h            |
|    |  |
| 2  | 5/06/21 - Webinar - Novedades TIA portal     |
| V  | 17 Horario: 09:30-10:30 h                    |
| 0  | 2/07/21 - Webinar - Sistemas redundantes     |
| Se | eguros para la Industria Discreta e Híbrida. |
| N  | lueva CPU S7-1518HF Horario: 09:30 a 10:30   |
| h  |  |

# SIMATIC WinCC Unified V17 Novedades

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# Contacto

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#### siemens.com/wincc-unified-system



#### **TIA Portal** Highlights of TIA Portal V17

| <ul> <li>WinCC Unified</li> <li>Improved screen engineering with new style</li> <li>Graphics and faceplates (with functional enhancements) in library</li> <li>Extended communication and 1st set of system diagnostic</li> <li>Audit for PC</li> <li>WebClients for panel</li> <li>Plant Intelligence Options</li> </ul> | <ul> <li>Hardware configuration</li> <li>Global Offline/Online comparison</li> <li>Offline/Offline comparison at parameter level</li> <li>CPU 1518HF-4PN: Safety and redundancy</li> <li>Extended quantity structures for S7-1500 and ET200 CPUs</li> <li>Extensions for CPU 1518 MFP</li> <li>Disable and enable I-Device</li> <li>DHCP and DNS for S7-1500 and ET200 CPUs</li> <li>Web server innovations</li> <li>S7-1200 Highlights with FW4.5 (OPC UA/Webserver)</li> </ul> | <ul> <li>TIA Portal Options</li> <li>OPC UA<br/>S7-1200: Diagnose, methods; S7-1500:<br/>Alarms and Conditions, Server modelling, Client:<br/>new Compact blocks, GDS – certifacte handling</li> <li>PLCSIM/PLCSIM Advanced<br/>Support of S7-1500 R/H CPU, secure communication with<br/>OPC UA, OUC und HTTPS</li> <li>SIMATIC Target for Simulink<br/>Code-generation for SIMATIC Edge &amp; LiveTwin</li> </ul> |
|---|--|---|
| <ul> <li>WinCC - Innovations</li> <li>WinCC Advanced:<br/>Template &amp; Popup screens in the library</li> <li>WinCC Professional:<br/>Rawdata for S7-1500, new system tags, SQL 2017</li> </ul>  | <ul> <li>CPU 1518T/TF-4 PN/DP: High performance motion control</li> <li>System functions         <ul> <li>Openness extensions for libraries and UMAC</li> <li>User Management &amp; Access Control (UMAC)</li> <li>Library</li> </ul> </li> </ul>  | <ul> <li>Integrated S-functions for PLCSIM Adv coupling</li> <li>Test Suite         Openness Support of style guide Check             and application test     </li> <li>SiVArc         Support of WinCC Unified, new expressions, usability         enhancements     </li> </ul>   |
| <ul> <li>STEP 7 – Innovations</li> <li>CEM – Cause Effect Matrix</li> <li>CFC – Continuous Function Chart (planned for July 2021)</li> <li>Download / Upload of user groups</li> <li>Functional enhancements in the cross-reference list</li> </ul>   | <ul> <li>Security by default</li> <li>TIA Portal language packs</li> <li>Last used objects</li> </ul>  | <ul> <li>Energy Suite<br/>Improved load management and flexible energy data<br/>connections(by Proxy-DBs)</li> <li>Central User Management (UMC)<br/>Single Sign-on, SIMATIC Logon-protocol, licensing</li> <li>Modular Application Creator</li> </ul>  |
| <ul> <li>Openness extensions for project generation</li> <li>Startdrive – Innovations         <ul> <li>Support of SINAMICS G115D</li> <li>S120: Data set switching, manual optimization</li> <li>SINAMICS DCC: Know-how-protection</li> </ul> </li> </ul>   | <ul> <li>STEP 7 Safety         Fast Commissioning, nested UDTs,             Openness-extensions         </li> <li>SIMATIC Safe Kinematics         Function, advantages an requirements         Multiuser     </li> </ul>   | <ul> <li>ProDiag         Monitoring within PLC Data Types,<br/>usability improvements     </li> <li>Teamcenter Gateway         Single Sign-on, PKI, Linking<br/>between Teamcenter and TIA Portal objects     </li> </ul>   |

#### **SIEMENS**

### **SIMATIC WinCC Unified System** The DNA for the future of visualization





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#### SIMATIC WinCC Unified System Platforms





Preview

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# TIA Portal V17 – Highlights

Junio 2021



#### WinCC Unified V17 Highlights

#### **Efficient Engineering**

- Screen Editor
  - properties for multi selection
  - Snap to object, ...
- Faceplates (reuse of objects)
- Static and dynamic extensions
- Rotation of faceplates
- Workflow in linbraries
- Parameter Control
- Complex structures (UDT in UDT)

#### Modern UI & Standardization

- UI Enhancements
- F(x) for UCP • Alarm Hitlist (PC), ...
- Management of objects in libraries
- Versioning and deployment
- Integration of faceplates and graphics

#### Adaptability

#### Styles

values

New additional Styles (dark and bright) as day / night switch

#### Connectivity

- Soft PLC OPC UA
  - DA (Server, Client)
  - A&C (Server)
  - Diagnose
  - **Diagnostic-indicator**
  - S7-1500 diagnostic buffer
- Native 3<sup>rd</sup> Party Connectivity Modbus, Alan Bradley, Mitsubishi, Omron
- Continuous Connectivity
- **CSP** after release (tbd)

#### **Distributed Systems**

- Collaboration
  - screens
- Clients
- operate (Unified Comfort Panel & PC)
- monitor (PC)
- User Management (local)
- Custom defined function rights
- Central UMC



- Archiving new SQL Server Version
- Audit (PC) RT Tracing
- Basis for GMP
- Reporting (PC) via Excel PlugIn

- E-Mail distribution
- Central storage

#### **Plant Intelligence Options**

- Calendar Reporting, Usability Performance Insight • KPI Re-Calculation, Drill down Sequence Import and Export, Access protection Line Coordination Recipe scaling, Monitoring act.
  - $|\mathcal{A}$



PC UA

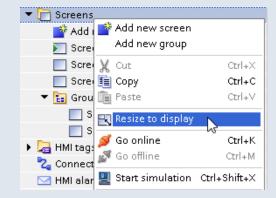
### WinCC Unified V17 – User Interface Engineering efficiency – Change device



| Unifi                                   | ed Comfort Panel 🗸  | PC 🗸 |           |         |
|---|---|------|-----------|---------|
|   | P1000 Unified Comfort] > Screens > Screen_1   |      | 10" Panel |         |
| 6<br>111 111 111 116<br>11 <sup>2</sup> |   |      | 19'       | ' Panel |
|   | WS > HM_2 (MIP1900 Unified Comfort) > Screens > Screen_1          Image: Screen status         Image: Screen status |      |           |         |
| Unrest<br>Page 1                        |   |      | 50%       | v       |

#### **Reuse projects for different devices**

and adapt existing screens to new screen size



#### **Resize Screen to display for**

- All screens
- A group of screens
- One screen

## WinCC Unified V17 – User Interface Engineering efficiency



#### Line handling

free "drawing" of Polyline & Polygon Add / remove points via context menu

#### Improvement "Snaplines"

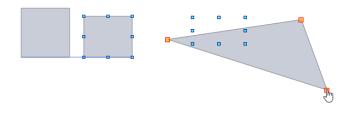
- works by adjusting the size of objects
- preview snapline by insert new screen objects

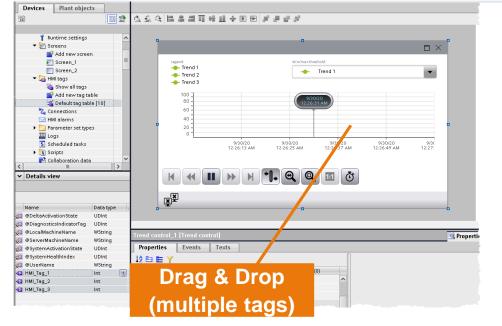
#### Improvement "Multi-Selection" change the common attributes of multiple objects

#### **Extension of Drag&Drop**

works now on switch and trend control, e.g. select multiple tags and insert to trend control

Unified Comfort Panel 🗸 PC 🗸





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## WinCC Unified V17 - Engineering efficiency Extended Animation dialog



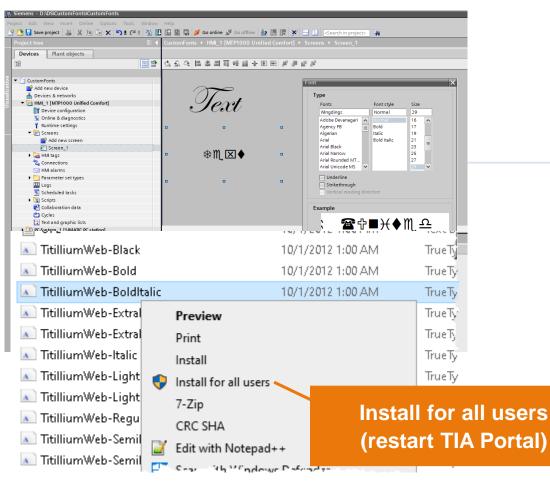
| Та | ıg           |           |       |         |                 |          |                     |           |  |
|----|--------------|-----------|-------|---------|-----------------|----------|---------------------|-----------|--|
|    | Process      |           |       |         |                 |          | Settings            |           |  |
|    |              | Tag:      | МуТад |         | II              |          | 📃 Use indirect ad   | dressing  |  |
|    |              | PLC tag:  |       |         |                 | R.       | 🗹 Read-only         |           |  |
|    |              | Address:  |       |         | Int             |          |                     |           |  |
|    |              |           |       |         |                 |          |                     |           |  |
|    | Туре         |           | Cond  | ition B | ackground color | Flashing | Alternate value     | Frequency |  |
|    | ~            |           | 0     |         | 255, 0, 0       | Yes      | 255, 255, 0         | Medium    |  |
|    | O None       |           | 1     |         | 0, 255, 0 🛛 💌   | No 💌     | 255, 0, 0           | Medium 🔽  |  |
|    | 🔘 Range      |           |       |         |                 |          |                     |           |  |
|    | 📀 Single bit | 4 🌲       |       |         |                 |          |                     |           |  |
|    |              |           |       |         |                 |          |                     |           |  |
|    |              |           |       |         |                 | onoblo   | floophing if pooded |           |  |
| 1  | sele         | ect a bit |       |         |                 | enable   | flashing if needed  |           |  |

## WinCC Unified V17 – User Interface User defined fonts



Unified Comfort Panel 🗸

V PC V



#### **Use additional Fonts**

Only fonts that based on TrueType-Fonts (TTF) (PostScript fonts and open type fonts that contain PostScript data are not supported)

#### WYSIWYG using True Type Fonts for

- Fonts with icons
- Ianguage or signs support

#### Ease of use due to integration

- Fonts are included in TIA Portal project
- No extra installation on Runtime device

### WinCC Unified V17 - User Interface Optimized usability using Styles

PC 🗸



Default \_17< ~  $\Box \times$ Bright 17 Dark 17

#### **Select style for each Unified device**

Out of 3 predefined styles

#### **New flat styles**

- Adapted look and feel e.g. for bar
- Responsive behavior depends of the item size

#### Improve readability e.g. Day/Night

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

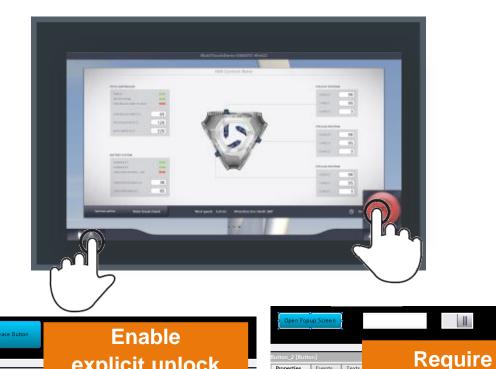
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Unified Comfort Panel 🗸

#### WinCC Unified V17 - User Interface Multitouch - 2 Hand Operation



Unified Comfort Panel 🗸 🛛 PC 🗸



explicit unlock

#### Protection against unintended operations

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

#### Fast and easy Engineering Set Release button "Explicit unlock" for HMI screen and select screen items which are relevant for secure operation

| 17_FeatureSet_6_2hand_                     | expli        | cit unlock | - F  | Button_2 [Button] Properties Events |  |  |  |
|--|--------------|------------|------|-------------------------------------|--|--|--|
| Properties Events Texts                    |              |            | 1    | 2 🗈 🖿 🍸                             |  |  |  |
| 2 🖻 🖿 🍸                                    |              |            | 7    | Name A<br>Search>                   |  |  |  |
| Name 🔺                                     | Static value |            | yna  | <ul> <li>General</li> </ul>         |  |  |  |
| x ≪search>                                 | -            | v /        | AL . | Appearance                          |  |  |  |
| Appearance                                 |              |            |      | Format                              |  |  |  |
| Format                                     |              |            |      | Miscellaneous                       |  |  |  |
| <ul> <li>Miscellaneous</li> </ul>          |              |            |      | <ul> <li>Security</li> </ul>        |  |  |  |
| <ul> <li>Security</li> </ul>               |              |            |      | Allow operator control              |  |  |  |
| <ul> <li>Allow operator control</li> </ul> |              | ء 🔛        |      | Authorization                       |  |  |  |
| Enable explicit unlock                     | Button_1     |            | lone | Require explicit unlock             |  |  |  |
| Size and position                          |              |            |      | Size and position                   |  |  |  |

### WinCC Unified V17 - Faceplates Engineering in TIA Portal Library



#### Unified Comfort Panel PC 🗸 Project library → Types → Valve\_Icon → V 0.0.3 Options Visualization Tag interface 💽 Library view 🙆 **B** ゆめる 同学問題 単語 単語 気を見る Project library 副 All ┗ 🖻 🛃 lame Status Version 🖲 💭 Project library 🔻 🔄 Types 📫 Add new type FacePlate 1 V 0.0.1 🕨 🔠 RGB V 0.0.4 UDT\_Valve Valve\_Big V 0.0.1 💷 V 0.0.1 [default] V 0.0.1 Valve\_Icon V 0.0.1 100% U 0.0.3 [in work] V 0.0.3 III V 0.0.2 V 0.0.2 Properties L Info V 0.0.1 [default] V 0.0.1 Properties Events Texts Master copies 🔍 🚟 Global definition 🔛 Asynchronous 🔢 📲 🗙 🥙 😡 export function Grafikanzeige\_1\_OnKeyDown(item, Activated 2 let po = Faceplate.OpenFaceplateInPopup("Valve I Deactived 3 po.Left = 100; Click left mouse button 4 po.Top = 150; Press key 5 po.Visible = true; ✓ Global libraries Release key 6 💣 🔂 대 🐀 🖶 🖶 齡 7 } Click right mouse bu.. Name Status Version Buttons-and-Switches Long Functions Monitoring-and-control-obj. Documentation templates

**Conversion from Common Data:** Unified V16 Faceplates will be moved and converted to TIA Portal Library automatically. Add PLC UDTs as type to the library in V16 to reuse them on the interface,

#### **Types in TIA Portal Library**

- Faceplate Types to use as instances or popups
- Instances and popups get a reference to a type and specific version of the type
- Graphics Types to use in Faceplates or Screens

#### Versioning

- Unified Faceplates are handled like simple type versions
- Instanced can be rewired to a higher or lower version as well as to other types
- Different versions of one type can be used in parallel
- Definition of a "default version" to be used

### WinCC Unified V17 – User Interface Alarm Hitlist – Statistical evaluation of alarms



Unified Comfort Panel 💥

PC 🗸

|            | ID        | Name        | Alarm text  | Modification time  | Average raised raised | Average raised cleared | Average rais | Frequency |    |
|------------|-----------|-------------|-------------|--------------------|-----------------------|------------------------|--------------|-----------|----|
| 1          | 1         | My BitAlarm | MyBit Alarm | 1/11/21 6:16:57 AM | 2.10                  | 0.396                  | 0            | 5         |    |
| 2          | 3         | Analog_high | to high     | 1/11/21 6:16:59 AM | 0                     | 0.908                  | 0            | 1         |    |
| 3          | 2         | Analog_lovv | to low      | 1/11/21 6:17:01 AM | 1.119                 | 0.463                  | 0            | 3         |    |
| 4          |           |             |             |                    |                       |                        |              |           |    |
| 5          |           |             |             |                    |                       |                        |              |           |    |
| <b>₩</b> } | œ.        |             |             |                    |                       |                        |              |           |    |
| <u>س</u>   | <u>#5</u> |             |             |                    |                       |                        |              |           |    |
| 7          |           | ₹<br>Z      |             |                    |                       |                        |              | ~~~~      |    |
|            | _         |             | St          | atistics setup     |                       |                        |              | $\times$  |    |
|            |           |             |             | Time report for    |                       |                        |              |           |    |
|            |           |             |             | Time range fo      |                       |                        |              |           |    |
|            |           |             |             | Time range st      | Start time:           | Start time:            |              |           |    |
|            |           |             |             | Now                | 1/11/21 6             | 10,70 AN               | 4            |           |    |
|            |           |             |             | WUFI               | <u> </u>              |                        | .10.29 An    | a         |    |
|            |           |             |             | Time range fa      | ictor:                | Time range             | base:        |           |    |
|            |           |             |             |                    |                       |                        |              |           |    |
|            |           |             |             | 1                  |                       | Minute                 |              | V         |    |
|            |           |             |             |                    |                       |                        |              |           |    |
|            |           |             |             |                    |                       |                        |              |           |    |
|            |           |             |             |                    | ОК                    | Cancel                 | Ap           | ply       |    |
|            |           |             | L           |                    |                       |                        |              |           | -4 |

Alarm logging must be activated to use the Alarm hitlist.

Free configurable statistic view for alarms in relation to the selected time range

#### **User defined evaluation regarding**

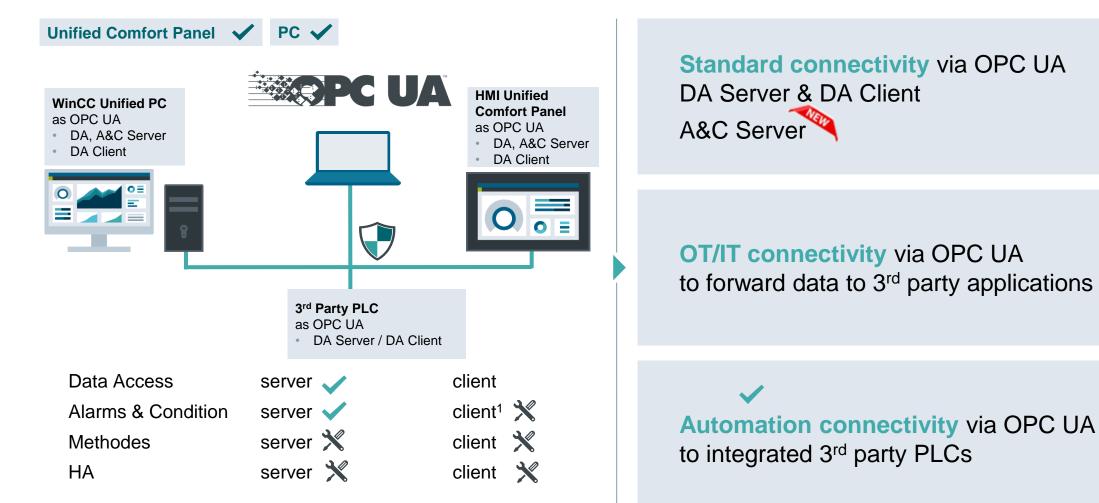
- Frequency of alarms
- Total or average alarm time in seconds for different aspects (in/out/acknowledgemet)

#### Alarm Hitlist user interface e.g.,

print (hardcopy) or the export statistical data Direct integration of Alarm Hitlist to Unified reports

### WinCC Unified V17 – Connectivity Using standard interface OPC UA





<sup>1</sup> A&C Client in V17 with limited functionality for SINUMERIK ONE



## SIMATIC OVERVIEW WinCC Unified PC V17

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#### **SIMATIC WinCC Unified PC** Enhancements with V17



#### Connectivity

- Soft PLC
- OPC UA
  - DA Client
  - A&C Server
- Further native 3<sup>rd</sup> Party

#### **Distributed System**

- Clients
  - Remote access with web clients (Operate / Monitor)
  - Collaboration für Unified Comfort Panels und PC-basierte Systeme
- User Management



#### Archiving and Traceability

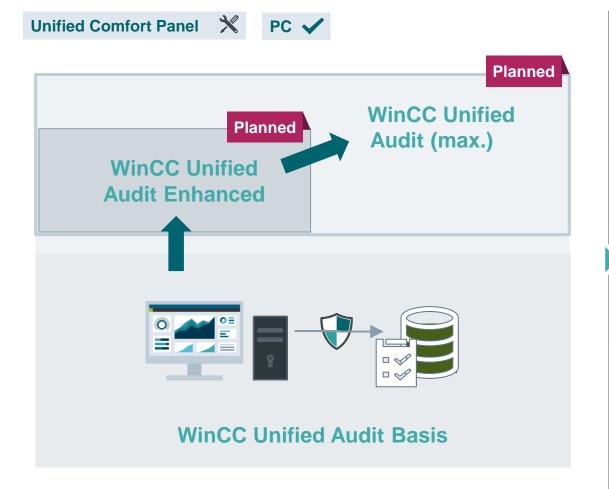
- Archiving New SQL Version
- Audit
  - Runtime Tracing
  - Base for GMP
- Reporting
  - E-Mail Distribution



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### WinCC Unified V17 – Audit Overview





#### **WinCC Unified Audit Basis**

- Audit Trail logs & Detection of manipulation
- Audit Trail records for Tags
- Audit Confirmation and Audit Trail report

#### WinCC Unified Audit Enhanced

- Incl. "WinCC Unified Audit Basis"
- Add. Audit Trail records e.g. Alarms, User Mgmt
- Additional features e.g. Audit Control

#### WinCC Unified Audit (max.)

- Incl. "WinCC Unified Audit Basis & Enhanced"
- Advanced features e.g. PI Options

Planned

Planned

### WinCC Unified Audit Option

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30

#### WinCC Unified V17– Audit Basis Summary

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PC 🗸





Document changes of process tags via **Audit Trails** - use Reports for evaluation

Record changes

of process data (manual, automated, Script)

**Comment the reason of change** plus the system response on demand

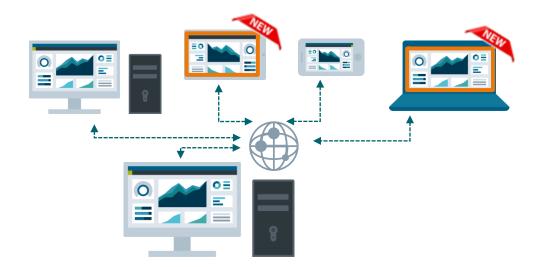
High level of security due to secured communication and manipulation detection

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#### WinCC Unified V17 – Unified PC systems **Remote Control**



#### PC 🗸



Every WinCC Unified PC Runtime system includes:

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

The maximum number of clients can be extended (optional).

**Client** "Operate"

enables remote operation according to assigned user role

**Clients "Monitor** 



enables remote operation in view-only mode

Asynchronous access of numerous users (simultaneous access is licensed)

Windows Server is mandatory for more than 5 Clients !

### SIMATIC WinCC Unified – Tools SIMATIC Runtime Manager



#### Unified Comfort Panel X PC 🗸 Manage WinCC Unified projects IMATIC Runtime Manager (Administrator) X Run, stop or switch projects Runtime Server-Information Activate / Deactivate Debugging localhost Rechnername oder IP-Adresse: Projekte Manage 3<sup>rd</sup> party certificates (e.g. OPC UA Client) ۵ o 童 C Projekt Autostart Gerätename Zustand Тур 🗌 🛑 V17\_Projekt HMI\_RT\_1 Stopped Simulation 96212402-4cee-4986-bcf9-b0754553e0ca Additional Properties V17\_Projekt PC1\_proj Running Project 24f80130-75c7-5203-ecaa-062f0a5cd8d4 V17\_Projekt PC2\_proj Stopped Project b4782aa8-7b3f-a445-2612-87954b81b596 V17\_Projekt MIRT Stopped Simulation 7e2632da-bfab-4f74-b033-e644abe679e3 V17\_Projekt\_2 PC\_RT\_ Stopped Project 3996ab18-0217-b10e-edee-ab21b29926c9 Additional settings for Runtime start with V17\_Projekt\_2 PC\_RT\_S1 Stopped Simulation 3996ab 18-0217-b 10e-edee-ab 21b 29926c9 auto scale, reset options, settings (debug, certificates,..) Start a dedicated project (auto start) Auto start settings keep marked even if С other projects are started, full or delta downloaded 🗸 ОК Projekt erfolgreich gestartet **Restore or delete database segments** Several WinCC Unified projects can be downloaded to one PC

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station.

### SIMATIC WinCC Unified Plant Intelligence Options for PC based system





- 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



SIMATIC HMI

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## Mejoras V17 UCP

SIMATIC HIN

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46.23

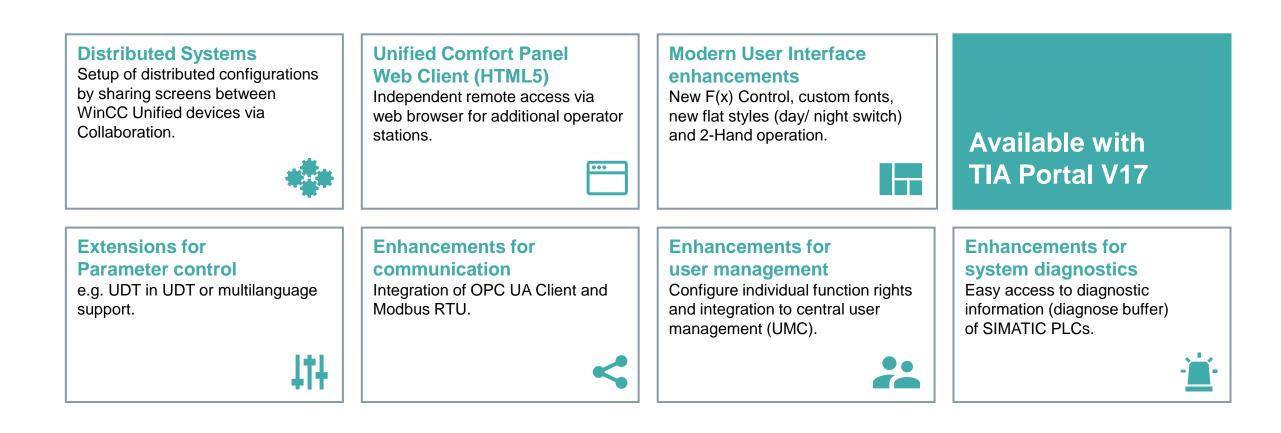
siemens.com/unified-comfort-panels

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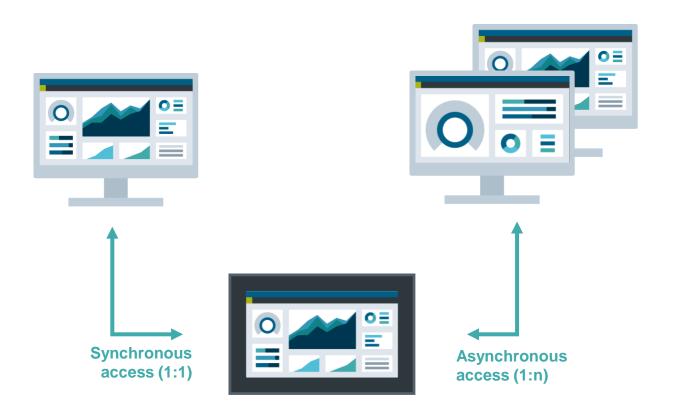
### SIMATIC HMI Unified Comfort Panels – News with TIA Portal V17 at a glance





### SIMATIC HMI Unified Comfort Panels – More flexibility to use the visualization during operation





#### **Asynchronous access**

- Remote operation & monitoring with any modern web browser
- No need for apps or plugins
- Independent from the operation on-site
- Up to 3 web clients for each Unified Comfort Panel. (One "Operate" Client is included.)

#### Synchronous access

- Based on the well established Sm@rt Server / -Client concept
- Synchronized remote operation with the operation on-site
- Accessible with Sm@rt Client App or with third party VNC-apps

#### SIMATIC HMI Unified Comfort Panel Remote Control





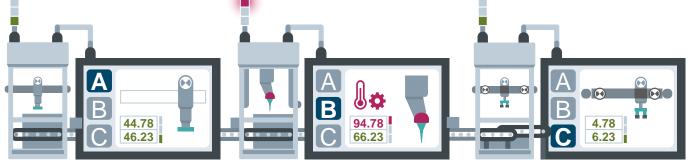
#### Unified Comfort Panel Web Client

- Maintenance-free and without additional software
- Independent from the onsite operation at the device
- Completely based on native web technology (HTML5)

### Use Case: Establish distributed configuration Increased engineering and operational efficiency







#### Challenges

The Engineer implements 3 machines and a central PC station as line supervision.

To be more economical, costs must be reduced aregarding engineering, commissioning and maintenance.

Standstills, must be shortened by quick reaction.

Moreover, the line supervisor needs access to all stations without opening a separate tool.

#### Solution

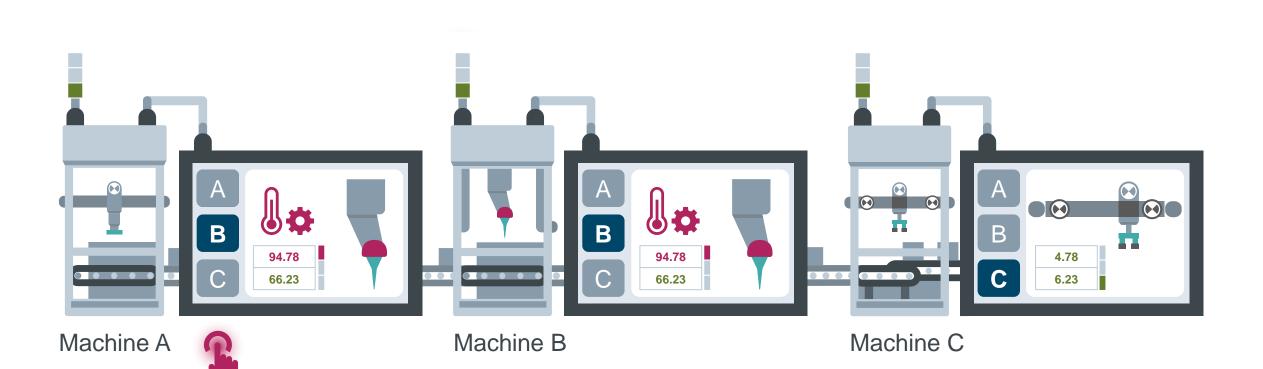
#### WinCC Unified Collaboration

Flexible system configurations by sharing screens between WinCC Unified Panel- or PC-based stations.

#### Collaboration Use Case – Machines in lines



Animated slide



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## SIMATIC WinCC Unified V17 View of Things (TIA Portal)

Setpoint A

Adjustment

ed project

On

CPU 1515-2 PN X1:192.168.0.1 (2:192.168.1.1

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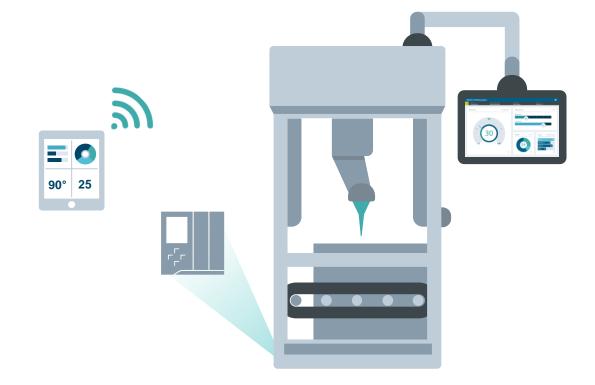
#### SIMATIC WinCC Unified System Platforms





# Basic visualization 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 visualization.

#### SIMATIC WinCC Unified System – V17 WinCC Unified View of Things (VoT)





Creating web screens easily for PLC (S7-1500 & ET200SP) with SIMATIC WinCC Unified View of Things.



## WinCC Unified View of Things – V17



#### **Preconditions and Licensing**

# Preconditions

- Software: TIA Portal V17: STEP 7 Professional (contains VoT Features)
- PLCs:

All SIMATIC S7-1500 standard systems (incl. ET200SP CPU, Failsafe, T-CPU)

Firmware: Min. FW 2.9

# Licensing

- WinCC Engineering License is required
  - WinCC Unified ES (minimal WinCC Unified Comfort ES)
- Runtime License: planned for further enhancements

## Performance

 Performance and quantity structure is depending on PLC and client device resources

#### 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

### SIMATIC WinCC Unified View of Things (VoT) Summery and customer value



View of Things follows configuration approach – no need for programing skills

Comfortable editor with drag & drop functionality for visual configuration of your screens

View of Things is based on WinCC Unified Technology – Screens can also be used for Panel & PC visualization

View of Things only requires an Engineering license for WinCC (TIA Portal)





# SIMATIC WinCC Unified System V17 Ordering Information

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## SIMATIC WinCC Unified V17 License Compatibility Engineering - New Customers



| WinCC Unified (TIA F | Portal) V17                  |                       | WinCC (TIA        | A Portal) V17        |                          |
|----------------------|------------------------------|-----------------------|-------------------|----------------------|--------------------------|
| Engineering System   | Unified<br>Comfort<br>Panels | Unified<br>PC Runtime | Comfort<br>Panels | WinCC RT<br>Advanced | WinCC RT<br>Professional |
| PC (max.)            | $\checkmark$                 | 🗸 (max.)              | $\checkmark$      | $\checkmark$         | 🗸 (max.)                 |
| PC (100k)            | $\checkmark$                 | ✔ (100k)              | $\checkmark$      | $\checkmark$         | 🗸 (max.)                 |
| PC (10k)             | $\checkmark$                 | 🗸 (10k)               | $\checkmark$      | $\checkmark$         | ×                        |
| Comfort <sup>1</sup> | $\checkmark$                 | ×                     | $\checkmark$      | ×                    | ×                        |

<sup>1</sup> minimum license for WinCC Unified View of Things

#### New customers WinCC Unified:

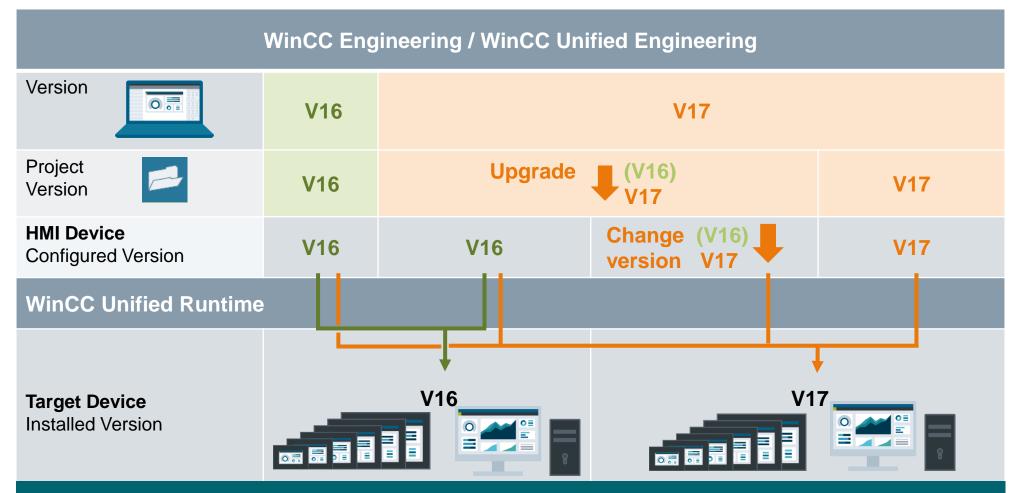
The license of WinCC Unified (TIA Portal) is also valid for engineering using WinCC (TIA Portal). This applies for versions >= V16.

Note: No parallel installation of WinCC Professional ES and WinCC Unified ES !

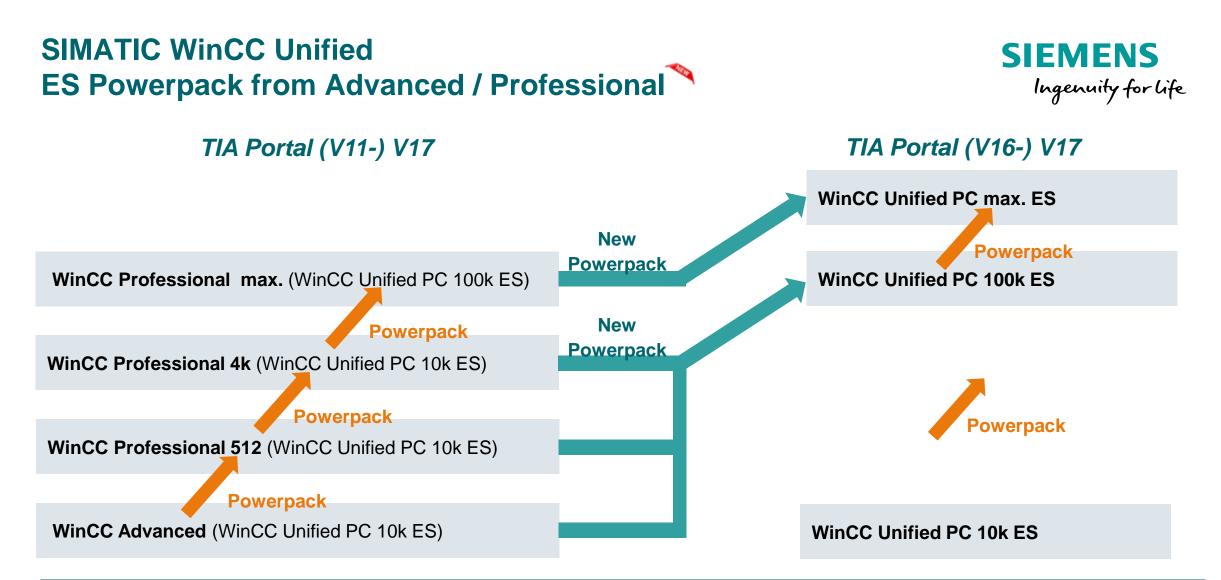
# SIMATIC WinCC Unified Version compatibility







Please note: No version compatibility for Plant Intelligence Options.



It is not necessary to use a PowerPack from Comfort to Unified Comfort as licenses are already compatible ! A SUS contract (if available) must be adapted too via SUS Powerpack.

#### SIMATIC WinCC Unified V16... V17 ES Upgrade Advanced / Professional



| WinCC Unified Engineering<br>Powerpacks V16V17<br>WinCC Advanced/ Professional                   | Package (DVD)      | Online Software Delivery (OSD) |
|--|--------------------|--------------------------------|
| WinCC Advanced /<br>WinCC Professional 5124096<br>ES Powerpack -> WinCC Unified PC 100k (V16V17) | 6AV2153-2GB60-0AB5 | 6AV2153-0XGB60-0LB5            |
| WinCC Professional Max<br>ES Powerpack -> WinCC Unified PC max (V16V17)                          | 6AV2153-0XB60-0AB5 | 6AV2153-0XB60-0LB5             |

#### SIMATIC WinCC Unified V17 Ordering Information - Panel Options



| WinCC Unified - Options (Panel)                      | Package (DVD)      | Online Software Delivery (OSD) |
|--|--------------------|--------------------------------|
| WinCC Unified Parameter Control                      | included           | included                       |
| WinCC Unified Collaboration                          | 6AV2154-0BR01-7AB0 | 6AV2154-0BR01-7LB0             |
| WinCC Unified Client Operate (1)                     | 6AV2157-1JW00-0AB0 | 6AV2157-1JW00-0LB0             |
| WinCC Unified – Edge (Panel)                         | Package (DVD)      | Online Software Delivery (OSD) |
| EDGE Runtime for Unified Comfort<br>(Device-managed) |                    | 6AV2170-2BA00-0AA0             |

The license for WinCC Unified Client Operate and WinCC Unified Collaboration are identical for HMI Unified Comfort Panels and WinCC Unified PC RT. The maximum number of clients can be extended (optional) up to 3 max. Clients.

#### SIMATIC HMI Unified Comfort Panels – Starter Kits



#### **Hardware Starter-Kit**

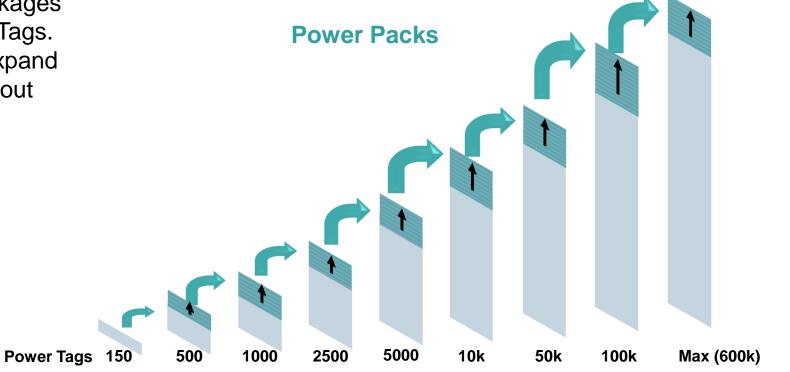
- Device
- WinCC Unified V17 Comfort
- 1,5 m Profinet cable
- Memory Card (32 GB)
- Protective film
- EDGE Runtime for Unified Comfort (Device-managed) license



#### SIMATIC WinCC Unified V17 - PC Runtime Licensing concept



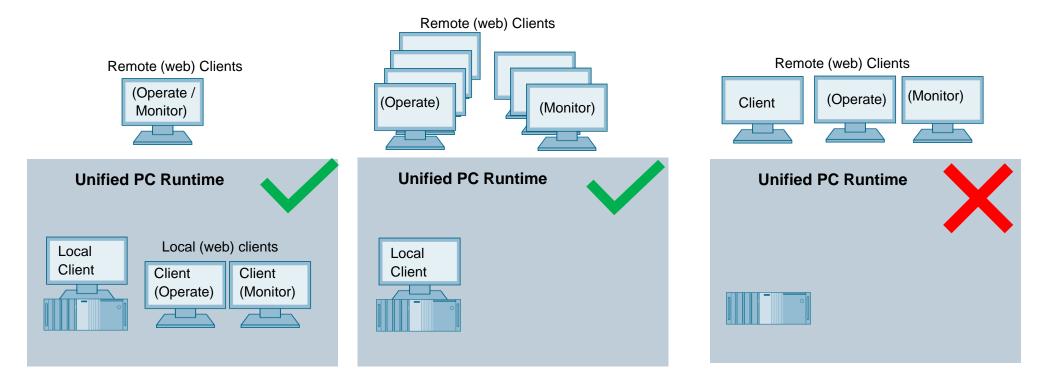
WinCC Unified offers Base Packages with different number of Power Tags. The PowerPacks are used to expand the number of Power Tags, without effecting the overall price.



Each WinCC Unified PC Runtime includes 3 Clients – for locale HMI plus one Operate and one Monitor remote access. SimaticNET must be licensed separately for more than 5 S7-connections.

### SIMATIC WinCC Unified – Clients (Operate / Monitor) Overview





Additional Clients (Operate or Monitor) can be added (countable license) –

please check minimum HW requirements.

It is not possible to up/downgrade client licenses – Monitor and Operate are independent from each other.

d.h. overall number of Clients Operate = Sum of licenses Operate (same for Monitor)

#### SIMATIC WinCC Unified V17 - Options Ordering Information – Clients "Operate"



| Package(DVD)       | Online Software Delivery (OSD)   |
|--------------------|--|
| 6AV2157-1JW00-0AB0 | 6AV2157-1JW00-0LB0   |
| 6AV2157-3JW00-0AB0 | 6AV2157-3JW00-0LB0   |
| 6AV2157-2CW00-0AB0 | 6AV2157-2CW00-0LB0   |
| 6AV2157-6CW00-0AB0 | 6AV2157-6CW00-0LB0   |
| 6AV2157-2DW00-0AB0 | 6AV2157-2DW00-0LB0   |
|                    | 6AV2157-1JW00-0AB0<br>6AV2157-3JW00-0AB0<br>6AV2157-2CW00-0AB0<br>6AV2157-6CW00-0AB0 |

<sup>1</sup> independent of WinCC Unified version

The maximum number of concurrent Clients (Operate) can be increased (countable) upon demand. The option is available for Unified Comfort Panels and PC-based WinCC Unified systems

## SIMATIC WinCC Unified V17 - Options Ordering Information – Clients "Monitor"





| WinCC Unified Clients <sup>1</sup> | Package(DVD)       | Online Software Delivery (OSD) |
|------------------------------------|--------------------|--------------------------------|
| WinCC Unified Client Monitor (1)   | 6AV2157-1JM00-0AB0 | 6AV2157-1JM00-0LB0             |
| WinCC Unified Client Monitor (3)   | 6AV2157-3JM00-0AB0 | 6AV2157-3JM00-0LB0             |
| WinCC Unified Client Monitor (10)  | 6AV2157-2CM00-0AB0 | 6AV2157-2CM00-0LB0             |

<sup>1</sup> independent of WinCC Unified version

The maximum number of concurrent Clients (Monitor) can be increased (countable) upon demand. The option is ONLY available Unified PC-based WinCC Unified systems.

#### SIMATIC WinCC Unified V17 – Options Ordering Information



| WinCC Unified<br>Options (PC)        | Package (DVD)      | Online Software Delivery<br>(OSD) |
|--------------------------------------|--------------------|-----------------------------------|
| WinCC Unified Parameter Control (PC) | 6AV2154-0BP01-7AB0 | 6AV2154-0BP01-7LB0                |
| WinCC Unified Collaboration          | 6AV2154-0BR01-7AB0 | 6AV2154-0BR01-7LB0                |
| WinCC Unified Report Execution       | 6AV2157-0BQ01-7AB0 | 6AV2157-0BQ01-7LB0                |
| WinCC Audit Basis                    | 6AV2157-0BL01-7AB0 | 6AV2157-0BL01-7LB0                |

| WinCC Unified<br>SCADA Options (PC)  | Package (DVD)      | Online Software Delivery<br>(OSD) |  |
|--|--------------------|-----------------------------------|--|
| WinCC Unified Database Option  | 6AV2154-0BS01-6AA0 | 6AV2154-0BS01-6LA0                |  |
| The WinCC Unified Collaboration license is identical for HMI Unified Comfort Panels and WinCC Unified PC RT. |                    |                                   |  |

# Perfect IPCs for SIMATIC WinCC Unified

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#### SIMATIC WinCC Unified Ordering Information - IPC Packages



## SIMATIC IPC

Available for almost all SIMATIC IPCs that meet the technical requirements of SIMATIC WinCC Unified PC



## **SIMATIC WinCC Unified PC**

WinCC Unified PC Runtime License + Parameter Control + Logging Tags

(number depends on the RT license)

- $\rightarrow$  Price discount only with concurrent order of IPC and WinCC Unified software
- $\rightarrow$  Please note the technical requirements of WinCC Unified when selecting the configuration
- → Further information regarding the packages can be found in SIOS (99860269) <u>https://support.industry.siemens.com/cs/de/en/view/99860269</u>

## SIMATIC WinCC Unified Ordering Information - IPC Packages



| Package  | Options included  | Order Number       |
|--|---|--------------------|
| WinCC Unified V17 PC RT 150 Package              | WinCC Unified Logging Tags <b>(100)</b><br>Parameter Control  | 6AV2155-3DB01-7AA0 |
| WinCC Unified V17 PC RT 500 Package              | WinCC Unified Logging Tags <b>(200)</b><br>Parameter Control  | 6AV2155-1EB01-7AA0 |
| WinCC Unified V17 PC RT 1k Package               | WinCC Unified Logging Tags <b>(500)</b><br>Parameter Control  | 6AV2155-2EB01-7AA0 |
| WinCC Unified V17 PC RT 2.5k Package             | WinCC Unified Logging Tags <b>(500)</b><br>Parameter Control  | 6AV2155-2MB01-7AA0 |
| WinCC Unified V17 PC RT 5k Package               | WinCC Unified Logging Tags <b>(1000)</b><br>Parameter Control | 6AV2155-1FB01-7AA0 |
| WinCC Unified V17 PC RT 10k Package              | WinCC Unified Logging Tags <b>(1000)</b><br>Parameter Control | 6AV2155-2FB01-7AA0 |
| WinCC Unified V17 PC RT 50k Package <sup>1</sup> | WinCC Unified Logging Tags <b>(1000)</b><br>Parameter Control | 6AV2155-1GB01-7AA0 |

<sup>1</sup> Cannot be ordered with IPC127E, IPC227E, IPC277E, IPC327E and IPC377E

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# Contacto

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